APRIL 1 15.H 18.M 23.S EPICENTRE 39.91 77.73 DEPTH= 0.KM

A= 0.16341 B= 0.75167 C= 0.63897 D= 0.9772 E=-0.2124
G= 0.1357 H= 0.6244 K=-0.7692 HT= -1.6

SE= 2.92

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NARYN	2.02	319.7	0	36	0								
PRZHEVALSK	2.62	10.8	0	46	1	1	21	3					
KURMENTY	3.12	7.4	0	52	0	1	28	-2					
MURGAB	3.33	243.8	1	0	5						1	47	SG
ALMATA-2	3.37	355.5	0	56	1								
ALMATA	3.41	350.3	0	57	1	1	39	1					
CHILIK	3.70	7.7	1	0	0								
FRUNSE	3.75	322.3									1	2	PG
ANDIJAN	4.19	283.3	1	7	0						2	18	SG
FERGANA	4.59	277.8	1	13	0						2	17	S*
NAMANGAN	4.75	285.0									1	32	PG
DZERGETAL	5.07	264.3	1	21	2								
KHOROG	5.42	245.4									2	34	S*
GARM	5.83	263.4	1	30	0								
KULYAB	6.54	254.7	1	39	-1								
TASHKENT	6.59	285.1	1	40	-1	2	56	-2					
TCHIMKENT	6.59	293.9	1	40	-1								
DUZHANBE	7.09	262.0	1	49	1						3	54	SG
STALINABAD	7.09	262.0	1	49	1								
WARSAK DAM	7.70	221.9	1	56	0								
DEHRA DUN	9.57	178.4	2	22	0	4	7	-5			2	29	PP
SEMIPALATNSK	10.64	8.7	2	34	-3	4	37	-1					
BAIRAM-ALI	12.41	264.3	2	56	-5						3	56	
QUETTA	13.11	225.6	3	8A	-2	5	28	-10			3	16	PP
ASHKABAD	15.22	268.8	3	35	-3								
CHATRA	15.22	146.1	3	33A	-5	6	39	11			3	46	PP
KIZYL-ARVAT	16.57	274.5	3	52	-4						4	17	
SEHORE	16.69	182.1	3	54	-3	6	54	-9			4	8	PP
BOKARO	17.42	154.6	4	1K	-5	7	27	8			4	21	PP
KARACHI	17.51	214.1	4	1	-6	7	16	-6					
SHILLONG	18.56	136.1	4	15A	-5	7	41	-4			4	44	PP
TOCKLAI	19.31	127.6	4	26	-3	8	7	5			4	47	PP
CALCUTTA	19.54	149.3	4	30	-2	8	15	8					
SVERDLOVSK	20.29	332.2	4	39	-1						8	55	PCP
TEHERAN	21.20	266.9	4	49	0	8	48	-7					
BAKU	21.26	280.3	4	53	3	8	43	0			5	25	PPP
BOMBAY	21.36	192.9	4	50	-1	8	49	5			5	10	PP
POONA	21.56	190.1	4	54K	1	9	4	16			5	29	PP
IRKUTSK	22.06	47.1	4	59A	1	8	55	-3			8	59	PCP
SHEMAKHA	22.18	281.3	5	0A	0						9	19	
VIZIANAGRAM	22.27	165.5	4	57A	-3	9	4	3			5	15	PP
HYDERABAD	22.40	178.2	5	3	1	9	15	11			5	47	PP
KYAKHTA	22.66	53.0	5	4	0	9	12	3					
MAKHACH-KALA	22.81	287.6	5	6	0						5	36	PP
SHIRAZ	23.03	251.4	5	10K	2	9	25	10	5	16	12	38	SCP
CHENGTU	23.28	105.2	5	10K	0	9	14	-6					
KABANSK	23.31	49.0				9	26	6			14	22	
KIROVOBAD	23.91	282.0	5	18	1	9	28	-3					
GROZNY	24.08	288.6	5	19	1						9	46	
GORIS	24.11	279.2	5	22	4						6	4	PP
TIFLIS	24.91	284.9	5	28A	2						6	27	PPP
EREVAN	25.37	281.4	5	33	2						6	22	PP
SIAN	25.43	92.9	5	32K	1	10	13	17					
KUNMING	25.62	117.6	5	32K	-1	9	57	-2					
BAKURIANA	25.86	285.2	5	40	5								
PIATIGORSK	25.98	290.5	5	35	-1								
MADRAS	26.89	174.7	5	45A	0	10	25	4			6	32	PP
SOTCHI	28.44	290.0	5	59	0	10	48	2			6	50	PP
PEKING	29.31	77.2	6	5K	-2	10	57	-2					
KODAIKANAL	29.55	180.5	6	6	-3	10	54	-9			12	24	SS
MOSCOW	30.71	314.5	6	19	0	11	20	-2			7	21	PP
PORT BLAIR	31.09	150.6	6	24	2	11	33	5			7	31	PP
SIMFEROPOL	32.29	293.5	6	33A	0	11	49	3			7	35	PP
COLOMBO	32.92	176.1	6	40	2	12	6	10			13	40	SS
KSARA	33.80	273.1	6	47A	1	12	19	9			8	0	PP
NANKING	33.89	90.3	6	46K	-1	12	9	-2					
CANTON	34.40	108.4	6	51K	0	12	19	0					
JERUSALEM	35.14	270.2	7	10A	12	12	39	8					
CHANGCHUN	35.26	67.7	6	56K	-3	12	29	-4					

PULKOVO	35.46	320.0	7	0	0	12	36	0		8 32 PPP
HONG KONG	35.49	108.7	7	0K	-1	12	38	2		8 25 PP
KISHINEV	35.71	298.0	7	2	0	12	40	0		8 20 PP
ZO-SE	36.15	90.3	7	6K	0	12	46	0		
IASI	36.55	298.4	7	10	1	12	52	0		8 31 PP
ISTANBUL KA.	36.65	288.0	7	11A	1	12	59	5		8 40 PP
ISTANBUL UN.	36.71	288.0	7	12K	1	12	58	3		
APATITY	36.74	333.4	7	10K	-1	12	50	-5	7 18	8 29 PP
FOCSANI	37.02	296.0	7	17	4					9 3
BACAU	37.09	297.5	7	16	2	13	6	5		8 49 PP
KAJAANI	37.71	326.6	7	18	-1	13	7	-3		
BUCHAREST	38.02	294.2	7	31A	9	13	27	12		8 59 PP
YAKUTSK	38.11	37.0	7	22	-1					
NURMIJARVI	38.38	320.4	7	24	-1	13	21	1		8 52 PP
LWOW	38.58	303.2	7	28	1	13	22	-1		8 57 PP
CAMPULUNG	38.60	295.8	7	28	1	13	27	3		8 58 PP
HELWAN	38.98	269.9	7	30	0	13	31	2		
SODANKYLA	39.09	331.5	7	30	-1	13	33	2		8 58 PP
TAICHUNG	39.26	100.4	7	49	17					
TAIPEI	39.41	98.6	7	37	3					
TAINAN	39.56	102.3								13 5
HWALIEN	40.07	99.9	7	49	10					
VLADIVOSTOK	40.10	67.2	7	37	-2	13	44	-2		
WARSAW	40.23	307.2	7	40A	0	13	52	4		9 3 PP
SOFIA	40.38	292.3	7	45	4	13	55	5		
TAWU	40.45	102.5	7	48	6					18 46
HENGCHUN	40.54	103.1	7	50	7					
UMEA	40.88	325.1	7	42	-4					
SKALNATE PL.	41.11	302.7	7	49	2	14	9	8		9 21 PP
TIMISOARA	41.12	297.4	8	10	22					17 29 SS
KHEYS	41.48	355.2								14 8
KIRUNA	41.51	331.2	7	48A	-3	14	7	0		9 21 PP
ATHENS	41.52	285.3	7	52A	1	14	10	3		9 28 PP
CHORZOW	41.74	304.5	7	51	-2	14	9	-2		9 31 PP
UPPSALA	41.83	319.0	7	50	-3	14	11	-1		9 28 PP
BELGRADE	41.86	296.2	7	56A	2	14	12	0		9 34
KECSKEMET	41.89	299.4	7	56	2					9 38 PP
NAGASAKI	42.12	82.9	7	53	-3	14	16	0		
HUKUOKA	42.15	81.4	7	16	-40					
BUDAPEST	42.23	300.4	7	59	2	14	17	-1		9 37 PP
RACIBORZ	42.27	304.4	7	58A	1	14	23	4		9 31 PP
TROMSOE	42.44	333.6	7	58	0					9 35 PP
HURBANOVO	42.69	301.1	8	4	4				8 18	
KUMAMOTO	42.71	82.3	7	52	-9					17 23
HAMADA	42.90	78.8	7	59	-3					17 42
OOITA	43.24	81.3	8	8K	3					9 53
BRATISLAVA	43.35	301.8	8	2K	-4					
HIROSIMA	43.38	79.4	8	9	3					9 48
YAKUSIMA	43.60	85.5								17 52
MIYAZAKI	43.65	83.3	8	18	-10					19 9
VIENNA-H.	43.81	302.1	8	10A	0	14	44	3		9 54 PP
MATUYAMA	43.86	79.9	8	6	-4					18 5
BAGUIO CITY	43.88	109.7	8	11	1	14	45	3		
SKALSTUGAN	44.40	324.4	8	14	0					
SIMIDU	44.45	81.2				14	50	0		21 6
KOTI	44.55	79.9	8	15	-1	14	48	-4		
PRUHONICE	44.60	304.9	8	16	0	14	55	3		10 1 PP
TAKAMATU	44.63	78.6	8	18	2					
ZAGREB	44.66	298.8	8	16A	0					10 0
PRAGUE	44.66	305.0	8	17	1	14	58	5		10 0 PP
COPENHAGEN	44.87	313.2	8	19A	1	14	51	-5		9 55 PP
GOTEBORG	44.87	316.1	8	16	-2					10 0 PP
SUMOTO	45.27	78.2								14 59
COLLMBERG	45.29	307.0	8	21A	-1	15	4	2		10 8 PP
TARANTO	45.39	291.2	8	23	1					15 33 PS
MANILA	45.40	111.1	8	24	2	15	15	11		
KASPERSKE H.	45.41	303.9	8	20	-2	15	10	6		10 8 PP
UGLEGORSK	45.53	56.1	8	25	2					19 15 SCS
ABUYAMA	45.54	77.2	8	23K	-1					
LJUBLJANA	45.58	299.5	8	21A	-3	15	6	0		10 8 PP
OSAKA	45.60	77.5	8	52	28	15	9	2		
NARA	45.82	77.3	8	23	-3					
HIKONE	45.89	76.4	8	25	-1	15	9	-2		
CHEB	45.95	305.4	8	25	-2					10 12 PP
SUTTSU	46.05	65.1	8	28	0					18 12
TRIESTE	46.21	299.2	8	28	-1	15	9	-6		10 13 PP
KAMEYAMA	46.23	76.8	8	35	6	15	14	-2		
WAKKANAI	46.25	61.2	8	25	-4					

SEE FURTHER READINGS P.614

MISIMA	47.97	75.3	8	40	-3	15	40	0			
MIZUSAWA	47.97	69.4	8	44	1	15	47	7			
URAKAWA	48.04	65.0	8	43	0	15	41	-1			
UTUNOMIYA	48.06	73.1	8	43	0						
OBIHIRO	48.07	63.9	8	55	12						
AJIRO	48.11	75.3	8	43	-1						
SENDAI	48.13	70.6	8	41	-3					18	28
BOLOGNA	48.19	298.4	8	44	0	15	56	12		10	43
STUTTGART	48.24	304.4	8	44	-1	15	50	6		10	40 PP
ROME	48.28	294.7	8	46A	1	15	47	2	9 2	10	39 PP
RAVENSBURG	48.31	303.1	8	44	-1						
TOKYO C.M.O.	48.33	74.3	8	54	9	15	41	-5			
YOKOHAMA	48.36	74.6	8	47	1						
TUKUBASAN	48.36	73.5	8	41K	-5	15	39	-7	8 52	11	28 PPP
MIYAKO	48.38	68.5								15	39
MAGADAN	48.39	40.7	8	47	1						
MUNSTER	48.40	308.9	8	46	0					10	41
HEIDELBERG	48.41	305.4	8	45	-1					10	42 PP
KAKIOKA	48.42	73.4	8	48	2						
TUBINGEN	48.44	304.2	8	45	-1					10	41 PP
FLORENCE X.	48.48	297.5	8	38A	-9	15	49	1			
PRATO	48.55	297.7	8	48	1	15	52	3			
MITO	48.57	73.1	8	49	2						
CHUR	48.64	301.9	8	31A	-17					10	41 PP
KARLSRUHE	48.72	304.9	8	49	1	15	57	6			
WITTEVEEN	48.75	310.2	8	51	2						
BENSBERG	48.94	307.7	8	50A	0	15	51	-3		10	46 PP
STRASBOURG	49.25	304.6	8	51	-2	16	1	2		10	49 PP
PAVIA	49.42	299.9	8	52A	-2	17	7	66		11	51 PP
BASLE	49.70	303.3	8	54A	-2					18	59
DE BILT	49.82	309.6	8	58A	1	16	12	6		10	57 PP
NEUCHATEL	50.27	302.8	9	0	0	16	15	2			
BESANCON	50.82	303.4	9	4	-1						
MONACO	51.09	298.7	9	7	0					11	6 PP
ISOLA	51.18	299.4	9	3	-4	16	26	1			
NORD	51.44	349.2	9	5	-4	16	22	-7		18	57 SCS
CUGLIERI	51.67	294.1								10	47
ABERDEEN	52.42	317.4	9	16A	-1	16	45	3		11	16 PP
PARIS	52.49	306.3	9	16	1	16	43	0		11	15 PP
GARCHY	52.66	304.3				16	45	-1		11	11 PP
DURHAM	52.89	314.4	9	21A	1	16	49	0		10	55 PP
DJAKARTA	53.13	142.8	9	17	-5	16	45	-7		12	29
CLERMONT-FD.	53.19	302.5	8	57	-25	15	56	-57			
KEW	53.26	310.2	9	22A	-1	16	49	-5		11	20 PP
EDINBURGH	53.38	316.2	9	21	-3	16	54	-1		11	19 PP
LEMBANG	54.07	142.3	9	30K	1	17	8	3		9	54
FOLINIERE	54.33	307.1	9	27	-4						
PETROPAVLOVK	54.37	47.2	9	28	-3	17	4	-5		11	39 PP
KLYUCHI	54.42	42.9	9	21	-10					19	17
JERSEY	55.16	308.1	9	37	0	17	23	4			
SCORESBY SD.	56.06	336.5	9	44A	1	17	38	7		11	50 PP
BAGNERES	56.22	300.6	9	43	-2						
TORTOSA	56.97	298.0	9	50	0	17	44	1			
SIDA	57.45	328.4	9	55A	2					11	56 PP
ALICANTE	58.78	295.8	10	3	0	18	10	3			
REYKJAVIK	58.82	329.6	10	5A	2					12	14 PP
TOLEDO	60.49	298.9	10	12	-2	18	32	3		12	22 PP
ALMERIA	60.89	295.2	10	14	-3	18	34	0		12	31 PP
LWIRO	61.31	239.2	10	22K	2	20	16	96			
GRANADA	61.51	296.1	10	20A	-1	18	25	-17		12	38 PP
SERRA PILAR	62.88	302.1	10	29K	-1	18	57	-3	10 35	12	47 PP
COIMBRA	63.24	301.1	10	33A	0	19	4	0		12	44 PP
BANGUI	63.76	252.6	10	58	22	19	32	22			
GUAM	63.89	94.1	10	38	1						
LISBON	64.49	300.1	10	41A	0	19	25	6		13	1 PP
TANANARIVE	64.94	211.7	10	43K	-1	19	28	3		11	9 PCP
RESOLUTE	65.60	357.9	10	44	-4	19	33	0		14	44 PPP
COLLEGE	69.65	19.0	11	10	-4	20	21	-1		29	55 PKKP
BROKEN HILL	70.86	231.0	11	26K	5						
BULAWAYO	75.27	227.3	11	47	0						
PONTA DELGDA	75.65	307.2	11	51K	2						
LOME	75.76	266.1	11	52	2	21	34	3			
LUANDA	76.73	246.4	11	59K	4	21	42	0			
MUNDARING	79.91	147.5	12	11	-2	22	15	-1			
PRETORIA	79.98	224.2								22	21
PORT MORESBY	80.61	110.6	12	16	0	22	25	2		14	52
RABAUL	80.83	103.3	12	18	1					22	27
MBOUR	84.46	284.0	12	37	1	22	51	-11			

CHARTERS TS.	87.33	118.9	12	48	-2	23	16	14			
HALIFAX	88.95	333.5	12	58K	0						
ALBERNI	89.00	14.6	13	2	4						
VICTORIA	89.98	13.9	13	5	2						
SHAWINIGAN	89.98	340.1	13	2	-1						
HONIARA	90.07	102.2	13	7	4						
HUNGRY HORSE	91.51	7.8	13	12	2	23	39	-29	16	55	PKP
HERMANUS	91.56	224.8				24	8	-1	23	50	SKS
ADELAIDE	93.33	134.0	13	18K	0	24	21	-3	17	1	PP
WESTON	93.42	337.6	13	5	-14	23	49	-36	17	47	PP
CORVALLIS	93.79	14.9	13	24A	4						
BUTTE	93.96	7.2	13	22	1	23	46	-44			
BOZEMAN	94.44	6.2	13	25	2						
PALISADES	95.43	338.8				24	1	-3	17	17	PP
RAPID CITY	96.39	0.7	13	31	-1				19	23	PP
BRISBANE	96.66	120.1	13	38	4	24	13	3			
PENNSYLVANIA	96.66	341.6				24	48	38	17	27	PP
SHASTA	97.71	15.3	13	39	1						
MINERAL	98.20	14.8	13	43K	2				17	6	
WASHINGTON	98.25	340.4	17	42	241	26	18	119	19	46	PP
MELBOURNE	98.89	132.4	13	43	-1	24	20	-2			
LARAMIE	99.11	2.5	13	47	2						
FLAMING GRGE	99.28	5.5	13	47	2	24	48	24	17	55	PP
RENO	99.32	13.7	13	47	1						
CANBERRA	99.54	128.3	13	49	2	24	25	0	16	27	
RIVERVIEW	99.86	125.9	13	50A	2	24	29	2	26	52	PS
EUREKA	100.01	10.7	17	27	218				17	56	PP
BERKELEY	100.46	16.0							17	55	
LICK	101.10	15.6	13	55	1				18	5	
PORT VILA	101.59	103.4							15	41	
VINEYARD	101.72	15.6	14	42	-14						
GLEN CANYON	103.02	7.7	13	54	-8				17	46	PP
BOULDER CITY	103.61	10.5	14	8	3				18	17	PP
FAYETTEVILLE	104.01	353.3	14	8	1	25	57	71	18	19	PP
PASADENA	104.86	13.6	14	43	3	24	51	1	19	57	PP
WICHITA MTS.	105.67	356.9	14	17	777	24	40	-14	18	27	PP
TUCSON TELE.	107.69	7.5	14	32	777				18	52	PP
TUCSON	107.77	7.6	18	24	777	26	39	96	19	18	PP
WILKES	108.88	166.6				25	9	1	29	29	SKSP
TRINIDAD	117.03	313.8							19	56	PP
CARACAS	120.10	318.9				25	50	-1	20	11	PP
GALERAZAMBA	123.69	327.6							20	54	PP
FUQUENE	127.75	323.0	19	28	20				22	29	SKP
BOGOTA	128.66	322.9	19	23	13				21	22	PP
CHINCHINA	129.05	324.9	19	14	3				21	21	PP
SOUTH POLE	129.72	180.0	19	13	1						
BYRD STATION	139.23	175.5	19	22	-7						
LA PAZ	142.29	298.3	19	35	0	26	37	-6			
HUANCAYO	143.46	311.9	19	40	3						
AREQUIPA	144.50	302.3	19	40	1						
ARGENTINE I.	146.59	208.1	19	44	2						
PORT STANLEY	147.37	233.9	19	49	5						
ANTOFAGASTA	148.69	291.5	19	51	5						
SANTA LUCIA	153.92	274.3							20	19	

APRIL 4 9.H 46.M 39.S EPICENTRE 39.92 77.82 DEPTH= 0.KM

A= 0.16224 B= 0.75171 C= 0.63923 D= 0.9775 E=-0.2110
G= 0.1349 H= 0.6248 K=-0.7690 HT= -1.7

SE= 3.06

	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	
NARYN	2.04	317.9	0	35	-1								
PRZHEVALSK	2.59	9.5	0	45	1						1	26	SG
RYBACHE	2.81	334.4									0	49	P*
KURMENTY	3.09	6.3	0	51	0								
MURGAB	3.40	244.1	0	56	1								
ALMATA	3.41	349.2	0	57	2						1	44	S*
FRUNSE	3.77	321.4	1	1	0						2	5	SG
ANDIJAN	4.25	282.9	1	8	1						2	2	S*
FERGANA	4.65	277.5	1	12	-1						2	37	SG
NAMANGAN	4.81	284.6	1	18	3						2	32	
DZERGETAL	5.14	264.2	1	19	-1	2	15	-6					
KHOROG	5.49	245.6	1	26	1						2	17	
GARM	5.89	263.4	1	28	-3								

KULYAB	6.61	254.8	1	37	-4						
TASHKENT	6.65	284.9	1	41	0	2	57	-2		2	22
TCHIMKENT	6.65	293.6	1	42	1					3	31
DUZHANBE	7.15	262.0	1	50	2						
STALINABAD	7.15	262.0	1	50	2						
WARSAK DAM	7.75	222.3	1	54	-3						
LAHORE	8.82	199.8	2	8	-4	3	43	-10			
DEHRA DUN	9.58	178.8	2	17	-5	4	6	-6		2	38 PPP
SEMIPALATNSK	10.61	8.5	2	35	-1	4	38	1			
QUETTA	13.17	225.8	3	5K	-6	5	26	-13		3	14 PP
CHATRA	15.20	146.4	3	32	-5	6	25	-3		4	41
ASHKABAD	15.28	268.8	3	36	-3	4	22	-127		4	1
KARACHI	17.57	214.3	4	5	-3	7	17	-5			
SHILLONG	18.53	136.4	4	15A	-5	7	40	-4		4	41 PPP
CALCUTTA	19.52	149.6	4	34	3	8	14	8			
SVERDLOVSK	20.31	332.1	4	38	-2					8	27 SS
TEHERAN	21.26	267.1	4	48	-2	8	55	13			
BOMBAY	21.39	193.1	4	51	0	8	56	11		5	16 PP
POONA	21.59	190.3	4	51	-2	8	48	0		5	20 PP
IRKUTSK	21.99	47.1	4	57	0					5	21 PP
SHEMAKHA	22.24	281.3	5	1A	1					9	24
VIZIANAGRAM	22.27	165.7	5	1	1	9	4	3		5	16 PP
ULAN-BATOR	22.32	59.4	5	2	1						
HYDERABAD	22.42	178.4	5	2	0					5	45 PP
KYAKHTA	22.60	53.0	5	3	0					9	15
MAKHACH-KALA	22.87	287.6	5	8	2					9	24
SHIRAZ	23.10	251.5	5	6	-2	9	29	13	5 15		
CHENGTU	23.22	105.3	5	9	0	9	16	-2			
KABANSK	23.25	49.0	5	9	-1					9	29
KIROVOBAD	23.97	282.0	5	15	-2						
GROZNY	24.13	288.6								10	9 SS
GORIS	24.17	279.2	5	16	-3					10	57 SSS
TIFLIS	24.97	284.9	5	30	4					10	9
EREVAN	25.43	281.4	5	34	3						
KUNMING	25.57	117.7	5	33K	1	9	55	-3			
PIATIGORSK	26.04	290.5	5	35	-1					10	30
MADRAS	26.90	174.9	5	45	1	10	24	4		6	31 PP
SOTCHI	28.49	289.9	5	58	-1					6	55 PP
PEKING	29.24	77.3	6	4	-1	10	59	1			
KODAIKANAL	29.57	180.7				11	25	22		7	10
MOSCOW	30.75	314.4	6	20	1	11	22	0		16	40 SCS
PORT BLAIR	31.08	150.8	6	23	1	11	28	1			
SIMFEROPOL	32.34	293.5	6	31A	-2					11	51
COLOMBO	32.93	176.3								12	0
NANKING	33.82	90.4	6	46	0	12	12	2			
KSARA	33.87	273.1	6	42	-4	12	19	9		8	0 PP
CANTON	34.35	108.5	6	53A	3	12	15	-3			
CHANGCHUN	35.19	67.8	6	55	-3	12	27	-4			
JERUSALEM	35.20	270.2	7	2	4						
HONG KONG	35.44	108.8	7	1	1	12	39	4			
PULKOVO	35.49	320.0	7	0	0	12	39	3		15	15 SSS
KISHINEV	35.76	297.9	7	1	-1					8	28 PP
ZO-SE	36.08	90.3	7	7	2	12	45	0			
IASI	36.59	298.4								8	35 PP
ISTANBUL KA.	36.71	288.0	7	7	-3	12	58	4		8	38 PP
APATITY	36.75	333.3	7	7A	-4	12	43	-12		8	27 PP
ISTANBUL UN.	36.77	288.0	7	8	-3						
KAJAANI	37.73	326.6	7	15	-4						
YAKUTSK	38.05	37.0	7	15	-7	13	10	-5			
BUCHAREST	38.07	294.2	7	23	1	13	27	12		8	43 PP
NURMIJARVI	38.41	320.4	7	21A	-4	13	22	2		8	44 PP
LWOW	38.62	303.1	7	27	1					8	53 PP
CAMPULUNG	38.65	295.8								9	1 PP
HELWAN	39.05	269.9	7	27	-3					8	55 PP
NHATRANG	39.08	126.1	7	32	2	13	35	4			
SODANKYLA	39.11	331.4	7	28	-3					9	1 PP
VLADIVOSTOK	40.03	67.2	7	35	-3					13	45
WARSAW	40.27	307.2								13	26
SOFIA	40.43	292.3	7	45	4	14	11	20			
TIKSI	40.58	22.3	7	37	-6					9	43 PPP
MEDAN	40.81	147.1	7	44	-1						
UMEA	40.91	325.1	7	53	8					9	22 PP
SKALNATE PL.	41.15	302.7	7	50	3						
TIMISOARA	41.17	297.4	7	43	-5					8	47
KRAKOW	41.22	304.0	7	50	2					14	1
KHEYS	41.47	355.2	7	49	-1						
KIRUNA	41.52	331.2	7	47	-3	14	10	3		9	31 PP
ATHENS	41.58	285.3	7	47	-4						

CHORZOW	41.78	304.5	7	55	2				9	53	
UPPSALA	41.86	319.0	7	50	-3	14	14	2	9	30	PP
BELGRADE	41.91	296.2	7	57K	3				9	35	PP
BUDAPEST	42.28	300.4							17	35	SSS
RACIBORZ	42.32	304.4	7	59	2				9	39	
TROMSOE	42.45	333.6	7	55	-3				9	36	PP
HURBANOVO	42.74	301.1							10	46	
BRATISLAVA	43.39	301.8	7	51	-15				9	51	PCP
BAGUIO CITY	43.82	109.8	8	13	4	14	17	-24			
VIENNA-H.	43.85	302.1	8	8	-1	14	40	-1			
SKALSTUGAN	44.43	324.4	8	11	-3				10	0	PP
PRUHONICE	44.65	304.9	8	13A	-3	14	59	6	9	58	PP
PRAGUE	44.70	305.0	8	16	0				18	12	SS
COPENHAGEN	44.90	313.2				15	0	4			
GOTEBORG	44.91	316.1	8	17	-1				10	4	PP
COLLMBERG	45.33	307.0	8	18	-3	15	13	10	10	13	PP
MANILA	45.34	111.2	8	24	3	15	4	1			
TARANTO	45.45	291.2	8	33	11				15	58	
KASPERSKE H.	45.45	303.9	8	19	-3				10	18	PP
UGLEGORSK	45.47	56.2	8	21	-1						
LJUBLJANA	45.62	299.5	8	21	-3				10	15	PP
CHEB	45.99	305.4	8	24	-3	15	3	-9	10	18	PP
TRIESTE	46.25	299.2	8	27	-2	15	21	5	10	21	PP
JENA	46.29	306.7	8	28	-1	15	21	5	10	21	PP
Y.-SAKHLINSK	46.42	58.8							15	20	PS
MATUSIRO	46.77	73.9	8	29A	-4	15	25	2	18	25	SCS
REGGIO CALA.	47.47	288.8	8	37	-1	15	40	7			
MESSINA	47.50	288.9	8	42	3						
PADOVA	47.59	299.4	8	43	4	15	56	21	10	28	PP
BERGEN	47.97	320.4	8	43	1						
STUTTGART	48.28	304.4	8	42	-3	15	52	8	10	39	PP
TUKUBASAN	48.29	73.5	8	43A	-2	15	44	-1	8	58	*SP
ROME	48.33	294.7	8	46A	1	15	53	8	19	34	SS
MAGADAN	48.34	40.7	8	45	0	15	45	0			
RAVENSBURG	48.35	303.1	8	42	-3						
MUNSTER	48.44	308.9	8	45	-1						
HEIDELBERG	48.46	305.4	8	43	-3						
TUBINGEN	48.48	304.2	8	45	-1						
FLORENCE X.	48.53	297.5	8	44K	-3	15	52	4			
PRATO	48.60	297.7	8	28	-19	15	44	-5			
CHUR	48.69	301.9	8	45	-3				10	39	
KARLSRUHE	48.76	304.9	8	43	-5	15	59	8			
BENSBERG	48.98	307.7	8	46	-4				10	11	PP
STRASBOURG	49.29	304.6	8	55	3	16	3	4	10	50	PP
PAVIA	49.47	299.9							24	51	
BASLE	49.74	303.3	8	52	-4				19	31	SS
DE BILT	49.86	309.6	9	3	6	16	9	2	19	45	SS
NEUCHATEL	50.32	302.8	9	1	1						
BESANCON	50.86	303.4	9	1	-3						
MONACO	51.14	298.7	9	8	1				11	13	PP
NORD	51.43	349.2	9	4	-5						
ABERDEEN	52.46	317.4				16	53	11	20	37	SS
PARIS	52.53	306.3	9	6	-11	17	48	65	12	8	PP
GARCHY	52.71	304.3	9	19	1				10	19	PCP
DURHAM	52.92	314.4	9	21A	1	16	53	4			
DJAKARTA	53.11	142.9							11	21	
CLERMONT-FD.	53.23	302.6	9	24	2	17	1	8			
KEW	53.30	310.2	9	19	-4	16	56	2	20	34	SS
EDINBURGH	53.41	316.2							28	21	
LEMBANG	54.05	142.4	9	30	2						
FOLINIERE	54.37	307.2	9	27	-4						
BAGNERES	56.27	300.6	9	44	0						
TORTOSA	57.02	298.0	9	52	2	17	51	7			
SIDA	57.47	328.4	9	54A	1						
ALICANTE	58.83	295.9	9	54	-8	17	54	-13	12	4	PP
TOLEDO	60.53	299.0	10	10	-4	18	33	4	14	7	PPP
ALMERIA	60.94	295.2	10	12K	-5	18	40	6	12	12	PP
GRANADA	61.56	296.1	10	23K	2	19	15	33	12	37	PP
COIMBRA	63.29	301.2							11	25	PCP
BANGUI	63.82	252.6	10	55	19	19	34	23			
LISBON	64.53	300.1	10	43K	2	18	51	-29	36	39	SSS
TANANARIVE	64.99	211.8	10	45	1				11	41	
RESOLUTE	65.58	357.9	10	42	-6	19	37	5			
COLLEGE	69.61	19.0	11	7	-6	20	22	1	26	39	PKKP
BROKEN HILL	70.92	231.1	11	18A	-3						
BULAWAYO	75.33	227.3	11	43A	-4						
LOME	75.82	266.1	11	49	-1						
LUANDA	76.80	246.5	11	57K	2						
LCO. MARQUES	77.92	220.8	12	6A	5						

MUNDARING	79.89	147.6	12	8	-4				12	8
PRETORIA	80.04	224.2	11	52	-21					
PORT MORESBY	80.55	110.6	12	17	2	22	25	3		
RABAUL	80.77	103.4	12	12	-5					
WINDHOEK	84.05	234.2	12	32	-2					
KIMBERLEY	84.25	224.8	11	29	-66					
MBOUR	84.52	284.0	12	36	0	23	8	6		
GRAHAMSTOWN	86.93	220.8	12	47	-1					
CHARTERS TS.	87.29	118.9	12	47	-3	23	31	2		
VICTORIA	89.95	13.9	13	2	0					
SHAWINIGAN	89.99	340.2	13	3	1					
HUNGRY HORSE	91.48	7.9	13	10	1					
HERMANUS	91.63	224.9				24	18	9		
OTTAWA	91.80	341.7	13	13	2					
ADELAIDE	93.30	134.0	13	15	-3				13	20 PCP
WESTON	93.43	337.6							39	57
CORVALLIS	93.76	15.0	13	21	1					
BUTTE	93.93	7.2	13	21	0					
BOZEMAN	94.42	6.2	13	24	1					
PALISADES	95.44	338.9				24	2	-1	26	8 PS
RAPID CITY	96.37	0.7	13	33	1					
SHASTA	97.67	15.4	13	37	-1				16	40
MINERAL	98.17	14.9	13	42	2				17	30
MELBOURNE	98.85	132.4	13	45	2					
FLAMING GRGE	99.26	5.5	13	45	0				17	24 PP
RENO	99.29	13.7	13	47	2					
RIVERVIEW	99.82	126.0				24	53	27	14	3
EUREKA	99.98	10.8	13	49	1				17	48 PP
BERKELEY	100.42	16.0							27	5
GLEN CANYON	102.99	7.7	13	54	-8				17	30 PP
FAYETTEVILLE	104.00	353.3	18	3	237					
PASADENA	104.83	13.7				27	45	175	32	57 PPS
WICHITA MTS.	105.65	356.9	14	22	777				18	33 PP
TUCSON	107.74	7.7	14	28	777	26	34	92	19	13 PP
WILKES	108.89	166.7							28	24 SP
BOGOTA	128.68	323.0							39	5 SS
BYRD STATION	139.24	175.4	19	20	-9					
LA PAZ	142.34	298.5	19	35	1					

APRIL 4 22.H 42.M 37.S EPICENTRE 61.92 1.76 DEPTH= 0.KM

A= 0.47302 B= 0.01457 C= 0.88093 D= 0.0308 E=-0.9995
G= 0.8805 H= 0.0271 K=-0.4732 HT= -9.5

SE= 5.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BERGEN	2.29	130.0	0	36	-4						1	37	
SKALSTUGAN	5.11	66.3	1	21A	1	2	16	-4			1	43	PG
GOTEBORG	6.66	124.8	1	36	-6	2	40	-19			3	28	SG
DURHAM	7.38	195.3	1	50K	-2						2	6	P*
UPPSALA	8.01	97.9	1	57	-3	3	31	-2			2	13	P*
COPENHAGEN	8.35	133.7	1	57	-8	4	11	30			2	16	PP
UMEA	8.65	69.2	2	10	1	3	39	-10			4	20	S*
KIRUNA	9.88	45.1	2	27	1	4	38	19			5	31	SG
TROMSOE	10.43	34.8	2	37	3	4	30	-3					
MUNSTER	10.47	159.7	2	36	2						4	13	
NURMIJARVI	11.11	87.1	2	38	-5	4	33	-16					
BENSBERG	11.38	162.4	2	41	-6	4	33	-23					
HALLE	11.83	147.4	2	57	4	4	50	-17					
SODANKYLA	11.91	52.0	2	51	-3	4	55	-14					
KAJAANI	11.95	68.2	2	53	-2	4	58	-12					
JENA	12.26	149.5	3	1	2	5	39	22			5	16	
COLLMBERG	12.28	144.9	2	58	-1	5	22	4			6	39	
HEIDELBERG	13.13	159.6	3	21	11						5	19	
PARIS	13.14	177.9	3	3	-8						5	29	
FOLINIERE	13.24	186.5	3	6	-6						5	18	SG
STRASBOURG	13.79	163.1	4	21	62						5	17	
STUTTGART	13.84	158.8	3	22	2						5	33	
PRUHONICE	13.90	143.5	3	28	7	5	43	-14			4	48	
PULKOVO	14.03	86.1									3	6	
TUBINGEN	14.03	159.6									5	39	
KASPERSKE H.	14.42	147.3	3	34	7						5	46	
APATITY	14.52	53.5	3	34	5	5	50	-21			3	43	PP
GARCHY	14.69	176.5	3	26	-5	5	53	-22					

KRAKOW	15.57	131.5								6	16
CLERMONT-FD.	16.20	176.6								4	9
LWOW	17.29	124.3								7	49
MONACO	18.52	167.0								4	40
MOSCOW	19.37	92.3								9	46
KISHINEV	21.44	121.6	4	47	-5						
SVERDLOVSK	29.49	72.9								6	58
COLLEGE	51.52	344.0	9	22	12						
EUREKA	67.21	312.0	10	47	-11						

APRIL 6 1.H 33.M 51.S EPICENTRE 39.82 77.68 DEPTH= 36.KM

A= 0.16432 B= 0.75245 C= 0.63783 D= 0.9770 E=-0.2134
G= 0.1361 H= 0.6231 K=-0.7702 HT= -1.6

DEPTH OF FOCUS= 0.001R

SE= 1.78

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NARYN	2.06	322.0	0	33	0						0	59	S*
PRZHEVALSK	2.71	11.3									0	44	P*
RYBACHE	2.86	337.1									0	48	P*
KURMENTY	3.21	7.9	0	49	0						1	37	
MURGAB	3.26	244.8	0	51	1	1	32	4					
ALMATA	3.49	351.2									0	55	P
FRUNSE	3.79	323.5	0	59	2	1	45	3					
ANDIJAN	4.17	284.6	1	3	0								
FERGANA	4.56	278.9									1	23	P*
NAMANGAN	4.73	286.1	1	14	3						2	2	
DZERGETAL	5.02	265.2	1	16	1								
KHOROG	5.35	246.1	1	22	2						2	52	
GARM	5.77	264.2	1	24	-1								
KULYAB	6.48	255.3									1	58	P*
TASHKENT	6.57	285.9				2	59	8			2	11	PG
TCHIMKENT	6.59	294.7	1	37	0						3	12	
WARSAK DAM	7.60	222.1	1	51	0								
SAMARKAND	8.25	272.4	1	59	-1	3	33	0					
LAHORE	8.69	199.3	2	5A	-1	3	39	-5					
DEHRA DUN	9.48	178.1	2	14	-3	3	59	-5			2	26	PP
SEMIPALATNSK	10.73	8.9	2	32	-2								
BAIRAM-ALI	12.36	264.6	2	51	-5	5	6	-8					
QUETTA	13.02	225.7	3	0A	-5	5	20	-10					
CHATRA	15.18	145.8	3	29	-4	6	12	-9					
KIZYL-ARVAT	16.54	274.7	3	50	-1	6	50	-2			10	8	
SEHORE	16.61	181.9				7	12	18			6	40	
BOKARO	17.36	154.3	4	3A	2	7	15	4			7	36	SS
KARACHI	17.42	214.1	4	2	0	7	12	-1					
SHILLONG	18.53	135.8				7	46	9					
CALCUTTA	19.48	149.1				8	6	7			13	37	
SVERDLOVSK	20.35	332.4	4	34	-2						8	27	SS
TEHERAN	21.15	267.2	4	45	1	8	47	15					
BAKU	21.23	280.5	4	47	2								
BOMBAY	21.27	192.8	4	46	1	8	40	6			5	27	PPP
POONA	21.47	190.0	4	47A	0	8	54	16					
IRKUTSK	22.14	47.0	4	54	0								
SHEMAKHA	22.16	281.5	4	54	0								
HYDERABAD	22.32	178.1	4	57	1	8	59	5					
ULAN-BATOR	22.47	59.2	4	58	1								
KYAKHTA	22.75	52.9	5	0	0								
MAKHACH-KALA	22.80	287.8	5	3	2	9	19	16					
SHIRAZ	22.96	251.6	5	3K	1	9	20	14			9	57	SS
CHENGTU	23.30	104.9	5	8K	3	9	16	5					
KABANSK	23.40	48.9	5	8	2	9	19	6					
KIROVOBAD	23.89	282.2	5	11	0								
GROZNY	24.07	288.8	5	16	3						9	53	
GORIS	24.08	279.4	5	14	1						6	4	PPP
TIFLIS	24.89	285.1	5	21A	0						6	23	PPP
EREVAN	25.34	281.6	5	27	2						6	19	PPP
KUNMING	25.61	117.4	5	30K	2	10	4	13					
BAKURIANA	25.84	285.4	5	31	1								
SOTCHI	28.43	290.1	5	54	1						11	57	SS
PEKING	29.37	77.0									15	58	
KODAIKANAL	29.47	180.4									10	28	
MOSCOW	30.74	314.6	6	13	-1						17	8	

SIMFEROPOL	32.28	293.6	6 27	-1		13 33	SS
COLOMBO	32.83	176.0				11 19	
KSARA	33.76	273.2	6 43K	3			
NANKING	33.93	90.1				7 15	
CANTON	34.42	108.2				19 56	
PULKOVO	35.50	320.1	6 54	-1			
KISHINEV	35.72	298.1				15 21	SSS
ZO-SE	36.19	90.1				20 7	
ISTANBUL UN.	36.70	288.1	7 7	2			
APATITY	36.79	333.4	7 7	1	12 54 7	8 34	PP
KAJAANI	37.76	326.7	7 13	-1			
BUCHAREST	38.02	294.3	7 18	2	13 35 29	8 45	PP
NURMIJARVI	38.42	320.5	7 20K	0			
LWOW	38.59	303.2	7 22	1		8 54	PP
HELWAN	38.94	269.9	7 24	0		9 35	
SODANKYLA	39.15	331.5	7 26	0			
WARSAW	40.25	307.3				9 12	
TIKSI	40.71	22.3	7 37	-2	13 47 1	9 11	PP
UMEA	40.93	325.2	7 41	0			
KRAKOW	41.19	304.1	6 42	-61		7 5	
ATHENS	41.50	285.3	7 46K	1			
KIRUNA	41.56	331.2	7 45	-1		9 23	PP
BELGRADE	41.86	296.3	7 49K	1		9 34	PP
UPPSALA	41.87	319.1	7 48	0		17 8	SS
TROMSOE	42.49	333.7	7 54	1			
SKALSTUGAN	44.45	324.5	8 9	0			
COPENHAGEN	44.89	313.2	8 13K	0			
COLLMBERG	45.31	307.0	8 16	0		10 3	PP
KASPERSKE H.	45.42	303.9	8 17A	0		8 59	
LJUBLJANA	45.58	299.5	8 19A	1			
TRIESTE	46.21	299.2	8 24	1			
JENA	46.27	306.8	8 24	0		18 29	SS
MATUSIRO	46.90	73.8	8 28	-1	15 5 -11		
MESSINA	47.43	289.0	8 31	-2			
STUTTGART	48.25	304.5	8 39	0		19 22	SS
ROME	48.28	294.8	8 41	2	15 55 19	19 19	SS
HEIDELBERG	48.43	305.4	8 41	0			
TUBINGEN	48.45	304.2	8 42	1			
FLORENCE X.	48.48	297.5	8 39K	-2	15 53 14		
BENSBERG	48.96	307.8	8 45K	0			
STRASBOURG	49.27	304.6	8 47	0		19 45	
NORD	51.52	349.2	9 2	-2			
PARIS	52.50	306.3	9 11	-1			
GARCHY	52.68	304.4	9 12	-1		9 47	
CLERMONT-FD.	53.20	302.6	9 16	-1			
KEW	53.29	310.3	9 17	0			
FOLINIERE	54.35	307.2	9 24	-1			
BAGNERES	56.23	300.6	9 37	-2			
TOLEDO	60.49	299.0	10 8	-1			
ALMERIA	60.89	295.2	10 9K	-2			
GRANADA	61.51	296.1	10 53A	37			
BANGUI	63.69	252.6	10 22	-8		11 2	
TANANARIVE	64.85	211.7	10 38	0			
RESOLUTE	65.68	357.8	10 41	-2			
COLLEGE	69.74	18.9	11 7	-1			
BROKEN HILL	70.78	231.0	11 15A	0			
BULAWAYO	75.18	227.2	11 41A	1			
PRETORIA	79.89	224.2	12 34	27			
WINDHOEK	83.90	234.1	12 30K	3			
KIMBERLEY	84.10	224.8	12 27	-1			
CHARTERS TS.	87.33	118.8	12 47	3			
SHAWINIGAN	90.05	340.1	12 57	0			
EUREKA	100.10	10.7	13 43	0		17 16	PP
WICHITA MTS.	105.75	356.8	18 12	777			
SOUTH POLE	129.63	180.0	19 6	1			
BYRD STATION	139.15	175.5	19 15	-8			
AREQUIPA	144.51	302.1	19 35	2			

APRIL 6 4.H 4.M 42.S EPICENTRE 40.45-124.64 DEPTH= 0.KM

A=-0.43382 B=-0.62783 C= 0.64625 D=-0.8227 E= 0.5685
G=-0.3674 H=-0.5317 K=-0.7631 HT= -1.9

SE= 3.52

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

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ARCATA	0.61	44.8	0	15A	0	0	26	0				
SHASTA	1.73	81.0	0	33A	2							
MINERAL	2.33	91.5	0	43A	3						1	13
BERKELEY	3.17	143.5	0	50A	-2	1	27	-4				
SAN FRANCSCO	3.17	146.8	0	50A	-2	1	27	-4				
BRANNER	3.58	146.8	0	54A	-4	1	35	-6				
RENO	3.82	102.2	1	2A	1	1	34	-13				
LICK	3.89	142.0	0	59	-3	1	46	-3				
CORVALLIS	4.25	13.1	1	6A	-1	1	55	-3				
VINEYARD	4.49	144.3	1	8A	-2	2	3	-1				
FRESNO	5.28	132.5	1	21	-1							
TINEMAHA	6.05	122.0	1	36	4							
KING RANCH	6.41	141.3	1	36	-2							
WOODY	6.58	134.3	1	38	-2	2	57	0				
EUREKA	6.73	95.5	1	43	1							
HAIWEE	6.80	127.1	1	46	3							
ISABELLA	6.82	132.5	1	42	-1							
STA. BARBARA	7.17	145.3	1	52	4							
CHINA LAKE	7.22	127.6	1	49	0							
VICTORIA	8.12	5.8	1	58	-3							
PASADENA	8.13	138.6	2	0	-2						3	21
ALBERNI	8.82	359.2	2	8	-3							
BOULDER CITY	8.92	116.9	2	14	1							
PENTICTON	9.56	20.2	2	1	-20							
SALT LAKE C.	9.74	84.0	2	25	1						5	33
BUTTE	10.42	53.7	2	31	-2	5	26	54				
GLEN CANYON	10.78	104.6	2	41	3						6	28
HUNGRY HORSE	10.95	40.3	2	42	1	5	37	52				
BOZEMAN	11.23	57.8	2	43	-1						6	5
TUCSON	13.80	122.0	3	22	3	5	37	-17				
LARAMIE	14.45	80.4	3	26	-1						5	16
RAPID CITY	16.28	70.1	3	44	-7	7	2	10				
CHIHUAHUA	19.27	122.0									9	38
LUBBOCK	19.42	103.4	4	30	0							
WICHITA MTS.	21.39	97.2	4	48A	-3	9	2	18				
FAYETTEVILLE	24.24	90.5	5	17	-2	9	43	7	5	38	5	46 *SP
COLLEGE	27.88	338.9	5	49	-4							
COLUMBIA	35.04	86.4	6	55	-1							
OTTAWA	35.72	65.5	7	0A	-2							
CHAPEL HILL	35.82	82.3	7	2	-1							
RESOLUTE	36.95	12.7	7	9K	-3	12	56	-2				
SHAWINIGAN	37.55	63.0	7	16A	-1							
PALISADES	38.00	72.1	7	21	0	13	15	1			15	53 SS
HALIFAX	44.26	63.6	8	12	0							
NORD	52.80	10.1	9	14	-5							
SAN JUAN	54.48	95.7	9	29	-2							
CHINCHINA	56.35	115.4	9	43	-2							
FUQUENE	57.30	113.3	9	56	5							
BOGOTA	57.67	114.3	9	56	2	18	1	9				
ST. KITTS	57.68	94.4	9	53	-1							
CARACAS	58.81	103.6	9	55K	-7	18	18	11				
ST. VINCENT	61.35	97.2	10	16	-3							
KIRUNA	68.87	13.5	11	14	6							
SODANKYLA	70.31	11.4	11	14	-3							
SKALSTUGAN	70.82	18.9	11	26	6							
MATUSIRO	72.14	302.9	11	28K	0							
UMEA	72.41	15.5	11	34	5							
KAJAANI	73.54	12.3	11	33	-3							
UPPSALA	75.33	18.6	11	53	7							
GOTEBORG	75.68	22.4	11	55	7							
NURMIJARVI	76.30	15.1	11	58	6							
COLLMBERG	81.43	25.3	12	17	-3						12	28 PCP
PRUHONICE	83.07	25.2	12	30	2						13	48
TOLEDO	83.46	41.8	12	29	-1						15	25
KASPERSKE H.	83.49	26.1	12	38	8							
GRANADA	85.72	43.3	12	53K	11							
ROME	89.29	30.5									23	48
SOUTH POLE	130.26	180.0	19	17	5							
BROKEN HILL	145.05	49.9	19	38K	-1							
BULAWAYO	149.49	56.4	19	50K	4							

APRIL 6 14.H 5.M 15.S EPICENTRE 2.28 97.06 DEPTH= 132.KM

A=-0.12275 B= 0.99165 C= 0.03943 D= 0.9924 E= 0.1228
G=-0.0048 H= 0.0391 K=-0.9992 HT= 7.2

DEPTH OF FOCUS= 0.016R

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
MEDAN	2.08	51.3	0 34A	-1				
PORT BLAIR	10.28	335.5	2 48	23				4 48
DJAKARTA	12.88	130.8	3 5	6				7 25
LEMBANG	13.89	130.7	2 58K	-14	5 28	-15		4 24
NHATRANG	15.58	50.0	3 30	-3	6 50	28		
COLOMBO	17.73	285.6	4 5	5	7 25	15		
MADRAS	19.81	303.4	4 18	-4	8 8	15		4 42 PP
VIZIANAGRAM	20.64	320.6	4 20K	-10				8 13
KODAIKANAL	21.00	293.0						5 5
CALCUTTA	21.83	337.9						8 46
KUNMING	23.36	13.1	4 59A	2	9 24	27		
HYDERABAD	23.68	310.7	5 2K	2	9 43	41		10 39
SHILLONG	23.69	348.3	4 58A	-2	9 16	14		
BOKARO	24.04	334.0	5 5	1				9 22
HONG KONG	25.94	38.5	5 21	0	10 19	39		
CANTON	26.03	36.0	5 22	0				
CHATRA	26.19	339.7	5 24	0				9 26
MANILA	26.72	61.2	5 31	2	10 14	21		
LHASA	27.81	348.7	5 40A	1				
POONA	27.89	307.0	5 39	0				
BOMBAY	28.92	306.5	5 50	2	10 32	4		12 43
CHENGTU	28.99	12.4	5 49	0	10 53	24		
DEHRA DUN	33.29	329.0	6 30	-4	11 45	9		
SIAN	33.68	17.9	6 30A	0	12 7	25		
LANCHOW	34.19	9.8	6 35A	1				
NANKING	36.00	32.3	6 50A	0				
LAHORE	36.16	326.0	6 10	-41				
ZO-SE	36.63	36.0	6 57	2				
MUNDARING	38.60	153.5	7 10	-1				
WARSAK DAM	39.54	325.8	7 22A	3				
QUETTA	39.80	317.3	7 23A	2	13 20	5		8 52 PP
PEKING	41.39	22.3	7 37A	3				
ANDIJAN	44.32	333.0	8 1	3				
STALINABAD	44.42	327.9	8 0	1	14 43	20		
ALMATA	44.58	339.0			14 40	15		
NAMANGAN	44.83	332.6	8 5A	3	14 42	13		
FRUNSE	45.08	336.6	8 7A	3				
ULAN-BATOR	46.26	9.2	8 14	0				
ABUYAMA	48.29	43.3	8 30A	1				
CHANGCHUN	48.38	27.3	8 29	-1				
SEMIPALATNSK	50.02	346.0	8 45K	2				
IRKUTSK	50.19	5.8	8 45A	1				
SHIRAZ	50.25	307.4	8 45K	1				18 10
MATUSIRO	51.00	43.0	8 50K	0				
PORT MORESBY	51.23	103.9	8 50	-2	15 58	-1		
TANANARIVE	53.02	244.3	9 3K	-2				10 25 PCP
CHARTERS TS.	53.12	117.2	9 5	-1	16 31	7		
TEHERAN	53.77	313.8	9 11	0				
ADELAIDE	53.80	137.4	9 9A	-2				9 40
RABAUL	55.45	96.6	9 19	-4				
MELBOURNE	59.59	137.0	9 51	-1				
MAKHACH-KALA	59.83	319.7	9 54	0				
TIFLIS	61.05	317.4	10 2	0	18 19	11		
BRISBANE	61.16	123.0	10 2	-1				
CANBERRA	61.25	132.7	10 1	-2				
SVERDLOVSK	61.65	338.2	10 6	0				
RIVERVIEW	62.23	130.4	10 6	-4				
HONIARA	63.72	101.6	10 18	-1				
KSARA	64.98	306.4	11 29	61				
JERUSALEM	65.02	304.1	10 29A	1				
HELWAN	67.89	301.3	10 45	-1				11 11
SIMFEROPOL	69.48	317.5	10 56	0	20 0	9		
BROKEN HILL	69.90	253.8	10 58K	0				
MAGADAN	70.43	25.8	11 3	1				
BULAWAYO	70.65	247.9	11 2K	-1				
MOSCOW	71.34	329.1	11 8	1				
ISTANBUL KA.	72.00	312.5	11 10A	-1	20 28	8		
ISTANBUL UN.	72.05	312.5	11 12	1				
TIKSI	72.14	10.1	11 12K	0				
PULKOVO	76.48	331.4	11 38	1	21 20	10		
SOFIA	76.52	313.3	11 41	4				
LWOW	77.35	320.6	11 44	3				

APATITY	78.06	339.4	11	48A	3	21	42	15			
BANGUI	78.30	274.0	12	14	27						
KAJAANI	79.03	335.2	11	52A	1						
NURMIJARVI	79.41	331.3	11	54A	1						
KHEYS	80.43	354.0	12	0	2	22	3	11			
SODANKYLA	80.45	338.3	12	1A	3						
BRATISLAVA	81.61	318.2							22	1	
MESSINA	81.92	308.1	12	8	2						
VIENNA-H.	82.10	318.2	12	10A	3						
UMEA	82.16	334.2	12	10A	3						
KARAPIRO	82.32	128.6	12	8	0						
TONGARIRO	82.51	129.8	12	8A	-1						
CHATEAU	82.52	129.8	12	9A	0						
UPPSALA	82.73	330.0	12	12A	2	22	27	12			
KIRUNA	82.87	338.2	12	12A	1	22	29	12			
LJUBLJANA	83.18	315.9	12	15A	3				12	21	PCP
PRUHONICE	83.44	319.9	12	17A	3				15	30	PP
TROMSOE	83.75	339.8	12	17	2						
KASPERSKE H.	84.01	319.0	12	17A	0						
COLLMBERG	84.51	321.1	12	22	3				15	52	PP
HALLE	85.18	321.3	12	25	3						
JENA	85.39	320.7	12	22	-1				13	23	
GOTEBORG	85.45	327.5	12	25	1						
SKALSTUGAN	85.64	333.5	12	27A	2				14	38	
STUTTGART	86.83	318.5	12	32	2						
CAPE HALLETT	87.08	163.0				23	20	22			
SCOTT BASE	88.00	168.5	12	43	7						
BENSBERG	88.18	320.7	12	39	2				13	19	
GARCHY	91.06	317.2	12	53	3						
NORD	91.15	352.3	13	25A	34						
SOUTH POLE	92.26	180.0	13	4	8						
FOLINIERE	93.28	318.9	13	3	2						
COLLEGE	98.37	23.0	13	28	4				16	41	PP
BYRD STATION	100.30	173.9	13	33	1						
RESOLUTE	102.82	3.2	13	46	2						
MINERAL	124.81	35.6	18	38	-6						
RENO	126.38	35.2							19	5	
EUREKA	128.57	32.6	18	55	4				21	5	PP
RAPID CITY	130.41	19.1	18	59	4						
LARAMIE	131.98	23.0	19	0	2				21	22	
TUCSON TELE.	136.67	35.1	19	13	7						
WICHITA MTS.	140.38	20.4	19	9	-4				22	13	PP
FAYETTEVILLE	140.42	14.4	19	9	-4				22	9	PP
SAN JUAN	153.63	321.8	20	0	25						

APRIL 6 18.H 12.M 39.S EPICENTRE 28.20 56.78 DEPTH= 29.KM

A= 0.48356 B= 0.73833 C= 0.47015 D= 0.8365 E=-0.5479
G= 0.2576 H= 0.3933 K=-0.8826 HT= 2.4

SE= 3.89

	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	
SHIRAZ	4.00	292.1	1	0	-1	1	19	-29					
TEHERAN	8.79	330.0	2	10	2	4	28	40					
QUETTA	9.11	75.1	2	13A	0	4	9	14			2	22	PP
KARACHI	9.79	107.7	2	19	-3								
WARSAK DAM	13.91	61.8	3	16	-2								
STALINABAD	14.38	41.0	3	29	5	6	23	20					
LAHORE	15.59	73.4	3	37	-2								
MAKHACH-KALA	16.54	335.4	3	52A	1	7	20	27					
TASHKENT	16.61	34.8	3	53	1	7	9	14					
TIFLIS	16.65	327.2	3	55	2								
BOMBAY	17.37	118.8	3	58	-4	7	20	8			6	21	
NAMANGAN	17.65	39.9	4	5	0	7	35	16					
ANDIJAN	17.91	41.6	4	9A	0	7	38	13					
POONA	18.38	117.9	4	10	-4	7	37	2					
DEHRA DUN	18.68	78.4	4	24	6	7	47	5			8	13	SS
KSARA	18.76	292.5	4	16	-3	7	52	8			4	35	PP
JERUSALEM	19.01	286.1	4	18A	-4	8	0	10					
FRUNSE	20.53	40.0	4	39A	0	8	40	18					
HELWAN	22.30	280.4	4	51	-6						12	21	
HYDERABAD	22.64	113.6	5	3	3	9	6	5					
SIMFEROPOL	24.58	318.9	5	18A	-1	9	46	11					
ISTANBUL KA.	26.04	306.8	5	30	-3	10	8	9	5	49	6	11	PP

ISTANBUL UN.	26.09	306.7	5	33	0	10	2	2				
KODAIKANAL	26.41	128.6									10	7
BOKARO	26.41	92.8	5	37	1	10	11	5			6	26 PP
MADRAS	26.55	120.0	5	33	-4	10	11	3			6	21 PP
CHATRA	26.96	85.7	5	38	-3	10	13	-2				
SEMIPALATNSK	28.44	32.4	5	55	1							
SVERDLOVSK	28.74	4.4	5	57	0	10	55	12				
KISHINEV	28.80	318.3	5	56	-2							
CALCUTTA	29.05	94.0									10	41
ATHENS	29.23	298.0	6	OK	-2							
BUCHAREST	29.32	311.7	6	0	-2	11	3	10				
IASI	29.63	317.7	6	5	0	11	11	14				
LHASA	29.96	78.9	6	10	2	11	7	4				
COLOMBO	30.44	129.8	6	35	23						11	1
SOFIA	30.62	307.1	6	3	-11						11	32
MOSCOW	30.76	338.7	6	15	0	11	27	12				
SHILLONG	31.34	86.5	6	17A	-3	11	28	4				
LWOW	32.96	319.9	6	34	-1	12	4	14				
BELGRADE	33.25	309.7	6	36K	-1	12	5	11			8	4 PPP
TARANTO	34.58	301.2				12	24	9			7	24
SKALNATE PL.	34.90	316.9	6	56	5							
NIEDZIKA	34.95	317.4									25	58
KRAKOW	35.44	318.2	6	54	-2	12	36	8			7	22
REGGIO CALA.	35.57	296.9	7	7	10							
MESSINA	35.66	297.0	6	55	-3	12	35	4	7	19	8	54 PP
WARSAW	35.78	322.1	6	58	-1	12	29	-4			8	17 PP
CHORZOW	36.09	318.1	7	0	-1						8	48 PPP
RACIBORZ	36.48	317.5	7	7	2						9	24 PCP
BRATISLAVA	36.49	314.0	7	8	3	12	37	-7				
VIENNA-H.	36.98	313.9	7	8A	-1	12	52	0				
LJUBLJANA	37.60	309.9	7	13A	-1	13	11	10			8	47 PP
TRIESTE	38.03	309.0				13	15	7				
ROME	38.34	302.8	7	25	5	13	12	0			15	41 SS
PRUHONICE	38.65	316.0	7	40A	17							
PRAGUE	38.75	316.1	7	24	0							
NURMIJARVI	38.88	335.2	7	24A	-1	13	30	9			9	0 PP
KASPERSKE H.	39.00	314.4	7	23A	-3						13	27
PADOVA	39.28	308.2	7	33	5	13	31	4			9	9 PP
FLORENCE X.	39.47	305.6	7	30	0	13	39	10				
PRATO	39.59	305.7	7	42	11	13	51	20				
COLLMBERG	40.00	317.5	7	33A	-1	13	34	-4			9	5 PP
CHEB	40.02	315.5	7	32	-2							
LANCHOW	40.29	66.5	7	36A	0							
KAJAANI	40.42	340.8	7	37	0	13	46	2			9	18 PP
LWIRO	40.49	226.2	7	34A	-4						9	12 PP
HALLE	40.69	317.5	7	38	-2	13	59	11				
JENA	40.75	316.5	7	39	-1	13	45	-4			9	3 PP
CHENGTU	40.98	74.7	7	49	7	14	6	14				
KUNMING	41.01	83.3	7	42A	0	13	55	3				
PAVIA	41.13	307.4									14	57 SS
CHUR	41.14	310.0	7	41A	-2	13	58	4				
CUGLIERI	41.17	299.8	8	31	47						17	51
UPPSALA	41.29	331.1	7	44	-1	14	6	9			17	13 SS
STUTTGART	41.66	312.8	7	46	-2	14	6	4				
TUBINGEN	41.75	312.4	7	55	7							
APATITY	41.81	346.8	7	49K	0	14	19	15	7	54	9	37 PP
COPENHAGEN	41.83	323.6	7	49K	0	14	8	3			9	27 PP
HEIDELBERG	42.15	313.6	7	49	-3							
MONACO	42.21	305.1	7	41	-11							
IRKUTSK	42.52	42.1	7	54A	-1							
BASLE	42.56	310.7	7	48	-7						14	21
STRASBOURG	42.61	312.2	7	59	4	13	39	-37			14	15 SP
UMEA	42.61	337.0	7	55	0							
GOTEBORG	42.87	326.2	7	55A	-3							
NEUCHATEL	42.91	309.8	7	56	-2							
SODANKYLA	43.21	343.5	8	0	0						9	54 PP
ULAN-BATOR	43.24	48.9	8	4	3							
BANGUI	43.31	243.9									8	21
MUNSTER	43.41	317.1	8	1	-1							
BENSBERG	43.46	315.5	8	2	0						9	52 PP
BESANCON	43.60	310.0	8	1	-2							
WITTEVEEN	44.18	318.1	8	7	-1							
SIAN	44.60	68.7	8	11	-1							
DE BILT	44.91	316.8	8	14	0	14	53	4				
KIRUNA	45.19	341.5	8	15	-1	14	56	3			10	14 PP
SKALSTUGAN	45.40	333.9	8	17	-1							
CLERMONT-FD.	45.42	307.7	8	16	-2							
GARCHY	45.57	309.8	8	17	-2	15	7	8	8	53	9	29

PARIS	46.11	311.9	8	14	-10	14	58	-9			
TROMSOE	46.81	342.9	8	28	-1						
TORTOSA	47.31	300.8	8	39	6	15	36	12			
BAGNERES	47.49	303.9	8	39	5						
TANANARIVE	47.69	191.8	8	31	-5						
KEW	48.19	315.2	8	39	-1	15	34	-2			
ALICANTE	48.25	297.6	8	28	-12	15	22	-15			
DURHAM	49.35	319.4	8	55	6						
PEKING	49.74	60.0	8	51	-1						
ABERDEEN	50.00	322.5				13	11	-170			20 1 SS
ALMERIA	50.00	295.9	8	51	-3						
BROKEN HILL	50.49	216.5	8	52K	-6						
GRANADA	50.85	296.5	9	8A	8	17	17	64			12 5 PPP
TOLEDO	50.85	300.0	8	58	-2	16	14	1	9	33	10 48 PP
NHATRANG	51.32	97.0	9	2	-2						
KHEYS	52.52	0.3	9	13	0						
NANKING	53.12	69.6	9	25	8						
SERRA PILAR	54.14	302.1	9	19A	-6	16	48	-10	9	45	11 24 PP
COIMBRA	54.14	300.9	9	23A	-2						
BULAWAYO	55.24	212.7	9	27K	-6						
ZO-SE	55.34	70.1	9	33	-1						
TIKSI	57.86	20.9	9	49	-3						
NORD	59.87	350.6	10	3	-3						
REYKJAVIK	60.10	330.2	10	14A	7						
LEMBANG	60.14	117.4	10	13	6						
PRETORIA	60.28	209.8	10	1	-7						
WINDHOEK	63.35	221.3	10	25	-4						
KIMBERLEY	64.39	211.1	10	28	-8						
MATUSIRO	67.38	59.6	10	51	-4						
GRAHAMSTOWN	67.57	207.1	10	59	3						
MAGADAN	68.10	33.2	10	52	-7						
MBOUR	69.18	275.5	11	4	-2	20	2	-6			
RESOLUTE	75.72	352.5	11	43	-2						
MUNDARING	82.31	132.4	12	16	-4						
COLLEGE	85.27	10.3	12	34	-1						30 36 PKKP
SHAWINIGAN	92.73	327.8	13	8	-3						
CHARTERS TS.	98.81	108.0	13	35	-4						
FLAMING GRGE	110.03	348.9	18	1	-28						
EUREKA	112.33	353.9	18	12	-21						19 6 PP
WICHITA MTS.	113.22	338.1	18	19	-16						19 20 PP
SOUTH POLE	118.04	180.0	18	40	-4						
SCOTT BASE	121.56	166.5	18	49	-2						
BYRD STATION	128.07	180.8	19	0	-4						
LA PAZ	128.11	270.7	19	15	11						
KARAPIRO	128.58	117.5	19	4	-1						
AREQUIPA	131.06	272.3	19	23	14						

APRIL 6 22.H 26.M 28.S EPICENTRE 1.65 96.01 DEPTH= 0.KM

A=-0.10467 B= 0.99409 C= 0.02863 D= 0.9945 E= 0.1047
G=-0.0030 H= 0.0285 K=-0.9996 HT= 7.2

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	
MEDAN	3.28	54.3									0	55	PG
PORT BLAIR	10.47	342.0									3	50	
DJAKARTA	13.31	125.8	2	56	-17								
LEMBANG	14.33	126.1	3	26A	0	6	6	-1			8	38	PCP
NHATRANG	16.78	50.7	4	7	9	7	12	8					
COLOMBO	16.91	288.4	4	0	1								
MADRAS	19.31	306.5	4	30	1	8	2	0			4	47	PP
HYDERABAD	23.32	313.3	5	11	1						9	35	
SHILLONG	24.11	350.8	5	17K	-1	9	31	-3					
BOKARO	24.16	336.6	5	22K	4	9	42	8			5	59	PP
KUNMING	24.22	15.0	5	21A	2	9	36	1					
CHATRA	26.43	342.0	5	39	-1	10	11	-2					
HONG KONG	27.07	39.4	5	46	0	10	7	-16					
POONA	27.45	309.1	5	49K	0								
LHASA	28.23	350.8	5	58	2	10	40	-2					
BOMBAY	28.46	308.5	6	1	3						12	51	
CHENGTU	29.83	13.9	6	10	-1	11	1	-6					
DEHRA DUN	33.22	330.9	6	41	1	11	32	-28			12	56	SS
LANCHOW	34.99	11.1	6	56	0								
LAHORE	36.11	327.6	6	50	-15								

NANKING	37.09	33.0	7	13	-1	12	56	-4				
MUNDARING	38.53	151.9	7	27	1							
WARSAK DAM	39.48	327.2	7	33	-1							
QUETTA	39.56	318.7	7	36K	2						9	11 PP
PEKING	42.37	23.1	7	58	1	14	19	0				
ANDIJAN	44.41	334.2	8	15	1	14	51	2				
NAMANGAN	44.91	333.8	8	19	1	14	56	0				
FRUNSE	45.24	337.8	8	20K	-1							
TASHKENT	46.27	332.0	8	28	-1	15	14	-2				
ABUYAMA	49.46	43.6	8	53A	-1							
SHIRAZ	49.81	308.3	8	46A	-10				9	14		
SEMIPALATNSK	50.38	347.0	9	0	-1							
TANANARIVE	51.81	244.4	9	12	0							
MATUSIRO	52.17	43.2	9	14	0						17	32
CHARTERS TS.	53.77	116.4	9	26	0						10	32
ADELAIDE	54.06	136.5	9	28K	0				9	39		
RABAUL	56.42	96.1	9	43	-2							
TIFLIS	60.81	318.1	10	15	-1							
CANBERRA	61.60	132.1	10	22A	1							
BRISBANE	61.71	122.4	10	22	0							
SVERDLOVSK	61.84	338.8	10	20	-3							
RIVERVIEW	62.63	129.7	10	34	6							
FORT NELSON	63.95	140.3									15	31
JERUSALEM	64.50	304.6	10	40K	-1							
KSARA	64.51	306.9	10	41	0							
LWIRO	67.31	266.9	11	1	2							
HELWAN	67.33	301.7	10	57K	-2							
BROKEN HILL	68.72	253.9	11	8K	1							
BULAWAYO	69.44	247.9	11	11	-1							
MOSCOW	71.33	329.4	11	30	7							
ISTANBUL UN.	71.70	312.8	11	25	-1							
TIKSI	72.94	10.4	11	29	-4							
KIMBERLEY	74.41	239.7	11	40	-1							
BANGUI	77.31	274.1									12	20
APATITY	78.27	339.6	12	2	-1	21	56	-2				
KAJAANI	79.16	335.4	12	7A	-1							
NURMIJARVI	79.45	331.5	12	9A	-1							
SODANKYLA	80.64	338.5	12	15K	-1							
KHEYS	80.94	354.1	12	16	-1							
MESSINA	81.48	308.2	12	21	1							
VIENNA-H.	81.87	318.4	12	22K	0							
UMEA	82.26	334.3	12	25	1							
UPPSALA	82.74	330.1	12	26K	-1							
KARAPIRO	82.75	128.4	12	27	0							
LJUBLJANA	82.90	316.0	12	28K	0							
TONGARIRO	82.92	129.7	12	27	-1							
CHATEAU	82.93	129.7	12	27	-1							
KIRUNA	83.05	338.3	12	27	-1							
PRUHONICE	83.24	320.0	12	30K	1							
KASPERSKE H.	83.80	319.1	12	30	-2							
COLLMBERG	84.34	321.2	12	35	0							
JENA	85.21	320.8	12	38	-1							
GOTEBORG	85.41	327.6	12	39	-1							
SKALSTUGAN	85.73	333.5	12	42	0							
STUTTGART	86.61	318.6	12	46	0							
GARCHY	90.80	317.2	13	23	17							
NORD	91.63	352.2	13	7	-3							
SOUTH POLE	91.64	180.0	13	10	0							
FOLINIERE	93.05	318.8	13	17	0							
COLLEGE	99.34	22.9	16	48	183							
BYRD STATION	99.79	174.1	13	47	0							
RESOLUTE	103.50	3.0	14	2	-2							
EUREKA	129.65	32.2	19	13	2							
FLAMING GRGE	131.72	25.8	19	13	-2							
WICHITA MTS.	141.31	19.4	19	27	-6						22	33 PP

APRIL 7 19.H 55.M 2.S EPICENTRE 57.19 163.55 DEPTH= 83.KM

A=-0.52219 B= 0.15421 C= 0.83877 D= 0.2832 E= 0.9591
G=-0.8044 H= 0.2376 K=-0.5445 HT= -8.0

DEPTH OF FOCUS= 0.008R

SE= 3.04

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

KLYUCHI	1.71	240.6	0	24	-5	0	48	-2															
PETROPAVLOVK	5.03	216.0	1	12	-2	2	13	1															
MAGADAN	7.11	294.8	1	46	3	3	17	14															
OKHA	12.27	261.5	2	52	-1																		
UGLEGORSK	15.18	246.8	3	30	0	6	24	7															
Y.-SAKHLINSK	16.28	240.2	3	44	0	6	55	13											3	54	PP		
YAKUTSK	17.65	300.0	4	1	0	7	17	5															
TIKSI	20.37	328.8	4	30	-2	8	17	7											4	49	PP		
COLLEGE	24.20	51.4	5	8	-1	9	19	0											21	46	PKKP		
MATUSIRO	26.68	230.1	5	31A	-2	10	3	3															
IRKUTSK	33.60	287.4	6	33A	-1																		
ULAN-BATOR	34.71	279.4	6	42	-1																		
PEKING	34.87	261.2	6	46K	1	12	21	12															
KHEYS	36.53	344.6	6	57	-2	12	37	3															
RESOLUTE	38.78	24.6	7	15	-2	13	13	5															
ZO-SE	39.09	246.5	7	20	0																		
VICTORIA	42.93	69.0	7	50	-2																		
SIAN	43.03	261.8	7	54	2																		
SEATTLE	44.07	69.3	7	50	-11																		
LANCHOW	44.44	268.1	8	4A	0																		
SEMIPALATNSK	46.75	299.2	8	20	-2														10	7	PP		
CHENGTU	48.44	263.1	8	36A	1	15	38	9															
SHASTA	48.81	76.3	8	38	0																		
MINERAL	49.48	76.0	8	42A	-1																		
CANTON	49.61	248.3	8	46	2																		
BUTTE	50.06	64.7	8	51	3																		
APATITY	50.23	337.5	8	55	6														15	59			
SVERDLOVSK	50.67	316.2	8	52	0	16	9	9											19	46	SS		
BERKELEY	50.94	78.7	9	1	6																		
RENO	51.02	75.4	9	4A	9																		
BOZEMAN	51.05	64.0	8	58	3																		
LICK	51.66	78.7	9	8A	8																		
SODANKYLA	51.72	340.3	8	59K	-1														10	12	PCP		
VINEYARD	52.24	79.0	9	3	-1																		
KIRUNA	52.36	343.3	9	3	-2	16	29	6															
FRESNO	53.07	77.8	9	10	0																		
EUREKA	53.07	72.7	9	8	-2							9	18										
KUNMING	53.50	259.9	9	13A	-1	16	48	10															
FRUNSE	54.86	295.9	9	23	-1																		
FLAMING GRGE	55.35	66.9	9	26	-1							9	35						11	38	PP		
PASADENA	55.92	78.7	9	30	-1	17	22	11															
RAPID CITY	56.00	60.2	9	30	-2																		
UMEA	56.08	341.4	9	31	-1																		
LHASA	56.28	273.3	9	34	0	17	27	12															
BOULDER CITY	56.29	74.7	9	30	-4																		
GLEN CANYON	57.23	71.6	9	39	-1														11	15	PP		
SKALSTUGAN	57.55	345.2	9	49	6																		
PULKOVO	57.67	334.1	9	53	9	17	42	8															
NURMIJARVI	58.27	337.5	9	46K	-2																		
TASHKENT	58.59	298.3	9	47	-3														17	53	PS		
SHILLONG	59.03	269.7	9	51A	-2																		
MOSCOW	59.27	327.8	9	51	-4	18	1	6															
UPPSALA	60.24	341.0	9	59	-2	18	11	4											10	27			
CHATRA	60.58	274.5	10	1A	-3																		
NHATRANG	60.87	245.4	10	7	1							10	16										
DUZHANBE	60.97	296.7	10	9	3																		
TUCSON TELE.	61.26	74.3	10	13	5																		
TUCSON	61.27	74.5	10	9	1																		
RABAUL	61.88	192.9	10	12	0																		
GOTEBORG	63.22	343.4	10	19	-2																		
LAHORE	63.70	287.8	10	22	-2																		
BOKARO	63.72	273.6	10	27	2																		
COPENHAGEN	65.09	342.4	10	40	7	19	16	8											13	10	PP		
WICHITA MTS.	65.53	63.7	10	35	-1														39	21	PKPPKP		
ASHKABAD	66.37	303.6	10	42	0														19	35			
OTTAWA	66.47	41.3	10	39	-3																		
SHAWINIGAN	66.51	38.8	10	41	-2																		
FAYETTEVILLE	66.53	59.6	10	41A	-2																		
WARSAW	66.70	336.0	10	44	0	19	36	9															
BREBEUF	67.13	39.9	10	44	-2																		
DURHAM	67.75	350.8	11	38	48																		
LWOW	68.24	333.1	10	54	1														27	28	SSS		
QUETTA	68.57	292.5	10	54	-1	19	56	6											13	32	PP		
WITTEVEEN	68.73	345.2	10	56	0																		
TIFLIS	68.90	315.3	10	58	1														13	31	PP		
COLLMBERG	69.19	340.7	10	59A	0														13	38	PP		
MUNSTER	69.42	344.4																	11	27			
JENA	69.80	341.5	11	2	-1	20	10	6											24	58	SS		

MORGANTOWN	69.81	47.4	11	2	-1						
SIMFEROPOL	69.82	324.2	11	2	-1	20	14	10			
PRUHONICE	70.17	339.3	11	4A	-1	20	19	10			
GORIS	70.20	313.0	11	7	2	20	19	10	13	48	PP
BENSBERG	70.47	344.4	11	8	1						
WESTON	70.66	40.0	11	6A	-2						
KEW	70.90	349.4				20	17	0			
PALISADES	70.94	42.5				20	20	3	25	0	SS
KASPERSKE H.	71.17	339.7	11	10A	-1				11	32	
HALIFAX	71.18	33.6	11	9	-2						
TEHERAN	71.30	307.3	11	13	1	20	33	11			
STUTTGART	72.27	342.4	11	17	-1						
STRASBOURG	72.70	343.4	11	26	6				20	46	
PARIS	73.21	347.0	11	20	-3						
CHAPEL HILL	73.35	48.8	11	32	8						
MEDAN	73.57	250.4	11	27	2						
FOLINIERE	73.58	349.1	11	25	0						
BELGRADE	73.78	333.6	11	28A	1	21	7	17	21	39	PS
LJUBLJANA	73.93	338.1	11	28A	1						
TRIESTE	74.47	338.5	11	29	-2						
POONA	74.47	280.0	11	30	-1						
GARCHY	74.64	346.4	11	31	-1				12	1	
BOMBAY	74.72	281.1	11	28	-4	21	7	7			
ISTANBUL UN.	74.95	326.1	11	31	-2						
MADRAS	75.59	271.6	11	38	1	21	23	13			
SHIRAZ	75.95	303.1	11	39K	0						
FLORENCE X.	76.76	339.8	11	52	8	21	57	35			
ROME	78.33	338.4	11	54	2	21	52	13	12	29	
KSARA	79.18	317.9	11	54	-3						
ATHENS	79.33	328.7	11	57A	-1						
JERUSALEM	81.26	317.5	12	8	0						
TOLEDO	82.74	350.4	12	15	-1						
HELWAN	84.39	319.7	12	24	0						
KARAPIRO	95.29	170.5	12	59	-16						
BYRD STATION	143.56	163.4	19	15	-10				19	23	
SOUTH POLE	147.01	180.0	19	34	3				19	46	

APRIL 7 21.H 17.M 46.S EPICENTRE 39.57 72.78 DEPTH= 33.KM

A= 0.22877 B= 0.73832 C= 0.63446 D= 0.9552 E=-0.2960
G= 0.1878 H= 0.6060 K=-0.7730 HT= -1.5

SE= 2.68

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
FERGANA	1.12	316.7									0	23	PG
ANDIJAN	1.22	345.1									0	24	PG
DZERGETAL	1.25	254.3									0	25	PG
MURGAB	1.49	142.9									0	25	PG
NAMANGAN	1.65	329.2									0	33	PG
GARM	2.01	254.3									0	38	PG
KHOROG	2.31	205.6									0	42	PG
OBI-GARM	2.55	251.1									0	49	PG
NARYN	3.08	51.8									0	49	P*
TASHKENT	3.19	304.3									1	1	PG
DUZHANBE	3.28	253.6									0	59	P*
FRUNSE	3.54	22.4									1	4	PG
TCHIMKENT	3.64	319.5	0	57	2	1	43	5			1	55	
RYBACHE	3.86	40.7									1	6	P*
SAMARKAND	4.48	273.1									2	16	S*
ALMATA	4.84	38.9	1	15	3						2	31	
PRZHEVALSK	5.15	53.8	1	19	2						2	22	
KURMENTY	5.37	48.6									1	38	PG
WARSAK DAM	5.65	190.5	1	25	1								
LAHORE	8.10	170.6	1	56	-2	3	23	-6					
BAIRAM-ALI	8.58	260.1									2	52	
DEHRA DUN	10.19	153.3	2	24	-3	4	16	-5			2	38	PPP
QUETTA	10.52	208.8	2	30A	-1	4	28	-1			2	43	*SP
ASHKABAD	11.39	266.4	2	40	-3						6	35	
SEMIPALATNSK	12.04	23.5	2	50	-2						5	7	
KIZYL-ARVAT	12.79	273.6	3	0	-2	5	20	-4			7	7	
SEHORE	16.75	166.2				6	35	-23			7	23	
TEHERAN	17.36	264.0	4	4	3	7	27	16					
CHATRA	17.47	132.3	3	56	-6								
BAKU	17.56	280.0	4	11	8						7	30	
CHANGCHUN	35.26	67.7	6	56K	-3	12	29	-4					

LHASA	17.97	117.9	4	11	2	7	30	5			
SHEMAKHA	18.50	281.0	4	17K	2					10	39
SVERDLOVSK	19.02	339.2	4	21	-1	7	55	6			
BOKARO	19.17	141.1				7	42	-10			
MAKHACH-KALA	19.28	288.3	4	25	1					9	32
SHIRAZ	19.36	245.5	4	27K	2	8	24	28	4 38	11	30 SCP
KIROVOBAD	20.24	281.6	4	36	1	8	21	6			
GORIS	20.38	278.3	4	37	1					8	26 SS
BOMBAY	20.60	179.9	4	40	1	8	16	-6			
POONA	20.99	177.2	4	41	-2	8	30	0		12	31 PCS
SHILLONG	21.24	125.4	4	41A	-4	8	32	-2		5	3 PP
TIFLIS	21.31	284.8	4	48A	2					8	47 PCP
CALCUTTA	21.55	137.4								8	35
EREVAN	21.68	280.7	4	52	2					5	29 PPP
BAKURIANA	22.26	285.0	4	59	4						
PIATIGORSK	22.53	291.1	4	59	1					9	5
VIZIANAGRAM	23.29	153.6	4	48	-17					9	34
LANCHOW	24.72	88.3	5	20	1						
SOTCHI	24.96	290.0	5	24	2					6	18 PPP
IRKUTSK	25.13	49.2	5	29A	6						
ULAN-BATOR	25.85	59.9	5	32	2						
KABANSK	26.44	50.6	5	35	-1						
CHENGTU	26.94	99.6	5	43	3	10	21	8			
MADRAS	27.26	164.1	5	41	-2	10	18	0		6	19 PP
MOSCOW	28.27	316.6	5	50	-2					10	41
SIMFEROPOL	28.92	293.5	5	59A	1	10	52	7			
KUNMING	28.96	110.8	6	5	7						
SIAN	29.25	89.0	6	2	1						
KODAIKANAL	29.51	170.6								12	42
KSARA	30.00	270.7	6	10	2					7	4 PP
JERUSALEM	31.31	267.4	6	22	3						
KISHINEV	32.50	297.9	6	31	1	11	45	4		7	42 PP
ISTANBUL KA.	33.11	286.9	6	36A	1					8	1 PP
COLOMBO	33.15	167.1								13	21
ISTANBUL UN.	33.17	286.9	6	38	3						
PULKOVO	33.30	321.5	6	39	2	11	56	2			
HELWAN	35.16	267.0	6	54	2					7	36
APATITY	35.38	335.1	6	56	2	12	34	8			
LWOW	35.56	303.1	6	58	2	12	35	6		8	30 PPP
KAJAANI	35.92	328.0	7	0	1						
NURMIJARVI	36.23	321.4	7	3	1	12	55	16		8	36 PP
WARSAW	37.39	307.3	7	24	13					15	42
SODANKYLA	37.60	332.8	7	15	2					8	48 PP
ATHENS	37.91	283.7	7	18K	2						
CANTON	37.98	103.4	7	21	5						
KRAKOW	38.19	303.8	7	19K	1						
BELGRADE	38.57	295.4	7	23K	2					8	59 PP
UMEA	39.00	326.0	7	27	2						
HONG KONG	39.06	103.7	7	33A	8						
RACIBORZ	39.30	304.0								7	54
UPPSALA	39.59	319.5	7	30	0	13	29	-1		8	59 PP
ZO-SE	39.97	86.8	7	40	7						
KIRUNA	39.99	332.1	7	34	1					16	20 SS
YAKUTSK	40.68	37.3				13	44	-2			
VIENNA-H.	40.74	301.4								9	28 PP
TROMSOE	41.07	334.5	7	43	1				7 54	9	18 PP
KHEYS	41.54	356.4	7	48	2	14	5	6			
PRUHONICE	41.65	304.3	7	49A	2					9	40 PCP
PRAGUE	41.71	304.5								9	36 PCP
COPENHAGEN	42.31	313.0	7	54A	2	14	21	11	8 6	9	41 PP
TIKSI	42.40	23.0	7	53	0						
LJUBLJANA	42.40	298.5	7	55A	2				8 6	9	42 PP
KASPERSKE H.	42.41	303.2	7	55A	2					9	45 PP
COLLMBERG	42.43	306.5	7	55A	2	14	12	0		9	36 PP
GOTEBORG	42.46	316.0	7	54A	1					9	41
SKALSTUGAN	42.47	324.8	7	55	2						
MEDAN	42.83	140.1	7	59	3						
TRIESTE	43.02	298.2	8	0	2	14	27	6	8 11	9	49 PP
HALLE	43.06	306.9	8	0	2	14	27	6			
JENA	43.37	306.1	8	3	2	14	24	-2		9	26 PP
MESSINA	43.92	287.2	8	6A	1					8	43
PADOVA	44.36	298.3	8	9	0	14	54	14			
ROME	44.93	293.3	8	18	5	15	3	14			
FLORENCE X.	45.23	296.2	8	17	1	15	4	11			
STUTTGART	45.26	303.5	8	18	2					10	25
TUBINGEN	45.45	303.2	8	19	2						
HEIDELBERG	45.48	304.5	8	20	2						
MUNSTER	45.63	308.2	8	21	2						
BERGEN	45.76	320.2	8	21	1						

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
BENSBERG	46.11	306.9	8 24A	1			10 0 PP	
STRASBOURG	46.28	303.6	8 26	2			10 10	
BESANCON	47.79	302.3	8 37	1				
MONACO	47.88	297.3	8 42	5				
PARIS	49.58	305.2	8 52	2				
GARCHY	49.67	303.1	8 51	1			9 22	
CLERMONT-FD.	50.12	301.2	8 56	2				
DURHAM	50.37	313.6	8 56K	0				
KEW	50.54	309.2	8 58	1				
MATUSIRO	50.58	71.5	8 55	-2			9 48	
NORD	51.05	349.1	9 1A	0				
MAGADAN	51.12	39.8	9 9	8				
FOLINIERE	51.46	305.9	9 5	1				
BAGNERES	53.07	299.0	9 16	0				
TOLEDO	57.27	297.0	9 48K	1				
BANGUI	60.04	248.9	10 32	26				
RESOLUTE	65.74	356.4	10 43	0				
BROKEN HILL	67.76	227.0	10 58A	2				
COLLEGE	71.15	17.1	11 16	-1				
BULAWAYO	72.32	223.4	11 23A	-1				
SHAWINIGAN	88.90	337.0	12 54K	2				
VICTORIA	91.12	10.7	13 4	1				
SEATTLE	92.13	10.1	13 4	-3				
EUREKA	100.92	6.9	13 50	3				
WICHITA MTS.	105.65	352.6					18 19 PP	
SOUTH POLE	129.38	180.0	19 6	1				
BYRD STATION	139.15	176.7	19 10	-13				
ARGENTINE I.	144.46	209.6	19 32	-1				

APRIL 8 4.H 22.M 7.S EPICENTRE -2.11 -79.11 DEPTH= 0.KM

A= 0.18884 B=-0.98132 C=-0.03663 D=-0.9820 E=-0.1890
G=-0.0069 H= 0.0360 K=-0.9993 HT= 7.2

SE= 1.41

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CHINCHINA	7.85	26.3	2 11	12				3 43
BOGOTA	8.37	37.0	2 8K	2	4 11	29		
FUQUENE	9.25	35.5	2 19K	1	4 34	30		
BALBOA HTS.	11.01	357.7	2 19	-23	4 51	4		
AREQUIPA	16.11	152.7	3 52	2				
CARACAS	17.43	43.8	4 7A	0	7 34	14		
LA PAZ	17.92	143.6	4 9	-4	7 44	13		
TRINIDAD	21.71	53.9	4 55	0				
ANTOFAGASTA	23.05	159.3	5 10	2				
SAN JUAN	24.05	31.6	5 18	0				5 55 PP
FAYETTEVILLE	40.53	341.1	7 41A	-2				
WICHITA MTS.	40.95	335.2	7 46	0				9 47 PCP
PALISADES	43.18	5.8			14 35	3		
TUCSON TELE.	45.50	321.5	8 24	1				
TUCSON	45.51	321.3	8 25	2				
OTTAWA	47.40	3.2	8 36	-2				
BREBEUF	47.66	5.2	8 39	-1				
SHAWINIGAN	48.78	5.8	8 49	0				
GLEN CANYON	49.22	325.4	8 52	0				
LARAMIE	49.47	333.8	8 54	0				
RAPID CITY	50.80	337.7	9 4	0				
FLAMING GRGE	50.95	330.5	9 5	-1				10 44 PCP
PASADENA	51.46	318.1	9 11	1				
PORT STANLEY	52.53	163.5	9 17	-1				
EUREKA	53.44	324.7	9 24	0				
LICK	55.61	319.2	9 42K	2				
RENO	55.76	322.4	9 43	2				
MINERAL	57.35	322.2	9 53	0				
SHASTA	58.04	322.1	9 57	0				
CORVALLIS	60.89	325.2	10 19	2				
MBOUR	63.67	72.9	10 35	-1				22 57 SS
RESOLUTE	77.27	355.7	11 55	-3				
BYRD STATION	80.28	186.6	12 14	-1				
COLLEGE	83.00	336.4	12 27	-2				
BAGNERES	83.59	46.4	12 30	-2				
FOLINIERE	84.09	40.7	12 35	1				
KEW	84.67	38.0	12 37	0				
PARIS	86.04	41.0	12 45	1				

CLERMONT-FD.	86.08	44.0	12	46	2						
SOUTH POLE	87.90	180.0	12	54	1						
NORD	88.18	7.5	12	52	-2						
BENSBERG	89.27	39.1	12	59	-1						
STUTTGART	90.51	41.4	13	5	0						
SCOTT BASE	92.91	191.2	13	17	1						
COLLMBERG	92.96	38.9	13	18K	1						
PRUHONICE	93.96	40.2	13	22K	1					14	9
CHATRA	152.12	27.0	19	59K	8						

APRIL 8 4.H 47.M 6.S EPICENTRE -2.12 -79.18 DEPTH= 47.KM

A= 0.18765 B=-0.98155 C=-0.03679 D=-0.9822 E=-0.1878
G=-0.0069 H= 0.0361 K=-0.9993 HT= 7.2

DEPTH OF FOCUS= 0.002R

SE= 2.18

	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	
QUITO	2.01	19.7	0	34	1								
CHINCHINA	7.89	26.8	1	56	1	3	32	8					
BOGOTA	8.42	37.3	2	2	0	3	48	11			4	3	SS
FUQUENE	9.30	35.8	2	14K	-1						4	23	SS
HUANCAYO	10.57	159.0	2	30	-2						9	20	
BALBOA HTS.	11.02	358.0	1	36	-62	4	35	-6					
AREQUIPA	16.13	152.5	3	46	1								
CARACAS	17.49	44.0	4	1A	-1	7	22	9					
LA PAZ	17.95	143.4	4	7	-1	7	33	9					
TRINIDAD	21.77	54.0	4	50	0								
ANTOFAGASTA	23.07	159.1	5	5	3								
SAN JUAN	24.09	31.7	5	11	-1						5	47	PP
COLUMBIA	35.97	357.4	6	59	1								
CHAPEL HILL	37.84	0.2	7	15	1								
FAYETTEVILLE	40.52	341.2	7	36A	0								
WICHITA MTS.	40.93	335.3	7	41A	1	13	53	5			9	36	PP
LAWRENCE	43.49	341.7	8	1	0								
TUCSON TELE.	45.46	321.6	8	19	2								
TUCSON	45.47	321.4	8	19	2								
OTTAWA	47.41	3.3	8	31	-1								
BREBEUF	47.67	5.3	8	34	0								
HALIFAX	48.57	14.8	8	41A	0								
SHAWINIGAN	48.79	5.9	8	42A	-1								
GLEN CANYON	49.18	325.4	8	34	-12								
LARAMIE	49.45	333.8	8	49	1								
RAPID CITY	50.78	337.7	8	59	1								
FLAMING GRGE	50.93	330.6	9	0	1	16	15	4			11	5	PP
PASADENA	51.42	318.1	9	6	3	16	24	7					
SALT LAKE C.	52.05	328.7	9	10	3								
PORT STANLEY	52.54	163.4	9	10	-1								
EUREKA	53.41	324.7	9	19	1								
BUTTE	56.29	332.5	9	26	-12								
MBOUR	63.74	72.9	10	29	0								
COIMBRA	76.78	48.0	11	48A	-1								
RESOLUTE	77.27	355.8	11	50	-1								
TOLEDO	79.99	49.0	12	7A	1								
BYRD STATION	80.27	186.6	12	9	1								
COLLEGE	82.98	336.4	12	22	0						15	34	PP
BAGNERES	83.65	46.4	12	25	0								
FOLINIERE	84.15	40.7	12	28	0								
KEW	84.72	38.0	12	30	0								
PARIS	86.09	41.0	12	39	2								
CLERMONT-FD.	86.13	44.0	12	39	2								
GARCHY	86.28	42.5	12	37	-1						16	1	PP
SOUTH POLE	87.89	180.0	12	48	2								
NORD	88.20	7.5	12	47	0								
BENSBERG	89.33	39.1	12	54A	1								
STUTTGART	90.56	41.4	13	2	3								
JENA	92.11	39.3	13	6	0								
GOTEBORG	92.40	32.5	13	7	0								
SCOTT BASE	92.89	191.2	13	7	-2								
COLLMBERG	93.01	38.9	13	6	-4								
KASPERSKE H.	93.40	41.1	13	12	0								
PRUHONICE	94.02	40.2	13	15	1						17	4	
KIRUNA	95.59	22.1	13	22	0								

SHILLONG 155.14 19.5 19 58 10

APRIL 8 9.H 3.M 48.S EPICENTRE -2.05 -79.00 DEPTH= 0.KM

A= 0.19075 B=-0.98100 C=-0.03547 D=-0.9816 E=-0.1909
G=-0.0068 H= 0.0348 K=-0.9994 HT= 7.2

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHINCHINA	7.74	25.8	2	2	6	3	40	14			2	24	PP
BOGOTA	8.25	36.6	2	5K	2	3	53	15			2	19	PP
FUQUENE	9.13	35.1	2	7A	-9	4	31	31			2	24	PP
HUANCAYO	10.58	160.1	2	35	-1	4	37	1					
BALBOA HTS.	10.95	357.1	2	41	0	4	47	2					
AREQUIPA	16.12	153.2	3	51	2								
CARACAS	17.31	43.7	4	6K	2	7	34	18					
LA PAZ	17.91	144.0	4	12	0				4	23			
TRINIDAD	21.58	53.9	4	54	1								
ANTOFAGASTA	23.07	159.6	5	8	0								
SAN JUAN	23.93	31.4	5	16	0								
COLUMBIA	35.90	357.1	7	3	0								
CHAPEL HILL	37.77	359.9	7	18	-1								
FAYETTEVILLE	40.50	340.9	7	41A	-1								
WICHITA MTS.	40.94	335.1	7	46	1	13	57	-1			9	46	PP
PALISADES	43.10	5.6	8	2	-1	14	22	-8			10	14	PPP
LAWRENCE	43.47	341.5	8	5	-1								
WESTON	44.76	8.1	8	18K	1								
TUCSON TELE.	45.52	321.4	8	24	1								
TUCSON	45.52	321.2	8	24	1								
OTTAWA	47.33	3.1	8	36	-1								
BREBEUF	47.58	5.1	8	38	-1								
SHAWINIGAN	48.70	5.7	8	47	-1								
GLEN CANYON	49.22	325.3	8	50	-2						9	23	
BOULDER CITY	50.47	322.0	9	0	-1								
RAPID CITY	50.78	337.6	9	3	-1								
FLAMING GRGE	50.95	330.4	9	4	-1				9	14	10	45	PP
PASADENA	51.49	318.0	9	9	0	16	30	1					
PORT STANLEY	52.56	163.6	9	15	-2								
EUREKA	53.45	324.6	9	24	0						27	16	PKKP
VINEYARD	55.13	318.7	9	37	1								
LICK	55.63	319.1	9	40K	0								
RENO	55.78	322.3	9	43	2								
BUTTE	56.30	332.4	9	43	-1								
MINERAL	57.36	322.1	9	51A	-1								
SHASTA	58.06	322.0	9	55	-2								
CORVALLIS	60.90	325.2	10	18	2								
SEATTLE	62.25	328.4	10	34	8								
VICTORIA	63.38	328.6	10	34	1								
MBOUR	63.54	72.9	10	32	-2								
SERRA PILAR	76.70	47.0	11	52A	-2								
RESOLUTE	77.21	355.7	11	54	-3								
TOLEDO	79.80	49.0	12	11	0								
BYRD STATION	80.36	186.6	12	14	0								
COLLEGE	82.99	336.3	12	26	-2						15	40	PP
FOLINIERE	83.97	40.7	12	33	0								
KEW	84.54	38.0	12	36	0								
PARIS	85.92	41.0	12	44	1								
CLERMONT-FD.	85.95	44.0	12	44	1								
GARCHY	86.10	42.5	12	42	-2						13	8	
SOUTH POLE	87.97	180.0	12	53	0								
NORD	88.10	7.5	12	52	-1								
BENSBERG	89.15	39.1	12	59K	1								
STUTTGART	90.38	41.4	13	4	0								
COLLMBERG	92.84	38.9	13	17K	2								
SCOTT BASE	93.00	191.2	13	17	1								
TRIESTE	93.37	44.6	13	17	-1								
PRUHONICE	93.84	40.2	13	21	1								
LJUBLJANA	93.91	44.2	13	21K	1								
KSARA	111.69	54.4									28	51	PS

APRIL 8 17.H 59.M 47.S EPICENTRE -38.15 -72.80 DEPTH= 37.KM

A= 0.23310 B=-0.75312 C=-0.61521 D=-0.9553 E=-0.2957
G=-0.1819 H= 0.5877 K=-0.7884 HT= -1.0

DEPTH OF FOCUS= 0.001R

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	
CONCEPCION	1.45	24.6	0	25	0	0	40	-3					
SANTA LUCIA	5.02	21.1	1	15	0								
SANTIAGO	5.03	21.0	1	15	-1								
ANTOFAGASTA	14.55	8.7	3	27	1	6	46	39					
PORT STANLEY	17.13	147.0	3	58	-1								
AREQUIPA	21.64	3.4	4	51	2								
LA PAZ	21.96	12.1	4	55	2	9	1	13					
HUANCAYO	26.09	354.4	5	34	1	10	33	34					
ARGENTINE I.	27.59	172.3	5	44	-2	10	52	28					
BOGOTA	42.57	358.1	7	56	2	14	18	4					
CHINCHINA	42.98	355.9	7	54K	-4	14	20	0			17	38	SS
FUQUENE	43.41	358.7	8	2A	1								
BYRD STATION	45.57	190.2	8	17	-2								
BALBOA HTS.	47.29	350.9	8	30	-2	14	24	-58					
CARACAS	48.71	7.7	8	41A	-2	15	49	7					
GALERAZAMBA	48.73	356.8	8	47	4	15	54	12			18	55	SS
TRINIDAD	49.71	14.8	8	51	0								
SOUTH POLE	52.03	180.0	9	7	-2	16	39	11					
ST. VINCENT	52.18	14.3	9	10	0								
BARBADOS	52.48	16.3									10	14	
FORT FRANCE	53.73	14.0	9	21	0								
SAN JUAN	56.58	7.6	9	39	-3								
COMITAN	57.08	337.7				17	41	5					
SCOTT BASE	58.89	192.3	9	56	-2	18	5	5			22	9	SS
MERIDA	60.88	342.0				18	28	3			12	31	PP
VERA CRUZ	61.12	334.7	10	33	20	18	29	1			11	37	
CAPE HALLETT	61.55	198.1	10	14	-2	18	35	1			12	50	PP
TACUBAYA	62.39	331.7	10	30K	8	18	48	4			14	20	PPP
MAWSON	69.39	163.4	11	4A	-3								
HERMANUS	71.15	119.2	11	17	0	20	37	7					
COLUMBIA	72.19	352.8	11	22	-1								
CHIHUAHUA	73.37	329.8									19	13	
MBOUR	73.90	56.6	11	34	1								
CHAPEL HILL	73.93	354.7	11	32	-2								
MIRNY	75.05	174.2	11	37	-3	21	11	-3					
WILKES	75.80	181.4	11	42K	-2	21	17	-6			26	13	SS
WINDHOEK	76.35	108.0	11	48K	0								
WICHITA MTS.	76.35	338.4	11	46A	-2	21	27	-2			29	23	
FAYETTEVILLE	76.48	342.3	11	47A	-1	21	27	-3	12	3	11	55	PCP
GRAHAMSTOWN	76.77	121.9	11	49A	-1								
WASHINGTON	76.78	356.6	11	49	-1				12	37			
MORGANTOWN	77.68	354.4	11	54A	-1								
KIMBERLEY	78.29	117.3	11	58K	0								
TUCSON	78.49	327.8	11	59	0	21	59	7	12	8	15	2	PP
TUCSON TELE.	78.52	327.9	11	59	-1								
FORDHAM	78.63	359.2	12	7	7								
PENNSYLVANIA	78.71	356.1	12	0	-1	21	56	2					
PALISADES	78.79	359.1	11	59A	-2	21	59	4			14	47	PP
GEBBIES PASS	79.28	222.2	12	9	5								
LAWRENCE	79.47	342.4	12	2	-3								
ROXBURGH	79.76	219.2	12	11	5	22	5	0			22	15	
WELLINGTON	79.77	225.1	12	11A	5						22	5	
WESTON	80.17	1.1	12	9	0	22	15	6	12	23	15	11	PP
CHATEAU	80.73	227.0	12	10	-1						12	45	
TONGARIRO	80.73	227.0	12	10	-2								
KAIMATA	80.75	222.4	12	28	16								
LOME	81.34	75.2	12	17	2	22	43	22					
LUANDA	81.49	94.5	12	18A	3								
KARAPIRO	81.58	228.0	12	14	-2								
PIETERMZBURG	81.62	121.0	12	17K	1								
PRETORIA	82.51	116.8	12	24	3								
HALIFAX	82.81	6.6	12	22A	0								
GLEN CANYON	82.89	329.6	12	22	-1	22	42	5			14	46	PP
OTTAWA	83.22	357.9	12	23A	-1								
PASADENA	83.36	323.5	12	23	-2	22	47	5			27	49	SS
BOULDER CITY	83.39	326.9	12	25	0								
SHAWINIGAN	84.32	0.0	12	30	0								
LARAMIE	84.56	335.8	12	30	-1								
LCO. MARQUES	85.44	119.5	12	37	2	23	13	11					
FLAMING GRGE	85.52	333.1	12	34	-2	22	55	-8					

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

FRESNO	86.27	324.0	12	39	-1						
SALT LAKE C.	86.28	331.3	12	40	0						
BULAWAYO	86.33	112.6	12	40A	0						
RAPID CITY	86.35	338.6	12	39	-1						
EUREKA	86.82	328.0	12	42	0				12	52	30 36 PKKP
KERGUELEN I.	86.88	156.7				23	23	7			24 53 PS
VINEYARD	86.99	322.9	12	39	-4						
LICK	87.59	323.1	12	46A	0						
CONCORD	88.30	323.2	12	49	0						
BERKELEY	88.31	323.0	12	50A	1	23	38	8			29 19 SS
RENO	88.53	325.5	12	51A	1						
BROKEN HILL	89.81	108.2	12	54A	-3						
MINERAL	89.99	324.9	12	57K	0						
BOZEMAN	90.26	334.3	12	57	-2						
SHASTA	90.63	324.6	12	59	-1						
BUTTE	91.09	333.5	13	1	-2						
FORT NELSON	91.44	208.3	13	12A	8	23	57	-1			
MOORLANDS	91.92	208.4	13	12K	6						
HUNGRY HORSE	93.60	333.9	13	19	5						
BANGUI	93.79	87.4	13	15	0	23	47	-32			
RIVERVIEW	97.56	215.6	13	36	4	24	6	1			26 21 PS
COIMBRA	97.72	44.2	13	33	0						
LWIRO	97.73	99.0	13	35	2	24	19	13			
GRANADA	98.43	49.0				24	30	20			25 30 S
ALMERIA	98.89	49.9									17 37 PP
TOLEDO	99.96	46.7	13	41	-2	24	23	6			17 55 PP
ALICANTE	101.06	49.8	13	54	6	24	33	10			27 0 PS
TORTOSA	103.22	48.3				24	36	3			
BAGNERES	104.43	46.3									18 23 PP
CLERMONT-FD.	107.77	45.5	18	50	777						
GARCHY	108.64	44.2									18 19 PP
MONACO	109.08	49.1									18 58 PP
PARIS	109.28	42.6				25	13	-13			18 59 PP
KEW	109.36	39.2									18 56 PP
BESANCON	110.23	45.4									18 29
DURHAM	110.75	35.9									19 7 PP
PAVIA	110.92	48.6									19 13 PP
ROME	111.16	52.9									19 13 PP
MESSINA	111.16	57.6									19 9
BASLE	111.29	45.8									19 18 PP
PRATO	111.37	50.5									19 13 PP
FLORENCE X.	111.41	50.7									19 15 PP
CHARTERS TS.	111.42	219.5	19	16	45						28 51
ABERDEEN	111.96	33.7									26 26 SKKS
STRASBOURG	111.98	44.9				25	15	4			19 16 PP
CHUR	112.04	47.2									19 19 PP
DE BILT	112.52	40.8									19 21 PP
PADOVA	112.65	49.5									19 22 PP
STUTTGART	112.92	45.4	18	34	0	25	18	4			19 22 PP
BENSBERG	112.94	42.6									19 19 PP
TARANTO	113.47	56.3									20 5 PP
RESOLUTE	113.51	353.7	14	41	-234	27	6	109			18 13
MUNSTER	113.72	41.8									19 22
TRIESTE	113.90	50.0									19 26 PP
LJUBLJANA	114.57	49.9									19 32 PP
JENA	115.31	44.2	18	37	-1	25	25	1			19 37 PP
COLLMBERG	116.27	44.3	18	40	0	25	47	20			19 54 PP
PRUHONICE	116.51	46.1	18	42	1						19 50 PP
BELGRADE	117.65	53.3	19	59A	76	25	18	-14			30 4
COLLEGE	117.99	332.2	18	42	-1						29 0 PKKP
COPENHAGEN	118.04	39.8				25	41	7			19 56 PP
HELWAN	118.17	72.8	18	44	0						20 1 PP
SOFIA	118.54	56.5	18	48	4						22 37 *PPKS
PORT MORESBY	119.77	226.9				25	47	7			30 7 PS
RABAUL	120.76	235.1	18	48	-1						20 8
BUCHAREST	121.10	55.8									20 21 PP
WARSAW	121.16	45.8									20 23 PP
ISTANBUL UN.	121.62	60.4	18	50	0						20 25 PP
ISTANBUL KA.	121.69	60.4	18	48	-3						19 59 PP
LWOW	121.97	49.3	18	52	1						
NORD	122.95	8.4	18	52	-1						
KSARA	123.44	70.9	18	56K	2						20 36 PP
UMEA	124.75	32.6	18	53	-4						
NURMIJARVI	125.82	37.2	18	58	-1						
KIRUNA	125.88	27.9	18	58	-1						37 52 SS
SIMFEROPOL	126.59	57.8	19	0	0	26	0	-1			20 55 PP
SODANKYLA	128.12	29.0	19	2	-1						
PULKOVO	128.40	39.0	19	0	-4						21 11 PP

APATITY	130.74	29.1	19	7	-1					21	25 PP
MOSCOW	131.53	45.1	19	11	2					21	27 PP
TIFLIS	132.95	65.0	19	14	2					22	44 PKS
GORIS	133.37	68.4	19	8	-5	26	13	-5		21	37 PP
KHEYS	133.75	9.9	19	14	0						
SHIRAZ	134.39	83.7	19	16	1				19 29	21	48 PP
LEMBANG	135.25	180.6	19	18K	2					22	2
TEHERAN	135.90	75.2	19	19	1					22	1 PP
GUAM	138.63	243.8	18	35	-48						
COLOMBO	140.25	134.5	19	19	-7					40	52
ASHKABAD	141.90	74.7	19	26	-3					22	31 PP
KARACHI	143.55	99.5	19	31A	0				19 42	22	53
SVERDLOVSK	144.28	43.1	19	31	-2					29	29 SKKS
BOMBAY	144.50	113.0	19	33	0					22	51 PP
TIKSI	144.66	348.3	19	30	-3						
MEDAN	144.72	165.2	19	33	0					21	43
POONA	145.00	114.6	19	34A	0						
MAGADAN	145.10	322.1	19	33	-1						
MADRAS	145.29	129.0	19	36	2					29	46
QUETTA	145.97	91.3	19	38A	2				19 57	23	13 PP
HYDERABAD	147.46	121.4	19	41A	3					29	59
DUZHANBE	150.01	77.1	19	45	3						
PORT BLAIR	150.62	150.1	19	1	-42						
TASHKENT	150.82	71.7	19	44	1					23	29 PP
WARSAK DAM	151.00	87.2	19	44A	1						
LAHORE	152.33	93.8	19	46	1						
YAKUTSK	152.37	337.1	19	43	-3						
Y.-SAKHLINSK	152.58	300.3	19	45	-1						
UGLEGORSK	152.72	304.9	19	51	5					23	43 PKS
TUKUBASAN	153.79	276.0	20	31	44					44	10 SS
DEHRA DUN	154.74	99.3	20	1	12					24	5
FRUNSE	154.88	68.9	19	53	4					20	15 PKP2
MATUSIRO	155.35	275.9	19	41	-9					23	59 PP
ALMATA	156.58	67.8	19	53	2					24	2 PP
BOKARO	156.83	121.9	19	51	-1						
SEMIPALATNSK	157.29	48.7	19	52	0					24	2 PP
CALCUTTA	157.56	128.6	20	27	34					24	12
CHATRA	159.73	118.0	19	55A	0					24	12 PP
SHILLONG	161.95	129.6	19	58A	1					24	23 PP
HONG KONG	163.10	202.7	20	58	60					24	39 PP
CANTON	164.09	201.1	20	1	2					24	36 PP
LHASA	164.14	117.6	20	2	2					24	41 PP
CHANGCHUN	165.20	298.2	19	59	-2					24	48 PP
IRKUTSK	165.74	7.2	19	59	-2					24	49 PP
KUNMING	166.47	162.5	20	2A	0					24	48 PP
ZO-SE	166.51	242.7	20	1	-1					24	56 PP
NANKING	168.74	240.8	20	2	-1					25	11 PP
ULAN-BATOR	170.24	1.2	20	4	0					25	11 PP
CHENGTU	172.07	159.7	20	6A	1					25	16 PP
PEKING	172.77	287.8	20	5A	0					25	26 PP
SIAN	175.86	200.2	20	7A	1					25	41 PP
LANCHOW	176.59	126.9	20	8	1						

APRIL 8 19.H 18.M 54.S EPICENTRE 37.93 140.71 DEPTH= 129.KM

A=-0.61203 B= 0.50068 C= 0.61216 D= 0.6332 E= 0.7740
G=-0.4738 H= 0.3876 K=-0.7907 HT= -0.9

DEPTH OF FOCUS= 0.015R

SE= 2.48

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HUKUSIMA	0.27	226.7	0	18K	-1	0	30	-3				
SENDAI	0.37	23.4	0	18K	-1	0	32	-2				
SHIRAKAWA	0.90	206.0	0	22K	0	0	38	-2				
SAKATA	1.19	324.5	0	25K	0	0	45	1				
MIZUSAWA	1.24	15.1	0	26	1	0	44	-1				
NIIGATA	1.32	269.9	0	26	0	0	46	-1				
UTUNOMIYA	1.54	206.3	0	29	0	0	49	-2				
MITO	1.56	187.3	0	28K	-1	0	49	-3				
KAKIOKA	1.75	194.3	0	31A	0	0	53	-2				
TUKUBASAN	1.78	196.2	0	30	-2	0	53	-3				
MORIOKA	1.80	11.3	0	31K	-1	0	55	-1				
AKITA	1.85	345.1	0	33K	1	0	57	0				

AIKAWA	1.95	273.3	0	32A	-2	0	55	-4						
MIYAKO	1.98	29.4	0	33	-1	0	57	-3						
MAEBASI	2.02	221.1	0	35A	1	1	1	0						
KUMAGAYA	2.08	211.4	0	35	0	1	0	-2						
TAKADA	2.13	247.8	0	36A	0	1	1	-2						
TYOSI	2.21	177.1	0	36	-1	1	3	-2						
HONGO	2.34	199.1	0	40	1								1	6
TITIBU	2.35	214.4	0	37	-2	1	6	-2						
OIWAKE	2.36	227.9	0	39	0	1	8	0						
TOKYO C.M.O.	2.38	199.3	0	39	0	1	7	-2						
MATUSIRO	2.43	235.9	0	39A	-1	1	9	-1						
YOKOHAMA	2.64	199.2	0	48	6	1	11	-4						
HATINOHE	2.67	13.5	0	41	-2	1	9	-7						
MATUMOTO	2.76	233.4	0	43A	-1	1	14	-4						
KOHU	2.84	218.1	0	46	1	1	19	-1						
AOMORI	2.88	1.0	0	44	-2	1	19	-2						
HUNATU	2.89	213.3	0	46	0	1	52	31						
TOYAMA	3.06	247.4	0	46	-2	1	30	5						
MERA	3.09	193.6	0	52	4									
MISIMA	3.15	207.4	0	47	-2	1	24	-3						
AJIRO	3.16	204.8	0	47	-2	1	23	-4						
TAKAYAMA	3.29	238.3	0	50	-1									
OSIMA	3.34	199.2	1	0	8	1	29	-2						
IIDA	3.34	224.8	0	50	-2	1	28	-3						
SHIZUOKA	3.50	212.9	0	56	2	1	32	-3						
KANAZAWA	3.53	247.9	0	54	0									
HAKODATE	3.87	0.5	0	57	-2	1	31	-13						
OMAESAKI	3.89	212.0	0	57	-2									
HAMAMATU	4.02	217.9											1	23
HUKUI	4.05	243.7	1	1A	0									
GIHU	4.06	232.6	1	1	0	1	46	-2						
NAGOYA	4.09	228.7	1	1	-1	1	44	-5						
MORI	4.16	358.5											1	31
TSURUGA	4.37	240.0	1	5	0									
MURORAN	4.39	2.6											1	36
HIKONE	4.47	234.8	1	7	0	1	57	-1						
URAKAWA	4.50	20.0	0	56	-11	1	37	-22						
KAMEYAMA	4.60	229.3	1	7	-2	2	0	-2						
TOMAKOMAI	4.74	7.8				2	1	-5						
HIROO	4.78	23.9	1	8	-3	2	0	-6						
KYOTO	4.96	235.6	1	12	-1	2	6	-4						
NARA	5.11	232.0											2	34
ABUYAMA	5.15	235.2	1	14A	-2									
SAPPORO	5.15	5.2	1	18	2	1	50	-25						
OSAKA	5.32	233.5	1	18	0									
OBIHIRO	5.33	20.1	1	16	-2	2	13	-6						
KUSIRO	5.77	28.0	1	21	-3	2	21	-9						
TOTTORI	5.78	247.2	1	23	-1									
TAKAMATU	6.49	238.2	1	33	-1									
NEMURO	6.54	32.9	1	29	-6	2	40	-8						
ABASHIRI	6.65	22.8	1	43	7									
VLADIVOSTOK	8.48	310.4	1	59	-2									
MAGADAN	22.58	13.4	4	46	-4									
YAKUTSK	25.06	347.7	5	17	4									
SHILLONG	42.88	267.9	7	42A	-5									
CHATRA	46.00	272.4	8	9	-3									
COLLEGE	48.63	32.6	8	31	-1								9	33 PCP
TASHKENT	53.68	297.6											11	57
WARSAK DAM	54.94	288.5	9	16	-3									
CHARTERS TS.	57.95	173.8	9	39	-2									
QUETTA	60.16	286.6	9	52	-4									
APATITY	61.64	335.4	10	32	26									
RESOLUTE	61.88	14.4	10	5K	-2								10	35
SODANKYLA	63.92	336.8	10	19	-2								10	48
KIRUNA	65.48	338.9	10	54	23									
KAJAANI	65.54	333.6	10	33	2								11	20
MOSCOW	66.20	323.0	11	3	27									
UMEA	68.24	335.7	10	42	-6									
CORVALLIS	68.33	49.9	10	52A	3									
NURMIJARVI	68.89	331.5	10	49	-3						11	35	11	20 PCP
ARCATA	69.84	53.6											11	48
SHASTA	71.01	53.0	11	6K	1									
SHIRAZ	71.16	293.2	11	3K	-3								11	35
MINERAL	71.70	52.9	11	9K	0									
UPPSALA	71.91	333.6	11	39	29									
RIVERVIEW	72.05	170.9	11	9	-2	20	8	-13						
ADELAIDE	72.56	181.7	11	13K	-1									
BERKELEY	72.68	55.4	11	15	0									

CANBERRA	73.29	172.9	11 18A	-1				
RENO	73.29	52.8	11 19	0				
LICK	73.39	55.5	11 19K	0				
FRESNO	74.92	55.1	11 28	0				
EUREKA	75.72	51.0	11 33	1		12 17		
PASADENA	77.55	56.4	11 42	-1				
FLAMING GRGE	78.72	46.6	11 48	-1				
RAPID CITY	79.99	41.1	11 56	0				
COLLMBERG	80.05	329.7	11 56	0				
PRUHONICE	80.43	328.1	12 31	33				
KARAPIRO	82.03	152.9	12 7K	0				
CHATEAU	83.16	153.5	12 12K	0				
LJUBLJANA	83.45	325.5	12 45K	31				
TUCSON	83.51	54.0	12 15	1		13 0		
STUTTGART	83.52	330.1	12 46	32				
GARCHY	87.11	332.7	13 3	31				
WICHITA MTS.	89.17	45.1	12 41	-1			13 49	
FAYETTEVILLE	90.53	41.5	12 48	0				
SHAWINIGAN	90.70	22.4	12 49	0				
OTTAWA	90.79	24.7	12 48A	-1				
BYRD STATION	128.77	167.3	17 51	-61			19 48	PP

APRIL 8 21.H 36.M 42.S EPICENTRE 14.67 145.29 DEPTH= 97.KM

A=-0.79557 B= 0.55114 C= 0.25162 D= 0.5695 E= 0.8220
G=-0.2068 H= 0.1433 K=-0.9678 HT= 5.8

DEPTH OF FOCUS= 0.010R

SE= 2.68

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
GUAM	1.31	203.9	0 23	-2	2 49	126		5 38	PCP
RABAUL	19.95	159.5	4 25	-2	8 12	11			
TUKUBASAN	21.96	348.7	4 46	-1			5 4	5 28	PPP
MATUSIRO	22.68	345.1	4 57K	3	8 51	0			
MANILA	23.42	273.1	5 9	8	7 53	-71			
BAGUIO CITY	23.86	277.5	5 7	1	10 0	49			
PORT MORESBY	23.98	175.5	5 5	-2	9 12	-1		5 44	PP
ZO-SE	27.49	310.6	5 41	2	10 17	6		6 18	*SP
HONIARA	28.01	147.9	5 51	7					
NANKING	29.74	310.2	6 1K	1	10 53	6		6 37	*SP
HONG KONG	30.43	289.1	6 7A	1	11 5	7		7 3	PP
VLADIVOSTOK	30.60	340.5	6 1	-6	10 55	-6		8 52	PCP
CANTON	31.31	290.4	6 15K	2				6 53	*SP
CHANGCHUN	33.70	333.5	6 34K	0	11 49	0		7 53	PP
CHARTERS TS.	34.55	178.4	6 39	-2	12 0	-2			
PEKING	35.86	320.4	6 54K	1	12 25	3	7 21	8 18	PP
SIAN	38.14	307.3	7 13K	1	13 2	5	7 42		
CHENGTU	41.02	300.0	7 37	2	13 42	2		9 15	PP
KUNMING	41.18	291.4	7 39K	2	13 49	6		9 19	PP
LANCHOW	42.67	307.7	7 52	3					
LEMBANG	43.03	242.8	7 51A	-1				13 15	
ULAN-BATOR	45.86	324.4	8 15	1					
MEDAN	47.22	261.2	8 26	1				8 58	
RIVERVIEW	48.55	173.5	8 40	4	15 23	-5		19 7	SS
IRKUTSK	49.64	328.1	8 44	0	15 47	3	9 8	10 38	PP
ADELAIDE	49.75	187.1	8 43	-2	15 44	-1		16 26	
CANBERRA	49.84	176.0	8 44	-1			9 18	10 4	PCP
SHILLONG	51.03	291.1	8 53K	-2	16 6	3		16 46	
CHITTAGONG	51.06	287.0	8 45	-10	15 50	-13	9 16	10 44	PP
AFIAMALU	51.10	121.8	9 4	9			9 26		
LHASA	51.97	296.2	9 4K	2	16 20	4	9 32	9 44	*SP
HONOLULU	54.02	74.2	9 19	2					
KIPAPA	54.09	74.0	9 14	-3					
CHATRA	55.27	292.6	9 26	0	17 4	4		17 47	
BOKARO	56.56	289.0	9 32	-3	17 59	42		11 45	PP
TARRALEAH	56.69	179.0	9 37	1				10 6	
HAWAII V.OB.	56.80	76.2	9 38	1					
FORT NELSON	57.34	178.2	9 39	-2	17 23	-5			
TIKSI	57.79	353.9	9 40	-4	17 30	-3			
KARAPIRO	59.53	152.5	9 53	-3				10 24	
TONGARIRO	60.57	153.3	10 2	-1					
CHATEAU	60.58	153.3	10 1	-2				10 31	
COBB RIVER	61.01	156.5	10 4	-2				10 34	
SEMIPALATNSK	62.95	319.3	10 18	-1	18 39	0			

MADRAS	63.04	277.3	10	18	-1	18	42	1			14	53
DEHRA DUN	63.24	296.8	10	24	3	18	49	6				
ROXBURGH	63.70	161.4				18	48	-1			20	8 SCS
ALMATA	64.35	311.1	10	29	1							
COLOMBO	64.55	270.7	10	31	2							
FRUNSE	66.04	310.6				19	23	6	11	8	20	6 *SS
LAHORE	66.38	298.3	10	41	0	19	18	-4				
COLLEGE	67.06	25.2	10	43	-2	19	25	-5	11	1	39	9 PKPPKP
POONA	68.17	284.3	10	51K	-1							
BOMBAY	69.08	284.9	10	57	-1	19	50	-4			20	23 PS
TASHKENT	70.01	308.9	11	4	0	20	7	2	11	36	20	52 SCS
DUZHANBE	70.54	306.1	11	9	2	20	11	0				
QUETTA	72.83	297.4	11	21K	1	20	38	1	11	48	14	1 PP
KARACHI	73.49	291.9	11	25	1				11	47		
SVERDLOVSK	74.95	325.5	11	32	-1	21	0	-1			21	48 PS
KHEYS	75.18	350.2	11	33	-1	20	59	-4				
ASHKABAD	78.76	306.4	11	55	1	21	48	6			14	59 PP
ALBERNI	78.97	41.9	11	56	1							
VICTORIA	80.01	42.4	12	1	0							
CORVALLIS	80.85	46.4	12	9A	4							
SEATTLE	80.92	43.2	12	1	-4							
SHASTA	82.32	50.0	12	14K	1							
MINERAL	82.99	50.3	12	17K	1	22	26	0				
BERKELEY	83.05	52.8	12	17K	1	22	30	4				
CONCORD	83.17	52.7	12	18	1							
RESOLUTE	83.42	13.4	12	17K	-1							
NORD	83.48	357.4	12	18	-1							
LICK	83.65	53.2	12	15K	-4							
VINEYARD	83.99	53.7	12	22	1							
RENO	84.52	50.7	12	25K	1							
APATITY	84.61	339.0	12	22K	-2	22	39	-3				
TEHERAN	84.67	305.4	12	24	0							
FRESNO	85.22	53.4	12	28	1							
SHIRAZ	85.23	299.2	12	26A	-1	22	35	-13			15	51 PP
HUNGRY HORSE	86.11	41.1	12	32	0	22	57	1	12	58		
SODANKYLA	87.00	340.1	12	34	-2							
PASADENA	87.18	55.6	12	37A	0	23	8	2			28	18 SS
EUREKA	87.39	50.0	12	39	1	22	58	-10	13	7	38	28 PKPPKP
MOSCOW	87.63	327.4	12	38	-1						16	8 PP
BUTTE	87.79	43.0	12	40	0				13	4		
TIFLIS	88.00	312.6	12	40	-1	23	19	5			16	16 PP
TROMSOE	88.01	343.6	12	39	-2							
KAJAANI	88.33	337.1	12	41	-1							
KIRUNA	88.69	341.8	12	42	-2						13	26
BOZEMAN	88.91	43.0	12	46	1							
BOULDER CITY	89.29	53.0	12	49	2							
PULKOVO	89.41	332.7	12	45	-2							
SALT LAKE C.	90.00	47.8	12	50	0							
UMEA	91.20	338.7	12	51	-5							
NURMIJARVI	91.45	334.8	12	54	-3							
GLEN CANYON	91.45	51.3	12	58	1	23	19	-26			14	40
FLAMING GRGE	91.69	47.0	13	8	10	23	20	-27				
SCOTT BASE	93.16	175.5	13	5	0							
TUCSON	93.62	55.5	13	8	1				13	36		
TUCSON TELE.	93.68	55.4	13	8	1							
SKALSTUGAN	94.03	340.9	13	8A	-1							
SIMFEROPOL	94.07	318.4	13	10	1	23	36	-32			17	6 PP
LARAMIE	94.22	45.5	13	10	1							
UPPSALA	94.66	336.4	13	10	-2							
RAPID CITY	94.67	42.3	13	12	0							
KSARA	97.37	307.6	13	25	1						17	20 PP
LWOW	97.68	326.0	13	26	1							
GOTEBORG	98.29	336.7	13	27	-1							
ISTANBUL KA.	99.13	316.6									16	39
ISTANBUL UN.	99.19	316.6									17	4 PP
TANANARIVE	101.80	253.4	13	45	1							
WICHITA MTS.	102.03	49.1	13	45	0	24	18	4			17	56 PP
COLLMBERG	102.30	331.6	13	44	-2						17	58 PP
PRUHONICE	102.45	329.9	13	47	0						17	54
HELWAN	102.51	305.6	13	45	-2						17	57
HALLE	102.64	332.2									18	3
JENA	103.20	332.0	13	48	-2						18	0 PP
KASPERSKE H.	103.49	329.7	13	51	0							
MUNSTER	104.18	334.6									18	16
FAYETTEVILLE	104.51	46.1									18	13
SOUTH POLE	104.57	180.0									18	12 PP
LJUBLJANA	105.05	326.9									18	12 PP
BENSBERG	105.12	334.1	17	42	777						18	20 PP

BYRD STATION	105.25	169.6	13	59	777						
DURHAM	105.34	340.8				25	42	73			
TRIESTE	105.71	326.9							18	22	PP
STUTTGART	105.78	331.5	14	1	777				18	26	PP
STRASBOURG	106.61	332.1							18	32	PP
BASLE	107.47	331.4							18	38	PP
BESANCON	108.41	332.1							18	46	PP
PARIS	108.71	335.0							18	46	PP
GARCHY	109.67	333.7							18	56	PP
CLERMONT-FD.	110.81	332.7							18	51	
PALISADES	113.77	31.5							28	49	PS
LWIRO	116.18	274.8							19	44	PP
BULAWAYO	119.63	255.0	18	40	1						
KIMBERLEY	123.49	245.1	18	47	1						
BANGUI	123.86	285.6	18	46	-1				20	54	
WINDHOEK	130.47	252.8							22	16	
SAN JUAN	134.87	44.3	18	59	-9				22	27	PP
CHINCHINA	135.00	67.3	19	4	-4				22	34	SKP
FUQUENE	136.45	65.5	19	14	3				22	37	SKP
BOGOTA	136.54	66.8	19	25	14	26	20	10	22	47	SKP
CARACAS	139.44	53.7	19	13	-3	26	18	3			
HUANCAYO	140.43	91.3	19	23	5						
TRINIDAD	143.50	47.9	19	21	-2						
ANTOFAGASTA	145.18	110.5	19	30	3				19	59	PP
MBOUR	146.22	327.9	19	31	3						
LA PAZ	147.78	97.7	19	34	3						

APRIL 9 7.H 23.M 16.S EPICENTRE 36.59-121.34 DEPTH= 0.KM

A=-0.41863 B=-0.68744 C= 0.59345 D=-0.8541 E= 0.5201
G=-0.3087 H=-0.5069 K=-0.8049 HT= -0.4

SE= 3.06

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
VINEYARD	0.17	348.8	0	2	-7							
LICK	0.79	342.4	0	14K	-4	0	24	-7				
BRANNER	1.07	321.3	0	19A	-3							
FRESNO	1.25	81.1	0	22A	-3							
BERKELEY	1.48	330.4	0	25K	-3	0	47	-1				
SAN FRANCSCO	1.48	323.4	0	24A	-4						0	46
KING RANCH	1.80	133.5	0	31	-2							
WOODY	2.19	113.1	0	36	-2	1	10	4				
ISABELLA	2.50	110.9	0	41	-2							
STA. BARBARA	2.52	147.7	0	42	-1							
TINEMAHA	2.54	78.4	0	42	-1							
FORT TEJON	2.63	130.0	0	43	-1							
HAIWEE	2.77	98.3	0	48	2							
UKIAH	2.94	330.2	0	44	-5							
CHINA LAKE	3.12	103.1	0	49	-2							
RENO	3.19	21.8	0	49K	-3	1	36	4				
PASADENA	3.55	132.3	0	57A	-1	1	50	9				
MINERAL	3.76	357.0	0	58K	-3	1	50	4				
SHASTA	4.19	349.0	1	4	-3							
EUREKA	5.13	54.1	1	19	-1							
BOULDER CITY	5.29	94.6	1	21	-1							
GLEN CANYON	7.83	84.3	1	58	0	3	45	17				
CORVALLIS	8.12	350.0	2	6	4						2	49
SALT LAKE C.	8.51	57.8	2	11	4	4	15	30				
TUCSON	9.70	113.4	2	22	-2	5	4	49				
TUCSON TELE.	9.74	112.7	2	23	-1	4	26	10				
FLAMING GRGE	10.29	61.4	2	33	1	5	27	58				
SEATTLE	11.08	356.6	2	56	13							
BUTTE	11.49	32.2	2	51	3	5	46	47				
BOZEMAN	11.93	37.3	2	56	2	6	14	65				
VICTORIA	12.02	353.3	2	56	0							
HUNGRY HORSE	12.93	22.3	3	11	3							
LARAMIE	13.14	64.2	3	11	0							
CHIHUAHUA	15.10	117.3	3	25	-11							
LUBBOCK	16.23	94.9	3	56	5							
MAZATLAN	18.58	131.9									10	22
WICHITA MTS.	18.58	89.0	4	20	0						7	54
DALLAS	20.51	93.2									5	40
LAWRENCE	20.74	75.5	4	44	-1							
FAYETTEVILLE	21.85	83.2	4	58	2	9	2	9			5	17 PP

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GUADALAJARA	22.33	130.3								15	6	
SITKA	22.51	339.8	5	6	3					7	28	
TACUBAYA	25.89	125.4								6	4	PP
VERA CRUZ	28.09	121.3				10	19	-21		9	13	
MERIDA	31.69	110.7								7	14	PP
COLLEGE	32.41	339.2	6	34	0				6 49	11	46	PPP
MORGANTOWN	32.51	71.8	6	34	0							
COLUMBIA	32.84	82.4	6	33	-4							
CHAPEL HILL	33.91	78.2	6	45	-2							
HAWAII V.OB.	34.26	249.3	6	55	5							
WASHINGTON	34.83	72.5	6	53	-2					17	57	
OTTAWA	35.14	61.0	6	55	-2							
PALISADES	36.87	68.3	7	39	27	12	55	-2		13	7	PCS
SHAWINIGAN	37.15	59.0	7	12	-2							
WESTON	38.58	65.6	7	10	-16	12	51	-32		8	24	PP
RESOLUTE	40.21	10.6	7	38	-2	13	53	5				
SAN JUAN	51.54	95.1	9	9	-1							
CHINCHINA	52.34	115.7	9	15	-1							
BOGOTA	53.71	114.7	9	32	6	17	7	8				
CARACAS	55.38	103.6	9	32	-6					11	56	PP
NORD	56.15	9.9	9	45	1							
SCORESBY SD.	59.02	22.8	10	5A	1							
TIKSI	61.55	340.2	10	20	-1							
KHEYS	63.04	0.1								10	50	
KIRUNA	72.00	14.3	11	28	1							
LA PAZ	72.85	126.5	11	29	-3							
ABERDEEN	73.53	29.7				21	14	8				
SODANKYLA	73.55	12.4	11	38	1							
APATITY	74.44	9.8	11	42	0							
DURHAM	75.39	31.3				21	33	6				
UMEA	75.40	16.6	11	46	-1							
MATUSIRO	76.45	305.4	11	54K	1							
KEW	78.25	33.2				21	55	-3		26	57	SS
NURMIJARVI	79.31	16.4	12	10K	1							
PARIS	81.43	33.7	12	22	2							
BENSBERG	81.79	30.0	12	25	3							
GARCHY	82.82	34.5	12	29	2							
JENA	83.53	27.8	12	33	2	22	44	-9		14	57	
COLLMBERG	83.76	26.9	12	33	1							
STRASBOURG	83.88	31.2	12	20	-13							
STUTTGART	84.36	30.3	12	37	2							
BAGNERES	84.51	38.9	12	39	3							
TOLEDO	84.55	43.4	12	43	7	22	34	-29		15	4	
PRUHONICE	85.41	26.8	12	43K	2							
ULAN-BATOR	85.50	329.8	12	44	3							
KASPERSKE H.	85.75	27.8	12	46	4							
MOSCOW	86.31	11.7	12	48	3							
LJUBLJANA	88.65	29.0								24	3	
BROKEN HILL	145.20	58.6	19	42	2							
MAWSON	148.85	183.1	19	52	6							

APRIL 9 9.H 21.M 31.S EPICENTRE -25.98 178.25 DEPTH= 628.KM

A=-0.89968 B= 0.02747 C=-0.43568 D= 0.0305 E= 0.9995
G= 0.4355 H=-0.0133 K=-0.9001 HT= 3.1

DEPTH OF FOCUS= 0.094R

SE= 2.23

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	7.79	1.3	1	59	0	3	39	6					
ONERAHI	10.31	197.9	2	25	3	4	26	10			4	46	
AUCKLAND	11.25	194.3	2	36	5	4	39	6					
NOUMEA	11.38	286.3	2	35A	2	4	46	11					
KARAPIRO	12.13	190.3	2	41A	1						10	0	PCS
PORT VILA	12.34	309.7	2	35A	-7	4	46	-6					
TUAI	12.82	183.9	2	45	-2	4	58	-2			13	37	SCS
CHATEAU	13.38	189.1	2	51	-1	5	14	4			10	2	PCS
TONGARIRO	13.38	189.2	2	51	-1	5	22	12			13	37	
AFIAMALU	15.22	39.8	3	9	-1	5	44	2					
WELLINGTON	15.53	189.8	3	10	-3	5	48	1			13	45	SCS
COBB RIVER	15.74	195.6	3	14	-1	5	50	-1			13	46	SCS
KAIMATA	17.43	197.1	3	31	1	6	19	0			4	22	
GEBBIES PASS	18.26	193.1	3	36	-2	6	32	-1			9	38	PCS
ROXBURGH	20.74	198.0									10	12	PCS

HONIARA	23.92	310.2	4 29	0							
RIVERVIEW	24.71	245.1	4 37K	1	8	17	0			14	21 SCS
CANBERRA	26.75	242.6	4 55K	1						10	37 SCP
CHARTERS TS.	29.97	274.6	5 23	2	9	39	0				
MOORLANDS	30.27	229.3	5 25	1						8	6 PCP
FORT NELSON	30.35	228.3	5 23	-2						8	4 PCP
MELBOURNE	30.47	239.0	5 26	0							
TARRALEAH	30.71	229.9	5 28K	0						8	5 PCP
RABAUL	33.07	306.5	5 46	-1						15	4
PORT MORESBY	33.78	293.5	5 54	1	10	35	-1	6	9	11	2 *SS
ADELAIDE	35.04	245.6	6 4K	0	10	52	-3				
CAPE HALLETT	46.58	183.4	7 36K	1							
HAWAII V.OB.	51.95	32.3	8 14	-1							
SCOTT BASE	52.22	183.1	8 16	0						12	13 SCP
HONOLULU	52.30	28.2	8 17	0							
MUNDARING	53.97	248.2	8 27K	-2							
BYRD STATION	59.86	169.7	9 7	-2							
SOUTH POLE	64.17	180.0	9 35	-1							
LEMBANG	69.64	272.3	10 10K	0						16	30
MATUSIRO	72.74	327.1	10 27K	0							
MAWSON	75.25	201.0	10 39	-2							
ARGENTINE I.	77.27	157.5	10 51	-1							
HONG KONG	78.46	301.8	10 59	0				13	11		
ZO-SE	78.71	312.8	10 59	-1							
CANTON	79.54	302.0	11 4	0							
NANKING	80.90	312.2	11 12	1							
LICK	84.58	44.0	11 32	2							
CHANGCHUN	84.73	324.5	11 30	0							
PASADENA	84.91	48.2	11 32	1				13	47		
FRESNO	85.40	45.3	11 34	0							
SHASTA	86.23	41.0	11 38	0							
MINERAL	86.48	41.6	11 39K	0						13	54
RENO	87.07	43.1	11 53	11							
BOULDER CITY	88.20	48.3	11 48	1							
PORT STANLEY	88.35	148.9	11 47	-1							
KUNMING	88.84	298.6	11 51	1							
TUCSON	88.97	53.2	11 51	1				14	10		
TUCSON TELE.	89.10	53.2	11 52	1				14	5		
EUREKA	89.43	44.9	11 53	0				14	14		
CHENGTU	90.60	304.0	11 59	1							
LANCHOW	93.40	308.6	12 12	1							
COLLEGE	94.30	13.8	12 13	-2				14	28		
FLAMING GRGE	94.45	46.4	12 14	-1				14	31		
RESOLUTE	114.01	16.9	17 27	-2						20	4
OTTAWA	118.97	50.7	17 37A	-2						20	14
PALISADES	119.57	55.9								19	32 PP
KIMBERLEY	119.91	206.9	17 39	-1							
QUETTA	120.07	291.2	17 43K	2							
SAN JUAN	120.42	83.1	17 41	0				20	18		
BULAWAYO	125.50	215.7	17 51A	0						20	9
SVERDLOVSK	126.40	322.8	17 52	-1							
WINDHOEK	128.40	202.4								20	30
BROKEN HILL	130.20	219.7	18 1	1						20	26
SHIRAZ	132.22	287.4								20	35
APATITY	133.22	342.3								20	37
SCORESBY SD.	133.97	9.3	18 9	2						20	39 SKP
TROMSOE	134.67	350.0	18 9	0						20	42 SKP
SODANKYLA	135.09	344.9	18 10	1						20	42 SKP
KIRUNA	136.01	348.1	18 4	-7							
KAJAANI	137.37	341.4	18 8	-6						20	51 SKP
UMEA	139.53	345.2	18 9	-9						20	53 SKP
NURMIJARVI	141.03	339.5	18 14	-8						20	59 SKP
SKALSTUGAN	141.29	350.0	18 16	-6							
UPPSALA	143.58	343.6	18 23K	-2							
SIMFEROPOL	145.56	312.6	18 29	1							
YALTA	145.69	311.9	18 19	-10						21	7
KSARA	146.60	292.6	18 33	3				21	0	22	0 *SP
GOTEBORG	146.83	346.5	18 32	2							
COPENHAGEN	148.57	344.5	18 37K	4							
LWOW	148.97	326.9	18 39	6						21	14
ISTANBUL KA.	150.41	308.3	18 41K	6				21	6	18	51 PKP2
HELWAN	150.57	285.2	18 36	0						21	21
BANGUI	150.98	225.7	18 36	0						21	6
COLLMBERG	152.32	339.9	18 38K	0				21	18		
WITTEVEEN	152.46	348.9	18 45	7							
HALLE	152.46	341.3	18 46	8							
PRUHONICE	152.93	336.5	18 48K	9				21	12		
JENA	153.08	341.2	18 48	9							

KASPERSKE H.	153.99	336.7	18 41	0	21 22		
ATHENS	155.39	305.3	18 52	10	19 12		
STUTTGART	155.67	342.1	18 43	0		19 15	
PARIS	156.97	352.8				19 20	PKP2
FOLINIERE	157.40	358.0				19 20	
GARCHY	158.40	351.1	18 46	0	21 23	19 25	PKP2

APRIL 9 15.H 35.M 19.S EPICENTRE 24.14 121.90 DEPTH= 100.KM

A=-0.48283 B= 0.77555 C= 0.40670 D= 0.8489 E= 0.5285
G=-0.2149 H= 0.3453 K=-0.9136 HT= 3.6

DEPTH OF FOCUS= 0.011R

SE= 3.82

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
HWALIEN	0.31	236.8	0	6A	-10	0	16	-12				
ILAN	0.64	347.3	0	9K	-9	0	12	-20				
TAIPEI	0.95	338.5	0	13A	-7	0	30	-6				
HSINCHU	1.07	307.8	0	16	-6	0	34	-4				
TAICHUNG	1.12	270.7	0	17A	-5	0	35	-4				
ALISHAN	1.19	238.8	0	13	-10	0	29	-11				
TAITUNG	1.55	206.7	0	18	-10	0	40	-8				
TAINAN	1.92	234.0	0	31	-1	0	56	0				
TAWU	2.01	207.6	0	24	-9	0	58	0				
ISIGAKIZIMA	2.08	84.3	0	21K	-13	0	45	-14				
KAOHSIUNG	2.13	225.1	0	39	4	0	58	-3				
PENGHU	2.24	254.7	0	30	-6	1	12	9				
HENGCHUN	2.38	206.7	0	31K	-7	1	11	4				
MAWASHI	5.70	66.5	1	19	-5	2	27	-1				
ZO-SE	6.96	354.9	1	33	-8	2	59	0				
HONG KONG	7.35	257.1	1	41A	-5							
BAGUIO CITY	7.78	189.4	1	43	-9							
CANTON	7.92	264.1	1	49A	-5	3	24	1				
NANKING	8.36	341.4	1	53A	-7	3	35	2				
MANILA	9.45	184.9	2	7	-8						4	23
YAKUSIMA	9.89	48.7	2	17K	-4	4	11	1				
TOMIE	10.38	34.0	2	22	-5						5	37
KAGOSIMA	10.64	44.0	2	27K	-4	4	49	21				
NAGASAKI	11.06	37.6	2	31A	-5	4	43	4				
UNZENDAKE	11.27	38.8	2	46K	7	4	57	14				
MIYAZAKI	11.43	45.2	2	35	-6	4	51	4				
KUMAMOTO	11.60	39.8	2	40A	-3	4	45	-6				
SAGA	11.68	37.2	2	37K	-8	5	10	17				
ASOSAN	11.87	40.6	2	45	-2	5	23	25				
ITUHARA	11.91	31.0	2	42A	-6	4	56	-3				
HUKUOKA	11.98	36.4	2	44A	-4	5	2	2				
OOITA	12.43	41.1	2	51K	-3	5	13	2				
SIMONOSEKI	12.56	36.9	2	55	-1							
SIMIDU	12.98	46.0	3	4	2	5	21	-3				
UWAZIMA	13.00	43.5	2	58	-4	5	27	2				
MATUYAMA	13.55	42.1	3	13	4	5	45	7				
HIROSIMA	13.71	39.6	3	6K	-5	5	46	5				
KOTI	13.83	44.7	3	12	-1	5	55	11				
HAMADA	13.89	37.2	3	14K	1	5	48	3				
MUROTO	14.07	47.1	3	33	17	6	23	33			8	55
TSURUGISAN	14.33	44.8	3	23	4							
TAKAMATU	14.66	43.5	3	20	-3	6	27	23				
DAIREN	14.72	359.2	3	23	-1							
MATSUE	14.85	38.1	3	24	-2							
YONAGO	14.99	38.8	3	31	3							
HIMEJI	15.00	43.7	3	37	9						8	45
SIAN	15.15	314.6	3	27	-3							
SUMOTO	15.22	45.2	3	32	1	7	13	56			15	42
SIOMISAKI	15.28	49.5	3	36	5	5	27	-51				
TOTTORI	15.53	40.4									4	30
SAIGO	15.54	36.7	3	41	6	6	51	27				
KOBE	15.61	44.7	3	38	3	6	58	33				
OSAKA	15.81	45.4	4	19	41	7	13	43				
OWASE	15.92	48.4	3	39	0							
NARA	16.03	45.9	3	45	4							
KYOTO	16.17	44.8	3	45	3	7	37	59				
KAMEYAMA	16.55	46.6	3	51	4	7	12	25				
PEKING	16.56	344.4	3	46A	-1	6	54	7				
HIKONE	16.66	45.0	3	55	6	7	48	59				

NAGOYA	17.07	46.5	3	56	2	7	15	16		
GIHU	17.08	45.5	3	54	0					
CHENGTU	17.16	296.2	3	52A	-3	7	11	11		
HAMAMATU	17.32	48.9	3	59	2					
KUNMING	17.45	277.2	3	58A	0	7	22	15		
TATUNG	17.49	337.5	3	59	0					
OMAESAKI	17.61	50.0	4	19	19					
IIDA	17.85	46.9	4	7	4				8	28
SHIZUOKA	17.93	49.2							12	41
TOYAMA	18.15	42.9	4	23	16				8	37
MATUMOTO	18.37	45.2	4	8	-1					
WAZIMA	18.41	40.7	4	16	6	7	45	17		
KOHU	18.42	47.6	4	15	5					
HUNATU	18.47	48.3	4	11	1	7	38	9		
MATUSIRO	18.70	44.9	4	5A	-8	7	29	-5		
NAGANO	18.77	44.5	4	31	17	7	38	2		
OIWAKE	18.79	45.9	4	20	6					
TITIBU	18.95	47.5	4	28	12					
YOKOHAMA	19.04	49.7							12	42
TOKYO C.M.O.	19.24	49.2	4	9	-10	7	48	2		
AIKAWA	19.64	41.4	4	18	-5					
TUKUBASAN	19.77	48.3	4	15	-9	7	59	3	4	37 PP
UTUNOMIYA	19.79	47.2	4	41	16					
KAKIOKA	19.83	48.4	4	20	-5				12	1
CHANGCHUN	19.84	7.3	4	20A	-5	8	2	4		
NIIGATA	20.07	42.8	3	44	-43	7	15	-47		
SHIRAKAWA	20.34	46.3	4	35	5					
VLADIVOSTOK	20.65	21.1	4	30	-3	8	15	2		
SAKATA	21.16	41.7							12	12
SENDAI	21.44	44.5	4	57	16	8	37	9		
MIZUSAWA	22.10	42.9	4	54	6	8	37	-3		
MORIOKA	22.47	41.8	4	47	-4	8	45	-1		
SUIHWA	22.80	9.1	4	52	-3					
MIYAKO	22.93	42.8	5	12	16	8	54	0		
AOMORI	22.94	39.0							4	39
HATINOHE	23.20	40.5	4	50	-8					
HAKODATE	23.59	37.1							5	29
MORI	23.68	36.4							5	19
SUTTSU	23.99	34.7							11	41
GUAM	24.05	112.1	5	1	-6	9	25	11		
TOCKLAI	24.62	281.8	5	21	9				6	51
SAPPORO	24.77	35.6	5	6	-8	9	18	-8		
OBIHIRO	25.68	38.0	5	23	1					
KUSIRO	26.40	39.2	5	23	-6	9	43	-10		
ULAN-BATOR	26.56	337.1	5	29	-1					
WAKKANAI	26.59	32.2	5	40	9					
SHILLONG	27.27	279.3	5	36A	-1	10	16	9	6	21 PP
NEMURO	27.30	39.7							11	41
CHITTAGONG	27.68	272.4	5	43A	2	10	26	12	6	31 PP
LHASA	28.02	288.1	5	45	1					
Y.-SAKHLINSK	28.25	30.9	5	37	-9				6	57 PPP
PORT BLAIR	30.34	251.0	6	23	19	11	23	27	7	36 PP
CALCUTTA	30.79	273.9	6	7A	-1	10	58	-5		
IRKUTSK	31.13	339.0	6	9A	-2	11	17	9	7	21 PPP
CHATRA	31.41	282.3	6	15A	1	11	25	12	7	14 PP
BOKARO	32.93	277.0	6	27	0	11	44	8	7	39 PP
DJAKARTA	33.53	207.9	6	33	1	11	55	9		
LEMBANG	33.79	206.1	6	35A	1	11	59	9	8	7 PPP
YAKUTSK	38.23	5.9	7	7	-5				8	37 PP
DEHRA DUN	39.29	288.9	7	20	0	13	21	7	9	25 PPP
RABAUL	40.77	129.7	7	27	-6				13	43
MAGADAN	40.77	22.1	7	27	-6				9	9 PP
MADRAS	40.93	262.0	7	35K	1	13	43	5	9	13 PP
SEHORE	40.94	278.1	7	36	2	14	5	27	9	11 PP
HYDERABAD	41.05	269.1	7	36	1	13	50	10	9	29 PP
ALMATA	41.41	308.7	7	39	1	13	57	12	9	22 PP
PORT MORESBY	41.46	140.5	7	35	-3	13	50	4	8	16 PP
LAHORE	42.44	291.0	7	46A	0	14	12	12	9	34 PP
FRUNSE	43.00	307.6	7	52	1				9	35 PP
COLOMBO	43.76	254.0	7	58	1	14	31	12	17	59 SSS
KODAIKANAL	44.45	259.7	8	4	1	14	46	17	10	4 PP
WARSAK DAM	44.71	294.6	8	2A	-3					
POONA	44.94	272.5	8	6	-1	14	39	3	17	58 SS
BOMBAY	45.78	273.4	8	15	2	14	54	6	10	4 PP
TASHKENT	46.75	304.7	8	23	2				10	15 PP
DUZHANBE	46.99	300.9	8	25	2	15	17	11		
TIKSI	47.68	3.0	8	21	-7	15	14	-1	10	17 PP
QUETTA	48.88	289.8	8	38A	1	15	44	12	10	34 PP

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KARACHI	49.64	282.8	8	45A	2	15	46	3				
CHARTERS TS.	49.96	149.6	8	43	-3	15	53	6				
SVERDLOVSK	54.47	323.7	9	17	-2						17 5	PS
ASHKABAD	55.20	300.5	9	26	1	17	12	14			11 31	PP
MUNDARING	56.06	185.8	9	28	-3							
ADELAIDE	60.91	164.2	10	2K	-3	18	13	0				
TEHERAN	61.03	298.8	10	5	0						12 27	PP
SHIRAZ	61.30	291.7	10	6	-1	18	29	11			19 51	SKS
KHEYS	62.15	350.4	10	11	-2							
NOUMEA	63.29	133.3	10	21	1							
RIVERVIEW	64.01	153.1	10	22	-3	18	57	5			12 52	PP
GORIS	64.29	303.7	10	30	3						13 0	PP
CANBERRA	64.47	155.6	10	27A	-1	19	4	7	10	34	19 31	PS
TIFLIS	65.02	306.4	10	31A	-1						12 58	PP
MOSCOW	67.24	322.4	10	44	-2	19	37	6			13 10	PP
APATITY	67.37	335.4	10	45A	-1	19	38	6			13 26	PP
COLLEGE	68.54	27.3	10	50	-4	19	53	7			11 14	PCP
SUVA	69.32	122.0				21	6	70				
TARRALEAH	69.89	160.8	11	2K	0						11 46	
SODANKYLA	69.97	335.8	11	1K	-2	20	21	18			13 36	PP
MOORLANDS	70.24	160.4	11	6K	2							
PULKOVO	70.24	327.5	11	4	0	20	13	7			13 33	PP
KAJAANI	70.37	332.3	11	6	1	21	3	55				
FORT NELSON	70.74	160.5	11	6K	-1	20	20	8				
SIMFEROPOL	71.85	311.7	11	13A	-1	20	33	8			13 57	PP
TROMSOE	71.99	339.0	11	14	-1							
KIRUNA	72.10	337.0	11	14A	-1	20	34	6			15 39	
NORD	72.45	354.1	11	13	-4	20	38	6			21 18	SKS
NURMIJARVI	72.76	329.1	11	18K	-1	20	38	3			14 3	PP
KIPAPA	72.88	73.8	11	21	1							
UMEA	73.59	333.1	11	22	-2							
KSARA	73.86	300.2	11	28A	2	21	7	20			14 18	PP
AFIAMALU	74.98	113.0	11	58	26	21	37	37				
JERUSALEM	75.04	298.3	11	33	1							
IASI	75.50	315.4	11	36	1							
HAWAII V.OB.	75.99	74.8	11	36	-2	21	24	13				
UPPSALA	76.27	329.8	11	38A	-1	21	18	4			16 25	
ISTANBUL KA.	76.58	309.1	11	40A	-1	21	26	8			14 35	PP
SITKA	76.69	33.2	11	41	-1							
LWOW	76.77	318.8	11	42	0	21	27	7			14 41	PP
SKALSTUGAN	76.91	334.4	11	42A	-1						14 42	PP
BUCHAREST	77.44	313.1	11	45	-1	21	41	14			14 45	PP
ONERAHI	77.53	138.7									12 25	
WARSAW	77.61	321.8	11	48A	1						14 45	
RESOLUTE	78.60	9.4	11	48	-4						21 41	
HELWAN	78.84	297.7	11	52	-1	21	50	8				
KRAKOW	79.12	320.0	11	53	-2						21 53	
SKALNATE PL.	79.29	319.2	11	58	2							
CHORZOW	79.57	320.5	11	55	-2						21 54	
KARAPIRO	79.67	139.7	11	57	-1						15 5	
GOTEBORG	79.87	329.2	11	58	-1						15 0	PP
SOFIA	79.96	312.2	12	4	4	22	3	10				
TIMISOARA	80.11	315.7	12	4	4	21	9	-46				
RACIBORZ	80.12	320.6	12	0	0						22 1	
COBB RIVER	80.21	143.5	12	4	3							
TONGARIRO	80.50	140.6	12	0	-2							
COPENHAGEN	80.63	327.2	12	3A	0	21	56	-4			15 5	PP
BUDAPEST	80.76	317.9	12	4	0	22	6	4			14 27	PP
BELGRADE	80.99	315.1	12	5K	0	22	12	8			15 28	PP
ATHENS	81.58	307.7	12	7K	-1						14 57	
ROXBURGH	81.61	148.4	12	19	11	22	17	6			27 46	SS
BRATISLAVA	81.61	319.1	12	5K	-3	22	13	2				
GEBBIES PASS	81.99	145.4	12	14	4							
VIENNA-H.	82.01	319.4	12	11A	1	22	22	7			15 22	PP
SCORESBY SD.	82.24	348.5	12	11A	0	22	41	24			27 53	SS
PRUHONICE	82.26	321.5	12	11A	-1	22	25	8			15 21	PP
PRAGUE	82.29	321.7	12	12	0	22	24	7				
COLLMBERG	82.49	323.2	12	12A	-1	22	29	10			15 22	PP
HALLE	82.96	323.7	12	16	1	22	35	11				
KASPERSKE H.	83.22	321.1	12	16	0						15 12	PP
ZAGREB	83.37	317.4	12	18A	1							
CHEB	83.43	322.3	12	14	-4							
JENA	83.45	323.3	12	17	-1	22	31	2			14 52	PP
TANANARIVE	84.14	246.4	12	22	1						16 5	
LJUBLJANA	84.16	318.1	12	21A	0						15 39	PP
TRIESTE	84.83	318.0	12	25	1	22	45	2			15 48	PP
MUNSTER	85.00	325.5	12	27	2							
WITTEVEEN	85.02	326.6	12	24	-1						15 40	PP

TARANTO	85.03	312.2	12	1	-25	22	41	-4			
BENSBERG	85.80	324.8	12	30A	1	22	52	0	12	41	15 51 PP
HEIDELBERG	85.82	323.0	12	29	0						15 50
STUTTGART	85.85	322.2	12	29A	-1	22	50	-3			15 48 PP
PADOVA	86.09	318.4	12	30	-1	22	55	0			24 6 PS
TUBINGEN	86.09	322.1	12	31	0						
DE BILT	86.18	326.5	12	33	2	22	59	3			15 52 PP
RAVENSBURG	86.18	321.3	12	31	0						
KARLSRUHE	86.20	322.8	12	33	2	23	12	16			
ABERDEEN	86.40	333.1	12	33A	1						29 16 SS
CHUR	86.73	320.5	12	33A	-1	23	4	3			
STRASBOURG	86.79	322.6	12	35	1	23	13	11			15 58 PP
VICTORIA	87.12	37.2	12	35	-1						
REGGIO CALA.	87.24	310.7	12	38	2	22	56	-10			16 2 PP
MESSINA	87.26	310.8	12	37A	1				12	49	16 3 PP
FLORENCE X.	87.31	317.3	12	37	0	23	34	27			
PRATO	87.35	317.4	12	39	2	23	30	23			
BASLE	87.48	321.8	12	37A	0						23 18
ROME	87.49	315.2	12	37A	-1	23	35	27			16 7 PP
DURHAM	87.74	331.1	12	40A	1	23	20	9			16 6 PP
PAVIA	87.83	319.2	12	44	5						
NEUCHATEL	88.13	321.6	12	41	0	23	21	7			
BESANCON	88.53	322.2	12	43	1						
KEW	89.28	328.0	12	45A	-1	23	26	1			16 16 PP
CORVALLIS	89.39	40.5	12	52A	6						
PARIS	89.51	324.8	12	48	1	23	44	17			16 22 PP
MONACO	89.67	318.7	12	48	0						
GARCHY	90.12	323.4	12	50	0	23	18	-15			16 26 PP
WILKES	90.61	184.6	12	57	5						23 41 SKKS
CUGLIERI	90.91	315.3									25 1 PPS
CLERMONT-FD.	91.00	322.2	12	56	2	23	54	14			
SHASTA	92.13	43.3	12	59K	0						24 2
HUNGRY HORSE	92.20	33.6	12	59	-1	23	29	-22			
MINERAL	92.82	43.2	13	2A	0						
LWIRO	93.74	269.2	13	9A	2	23	54	-10			
BERKELEY	93.81	45.6	13	8	1	23	41	-24			16 50 PP
BAGNERES	94.34	321.3	13	10	1						16 58 PP
RENO	94.41	43.1	13	9A	-1						
BUTTE	94.49	34.7	13	9	-1	23	52	-19			
LICK	94.52	45.7	13	10A	0						
BOZEMAN	95.51	34.2	13	16	1						
TORTOSA	95.54	319.4				23	49	9			17 5
FRESNO	96.05	45.3	13	17A	0						
EUREKA	96.80	41.3	13	20	-1						17 3 PP
ALICANTE	97.67	317.9	13	25	1	24	49	58			26 17 PS
SALT LAKE C.	98.38	38.3	13	28	0						
PASADENA	98.67	46.6	13	29	0	25	5	69			17 31 PP
TOLEDO	98.80	320.9	13	34	4	24	11	14			17 31 PP
BROKEN HILL	98.85	258.1	13	29	-1						
FLAMING GRGE	99.64	36.9	13	32	-1	24	10	9			17 17 PP
BOULDER CITY	99.70	43.5	13	34	0						
BANGUI	100.28	279.5	13	35	-1	24	35	31			
GRANADA	100.31	318.6	14	10A	34	25	52	107			
SERRA PILAR	100.47	324.3	13	34A	-3						17 47 PP
CAPE HALLETT	101.62	166.5				24	20	9			17 53 PP
TUCSON	104.64	44.2	13	57	1	25	40	75			17 36 PP
TUCSON TELE.	104.65	44.1	13	57	1						
SCOTT BASE	105.09	171.1									18 12 PP
WICHITA MTS.	109.98	34.7	18	19	777	25	1	13			18 56 PP
FAYETTEVILLE	111.06	30.8	17	51	-30						
HERMANUS	113.24	241.4									28 58 PS
PALISADES	113.54	13.0				25	8	6			19 20 PP
WASHINGTON	114.82	16.2	14	47	-222						
TACUBAYA	121.03	46.4				25	40	11			22 12
MBOUR	124.51	309.3	18	48	0	25	47	7			
SAN JUAN	137.02	11.2	18	59	-12						22 44 SKP
ARGENTINE I.	138.70	176.1	19	32	18						
CARACAS	144.51	15.1	19	21A	-4	26	31	9			
CHINCHINA	146.40	32.8	19	30A	2						19 49 PKP2
FUQUENE	146.86	29.4	19	30A	1						22 57 PP
BOGOTA	147.45	30.7	19	33A	3						23 1 PP
PORT STANLEY	152.48	180.3	19	48	11						
HUANCAYO	159.71	56.7	19	47	0						
LA PAZ	167.91	52.9	19	58	4						21 4 PKP2

APRIL 11 0.H 30.M 1.S EPICENTRE 37.57 140.61 DEPTH= 122.KM

A=-0.61405 B= 0.50428 C= 0.60716 D= 0.6347 E= 0.7728
G=-0.4692 H= 0.3853 K=-0.7946 HT= -0.8

DEPTH OF FOCUS= 0.014R

SE= 5.30

	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
HUKUSIMA	0.21	328.9	0	11	-7							
SHIRAKAWA	0.55	214.4	0	7	-13	0	26	-9				
SENDAI	0.74	18.4	0	14A	-7	0	39	2				
UTUNOMIYA	1.18	210.2	0	8	-17	0	27	-17				
MITO	1.19	185.3	0	1K	-24	0	18	-26				
NIIGATA	1.28	286.2	0	26	0	1	6	20				
KAKIOKA	1.38	194.4	0	4	-23	0	14	-34				
TUKUBASAN	1.41	196.9	0	4	-24							
SAKATA	1.46	335.5	0	38	10							
MIZUSAWA	1.61	14.7	0	29	-1							
MAEBASI	1.70	226.9	0	17A	-14	0	46	-8				
KUMAGAYA	1.73	215.1	0	14A	-17	0	41	-14				
TYOSI	1.86	173.9	0	14	-19							
AIKAWA	1.92	284.2	0	36	2	1	23	24				
TAKADA	1.94	256.7	0	29	-5	1	7	8				
HONGO	1.98	200.1	0	15	-19						0	39
TITIBU	2.01	218.1	0	18	-17	0	45	-15				
TOKYO C.M.O.	2.01	200.3	0	12K	-23	0	37	-23				
OIWAKE	2.06	233.7	0	26	-9	1	12	10				
NAGANO	2.12	245.7	0	30	-6	2	2	59				
MORIOKA	2.17	11.6				0	29	-35				
MATUSIRO	2.18	242.5	0	27K	-10	1	16	12				
YOKOHAMA	2.27	200.1	0	16	-22	0	51	-16				
MIYAKO	2.33	26.8	0	41	2	1	7	-1				
MATUMOTO	2.49	238.8	0	33	-8	1	9	-3				
KOHU	2.51	221.6	0	28	-13	1	4	-8				
HUNATU	2.54	216.1	0	29	-13	0	58	-15				
MERA	2.72	193.6	0	24	-20							
MISIMA	2.79	209.1	0	23	-22	0	57	-22				
AJIRO	2.79	206.2	0	24	-21	0	56	-23				
TOYAMA	2.86	253.3	0	52	6	1	38	18				
WAZIMA	2.95	267.4	1	9	22							
OSIMA	2.97	199.9	0	23	-24							
IIDA	3.03	228.3	0	35	-13	1	23	-1				
HATINOHE	3.04	13.4	0	45	-3	1	37	12				
SHIZUOKA	3.15	215.1	0	36	-14	1	21	-6				
AOMORI	3.25	2.3	1	6	15							
OMAESAKI	3.54	213.8	0	53	-2	2	4	27				
GIHU	3.77	236.1	0	49	-9							
NAGOYA	3.79	231.8	0	45	-13	1	30	-13				
TSURUGA	4.12	243.6	1	3	0							
HIKONE	4.20	238.1	0	48	-16							
HAKODATE	4.24	1.6	0	15	-49						2	15
KAMEYAMA	4.31	232.2	1	17	12	2	14	19				
MORI	4.52	359.7	1	17	9	2	50	50				
KYOTO	4.69	238.6	1	11	1	2	12	8				
NARA	4.82	234.7	1	15	3							
URAKAWA	4.87	19.4	0	52	-21	2	10	1				
ABUYAMA	4.88	238.0	1	0A	-13							
OSAKA	5.04	236.2									1	58
TOYOOKA	5.08	248.1									1	50
TOMAKOMAI	5.11	8.1				2	31	17			1	50
TOTTORI	5.57	250.2				2	40	15				
SUMOTO	5.63	236.8	1	58	35	2	52	25			3	16
OBIHIRO	5.70	19.6	1	30	6							
KUSIRO	6.13	27.0	1	21	-9							
NEMURO	6.89	31.8	1	47	7	2	47	-11				
ABASHIRI	7.02	22.2									2	19
MATUYAMA	7.37	242.0									3	33
HAMADA	7.39	251.4	2	46	59	4	8	58				
YAKUTSK	25.39	348.0	5	18	0							
ULAN-BATOR	26.63	303.6	5	31	2							
SHILLONG	42.78	268.3	7	47	0							
COLLEGE	48.98	32.5	8	30	-6				8	51		
SVERDLOVSK	54.32	318.2	9	17	1							
QUETTA	60.18	286.7	9	55	-3							
RESOLUTE	62.25	14.3	10	7A	-5							
SODANKYLA	64.22	336.9	10	24K	0						11	0 PCP
KIRUNA	65.79	338.9	10	32	-3							
KAJAANI	65.83	333.7	10	35	0							

MOSCOW	66.44	323.0	10	37	-2							
UMEA	68.53	335.7	10	50	-2							
NURMI JARVI	69.17	331.6	10	55	-1							
EUREKA	76.01	50.9	11	30	-6							
FLAMING GRGE	79.03	46.5	11	37	-15							
COLLMBERG	80.32	329.7	11	59	0						12	50
PRUHONICE	80.69	328.1	12	0	-1						16	37
JENA	81.17	330.2	12	2	-2							
KASPERSKE H.	81.75	328.0	12	5	-2						16	41
STUTTGART	83.79	330.0	12	15	-2							
TUCSON	83.80	53.9	11	56	-21			12	22			
FAYETTEVILLE	90.86	41.4	12	43	-8							

APRIL 12 17.H 18.M 6.S EPICENTRE 0.14 123.55 DEPTH= 202.KM

A=-0.55261 B= 0.83344 C= 0.00240 D= 0.8334 E= 0.5526
G=-0.0013 H= 0.0020 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.027R

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	
MANILA	14.64	350.5	3	20	1	5	33	-23					
LEMBANG	17.33	246.2	3	49A	-2	6	59	4					
DJAKARTA	17.83	249.1	4	36	40						7	14	
NHATRANG	18.61	310.7	4	5	0	7	25	4					
HONG KONG	23.85	338.1	4	58	2	9	4	9	5	21	5	42	PP
CANTON	24.88	337.2	5	8	2	9	33	21	5	37	5	54	*SP
MEDAN	25.08	278.1	5	8	0								
PORT MORESBY	25.34	112.6	5	9	-1	9	30	11			6	0	
RABAUL	28.92	98.9	5	41	-2						10	19	
CHARTERS TS.	29.98	133.4	5	52	0	10	39	5					
ZO-SE	30.87	356.0	6	1	1								
KUNMING	31.96	322.5	6	10	1								
NANKING	32.07	352.4	6	10	0				7	40	7	56	*SP
CHENGTU	35.58	330.3	6	41	1				7	10	7	28	*SP
ABUYAMA	36.33	16.8	6	46A	0								
SIAN	36.60	339.5	6	49	0								
HONIARA	37.46	105.7	6	56	0								
ADELAIDE	37.70	159.4	6	56K	-2						8	25	PP
CHITTAGONG	37.97	307.7	6	49	-11								
MATUSIRO	38.69	19.0	7	5A	-1						9	15	PP
BRISBANE	39.21	136.6	7	11	1	13	1	6					
SHILLONG	39.68	312.0	7	13A	-1								
PEKING	40.27	351.2	7	18	-1								
CANBERRA	42.52	148.7	7	38K	1				8	7	9	23	PP
RIVERVIEW	42.58	145.2	7	36	-2				7	59	17	23	SCS
MELBOURNE	42.64	154.7	7	39	1								
CHATRA	43.90	310.2	7	49	0						9	32	
MADRAS	44.84	288.3	7	55	-1						10	22	
TARRALEAH	47.02	156.7	8	14	1								
FORT NELSON	47.90	156.5	8	20A	0								
Y.-SAKHLINSK	49.61	17.2	8	31	-2								
OKHA	55.61	13.9	9	15	-2								
LAHORE	56.02	308.8	9	17	-3								
WARSAK DAM	59.15	310.3	9	42	0								
ALMATA	59.77	322.1	9	46	0						11	20	
PETROPAVLOVK	60.25	23.6	9	49	0								
KHOROG	60.59	314.0	9	52	0								
FRUNSE	60.99	320.6	9	53	-1								
QUETTA	61.45	304.6	9	56	-1	18	5	4	10	31			
ANDIJAN	61.45	317.6	9	57	-1								
SEMIPALATNSK	62.12	330.2	10	0	-2								
MAGADAN	62.94	15.2	10	8	1								
DUZHANBE	63.02	314.1	10	8	0								
KLYUCHI	63.57	22.2	10	11	0						12	5	
TASHKENT	63.80	317.0	10	11	-2						10	46	PCP
TIKSI	71.46	1.8	10	59	-2				11	33	15	16	PPP
SVERDLOVSK	75.39	329.6	11	23	0								
TANANARIVE	76.80	250.6	11	31	0						12	20	
MAWSON	79.31	199.9	11	46	1				12	17			
SCOTT BASE	81.25	171.6	11	57	2						12	35	
TIFLIS	81.51	312.1	11	58	2								
HAWAII V.OB.	81.64	70.5	12	0	3								

KHEYS	85.96	351.4	12 19	0					12 28 PCP
COLLEGE	89.29	25.3	12 35	0					15 41 PP
APATITY	89.92	337.4	12 36	-2					
SOUTH POLE	90.14	180.0	12 41	2	23	3	-9		
PULKOVO	91.51	329.6	12 44	-1				13 16	
HELWAN	91.86	299.7							13 29
KAJAANI	92.44	334.0	12 48	-1					
SODANKYLA	92.54	337.4	12 49	-1					
NURMIJARVI	94.26	330.6	12 56	-2					
BYRD STATION	94.67	171.0	13 2	3					13 40 *SP
BULAWAYO	94.68	249.9	13 0A	0					
KIRUNA	94.81	338.2	12 59	-1					
TROMSOE	94.94	340.1	12 58	-3					
UMEA	95.74	334.3	13 1	-3					
UPPSALA	97.84	330.7	13 7	-7					
SKALSTUGAN	99.21	335.0	13 19	-1					
RESOLUTE	101.88	9.7	13 32	0					
PRUHONICE	102.02	321.4							17 42 PP
SHASTA	107.97	46.9							19 26
MINERAL	108.64	47.0							19 34
LICK	109.45	50.1							19 43
VINEYARD	109.81	50.6							19 46
RENO	110.20	47.4							19 42
FRESNO	111.03	50.2							19 52
WICHITA MTS.	127.55	44.2	18 44	3					
SHAWINIGAN	131.35	15.0	18 52	3					
LA PAZ	160.08	145.3	19 50	15					

APRIL 12 17.H 27.M 41.S EPICENTRE 48.12 154.76 DEPTH= 0.KM

A=-0.60608 B= 0.28574 C= 0.74230 D= 0.4264 E= 0.9045
G=-0.6714 H= 0.3166 K=-0.6701 HT= -4.7

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
MIZUSAWA	13.33	232.6	3 8	-5	5 34	-9		
TUKUBASAN	16.07	227.6	3 50	1				7 40
MATUSIRO	16.80	232.5	4 0	2	7 2	-3		4 23
ABUYAMA	19.47	234.2	4 34K	3				
CHANGCHUN	20.85	269.1	4 45	-1				
ZO-SE	30.64	248.6	6 24	6	11 22	2		
NANKING	31.51	252.6	6 28	2	11 35	1		
IRKUTSK	32.02	296.7						6 49
COLLEGE	34.38	39.6	6 51	0			7 4	
SIAN	36.63	264.9	7 13	3				
LANCHOW	39.00	271.2	7 32	2				
HONG KONG	41.30	245.9	7 54	5				
CHENGTU	42.10	264.5	7 58	3				
KUNMING	46.59	259.6	8 34	2	15 19	-2		
RESOLUTE	49.18	19.2	8 51A	-1				
VICTORIA	51.84	56.8	9 12A	0				
NHATRANG	52.06	242.2	9 18	4				9 56
RABAUL	52.15	183.3	9 17	3				
PENTICTON	53.50	54.3	9 22A	-3				
SHILLONG	53.53	268.7	9 24K	-1				
CHATRA	55.84	273.3	9 44	2				
PORT MORESBY	57.66	188.9	9 57	2				
SODANKYLA	58.37	339.1	9 59	-1				
BUTTE	59.29	54.1	10 6	0				
KIRUNA	59.40	341.6	10 5	-2				
BOZEMAN	60.34	53.6	10 14	1				
EUREKA	61.53	61.7	10 21	0			10 35	
SCORESBY SD.	61.69	358.7	10 23	1				
PASADENA	63.69	67.5	10 36	0				
FLAMING GRGE	64.36	56.7	10 39	-1				
NURMIJARVI	64.44	335.2	10 40	-1				
RAPID CITY	65.55	50.7	10 48	0				
GLEN CANYON	65.78	61.2	10 45	-4				11 3
LARAMIE	66.21	54.3	10 53	1				
QUETTA	66.83	289.7	10 53	-3				
UPPSALA	66.87	338.1	10 54	-2				
CHARTERS TS.	68.32	188.6	11 8	3				
LEMBANG	68.60	231.4	10 58K	-9				
TUCSON	69.48	64.4	11 14	2				
TUCSON TELE.	69.48	64.3	11 14	2				

WICHITA MTS.	74.77	54.9	11	44	0					14	0
BRISBANE	75.18	181.8	11	47	1						
SHIRAZ	76.01	298.8	11	51K	0	21	43	9			
JENA	76.39	337.0	11	52	-1					12	41
PRUHONICE	76.44	334.8	11	53	0						
OTTAWA	76.92	33.9	11	54	-2						
SHAWINIGAN	77.00	31.5	11	56	0						
BRATISLAVA	77.30	332.5	12	1	3						
BENSBERG	77.45	339.7	12	1	2					12	31
KASPERSKE H.	77.48	335.1	11	59	0					12	47
STUTTGART	78.97	337.5	12	7	0					13	48
STRASBOURG	79.52	338.4	12	13	3						
LJUBLJANA	79.98	333.1	12	15	2						
MORGANTOWN	80.06	39.8	12	28	15						
FOLINIERE	81.14	343.7	12	17	-2						
BESANCON	81.20	339.1	12	22	3						
CANBERRA	83.23	184.7	12	33A	3						
ISOLA	83.80	337.3	12	33	0				12	44	
MELBOURNE	86.01	187.8	12	47	3				13	0	
KARAPIRO	87.65	163.7	12	53	1						
CHATEAU	88.88	164.0	13	1	3						
TARRALEAH	90.33	186.1	13	7	3				13	20	
MOORLANDS	90.42	185.6	13	7	2						
FORT NELSON	90.90	185.4	13	10A	3				13	23	
SCOTT BASE	125.92	176.9	19	32	28						
PRETORIA	132.91	278.6								17	6
BYRD STATION	136.24	165.4	19	14	-10					22	52 SKP
SOUTH POLE	137.93	180.0	19	27	0						

APRIL 12 22.H 20.M 34.S EPICENTRE 13.32 -88.79 DEPTH= 92.KM

A= 0.02054 B=-0.97323 C= 0.22893 D=-0.9998 E=-0.0211
G= 0.0048 H=-0.2289 K=-0.9734 HT= 6.0

DEPTH OF FOCUS= 0.009R

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	
SANTIAGO MA.	0.35	61.6	0	15	-1								
SAN SALVADOR	0.53	312.0	0	13K	-4	0	22	-8					
COMITAN	4.35	312.5	1	8	3	1	58	3					
MERIDA	7.63	354.2	1	50	-1	3	32	16			3	14	
OAXACA	8.54	296.5	2	1K	-2	3	33	-5					
VERA CRUZ	9.15	310.6				3	50	-3			2	42	
BALBOA HTS.	10.04	114.6	2	21	-2	4	28	13					
PUEBLA	10.67	303.4	2	30	-2	4	24	-6			5	4	SS
TACUBAYA	11.67	302.6	2	44K	-1	5	6	12			5	25	SS
GALERAZAMBA	13.46	99.3	3	15	6	5	57	21					
LEON	14.54	304.0	3	25	3						6	55	SS
CHINCHINA	15.42	121.4	3	28K	-6	6	34	12			7	10	SSS
GUADALAJARA	15.70	299.7	3	38K	1	6	46	18			7	9	SS
MANZANILLO	15.97	292.9	3	40	-1	6	47	12			7	11	SS
FUQUENE	16.77	116.3	3	51A	0								
BOGOTA	16.91	119.4	3	56K	4	7	11	15					
MAZATLAN	19.37	302.9	4	16	-5	7	56	6					
CARACAS	21.57	95.1	4	44A	0	8	43	11					
COLUMBIA	21.76	17.6	4	48	2								
CHIHUAHUA	22.15	316.1	4	50	1	8	41	-1			5	29	PPP
SAN JUAN	22.37	74.1	4	52	0	8	44	-2	5	12	15	57	SCS
WICHITA MTS.	23.08	339.0	4	59A	1	9	1	2			12	18	PCS
LUBBOCK	23.41	331.7	5	2	0								
CHAPEL HILL	24.15	19.6	5	2	-7	9	27	10					
ST. KITTS	25.44	77.6	5	20	-1						5	41	PP
LAWRENCE	26.18	348.5	5	28	0								
ANTIGUA	26.27	78.3	5	31	2								
ST. VINCENT	26.79	87.1	5	39	6								
FORT FRANCE	26.85	83.7	5	38	4								
TRINIDAD	26.92	92.7	5	32	-3						8	57	PCP
MORGANTOWN	27.34	15.0	5	35A	-4								
WASHINGTON	27.51	20.1	5	58	18	10	24	11					
TUCSON TELE.	27.59	317.0	5	41	0	10	14	0	6	8	6	37	PP
TUCSON	27.61	316.7	5	42	1	10	24	10	6	5	6	39	PP
HUANCAYO	28.52	151.5	5	51	2				6	11			
CLEVELAND	28.76	11.4	5	52A	1	10	39	6			6	43	PP

PENNSYLVANIA	29.00	17.3	5	55	2	10	43	7	6	13	6	34 *SP
FORDHAM	30.37	22.7	6	6	0						6	58
PALISADES	30.50	22.5	6	7	0	11	1	1	6	27	6	55 PP
GLEN CANYON	31.15	323.1	6	13	1	12	43	93			7	20 PP
LARAMIE	31.50	335.4	6	16	0						8	26
WESTON	32.68	24.3	6	27	1	11	43	9	6	45	7	40 PP
FLAMING GRGE	32.88	330.6	6	28	0	12	50	73				
RAPID CITY	33.05	340.8	6	30	1	12	17	37			7	33 PP
PASADENA	33.77	312.9	6	35A	0	11	56	6	6	52	7	44 PP
OTTAWA	33.85	16.6	6	36A	0							
SALT LAKE C.	33.98	327.8	6	38	1						8	13 PP
AREQUIPA	34.18	149.5	6	40	1							
RUTH	34.65	322.9	6	47	4							
EUREKA	35.40	322.4	6	50	1	13	21	65	7	15	8	1 PP
SHAWINIGAN	35.77	19.0	6	53A	1							
LA PAZ	35.98	144.8	6	55	1	12	25	0				
FRESNO	36.26	315.6	6	56	0	13	1	32			7	44
BOZEMAN	37.35	334.0	7	7	2							
RENO	37.79	319.4	7	11A	2	13	9	16			7	30
LICK	37.81	315.2	7	15K	6	13	9	16				
HALIFAX	37.88	29.7	7	13A	3							
BUTTE	38.29	333.0	7	13	0						13	8
CONCORD	38.42	315.7	7	16	2	13	10	8				
BERKELEY	38.50	315.5	7	15K	0	13	10	7				
MINERAL	39.38	319.3	7	22K	0	13	13	-4				
SHASTA	40.08	319.2	7	23	-5	14	16	49			8	32
HUNGRY HORSE	40.72	334.1	7	36	3						9	47
PENTICTON	43.94	331.1	7	57K	-3							
VICTORIA	45.29	327.9	8	10A	0							
ALBERNI	46.48	327.9	8	21	1							
SANTA LUCIA	49.62	160.0	8	43	-1	15	50	6	9	3	16	10
RESOLUTE	61.44	358.2	10	8A	-1	18	24	3			14	22 PPP
HAWAII V.OB.	63.75	285.2	10	24	-1	19	3	13				
COLLEGE	65.11	336.2	10	31	-2				11	2	12	48 PP
KIPAPA	66.12	287.7	10	40	0							
HONOLULU	66.21	287.6	10	41	1							
MBOUR	69.46	79.5	10	58	-3	20	4	5				
SCORESBY SD.	69.86	19.2	11	3A	0	20	9	5	11	22	20	36 PS
PORT STANLEY	70.09	160.1	11	4	0							
SERRA PILAR	74.02	50.7	11	28A	0						14	18 PP
COIMBRA	74.22	51.7	11	27A	-2							
NORD	74.31	8.4	11	28A	-1	20	53	-2				
ABERDEEN	77.14	33.9				21	54	28			27	15 SS
TOLEDO	77.59	51.7	11	48	0	21	36	6	12	4	26	55 SS
DURHAM	77.64	36.3	11	47	-1	21	30	-1				
GRANADA	78.29	54.4	11	56A	4	21	46	8	12	37	14	40 PP
KEW	78.76	39.6	11	52	-2	21	38	-5			15	0 PP
FOLINIERE	79.01	42.4	11	54	-2							
ALMERIA	79.23	54.6	11	54A	-3	21	46	-2	12	13	13	14
BAGNERES	80.27	48.0	12	1	-1							
ALICANTE	80.56	52.8	11	57	-7	21	59	-3			15	5 PP
PARIS	80.94	42.0	12	1	-5						14	29 PP
CLERMONT-FD.	81.91	45.0	12	10	-1							
WITTEVEEN	82.78	37.5	12	16	0							
SKALSTUGAN	83.04	26.3	12	17	0						15	27
BENSBERG	83.50	39.3	12	18A	-1				12	38	15	34
MUNSTER	83.53	38.2	12	19	0							
BESANCON	83.54	43.1	12	18	-1							
TROMSOE	83.64	19.6	12	20	0							
STRASBOURG	84.42	41.5	12	23	-1	22	38	-3	12	49	15	43 PP
GOTEBORG	84.52	32.0	12	24	0							
BASLE	84.54	42.6	12	21	-3						16	7
KHEYS	84.71	5.2	12	27	2	22	54	10	13	0	15	58 PP
HEIDELBERG	84.83	40.6	12	24	-2							
KIRUNA	84.83	21.1	12	26	0	22	42	-3			15	40
ISOLA	84.97	45.9	12	26	0						15	45 PP
STUTTGART	85.34	41.1	12	27A	-1	22	41	-9	12	47	15	53 PP
MONACO	85.34	46.3	12	28	0							
COPENHAGEN	85.34	33.9	12	28K	0	22	53	3	12	48	15	49 PP
CHUR	86.00	42.9	12	31A	-1	22	50	-6				
PAVIA	86.19	44.6									23	46 SCS
JENA	86.19	38.6	12	31	-2	22	53	-5	12	49	15	55 PP
HALLE	86.26	38.0	12	33	0	22	51	-8				
UMEA	86.31	24.8	12	33	0						15	54
AFIAMALU	86.52	254.9	12	35	1							
UPPSALA	86.63	29.0	12	33	-2	22	50	-12			16	16 PP
CHEB	86.93	39.3	12	35	-1							
SODANKYLA	87.17	20.5	12	37A	0						16	1 PP
PADOVA	87.96	43.8	13	41	60						23	11

KASPERSKE H.	87.96	39.9	12	40A	-1					16	26 PP
PRUHONICE	88.29	38.9	12	42A	-1	23	3	-15		16	14 PP
TRIESTE	89.15	43.2	12	47	0	23	11	-15	13 6	24	44 SP
KAJAANI	89.16	23.2	12	47	0					16	17 PP
APATITY	89.31	19.0	12	47K	0	23	29	2		16	16 PP
ROME	89.41	47.1				23	21	-7		16	29 PP
LJUBLJANA	89.53	42.7	12	48	0				13 8	16	26 PP
NURMIJARVI	89.58	27.0	12	47A	-2	23	19	-11	13 19	16	21 PP
VIENNA-H.	89.99	40.2	12	58	7					16	45
RACIBORZ	90.47	38.0	12	53	0					16	28 PP
BRATISLAVA	90.48	40.1	12	53	0					15	47 PP
WARSAW	91.28	35.4				23	19	-26		16	32 PP
KRAKOW	91.51	37.6	12	57	-1	23	19	-28		25	11 PS
TIKSI	91.56	348.8	12	57	-1						
PULKOVO	92.42	26.3	13	2	0	23	25	-30	13 24	16	43 PP
PETROPAVLOVK	92.47	326.1	13	4	2	23	32	-23			
BELGRADE	93.87	42.3	13	9K	1					15	28
LWOW	94.02	36.8	13	9	0	24	11	2		24	44 *SS
BYRD STATION	94.56	185.1	13	12	0	24	15	2		30	10 SS
MOSCOW	97.94	27.4	13	27	0	23	54	-1		17	26 PP
ISTANBUL KA.	101.19	43.0	17	59	257					24	14
SIMFEROPOL	102.38	37.6				24	18	1		17	59 PP
KARAPIRO	102.48	233.7	13	44	-3					18	1 PP
SOUTH POLE	103.23	180.0	13	56	5						
WELLINGTON	103.46	230.4								18	8 PP
Y.-SAKHLINSK	104.33	326.4				24	27	1		18	15 PP
SVERDLOVSK	105.63	16.9	18	21	777	24	36	5			
CAPE HALLET	105.94	198.2				24	38	5		18	27 PP
SCOTT BASE	105.98	192.3								18	19 PP
ROXBURGH	107.68	226.3				24	24	-16		33	52 SS
HELWAN	108.11	52.2								19	16
KSARA	109.52	46.6	18	33	777					18	51 PP
TIFLIS	110.53	35.4								21	10 PPP
HERMANUS	112.20	121.9								28	52 PKKP
TUKUBASAN	112.51	318.7				25	8	8		34	57 SS
VLADIVOSTOK	112.61	328.9				25	12	11			
GORIS	112.87	36.3								19	15 PP
MATUSIRO	113.51	320.0	18	29	1	25	16	12		28	56
IRKUTSK	113.70	351.2								21	42 PPP
SEMIPALATNSK	115.83	7.8	18	32	0						
KIMBERLEY	116.83	115.6	18	36K	2						
ULAN-BATOR	117.45	348.2								19	48
PRETORIA	119.81	112.1	18	41	1						
BULAWAYO	119.95	105.7	18	41A	1						
TASHKENT	121.98	19.4								20	16 PP
FRUNSE	122.09	14.4				25	44	9			
RIVERVIEW	122.19	238.4								30	22 PS
MAWSON	122.67	167.5	18	47	2						
SHIRAZ	123.28	40.6	18	39	-8	24	38	-1		28	37
FORT NELSON	123.62	227.1	18	51	4				19 11		
CANBERRA	123.78	236.4	18	50	2						
MOORLANDS	123.85	227.6	18	50A	2				19 10		
DUZHANBE	124.27	21.2	18	52	3	25	48	6			
TARRALEAH	124.41	227.6	18	51A	2					19	16
PORT MORESBY	125.11	267.8	18	54	4	25	57	13		20	40
KHOROG	126.19	19.4	18	55	3						
CHARTERS TS.	127.03	254.8	18	55	1	26	0	10			
WARSAK DAM	129.36	21.2	18	58	0						
LANCHOW	129.47	346.7	19	2	4						
SIAN	129.78	340.9	19	2	3						
QUETTA	130.84	28.1	19	3	2	26	9	9		21	16 PP
ADELAIDE	132.11	234.7	19	2	-1					22	32 SKP
LAHORE	132.54	19.7								19	25
CHENGTU	134.57	344.5	19	11	3					22	37
TANANARIVE	137.77	103.5	19	20	6					22	51 PKS
CANTON	137.82	328.9	19	20	6					22	48 PP
HONG KONG	138.05	327.3	19	19	5					22	48 PP
MANILA	139.41	312.2								19	16
CHATRA	139.90	5.6	19	14	-4						
KUNMING	140.17	343.6	19	21	3					22	52 PP
SHILLONG	141.34	359.0	19	14A	-7						
POONA	144.02	28.8	19	24	-1						
CHITTAGONG	144.54	359.0	19	32	6						
NHATRANG	148.98	324.1	19	40	7						
MUNDARING	150.51	226.9	19	38A	2						
MEDAN	161.64	335.7	20	11	21						
LEMBANG	162.61	290.2	19	54A	3					24	40

APRIL 13 16.H 34.M 42.S EPICENTRE 39.73 77.62 DEPTH= 38.KM

A= 0.16536 B= 0.75323 C= 0.63663 D= 0.9767 E=-0.2144
G= 0.1365 H= 0.6218 K=-0.7712 HT= -1.6

DEPTH OF FOCUS= 0.001R

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NARYN	2.10	324.5	0	34	0								
PRZHEVALSK	2.81	11.9	0	45	1						1	24	S*
RYBACHE	2.93	338.7	0	48	3								
MURGAB	3.18	245.8	0	50	1								
KURMENTY	3.30	8.5	0	52	1								
FABRICHNAYA	3.51	345.6	0	55	1						1	47	
ALMATA	3.57	352.1	0	56	1	1	37	1					
FRUNSE	3.83	324.9	1	0	2	1	46	3			2	10	
ANDIJAN	4.14	285.9	1	4	1								
FERGANA	4.53	280.1	1	9	1						2	12	S*
NAMANGAN	4.71	287.3	1	12	1								
DZERGETAL	4.97	266.1	1	12	-2								
KHOROG	5.27	246.7	1	23	4								
GARM	5.72	265.0	1	25	0								
KULYAB	6.41	255.9	1	35	0						2	3	
TASHKENT	6.55	286.7	1	35	-2						2	11	
DUZHANBE	6.97	263.2	1	42	-1						3	26	S*
WARSAK DAM	7.51	222.2	1	51A	1	3	22	7					
SAMARKAND	8.20	273.0	1	57	-3								
LAHORE	8.59	199.1	2	4A	-1	3	37	-5					
SEMIPALATNSK	10.83	9.0	2	32	-4								
BAIRAM-ALI	12.30	265.0	2	47	-9	5	3	-9					
QUETTA	12.93	225.8	3	2A	-2	5	25	-2			3	11	PP
LHASA	14.92	128.3	3	31K	1								
ASHKABAD	15.12	269.4	3	28	-5	6	17	-3					
CHATRA	15.13	145.4	3	31	-2	6	11	-9			3	43	PP
KIZYL-ARVAT	16.50	275.0	3	46	-4						9	1	
SEHORE	16.52	181.7	3	47	-4	6	37	-15			3	59	PP
BOKARO	17.30	154.0	3	58K	-2	7	20	10			4	9	PP
KARACHI	17.32	214.1	3	56A	-5	7	12	2					
SHILLONG	18.50	135.5	4	11K	-4	7	39	2			4	26	PP
TOCKLAI	19.28	127.0	4	23	-1	7	57	3			4	40	PP
CALCUTTA	19.43	148.8	4	27K	1	8	5	7					
SVERDLOVSK	20.41	332.6	4	36	-1						4	58	PP
LANCHOW	20.98	91.8	4	42	-1								
CHITTAGONG	21.12	140.9	4	47	3	8	40	8			5	8	PP
BOMBAY	21.17	192.7	4	43	-1	8	43	10			5	4	PP
BAKU	21.20	280.7	4	35	-10						9	12	SSS
POONA	21.38	189.9	4	47	1	8	47	10			5	16	PP
VIZIANAGRAM	22.12	165.1	5	2A	8	9	7	17			5	29	PP
HYDERABAD	22.23	177.9	4	58	3	8	59	7			5	18	PP
IRKUTSK	22.24	46.8	4	54A	-1								
MAKHACH-KALA	22.78	288.0	5	2	2						9	19	
KYAKHTA	22.84	52.7	5	0A	-1	9	12	9					
SHIRAZ	22.89	251.7	5	3K	1	8	0	-64			5	17	PP
BAYANDAI	23.23	45.7	5	3A	-2								
CHENGTU	23.32	104.6	5	7K	1	9	22	10					
KABANSK	23.49	48.8	5	7A	0	9	24	9					
KIROVOBAD	23.86	282.3	5	12	1						10	42	SSS
GROZNY	24.05	289.0	5	13	0						9	40	
TIFLIS	24.87	285.3	5	23A	2						10	0	
EREVAN	25.31	281.7	5	27	2						6	7	PP
SIAN	25.52	92.5	5	28	1								
KUNMING	25.62	117.1	5	29	1	9	56	5					
BAKURIANA	25.82	285.6	5	32	2								
PIATIGORSK	25.96	290.9	5	34	3								
MADRAS	26.72	174.4	5	38K	0	10	16	7			6	19	PP
SOTCHI	28.41	290.2	5	54A	1						6	45	PP
KODAIKANAL	29.38	180.3	5	41	-21	10	59	7			12	59	SSS
PEKING	29.43	76.9	6	2A	0	10	51	-2					
MOSCOW	30.77	314.7	6	14	0	11	14	0			7	24	PPP
PORT BLAIR	30.99	150.3	6	22	6	11	25	8			7	47	PPP
SIMFEROPOL	32.28	293.7	6	28A	0						7	37	PP
COLOMBO	32.75	175.9	6	34	2	11	54	9					
KSARA	33.72	273.3	6	40A	0	12	8	8			7	43	PP

NANKING	33.98	90.0	6	43	1	12	10	6		
CANTON	34.43	108.1	6	46A	0	12	14	3		
JERUSALEM	35.05	270.4	6	53A	2				8	12 PP
CHANGCHUN	35.41	67.5	6	52A	-3	12	26	0		
HONG KONG	35.52	108.3	6	56	1				8	22 PP
PULKOVO	35.54	320.2	6	55	-1	12	30	2	8	16 PP
KISHINEV	35.72	298.2	6	57	0				15	1
ZO-SE	36.24	89.9	7	2A	0	12	39	0		
IASI	36.55	298.6	7	5	1				8	26 PP
ISTANBUL KA.	36.62	288.2	7	5	0	12	44	0	8	31 PP
ISTANBUL UN.	36.68	288.2	7	7	2				7	33 PP
APATITY	36.85	333.5	7	7A	0	12	49	1	8	30 PP
KAJAANI	37.80	326.7	7	16	1	13	15	12		
BUCHAREST	38.01	294.4	7	18A	2	13	32	26	8	48 PP
YAKUTSK	38.30	36.9	7	16	-3	13	10	0	9	4 PPP
NURMIJARVI	38.46	320.6	7	20A	0	13	21	9	8	49 PP
CAMPULUNG	38.59	295.9	7	25	4				8	55 PP
LWOW	38.60	303.3	7	22	1	13	16	1	9	23 PPP
HELWAN	38.89	270.0	7	24A	0	13	23	4		
NHATRANG	39.10	125.7	7	26	1				14	14
SODANKYLA	39.21	331.6	7	25	-1				8	52 PP
TAICHUNG	39.31	100.1	6	38	-49					
TAINAN	39.61	102.0							21	18
HWALIEN	40.13	99.6	7	36	2					
VLADIVOSTOK	40.25	66.9	7	34	-1	13	42	3		
WARSAW	40.26	307.4	7	35	0	13	39	-1	9	3 PP
SOFIA	40.36	292.4	7	37	1	14	9	28		
TIKSI	40.81	22.2	7	39	-1				13	34 PCS
UMEA	40.98	325.3	7	38	-3				9	15 PP
TIMISOARA	41.12	297.5	7	47	5				9	35 PP
SKALNATE PL.	41.13	302.8	7	42	0				17	18 SS
KRAKOW	41.20	304.2	7	41	-2	13	58	4	9	16 PP
TOMIE	41.43	83.3	7	44	-1				15	50
ATHENS	41.48	285.4	7	44K	-1				21	18 PPS
KIRUNA	41.62	331.3	7	46A	0	14	4	4	9	27 PP
KHEYS	41.65	355.3							7	48 PPP
CHORZOW	41.76	304.7	7	47	0				16	58 SS
BELGRADE	41.86	296.3	7	50	2				9	30 PP
UPPSALA	41.90	319.1	7	48A	-1	14	5	1	9	25 PP
NAGASAKI	42.23	82.6	7	51A	0	14	14	5		
BUDAPEST	42.24	300.5	7	54	3	13	55	-14	9	31 PP
HUKUOKA	42.26	81.2	7	54	2				17	36
RACIBORZ	42.30	304.5	7	52A	0	14	16	6	9	25 PP
TROMSOE	42.55	333.7	7	54	0				9	36 PP
HURBANOVO	42.70	301.3	7	56	1				9	44 PP
KUMAMOTO	42.82	82.1	7	57	1					
HAMADA	43.02	78.6	7	59K	1				18	2
KAGOSIMA	43.24	83.8	7	59	-1				11	39
OOITA	43.35	81.0	8	2A	2				18	13
BRATISLAVA	43.36	301.9	8	1	0				9	38 PP
SAIGO	43.47	76.3							22	51
HIROSIMA	43.50	79.1	8	3	1				9	45 PP
MAWASHI	43.58	92.6							10	8
YAKUSIMA	43.71	85.3							9	47
MIYAZAKI	43.76	82.9	7	44	-20					
VIENNA-H.	43.82	302.2	8	5A	1	14	35	3	9	51 PP
SKALSTUGAN	44.49	324.5	8	9A	-1				9	53 PP
SIMIDU	44.57	80.9	8	12	2				22	52
PRUHONICE	44.63	305.0	8	11A	0	14	46	2	10	2 PP
ZAGREB	44.66	298.9	8	13A	2				9	54
KOTI	44.67	79.7	8	10	-1	14	47	3		
PRAGUE	44.69	305.1	8	13	2	14	47	2	10	6 PP
TAKAMATU	44.75	78.4	8	12	0				18	18
TOYOOKA	44.84	76.5	8	13	1					
COPENHAGEN	44.92	313.3	8	13A	0	14	50	2	9	53 PP
GOTEBORG	44.94	316.2	8	11A	-2				9	55 PP
MUROTO	45.29	79.7	8	19	3					
OKHA	45.33	49.7	8	15	-1					
COLLMBERG	45.33	307.1	8	17A	1	15	7	13	10	4 PP
TARANTO	45.37	291.3	8	34	17				16	24
SUMOTO	45.39	78.0	8	17	0				10	12
KASPERSKE H.	45.43	304.0	8	16A	-1				9	56 PP
KOBE	45.45	77.4	8	18	1				24	42
LJUBLJANA	45.58	299.6	8	18A	0				9	57 PP
ABUYAMA	45.67	77.0	8	19A	0					
WAZIMA	45.68	73.2	8	21	2					
HUKUI	45.69	75.2	8	19	0					
OSAKA	45.73	77.3	8	24K	4	15	15	16		
KYOTO	45.73	76.7	8	21	1				22	34

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NARA	45.94	77.1	8	22	1					
CHEB	45.97	305.5	8	17	-5				10	7 PP
HIKONE	46.02	76.2	8	22	0					
TOYAMA	46.16	73.9	8	23	0					
SUTTSU	46.20	64.9	8	21	-2				26	8
TRIESTE	46.21	299.3	8	24A	1	15	26	20	10	11 PP
JENA	46.28	306.9	8	24	0	15	12	5	10	18 PP
KAMEYAMA	46.35	76.6	8	28	4	15	15	7		
GIHU	46.35	75.8	7	57	-28					
WAKKANAI	46.41	61.0							24	13
SIOMISAKI	46.41	78.7	8	14	-11					
AIKAWA	46.43	71.8							25	36
NAGOYA	46.60	76.0	8	32	6					
Y.-SAKHLINSK	46.65	58.6	8	25	-2	15	16	3		
SAPPORO	46.90	64.2	8	27	-2	15	15	-1		
NAGANO	46.91	73.5	8	30	1					
MATUSIRO	46.97	73.7	8	28A	-1	15	21	4	19	0 SS
NIIGATA	47.06	71.6	8	12	-18	15	21	3		
IIDA	47.10	75.1	8	30	0					
AKITA	47.15	68.9	8	18	-13					
OIWAKE	47.31	73.8	9	30	58					
HAMAMATU	47.34	76.2	8	30	-2					
REGGIO CALA.	47.38	288.9	8	33	0	15	31	8		
MESSINA	47.42	289.0	8	32A	-1	15	38	15	10	25 PP
PADOVA	47.55	299.5	8	31A	-3	15	33	8	10	22 PP
KOHU	47.58	74.6	8	37	3					
MAEBASI	47.66	73.5	8	49	14					
SHIZUOKA	47.75	75.5							25	18
OMAESAKI	47.77	76.1							26	38
MISIMA	48.10	75.1	8	39	1					
MIZUSAWA	48.11	69.2	8	38	0					
HUKUSIMA	48.16	71.2	8	37	-2					
BOLOGNA	48.19	298.5	9	48	69	15	55	21	11	2 PP
UTUNOMIYA	48.19	72.9	8	37	-2				10	21
URAKAWA	48.20	64.9	8	37	-2					
STUTTGART	48.26	304.5	8	40A	1	15	39	4	10	33 PP
ROME	48.27	294.8	8	43A	3	15	46	10	10	30 PP
SENDAI	48.27	70.4	8	35	-5					
RAVENSBURG	48.33	303.2	8	40A	0					
HEIDELBERG	48.44	305.5	8	41A	0					
MUNSTER	48.44	309.0	8	41	0				11	3
TOKYO C.M.O.	48.46	74.1	8	42	1	15	40	2		
TUBINGEN	48.46	304.3	8	41A	0					
FLORENCE X.	48.48	297.6	8	39A	-2	15	53	14		
YOKOHAMA	48.49	74.4	8	42K	1					
TUKUBASAN	48.50	73.3	8	38	-3	15	35	-4	8 45	19 17 SS
PRATO	48.55	297.8	8	43	1	15	44	5		
MAGADAN	48.58	40.6	8	40	-2	15	47	7	10	35 PP
CHUR	48.66	302.0	8	42A	-1				15	51
KARLSRUHE	48.75	305.0	8	43	0				11	19
WITTEVEEN	48.80	310.3	8	44	0					
BENSBERG	48.98	307.8	8	45A	0				10	40 PP
STRASBOURG	49.28	304.7	8	47A	0	15	52	2	10	42 PP
PAVIA	49.43	300.0	9	50	62	17	18	86	11	48 PP
BASLE	49.72	303.4	8	50A	-1				19	59
NEMURO	49.73	62.4							30	18
DE BILT	49.86	309.7	8	53	1	15	58	0	10	51 PP
NEUCHATEL	50.29	302.9	8	54	-1				20	6
KURILSK	50.61	59.4	8	56	-1	16	9	1		
BESANCON	50.84	303.5	8	58A	-1					
MONACO	51.10	298.8	9	0A	-1					
ISOLA	51.19	299.5	8	59	-3				9 8	
NORD	51.59	349.2	9	4A	-1					
CUGLIERI	51.65	294.2							10	48
ABERDEEN	52.49	317.5				16	41	7	20	12 SS
PARIS	52.52	306.4	9	11	-1				11	15 PP
DURHAM	52.94	314.5	9	14A	-1	16	49	9	11	10 PP
DJAKARTA	53.05	142.6							10	57
CLERMONT-FD.	53.21	302.6	9	17A	0	17	1	17		
KEW	53.31	310.3	9	17A	-1	16	48	3	20	26 SS
EDINBURGH	53.44	316.2				16	40	-7	12	18 PPP
LEMBANG	53.99	142.1	9	21	-2					
FOLINIERE	54.37	307.2	9	25	0					
PETROPAVLOVK	54.55	47.1	9	23	-4	16	58	-4	11	30 PP
KLYUCHI	54.61	42.7	9	27	0					
SCORESBY SD.	56.19	336.5	9	39A	0	17	40	16	17	45 PS
BAGNERES	56.23	300.6	9	38	-1					
TORTOSA	56.97	298.1	9	44	0	17	48	14		

ALICANTE	58.77	295.9	9	45	-12	17	48	-10	12	0	PP
TOLEDO	60.49	299.0	10	8A	-1	18	24	4	12	21	PP
ALMERIA	60.88	295.2	10	10A	-1	18	33	8	12	27	PP
LWIRO	61.15	239.2	10	14K	1	18	38	10			
GRANADA	61.50	296.1	10	19A	3	18	49	16	12	43	PP
SERRA PILAR	62.90	302.1	10	23K	-2	18	28	-22	12	42	PP
COIMBRA	63.26	301.2	10	28A	1						
BANGUI	63.62	252.6	10	28	-2	19	2	3			
LISBON	64.49	300.1	10	36A	1				19	32	PS
TANANARIVE	64.75	211.6	10	38A	1	19	22	9	13	3	PP
RESOLUTE	65.77	357.8	10	41A	-3	19	34	8			
COLLEGE	69.84	18.9	11	7	-2	20	21	7	13	40	PP
BROKEN HILL	70.68	230.9	11	15A	1						
BULAWAYO	75.08	227.2	11	41A	1						
LOME	75.66	266.0	11	41	-2						
LUANDA	76.58	246.4	11	50A	2						
SITKA	79.66	17.6	12	6	1						
PRETORIA	79.80	224.1	11	16	-50						
MUNDARING	79.81	147.4	12	6	0						
PORT MORESBY	80.63	110.5	12	11	0	22	19	5			
RABAUL	80.88	103.2	12	9	-3						
WINDHOEK	83.81	234.0	12	30K	3						
KIMBERLEY	84.01	224.7	12	18K	-10						
MBOUR	84.41	283.9	12	33	3	23	3	11			
GRAHAMSTOWN	86.68	220.7	12	43	2						
CHARTERS TS.	87.33	118.8	12	45	1	23	23	3			
HALIFAX	89.06	333.4	12	53	0						
PENTICTON	90.03	11.2	12	54	-3						
SHAWINIGAN	90.12	340.1	12	57	-1						
VICTORIA	90.17	13.8	12	56	-2						
HERMANUS	91.38	224.8				24	9	12	25	20	PS
HUNGRY HORSE	91.69	7.7	13	6	1						
OTTAWA	91.94	341.6	13	7	1						
ADELAIDE	93.28	133.9	13	13	1						
PALISADES	95.56	338.7				24	5	11	17	11	PP
RAPID CITY	96.57	0.6	13	27	0						
BRISBANE	96.65	120.1	13	30	2	24	9	9			
MINERAL	98.39	14.7							16	41	
MELBOURNE	98.84	132.3							14	39	
LARAMIE	99.29	2.4	13	42	3						
FLAMING GRGE	99.47	5.4	13	10	-30				17	34	PP
CANBERRA	99.50	128.2	13	40	0						
RENO	99.51	13.6	17	8	207						
RIVERVIEW	99.83	125.9	13	45	3	24	26	10	26	51	PS
EUREKA	100.19	10.6	13	44	0				17	46	PP
RUTH	100.58	9.9	17	57	252	26	59	159	43	9	
BERKELEY	100.65	15.9							27	17	
PASADENA	105.05	13.5	18	26	777	27	48	187	33	30	SS
WICHITA MTS.	105.84	356.8	14	12	777				18	16	PP
TUCSON	107.96	7.5	18	16	777	26	18	84	18	51	PP
WILKES	108.73	166.6				25	18	21	28	22	PS
KARAPIRO	118.28	117.2	18	44	0						
CHATEAU	118.90	118.5							20	26	
CARACAS	120.17	318.7	18	48	1	25	53	12			
FUQUENE	127.84	322.8	19	6	4						
CAPE HALLETT	128.09	157.2							21	4	PP
SCOTT BASE	128.29	164.3	19	4	1				21	3	PP
BOGOTA	128.74	322.7	19	10	6				22	27	SKP
CHINCHINA	129.14	324.7	19	7	2				21	17	PP
BYRD STATION	139.06	175.5	19	17	-6						
LA PAZ	142.30	298.0	19	32	3				23	50	
HUANCAYO	143.51	311.6	19	33	2				22	48	PP
PORT STANLEY	147.20	233.7	19	42	5						

APRIL 15 0.H 14.M 54.S EPICENTRE 34.38 141.17 DEPTH= 103.KM

A=-0.64430 B= 0.51863 C= 0.56205 D= 0.6270 E= 0.7790
G=-0.4378 H= 0.3524 K=-0.8271 HT= 0.3

DEPTH OF FOCUS= 0.011R

SE= 4.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MERA	1.23	296.5	0	18K	-6							

TYOSI	1.36	349.1	0	19A	-7	0	42	-3			
OSIMA	1.53	285.4	0	21A	-7						
YOKOHAMA	1.63	310.5	0	25	-4						
HATIDYOZIMA	1.72	222.4	0	40	10						
TOKYO C.M.O.	1.74	318.6	0	27	-3					2	5
AJIRO	1.83	292.1	0	26	-5	0	55	0			
MISIMA	1.97	292.7	0	24	-9					3	20
KAKIOKA	2.02	336.7	0	28	-6	0	52	-7			
TUKUBASAN	2.04	334.9	0	29	-5						
MITO	2.08	344.3	0	31	-4	1	1	1			
HUNATU	2.27	300.3	1	6	29						
KUMAGAYA	2.29	320.9	0	34	-4	1	12	7			
TITIBU	2.34	313.7	0	36	-2						
SHIZUOKA	2.36	285.3	0	46	8	3	15	128			
UTUNOMIYA	2.41	334.3	0	33	-6	1	11	3			
OMAESAKI	2.45	276.0	0	35	-5						
KOHU	2.50	301.8	0	37	-3	1	16	6			
MAEBASI	2.65	320.3	0	39	-3	1	40	26			
SHIRAKAWA	2.84	344.5	0	40	-5	1	13	-6			
HAMAMATU	2.87	277.8	1	26	41						
OIWAKE	2.89	313.1	0	45	-1	1	23	3			
IIDA	2.97	293.5	0	44	-3						
MATUMOTO	3.21	306.4	0	50	0	1	20	-8			
MATUSIRO	3.24	312.6	0	48K	-2	1	30	2		2	36
NAGANO	3.33	314.2	0	52	0	1	45	14			
HUKUSIMA	3.41	350.7	0	47	-6	1	31	-2			
NAGOYA	3.54	284.1	1	0	5	1	57	21			
TAKADA	3.61	319.7	0	53	-2						
GIHU	3.76	287.0	0	55	-2						
SENDAI	3.89	356.9	0	52	-7	1	41	-3			
KAMEYAMA	3.90	278.3	0	59	0						
NIIGATA	3.93	334.7	1	2	2	2	17	32			
TOYAMA	3.98	306.7	1	15	15	2	12	26			
HIKONE	4.14	283.8	1	35	32						
TSURUGA	4.37	288.3	1	15	9						
WAZIMA	4.58	312.1	1	9	0						
SAKATA	4.64	347.0	1	6	-3						
ABUYAMA	4.64	277.7								2	49
MIZUSAWA	4.74	359.6	1	25	14	2	9	4			
MIYAKO	5.30	6.7				2	9	-9			
AKITA	5.40	351.2	1	6	-14						
AOMORI	6.44	357.4								2	49
HAMADA	7.52	276.5								4	23
MORI	7.72	356.7								2	28
URAKAWA	7.86	8.8	1	53	-1						
HIROO	8.07	11.5	2	1	5						
OBIHIRO	8.68	9.9								2	37
KUSIRO	8.95	15.4								3	35
NEMURO	9.58	19.7								3	47
VLADIVOSTOK	11.33	323.1	2	23	-17						
PETROPAVLOVK	22.41	28.4	5	2	11						
YAKUTSK	28.60	348.7	5	46	-3						
ULAN-BATOR	28.88	308.3	5	52	1						
CHITTAGONG	44.65	267.9	8	8	4						
SEMIPALATNSK	46.44	309.5	8	17	-1						
COLLEGE	51.45	31.1	8	53	-4				9	17	
CHARTERS TS.	54.38	174.1	9	14	-5						
LAHORE	55.22	287.1	9	21	-4						
STALINABAD	56.97	297.0	9	36	-1						
SVERDLOVSK	57.03	319.7	9	36	-2						
QUETTA	61.58	288.7	10	7A	-2						
RESOLUTE	65.22	14.1	10	29	-4					11	14
SODANKYLA	67.34	337.6	10	45	-1						
KAJAANI	68.89	334.4	10	55	-1						
KIRUNA	68.93	339.5	10	56	0						
MOSCOW	69.27	324.0	10	32	-26						
PULKOVO	70.38	329.9	11	13	8						
UMEA	71.63	336.4	11	14	2						
NURMIJARVI	72.20	332.3	11	14	-2				11	40	
SHIRAZ	72.93	294.4	11	19K	-1						
UPPSALA	75.26	334.2	11	32	-1						
EUREKA	77.68	50.6	11	44	-3						
KARAPIRO	78.71	152.9	11	54	1						
FLAMING GRGE	80.90	46.4	12	1	-3						
SKALNATE PL.	81.65	325.3	12	40	32						
COLLMBERG	83.30	330.2	12	17	0					12	49 *SP
PRUHONICE	83.64	328.6	12	18A	0						
BRATISLAVA	83.84	326.1	12	19	0						
JENA	84.17	330.6	12	20	-1						

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TUCSON	85.30	54.0	12 28	1			12 53				
TUCSON TELE.	85.32	53.8	12 27	0							
STUTTGART	86.78	330.4	12 33	-1							
TRIESTE	87.25	326.1							25	6	
PADOVA	88.29	326.9							26	6	
WICHITA MTS.	91.40	45.4	13 51	-5							
SOUTH POLE	124.20	180.0	18 43	-4							
BYRD STATION	125.22	167.8	18 41	-8							

APRIL 16 11.H 40.M 57.S EPICENTRE 53.55 158.54 DEPTH= 168.KM

A=-0.55533 B= 0.21835 C= 0.80245 D= 0.3659 E= 0.9306
G=-0.7468 H= 0.2936 K=-0.5967 HT= -6.7

DEPTH OF FOCUS= 0.021R

SE= 1.45

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PETROPAVLOVK	0.54	172.6	0	20	-5	0	36	-8					
KLYUCHI	3.09	24.9	0	51	1	1	23	-6			1	29	*SP
SEVERO-KUR.	3.25	208.5	0	50	-2						1	27	
MAGADAN	7.38	327.7	1	48	2	3	10	1					
OKHA	9.29	276.3	2	15	3	5	1	67					
KURILSK	10.84	224.1	2	33	1								
UGLEGORSK	11.23	253.2	2	40	3	4	47	7					
Y.-SAKHLINSK	12.03	243.5	2	50	3	5	4	6					
YAKUTSK	17.41	310.6	3	53	-1	7	5	5					
VLADIVOSTOK	20.43	250.1	4	24	-2	7	58	-2					
MATUSIRO	22.13	228.0	4	44K	1	8	36	6					
TIKSI	22.26	335.5	4	45	1						8	41	PCP
CHANGCHUN	23.79	259.4	4	57K	-2	10	1	62					
ABUYAMA	24.71	230.1	5	8K	1								
COLLEGE	28.76	45.6	5	43	-1				6	12			
IRKUTSK	32.06	290.1	6	13	0						7	28	PP
ULAN-BATOR	32.55	281.4	6	16	-1								
ZO-SE	34.98	245.2	6	38	0								
NANKING	35.57	249.0	6	43	0								
KHEYS	39.31	345.2	7	16	2						9	21	PCP
SIAN	39.66	261.3	7	18	1								
LANCHOW	41.45	267.7	7	33	1								
RESOLUTE	43.25	21.8	7	47K	1								
NORD	45.07	359.0	8	0	-1								
CHENGTU	45.12	262.0	8	2	1								
ALBERNI	45.84	62.7	8	8	1								
KIPAPA	45.97	117.0	8	8	0								
HONOLULU	46.03	117.2	8	6	-3								
SEMIPALATNSK	46.04	299.5	8	7	-2	14	38	-2	8	43			
VICTORIA	47.03	62.7	8	17A	1								
PENTICTON	48.53	59.8	8	27A	-1								
HAWAII V.OB.	49.07	115.6	8	32	0								
BANFF	49.45	55.7	8	36	1								
KUNMING	50.00	258.2	8	40	1								
SVERDLOVSK	51.30	315.8	8	49	0								
ARCATA	51.54	70.9	8	52A	1								
HUNGRY HORSE	52.00	57.7	8	54	0						13	49	PCP
ALMATA	52.28	294.0	8	56	0								
APATITY	52.48	336.7	8	56K	-2								
SHASTA	52.61	70.0	9	0A	1						13	50	
MINERAL	53.29	69.8	9	4A	0						13	52	
TROMSOE	53.66	343.6	9	5	-2								
FRUNSE	53.84	295.0	9	8	0				9	45	10	17	*SP
SODANKYLA	54.15	339.2	9	9K	-1						10	12	PCP
BUTTE	54.30	59.1	9	11	0								
SAN FRANCSCO	54.58	72.7	9	13A	0								
BERKELEY	54.62	72.5	9	14A	0				9	45	10	13	
CONCORD	54.66	72.2	9	15A	1						9	46	
RENO	54.85	69.4	9	16A	1								
KIRUNA	54.98	342.0	9	15	-1								
LICK	55.34	72.5	9	19A	0								
VINEYARD	55.90	72.8	9	23K	0								
SHILLONG	56.09	267.9	9	22K	-2								
SCORESBY SD.	56.28	0.2	9	25A	0								
KAJAANI	56.68	336.5	9	27K	-1						9	59	
FRESNO	56.79	71.7	9	29A	0								

EUREKA	57.01	66.9	9	32	1			9	47	
RUTH	57.73	66.5	9	36A	0					
TASHKENT	57.75	297.1	9	35	-1			10	13	
RABAUL	57.79	187.5	9	36	0					
CHATRA	57.95	272.6	9	35	-2					
CHITTAGONG	58.54	265.4	9	43	2					
UMEA	58.56	339.8	9	40	-1					
FLAMING GRGE	59.51	61.5								
PASADENA	59.59	72.8	9	48	0					17 45
DUZHANBE	59.99	295.1	9	49	-2					
SKALSTUGAN	60.28	343.4	9	52K	-1					
NURMIJARVI	60.48	335.8	9	54K	-1					10 37 PCP
MOSCOW	60.77	326.2	9	56	0					10 31
LARAMIE	61.21	58.8	10	0	1					
GLEN CANYON	61.21	66.0	9	59	0					
WARSAK DAM	61.79	289.7	10	2	-1					
LAHORE	62.01	285.9	10	3K	-2					
UPPSALA	62.68	339.0	10	8K	-1					
BERGEN	64.40	345.6	10	21	1					
TUCSON	65.13	69.0	10	27	2			11	3	
GOTEBORG	65.82	341.1	10	29K	-1					10 58 PCP
ASHKABAD	65.92	301.5	10	27	-3					
QUETTA	67.23	290.2	10	37K	-1					13 8 PP
COPENHAGEN	67.61	340.0	10	41K	0			10	51	
WICHITA MTS.	69.79	58.8	10	54A	0	19	51 3			13 28 PP
DURHAM	70.80	348.0	11	1	1					
KRAKOW	71.04	333.2	11	1	-1					
OTTAWA	71.10	37.2	11	1	-1					
SHAWINIGAN	71.14	34.7	11	2A	0					
WITTEVEEN	71.43	342.4	12	5	61					
RACIBORZ	71.47	334.3	11	3	-1					11 19 PCP
COLLMBERG	71.59	338.0	11	6K	1					13 30
HALLE	71.64	338.7	11	5	0					
AFIAMALU	71.84	149.6	11	6	0					
MUNSTER	72.07	341.6	11	9	1					
JENA	72.25	338.8	11	9	0					
PRUHONICE	72.47	336.5	11	11K	1					11 48
BENSBERG	73.12	341.5	11	15K	1					11 51
KASPERSKE H.	73.49	336.8	11	17K	1					11 55
LEMBANG	73.81	233.4	11	18A	0					
KEW	73.86	346.4	11	18	0					
HEIDELBERG	74.30	340.1	11	21K	0					
STUTTGART	74.79	339.5	11	24K	0					
TUBINGEN	75.06	339.5	11	26K	1					
STRASBOURG	75.28	340.4	11	28	2					11 57
WESTON	75.29	35.8	11	27A	1					
SHIRAZ	75.43	300.2	11	27A	0	20	50 -2	12	7	12 19 *SP
PALISADES	75.56	38.3	11	27	-1					
RAVENSBURG	75.65	338.9	11	29	1					
BELGRADE	75.66	330.6	11	29A	1					15 10
HALIFAX	75.78	29.6	11	29K	0					
PARIS	76.02	343.9	11	33	3					12 3 PCP
LJUBLJANA	76.14	335.1	11	31K	0					
ISTANBUL UN.	76.26	323.1	10	32	-60					
BASLE	76.32	340.2	11	32K	0					
FOLINIERE	76.52	345.9	11	34	1					
TRIESTE	76.71	335.4	11	35	1					
BESANCON	76.90	341.2	11	36	1					
NEUCHATEL	76.95	340.5	11	37	1					
GARCHY	77.40	343.2	11	39	1					13 8
CLERMONT-FD.	78.85	342.7	11	48	2					12 14
KSARA	79.83	314.6	11	53	2					
MONACO	79.98	339.2	11	45	-7					
BRISBANE	80.75	185.2	11	58	2					
ATHENS	80.84	325.4	11	56K	-1					
JERUSALEM	81.87	314.0	12	3	1					
BAGNERES	81.98	344.2	12	2	-1					
HELWAN	85.17	316.0	12	20	1					15 39 PP
CANBERRA	88.89	187.8	12	36	0					
MUNDARING	92.74	215.0								17 52
BROKEN HILL	124.82	295.4	18	44A	4					
BULAWAYO	129.38	291.2	18	53	4					
SCOTT BASE	131.23	177.7								22 5 SKP
KIMBERLEY	138.27	287.6	19	3	-2					22 29
BYRD STATION	140.86	164.1	19	5	-5					22 33 SKP
SOUTH POLE	143.37	180.0	19	12	-3					22 39 SKP

APRIL 17 16.H 21.M 13.S EPICENTRE 3.89 -31.50 DEPTH= 15.KM

A= 0.85070 B=-0.52132 C= 0.06732 D=-0.5225 E=-0.8526
G= 0.0574 H=-0.0352 K=-0.9977 HT= 7.1

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MBOUR	17.72	53.0	4	4	-3	7	12	-11				
LA PAZ	41.48	239.8	7	51	3	14	11	9				
TOLEDO	43.59	31.0	8	5	0	14	38	5				
BAGNERES	48.07	31.1	8	39	-1							
BANGUI	49.99	87.6	8	53	-2				9	5		
CLERMONT-FD.	51.48	30.5	9	11	4							
GARCHY	52.51	29.1	9	13	-1							
ISOLA	52.54	34.4	9	12	-3							
KEW	54.09	23.6	9	32	6							
CHAPEL HILL	54.13	312.3	9	26	0							
WINDHOEK	54.25	121.3	9	26K	-1							
DURHAM	56.22	20.3	10	4	23							
BENSBERG	56.99	28.1	9	47	0							
LJUBLJANA	57.94	36.3	9	51	-3							
KASPERSKE H.	59.10	32.8	10	1	-1							
JENA	59.12	30.2	10	8	6							
COLLMBERG	60.06	30.5	10	7	-1							
PRUHONICE	60.10	32.4	10	8	-1							
VIENNA-H.	60.17	34.8	10	16A	7							
LWIRO	60.57	94.8	10	12	0							
BROKEN HILL	62.16	108.5	10	21	-2							
KIMBERLEY	62.99	124.9	9	26	-62							
GOTEBORG	63.54	24.4	10	30	-2							
BULAWAYO	63.63	114.6	10	30	-2							
HELWAN	64.59	58.8	10	37	-2							
SCORESBY SD.	66.79	3.5	10	50	-3							
UPPSALA	67.19	24.5	10	52	-3							
JERUSALEM	68.22	57.4	11	1	-1							
WICHITA MTS.	69.02	305.6	11	4	-3						39	19 PKPPKP
KSARA	69.10	55.3	11	8	1							
NURMIJARVI	70.52	25.8	11	14	-2							
KIRUNA	72.80	18.2	11	27	-2							
SODANKYLA	74.58	19.9	11	38	-2							
NORD	77.97	2.2	10	57	-62							
FLAMING GRGE	78.31	310.8	11	59	-2							
TUCSON TELE.	78.82	302.0	12	3	-1							
RESOLUTE	79.42	346.0	12	3	-4							
GLEN CANYON	79.76	306.7	12	8	-1							
BOULDER CITY	82.34	305.6	12	22	0							
SHIRAZ	82.90	60.7	12	25	0						12	34
EUREKA	83.28	309.1	12	25	-2							
CHINA LAKE	84.58	305.5	12	32	-2							
MINERAL	87.59	310.1	12	47A	-1							
BYRD STATION	93.46	190.1	13	14	-2							
SOUTH POLE	93.86	180.0	13	17	-1							
COLLEGE	97.36	337.3	13	0	-34							
ADELAIDE	147.77	164.8	19	45A	4							
CANBERRA	148.72	180.8	19	48	6							

APRIL 19 16.H 12.M 31.S EPICENTRE 44.23 148.18 DEPTH= 51.KM

A=-0.61083 B= 0.37903 C= 0.69514 D= 0.5273 E= 0.8497
G=-0.5907 H= 0.3665 K=-0.7189 HT= -3.3

DEPTH OF FOCUS= 0.003R

SE= 2.60

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	1.02	347.6	0	22	3	0	38	5				
OBIHIRO	3.85	251.8	0	59	0	1	40	-3				
HIROO	4.05	242.9	1	0	-1	1	43	-5				
ASAHIGAWA	4.22	265.9	1	8K	4	1	58	6				
URAKAWA	4.46	244.1	1	7	0	1	57	-2				
RUMOE	4.73	268.9	1	14	3	2	11	6				
Y.-SAKHLINSK	4.74	308.0	1	13	2	2	8	3				

WAKKANAI	4.77	286.7	1	14	2					
TOMAKOMAI	5.07	253.9	1	20	4	2	11	-3		
SAPPORO	5.09	259.2	1	18K	2	2	14	0		
MURORAN	5.59	252.5	1	24	1	2	26	-1		
HAKODATE	5.95	248.6	1	28K	0	2	32	-4		
SUTTSU	5.95	258.9	1	30	2	2	44	8		
MORI	5.96	251.7	1	30	2	2	41	5		
HATINOHE	6.16	235.4	2	27	56	3	31	50		
AOMORI	6.44	240.6	1	35	0	3	4	16		
MIYAKO	6.51	227.4	1	32	-4	2	38	-12		
MORIOKA	6.91	231.5	1	39	-2	2	49	-11		
MIZUSAWA	7.33	228.4	1	45	-2	3	0	-10		
AKITA	7.52	235.9	1	49	-1	3	9	-6		
SENDAI	8.09	225.1	1	56	-2	3	17	-12		
SAKATA	8.22	232.5	1	59	-1	3	27	-5		
SEVERO-KUR.	8.38	37.0	2	0	-2	3	38	2		
HUKUSIMA	8.71	224.6	2	2	-4	3	35	-9		
SHIRAKAWA	9.32	223.1	2	14	-1	3	47	-12		
NIIGATA	9.34	230.7	2	15	0	3	57	-3		
AIKAWA	9.72	233.7	2	19A	-1	3	59	-10		
MITO	9.80	219.5	2	18A	-3	3	59	-12		
OKHA	9.94	341.6	2	26	3	4	24	10		
UTUNOMIYA	9.95	222.4	2	21	-2	4	9	-6		
KAKIOKA	10.06	220.1	2	21	-4	4	0	-17		
TUKUBASAN	10.10	220.4	2	19A	-6	4	3	-15	2	38 PPP
TYOSI	10.19	215.9	2	22	-5	4	7	-13		
TAKADA	10.37	230.0	2	27	-2	4	14	-11		
MAEBASI	10.46	224.7	2	29	-1	4	17	-10		
KUMAGAYA	10.50	222.8	2	28K	-3	4	17	-11		
HONGO	10.67	220.0	2	31	-2				4	20
TOKYO C.M.O.	10.71	220.0	2	30	-4	4	19	-14		
NAGANO	10.71	228.6	2	42	8	4	36	3		
OIWAKE	10.78	226.2	2	31	-4					
TITIBU	10.79	223.3	3	32	57					
MATUSIRO	10.80	228.1	2	32A	-3	4	25	-10	2	54
WAZIMA	10.94	235.2	2	37	0	4	32	-7		
YOKOHAMA	10.96	219.6	2	34	-3	4	26	-13		
MATUMOTO	11.15	227.8	2	39	-1					
PETROPAVLOVK	11.18	34.5	2	38	-2				4	59
TOYAMA	11.24	231.7	2	39	-2	4	57	11		
KOHU	11.29	224.0	2	43	1	4	37	-10		
MERA	11.31	217.5	3	9	27					
HUNATU	11.32	222.8	2	46	4	4	36	-12		
MISIMA	11.54	221.1	2	37	-8	4	41	-12		
OSIMA	11.63	218.7	2	43	-3	4	38	-17		
KANAZAWA	11.67	232.7	2	46	-1					
IIDA	11.78	225.9	2	50	2	5	1	2		
VLADIVOSTOK	11.84	270.3	2	47	-2	4	59	-2		
SHIZUOKA	11.93	222.5	3	1	11	4	51	-12		
OMAESAKI	12.31	222.0	2	59	4					
GIHU	12.43	228.7	2	56	-1					
HAMAMATU	12.46	223.9	2	59	2	5	9	-6		
NAGOYA	12.49	227.4	2	53	-5	5	7	-9		
TSURUGA	12.63	231.4	2	58	-1					
HIKONE	12.81	229.7	3	1	-1	5	25	1		
KAMEYAMA	13.00	227.9	3	6	2	5	37	9		
KYOTO	13.28	230.4	3	6	-2	5	23	-12		
TOYOOKA	13.43	234.2	3	8A	-2	5	28	-11		
NARA	13.48	229.1	3	6	-5					
ABUYAMA	13.48	230.4	3	8A	-3					
TOTTORI	13.82	235.7	3	13	-2					
YONAGO	14.37	237.4	3	21	-1					
SIOMISAKI	14.45	226.0	3	31	8	6	21	18		
MAGADAN	15.42	5.0	3	35	-1	6	33	7		
MUROTO	15.45	229.5	3	35	-1					
HAMADA	15.51	238.5	3	37A	0	6	43	16		
KOTI	15.59	231.8	3	40	2	6	44	15		
HIROSIMA	15.65	236.3	3	44	5	6	44	13		
MATUYAMA	15.81	234.2	3	37	-4	6	24	-11		
CHANGCHUN	16.45	276.6	3	47A	-2					
SIMIDU	16.48	231.2	3	38	-11	7	0	10		
OOITA	16.93	235.1	3	53A	-2	7	8	8		
SAGA	17.70	237.8	4	5	0	7	32	14		
KUMAMOTO	17.76	236.0	4	4	-1	7	33	14		
MIYAZAKI	17.99	232.6	4	18	10	7	37	13		
NAGASAKI	18.32	237.4	4	11K	-1	7	41	10		
KAGOSIMA	18.75	233.5	4	17	0	7	36	-5	6	9
YAKUSIMA	19.61	231.4	4	30	3					

YAKUTSK	20.84	335.2	4	37	-3	8	20	-5	8	44 *SS
PEKING	24.02	271.1	5	12	1	9	22	0		
ZO-SE	24.94	247.4	5	22	2	9	41	4	5	43
NANKING	25.98	252.1	5	32	2	9	57	2		
ULAN-BATOR	28.63	292.1	5	53	-1					
TIKSI	29.03	347.5	5	54	-4				6	45 PP
IRKUTSK	29.90	301.3	6	4	-1	11	0	2	7	12 PP
SIAN	31.73	265.3	6	22	0					
LANCHOW	34.53	271.9	6	47	1					
CANTON	35.47	245.0	6	54	0	12	25	0		
HONG KONG	35.50	243.1	6	55	1	12	25	0		
CHENGTU	37.15	263.8	7	8	0	12	48	-2		
MANILA	37.41	226.5	7	13	3	13	8	14		
COLLEGE	40.26	36.4	7	35	1	13	37	0		
KUNMING	41.35	257.9	7	44	1	13	52	-1		
SEMIPALATNSK	45.01	303.0	8	13	1					
NHATRANG	46.16	238.5	8	22	0	14	36	-27		
KHEYS	46.73	347.0							10	29 PP
LHASA	47.03	272.0	8	31	3	15	17	1		
RABAUL	48.34	174.7	8	38	-1					
SHILLONG	48.81	267.0	8	41A	-1	15	37	-4	10	49
ALMATA	49.93	295.3	8	51	0	15	57	1		
CHATRA	51.44	271.6	9	3	1	16	18	1		
FRUNSE	51.64	295.9	9	4	0	16	21	1		
HAWAII V.OB.	52.86	98.9	9	14	1					
SVERDLOVSK	53.30	316.8	9	15	-1					
PORT MORESBY	53.38	181.3	9	33	16	17	13	29		
NORD	54.16	357.3	9	18A	-5					
BOKARO	54.23	269.6	9	20	-3	16	50	-5		
RESOLUTE	54.30	17.0	9	22A	-2					
NAMANGAN	54.47	295.2	9	26A	1	17	0	2		
TASHKENT	55.84	296.7	9	35	0	17	17	0		
DEHRA DUN	55.91	280.9	9	35	0	17	18	0		
PORT BLAIR	57.39	253.3	9	47	1	17	37	0		
DUZHANBE	57.64	294.2	9	48	0					
LAHORE	57.81	284.3	9	47	-2	17	38	-5		
VICTORIA	57.82	51.7	9	49	0					
WARSAK DAM	58.33	288.3	9	52A	0					
PENTICTON	59.50	49.4	9	58	-2					
CORVALLIS	60.03	55.6	10	5K	1					
SODANKYLA	60.30	337.7	10	4	-2					
TROMSOE	60.54	341.9	10	7	-1					
KIRUNA	61.57	340.0	10	12	-3					
KAJAANI	62.34	334.7	10	18	-2					
LEMBANG	62.60	226.7	10	22K	1				11	22
SHASTA	62.81	58.7	10	23	0					
HUNGRY HORSE	63.07	47.8	10	25	0					
MINERAL	63.50	58.6	10	27A	0					
QUETTA	63.73	287.4	10	29A	0	18	59	1	10	41 19 24 *SS
CHARTERS TS.	64.03	182.0	10	30	-1					
MOSCOW	64.50	324.1	10	32	-2				11	6 PCP
PULKOVO	64.56	330.3	10	34	0				26	29 SS
BERKELEY	64.58	61.2	10	35K	1					
CONCORD	64.64	61.0	10	36K	1					
ASHKABAD	64.70	299.0	10	36	1	19	12	2		
UMEA	64.73	337.2	10	30	-5				11	1
RENO	65.09	58.4	10	39K	1					
LICK	65.29	61.3	10	37A	-2					
MADRAS	65.30	264.1	10	53	14	19	19	2		
SCORESBY SD.	65.38	356.4	10	39K	-1					
NURMIJARVI	65.94	333.1	10	42	-1	19	23	-2		
POONA	66.18	273.1	10	42	-3					
BOZEMAN	66.33	48.8	10	47	1				11	2
BOMBAY	66.68	274.1	10	47	-1	19	32	-2		
FRESNO	66.80	60.8	10	49	0					
SKALSTUGAN	67.00	340.2	10	49	-1				11	13
EUREKA	67.45	56.5	10	52	-1					
RUTH	68.20	56.2	11	3K	6					
AFIAMALU	68.38	137.8	10	59	0					
UPPSALA	68.64	335.7	10	59K	-1					
SALT LAKE C.	69.04	53.2	11	4	1					
PASADENA	69.48	62.1	11	4A	-1	20	9	1	12	12
FLAMING GRGE	70.34	51.8	11	10	-1					
TIFLIS	70.35	309.3	11	11A	0	20	20	2	11	31 PCP
TEHERAN	70.42	301.0	11	12	1	20	22	3		
BERGEN	71.41	341.6							11	53
GLEN CANYON	71.70	56.1	11	19	0					
GOTEBORG	72.07	337.0	11	17	-4					
LARAMIE	72.20	49.4	11	22	0					

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SIMFEROPOL	73.66	317.5	11	30A	0					21	34 PS
COPENHAGEN	73.66	335.7	11	30	0						
SHIRAZ	73.71	295.5	11	30K	-1	20	54	-2	11 45	14	18 PP
LWOW	74.44	326.2	11	35	0	21	5	1		11	55 PCP
KISHINEV	74.58	321.8	11	35	-1						
TUCSON	75.34	59.3	11	41	1						
TUCSON TELE.	75.35	59.2	11	41	1						
KRAKOW	75.85	328.5	11	43A	0					11	59 PCP
CHORZOW	76.00	329.2	11	44K	0					11	53 PCP
SKALNATE PL.	76.43	327.8	11	44	-2						
RACIBORZ	76.46	329.5	11	47	1					11	55 PCP
COLLMBERG	77.24	333.0	11	51A	0					13	50
HALLE	77.40	333.7	11	52	0	21	35	-2			
BUCHAREST .	77.80	321.6	11	53A	-1						
WITTEVEEN	77.82	337.3	11	55K	1						
PRUHONICE	77.84	331.4	11	54A	0	21	41	-1		22	24 PS
JENA	78.01	333.6	11	54	-1	21	42	-1	12 21	12	56
HURBANOVO	78.29	328.2	11	57	1						
MUNSTER	78.31	336.3	11	56	-1						
BRATISLAVA	78.45	329.0	11	59	2				12 25		
VIENNA-H.	78.65	329.5	12	0A	2					12	12 PCP
KASPERSKE H.	78.90	331.5	12	1A	1					12	59
ISTANBUL KA.	79.02	317.7	12	1A	1	21	57	3			
ISTANBUL UN.	79.08	317.7	12	1	0					12	28
CANBERRA	79.18	179.3	12	1	0						
ADELAIDE	79.30	187.9	11	54	-8						
BENSBERG	79.33	336.1	12	1	-1	21	57	0	12 27	13	56
BELGRADE	79.91	325.1	12	7K	2	22	3	0		15	43 PP
HEIDELBERG	80.25	334.5	12	7A	0						
SOFIA	80.39	322.2	12	9	1	22	13	5			
STUTTGART	80.63	333.8	12	8	-1						
WICHITA MTS.	80.76	50.1	12	10	0	22	10	-2		15	19 PP
KEW	80.85	340.7	12	11A	1						
TUBINGEN	80.90	333.9	12	11A	0						
KSARA	80.91	308.7	12	10A	-1	22	15	1		23	32 PPS
LJUBLJANA	81.19	329.3	12	12A	0				12 35		
STRASBOURG	81.27	334.6	12	12	0					12	35
RAVENSBURG	81.39	333.2	12	13	0						
MELBOURNE	81.73	182.6	12	19	4						
TRIESTE	81.81	329.6	12	15	0						
FAYETTEVILLE	82.09	46.4	12	17K	0				12 33		
BASLE	82.26	334.3	12	19A	1						
PARIS	82.59	337.9	12	20	1						
OTTAWA	82.63	29.5	12	19K	0						
SHAWINIGAN	82.63	27.4	12	20	1						
PADOVA	82.69	330.6	12	35	15						
JERUSALEM	82.79	307.8	12	23A	3				12 36		
NEUCHATEL	82.92	334.4	12	22	1						
BESANCON	83.00	335.1	12	22A	1						
BREBEUF	83.27	28.2	12	23	0						
FOLINIERE	83.39	339.7	12	24	1						
FLORENCE X.	84.32	330.2	12	19A	-9	22	59	11			
CLERMONT-FD.	85.18	336.3	12	33A	1						
ISOLA	85.41	333.1	12	33	0	23	19	20			
KARAPIRO	85.45	158.6	12	35	1				13 1		
ROME	85.50	328.5	13	34A	60	23	46	46		14	14
MONACO	85.68	332.6	12	34	-1						
MORGANTOWN	85.93	35.2	12	37K	1					15	55 PP
TARRALEAH	86.16	181.3	12	39	2						
HELWAN	86.42	309.1	12	39	1	23	11	2			
FORT NELSON	86.78	180.6	12	42	2					12	58 SP
WESTON	86.80	28.2	12	42A	2						
PALISADES	87.10	30.5	13	12	30	23	12	-3		30	12 SS
BAGNERES	88.50	337.2	12	49	1						
CHAPEL HILL	89.44	36.6	12	54	1					16	26
TOLEDO	92.61	339.0	13	7K	-1					24	13
BANGUI	113.81	302.8	18	35	2					19	21
BROKEN HILL	121.17	280.5	18	50A	2						
SCOTT BASE	122.35	175.4	18	51	1						
BULAWAYO	124.84	275.3	18	56A	1						
KIMBERLEY	132.85	269.4	19	10	0						
BYRD STATION	133.59	166.1	19	3	-8					19	31
SOUTH POLE	134.04	180.0	19	12	0				20 58		
LA PAZ	138.76	59.5	19	26	5						

APRIL 19 18.H 13.M 57.S EPICENTRE 55.22 163.58 DEPTH= 42.KM

A=-0.54969 B= 0.16195 C= 0.81952 D= 0.2826 E= 0.9592
G=-0.7861 H= 0.2316 K=-0.5731 HT= -7.3

DEPTH OF FOCUS= 0.001R

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	
KLYUCHI	1.89	306.9	0	31	1								
PETROPAVLOVK	3.64	234.8	0	54	-1	1	34	-3			1	3	*SP
SEVERO-KUR.	6.42	227.9	1	33	-1	2	44	-3					
MAGADAN	8.15	307.4	2	3	5						3	21	
OKHA	12.15	270.6	2	52	-1								
KURILSK	14.15	231.5	3	15	-4								
Y.-SAKHLINSK	15.41	246.5	3	36	0	6	24	-1					
YAKUTSK	18.73	305.1	4	15	-2	7	41	0					
MIZUSAWA	22.03	232.4	4	54	2						5	27	
TIKSI	22.09	331.3	4	53	0						5	19	PP
VLADIVOSTOK	23.76	252.6									9	19	
TUKUBASAN	24.89	230.0	5	20K	0								
COLLEGE	25.46	48.2	5	25	0				5	39			
MATUSIRO	25.47	233.4	5	25A	0						5	53	
ABUYAMA	28.07	235.2	5	50	1								
RESOLUTE	40.57	23.6	7	36	-1	13	46	3					
VICTORIA	43.65	67.1	8	2	0								
KIPAPA	44.27	124.0	8	8	1								
CORVALLIS	46.20	71.4	8	23A	1								
SEMIPALATNSK	47.76	300.8	8	33	-1	15	22	-5					
SHASTA	49.29	74.6	8	47K	1								
BUTTE	50.91	63.2	8	57	-2								
BERKELEY	51.33	77.2	9	2A	0								
RENO	51.52	73.9	9	4A	1								
BOZEMAN	51.92	62.6	9	7	1								
MANILA	52.04	236.0	9	11	4								
LICK	52.06	77.2	9	8K	1								
SVERDLOVSK	52.12	317.3	9	8	0								
TROMSOE	52.85	345.3	9	12	-1								
FRESNO	53.49	76.4	9	18	0								
SODANKYLA	53.59	340.8	9	18K	-1								
EUREKA	53.66	71.3	9	21	2								
KIRUNA	54.26	343.7	9	22K	-2								
SALT LAKE C.	54.95	67.5	9	29	0								
FRUNSE	55.76	297.2	9	33	-1								
FLAMING GRGE	56.13	65.7	9	37	0								
KAJAANI	56.27	338.4	9	37	-1								
PASADENA	56.31	77.4	9	38	0	17	27	3					
GLEN CANYON	57.85	70.4	9	49	0								
UMEA	57.96	341.8	9	47	-3								
SHILLONG	59.06	270.9	9	55A	-3								
TASHKENT	59.56	299.4	10	0	-1	18	5	-1					
RABAUL	59.96	193.2	10	4	0								
NHATRANG	60.09	246.5	10	7	2								
NURMIJARVI	60.10	338.0	10	4K	-1						10	28	
CHATRA	60.78	275.6									12	11	
MOSCOW	60.96	328.4	10	10	-1	18	27	3					
CHITTAGONG	61.58	268.7	10	4	-11								
TUCSON TELE.	61.79	73.3	10	17	1								
TUCSON	61.80	73.5	10	17	1								
UPPSALA	62.11	341.4	10	17K	-2								
DEHRA DUN	63.24	285.1									18	51	
WARSAK DAM	63.94	292.5	10	29	-2								
GOTEBORG	65.12	343.7	10	37K	-1						11	8	PCP
WICHITA MTS.	66.40	62.9	10	46K	0	19	37	5			34	8	
COPENHAGEN	66.98	342.7	10	49K	-1								
ST. LOUIS 1	67.39	54.6	10	52	-1	19	44	0					
ASHKABAD	67.49	304.3	10	56	3								
FAYETTEVILLE	67.52	58.9	10	52K	-1						11	11	
OTTAWA	67.95	40.8	10	54	-2								
SHAWINIGAN	68.04	38.3	10	56	-1								
QUETTA	69.30	293.2	11	4	0								
PORT BLAIR	69.59	260.9	11	3	-3								
LWOW	70.01	333.4	11	9	0								
TIFLIS	70.32	315.8	11	11	0	20	23	4			11	27	PCP
WITTEVEEN	70.65	345.4	11	15A	2								
COLLMBERG	71.06	341.0	11	15K	0						13	57	PP
HALLE	71.07	341.7	11	16	1	20	55	28					
RACIBORZ	71.16	337.3	11	16	0								

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MUNSTER	71.33	344.6	11	17	0							
SIMFEROPOL	71.43	324.7	11	18	1							
JENA	71.68	341.8	11	19	0						11	47
PRUHONICE	72.02	339.6	11	21K	0							
WESTON	72.17	39.6	11	21A	-1							
PALISADES	72.38	42.0	11	20	-3							
TEHERAN	72.52	307.8	11	25	1							
KASPERSKE H.	73.03	339.9	11	28K	1						14	8 PP
BRATISLAVA	73.20	337.3	11	23	-5							
VIENNA-H.	73.29	337.8	11	29	1							
STUTTGART	74.16	342.7	11	34	1						14	19 PP
STRASBOURG	74.60	343.6	11	37	1						12	8
CHAPEL HILL	74.64	48.4	11	36	0							
PARIS	75.14	347.2	12	39	60							
FOLINIERE	75.52	349.2	11	41	0							
BESANCON	76.17	344.5	11	44	-1							
NEUCHATEL	76.27	343.8	11	47	1							
CHARTERS TS.	76.45	196.7	11	47	0							
GARCHY	76.56	346.5	11	48	1						12	22
ISTANBUL UN.	76.60	326.4	11	40	-7							
SHIRAZ	77.05	303.5	11	50A	0	21	34	0	12	9	21	50 SKS
LEMBANG	77.19	237.6	12	5	14							
CLERMONT-FD.	78.04	346.2	12	2	7							
ISOLA	78.99	343.0	12	1	0						12	30
MONACO	79.37	342.7	12	3	0							
KSARA	80.66	318.1	12	10	0							
JERUSALEM	82.73	317.7	12	22	2							
BRISBANE	82.79	189.7	12	37	16							
TOLEDO	84.69	350.5	12	31	1							
COIMBRA	84.71	353.9	12	30K	0							
HELWAN	85.91	319.9	12	37	1						13	27
CANBERRA	91.04	191.9	13	10	9							
KARAPIRO	93.34	170.6	13	4	-7							
BANGUI	113.93	321.2									19	24
SCOTT BASE	132.82	179.1	19	12	2							
KIMBERLEY	140.42	294.8	19	26	2							
BYRD STATION	141.65	164.1	19	19	-8							
SOUTH POLE	145.04	180.0	19	43	11							

APRIL 19 20.H 19.M 58.S EPICENTRE 45.32 150.02 DEPTH= 89.KM

A=-0.61120 B= 0.35254 C= 0.70863 D= 0.4996 E= 0.8662
G=-0.6138 H= 0.3541 K=-0.7056 HT= -3.7

DEPTH OF FOCUS= 0.009R

SE= 4.17

	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
KURILSK	1.52	267.5	0	23	-4	0	45	-2				
NEMURO	3.76	239.6	0	48	-10	1	30	-11				
ABASHIRI	4.30	254.5	0	59	-6							
KUSIRO	4.67	242.0	1	0	-10	1	55	-9				
Y.-SAKHLINSK	5.35	291.2	1	18	-1						2	33
OBIHIRO	5.47	246.4	1	24	3							
ASAHIGAWA	5.68	257.0	1	23	-1							
HIROO	5.72	240.3	1	16	-8	2	24	-5				
WAKKANAI	5.88	274.0	1	26	-1							
URAKAWA	6.13	241.4	1	23	-7	2	34	-5				
RUMOE	6.15	260.1	1	26	-4	2	52	12				
SAPPORO	6.63	253.3	1	34	-3	2	56	4				
TOMAKOMAI	6.66	249.2	1	36	-1	2	58	6				
SEVERO-KUR.	6.73	35.1	1	36	-2	2	57	3				
MORI	7.57	248.2	1	50	0	3	14	-1				
HAKODATE	7.59	245.7	1	43	-7	3	5	-10				
AOMORI	8.12	239.7	1	52	-5							
MIZUSAWA	9.04	230.0	2	1	-9	3	31	-20				
AKITA	9.21	236.1	2	2	-10							
OKHA	9.44	333.3	2	18	3	4	15	14				
PETROPAVLOVK	9.55	33.1	2	13	-4	4	2	-1				
SENDAI	9.79	227.2	2	21	1	3	50	-19				
SAKATA	9.92	233.3	2	22	0							
HUKUSIMA	10.41	226.7	2	23	-5							
NIIGATA	11.04	231.8	2	28	-9							
MITO	11.48	222.3	2	56	13	4	56	6				

UTUNOMIYA	11.64	224.7	2	37	-8	4	23	-30			
KAKIOKA	11.74	222.8	2	44	-2	4	39	-17			
TUKUBASAN	11.79	223.0	2	34	-13	4	33	-24			
MAEBASI	12.16	226.7	3	9	17						
KUMAGAYA	12.20	225.0	2	44	-8	4	48	-19			
TOKYO C.M.O.	12.39	222.6	3	3	8	4	53	-18			
NAGANO	12.41	230.0	2	54	-1						
OIWAKE	12.48	228.0	2	53	-3						
MATUSIRO	12.51	229.6	2	45	-11	5	4	-10			
YOKOHAMA	12.64	222.2								4	6
WAZIMA	12.64	235.7	2	56	-2						
TOYAMA	12.94	232.8	3	2	0						
HUNATU	13.01	225.0	5	2	119					5	37
VLADIVOSTOK	13.19	266.8	2	59	-6					5	21
MISIMA	13.23	223.5	3	12	6						
OSIMA	13.31	221.3								6	28
OMAESAKI	14.00	224.2								3	51
HAMAMATU	14.16	225.9	3	16	-2						
NAGOYA	14.20	229.0	3	20	2	6	32	38			
MAGADAN	14.27	1.6	3	19	0						
HIKONE	14.51	231.0	3	27	5	7	34	93			
ABUYAMA	15.18	231.6	3	22A	-9						
OSAKA	15.37	231.1	3	42	9						
HAMADA	17.19	239.0	3	47	-9	7	13	10			
HIROSIMA	17.34	237.0	3	52	-6						
CHANGCHUN	17.66	274.0	4	0	-2						
OOITA	18.62	236.0	4	6	-7	7	10	-24			
HUKUOKA	19.11	239.0	4	18	-1	7	46	1			
SAGA	19.39	238.4	4	32	10						
MIYAZAKI	19.69	233.6	4	23	-2	8	6	9			
NAGASAKI	20.01	238.0	4	24A	-4	8	18	15		10	36
KAGOSIMA	20.45	234.5	4	45	12	9	48	96			
YAKUTSK	20.45	332.1	4	31	-2					4	55 PP
PEKING	25.32	270.0	5	19	-1	9	49	12			
ZO-SE	26.57	247.7	5	30	-2	10	8	10			
NANKING	27.56	252.2	5	39	-2	10	23	9			
MIYAKOZIMA	28.62	232.6								8	12
ULAN-BATOR	29.45	290.7	5	58	0						
SIAN	33.13	265.1	6	29	-1	11	53	11			
LANCHOW	35.81	271.6	6	53	0						
CANTON	37.12	245.7	7	2	-2	12	54	11			
HONG KONG	37.16	243.9	7	3	-1	12	34	-10			
CHENGTU	38.57	263.9	7	15	-1						
COLLEGE	38.60	37.2	7	17	1	13	12	6	7	30	
MANILA	39.11	227.9	7	19	-2	13	17	4			
KUNMING	42.86	258.3	7	50	-1	14	16	7			
SEMIPALATNSK	45.52	302.7	8	12	-1						
KHEYS	45.97	346.8	8	19	3					9	53 PCP
NHATRANG	47.85	239.5	8	29	-2					8	43 SP
RABAUL	49.33	177.2	8	36	-7						
SHILLONG	50.18	267.4	8	47A	-2						
ALMATA	50.65	295.4	8	54	1						
CHITTAGONG	52.25	264.3	9	5	0						
FRUNSE	52.35	296.0	9	7	2						
CHATRA	52.71	272.0	9	10	2						
RESOLUTE	52.87	17.6	9	9A	0	16	38	8			
NORD	53.13	357.6	9	10A	-1						
SVERDLOVSK	53.41	316.8	9	14	1					20	26 SS
BOKARO	55.55	270.1	9	26	-3						
TASHKENT	56.52	297.0	9	37	1	17	26	8			
DEHRA DUN	56.99	281.3	9	41	2	17	39	14			
DUZHANBE	58.39	294.5	9	51	2						
WARSAK DAM	59.23	288.7	9	55	0						
SODANKYLA	59.79	338.0	9	58	-1						
TROMSOE	59.91	342.2	9	58	-1						
KIRUNA	60.99	340.5	10	6	-1						
HUNGRY HORSE	61.37	49.1	10	0	-9						
KAJAANI	61.92	335.1	10	13	0						
UMEA	64.23	337.8	10	26	-2						
PULKOVO	64.26	330.8	10	27	-1					23	50 SS
LEMBANG	64.30	228.0	10	24K	-5						
SCORESBY SD.	64.37	357.0	10	30	1						
MOSCOW	64.39	324.5	10	30	1						
QUETTA	64.65	288.0	10	31A	0	19	10	8			
CHARTERS TS.	65.18	183.9	10	29	-5						
ASHKABAD	65.31	299.6	10	37	2					19	29 PS
NURMIJARVI	65.56	333.7	10	36	-1						
EUREKA	65.76	57.9	10	36	-2						
SKALSTUGAN	66.41	340.8	10	42A	0						

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MADRAS	66.71	265.0	10	56	12				19	38
SALT LAKE C.	67.34	54.6	11	3	15					
POONA	67.43	273.9	10	47A	-2					
PASADENA	67.82	63.5	11	3	12	19	44	3		
BOMBAY	67.91	274.9	10	52	0					
UPPSALA	68.19	336.3	10	53	0					
MAKHACH-KALA	68.35	309.6	10	56	2					
FLAMING GRGE	68.64	53.1	10	56	0					
GLEN CANYON	70.01	57.5	10	45	-19				11	13 PCP
LARAMIE	70.50	50.7	11	7	0					
TIFLIS	70.66	310.0	11	11A	3				11	22 *SP
TEHERAN	70.98	301.7	11	13	3	20	31	13		
GOTEBORG	71.57	337.8	11	15	1					
BRISBANE	72.40	177.4	10	40	-39				20	39
COPENHAGEN	73.20	336.5	11	24A	1				11	38 PCP
TUCSON	73.66	60.7	11	34	8				11	41 PCP
TUCSON TELE.	73.67	60.5	11	35	9					
SIMFEROPOL	73.74	318.3	11	28A	1	20	59	10		
LWOW	74.26	327.0	11	31	1					
SHIRAZ	74.42	296.4	11	32K	1	21	8	11	13	30 PP
KRAKOW	75.60	329.4	11	39K	2				11	52 PCP
RACIBORZ	76.18	330.4	11	42	1				11	55 PCP
COLLMBERG	76.85	333.9	11	46A	2				11	59 PCP
HALLE	77.00	334.6	11	47	2			12 0		
WITTEVEEN	77.31	338.2	11	49	2					
PRUHONICE	77.50	332.4	11	50	2	21	44	14		
JENA	77.61	334.5	11	49	0	21	44	13	12	17
MUNSTER	77.83	337.3	11	50	0					
BRATISLAVA	78.18	329.9	11	47K	-5					
VIENNA-H.	78.37	330.4	11	56A	3					
KASPERSKE H.	78.55	332.5	11	56A	2				12	30
RIVERVIEW	78.78	179.0				21	50	6		
BENSBERG	78.86	337.1	11	57A	2			12 10	12	56
WICHITA MTS.	79.06	51.4	11	55	-1				27	8 SS
ISTANBUL KA.	79.08	318.7	11	58A	1	22	9	22		
ISTANBUL UN.	79.14	318.7	11	58	1					
BELGRADE	79.75	326.1	11	46K	-14	22	18	24	12	15
HEIDELBERG	79.82	335.5	12	3	2					
STUTTGART	80.22	334.9	12	4	1					
KEW	80.25	341.7	12	6	3	22	13	14		
CANBERRA	80.27	180.8	12	18	15					
SOFIA	80.33	323.2	12	5	2					
FAYETTEVILLE	80.39	47.7	12	4K	0					
ST. LOUIS 1	80.42	43.6	12	4	0					
TUBINGEN	80.49	334.9	12	8	4					
STRASBOURG	80.83	335.7	12	8	2	22	32	27		
LJUBLJANA	80.91	330.4	12	8	2					
SHAWINIGAN	81.06	28.3	12	7	0					
KSARA	81.24	309.8	12	10	2	22	21	11	23	8 PS
TRIESTE	81.52	330.6	12	12	2					
BASLE	81.83	335.3	12	14	3					
NEUCHATEL	82.50	335.5	12	17	2					
BESANCON	82.55	336.2	12	20	5					
FOLINIERE	82.82	340.8	12	18	2					
GARCHY	83.32	338.0	12	20	1				12	29 PCP
FLORENCE X.	84.02	331.3	12	21	-1	22	52	14		
ATHENS	84.03	320.2	12	23K	1					
CLERMONT-FD.	84.70	337.4	12	27	1					
ROME	85.25	329.6	13	29	61	24	7	77	18	50 PP
MONACO	85.31	333.8	12	32	3					
PALISADES	85.49	31.8				23	5	13	28	49 SS
HELWAN	86.74	310.3	12	38	2				23	23
CHAPEL HILL	87.78	37.9	12	41	0					
BAGNERES	88.00	338.4	12	45	3					
TOLEDO	92.05	340.3	13	0	-1					
BANGUI	114.30	304.9							18	32
BROKEN HILL	122.24	282.6	18	47	2					
BULAWAYO	126.02	277.5	18	54K	2					
BYRD STATION	134.33	165.9	19	4	-4					
SOUTH POLE	135.12	180.0	19	11	1					

APRIL 19 22.H 7.M 48.S EPICENTRE 44.84 150.12 DEPTH= 0.KM

A=-0.61686 B= 0.35437 C= 0.70278 D= 0.4981 E= 0.8671
G=-0.6094 H= 0.3501 K=-0.7114 HT= -3.5

SE= 2.86

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	1.64	284.4	0	34	3	0	56	3				
Y.-SAKHLINSK	5.60	295.5				2	40	7			0	30
SEVERO-KUR.	7.08	32.5	1	47	-1						3	7
MIZUSAWA	8.80	232.7	2	11	-1	3	40	-13				
OKHA	9.90	334.2	2	29	2						4	37
PETROPAVLOVK	9.91	31.3	2	3	-24						4	11
TUKUBASAN	11.50	224.9	2	43	-6						4	40
MATUSIRO	12.26	231.5	2	56	-3	5	14	-4				
VLADIVOSTOK	13.24	268.9	3	12	0	5	37	-4				
MAGADAN	14.74	1.4	3	13	-19							
ABUYAMA	14.95	233.2	3	32	-3							
YAKUTSK	20.90	332.6	4	43	-4	8	30	-6			5	5 PP
PEKING	25.40	271.1	5	30	-1	10	0	4				
ZO-SE	26.46	248.7	5	41	0	10	18	5				
NANKING	27.48	253.1	5	48	-2							
TIKSI	28.75	346.2	5	58	-3							
ULAN-BATOR	29.69	291.6	7	8	58							
SIAN	33.17	265.9	6	40	0							
LANCHOW	35.89	272.3	7	6A	2							
CANTON	36.99	246.4	7	13	0	13	3	4				
HONG KONG	37.02	244.6				14	4	65				
CHENGTU	38.60	264.6	7	27A	0	13	31	7				
COLLEGE	38.94	36.9	7	28	-1	14	56	87				
KUNMING	42.83	258.9	8	1A	-1							
SEMIPALATNSK	45.84	303.1	8	24	-2							
KHEYS	46.45	346.9	8	31	0							
NHATRANG	47.67	240.0	8	40	0				8	50		
SHILLONG	50.23	267.9	8	58A	-2							
ALMATA	50.92	295.8	9	4	-1							
FRUNSE	52.62	296.3	9	18	0							
CHATRA	52.80	272.4	9	20	1							
RESOLUTE	53.30	17.5	9	20	-3							
NORD	53.61	357.6	9	21	-4							
SVERDLOVSK	53.81	317.1	9	25	-2							
TASHKENT	56.80	297.3	9	48	-1						17	49 PS
CORVALLIS	58.54	56.8	10	9	8							
DUZHANBE	58.65	294.8	10	3	1							
ARCATA	60.15	60.7	9	28A	-44							
SODANKYLA	60.26	338.2	10	9	-4							
TROMSOE	60.38	342.4	10	11	-2							
SHASTA	61.30	60.0	10	30	10							
KIRUNA	61.46	340.6	10	17	-4							
MINERAL	61.99	59.9	10	38K	14							
KAJAANI	62.38	335.2	10	25	-2							
RENO	63.58	59.7	10	47	12							
LEMBANG	64.04	228.3	9	44A	-54							
UMEA	64.69	337.9	10	41	-1							
SCORESBY SD.	64.85	357.1	10	42K	-1							
QUETTA	64.87	288.2	10	42	-1							
ASHKABAD	65.61	299.8	10	48	0							
EUREKA	65.95	57.7	11	0	10							
NURMIJARVI	66.01	333.8	10	47	-4							
SKALSTUGAN	66.88	340.9	10	53K	-3							
CHINA LAKE	67.26	61.7	10	56	-3							
UPPSALA	68.65	336.4	11	4	-3							
FLAMING GRGE	68.87	53.0	11	7	-2							
TIFLIS	71.02	310.2	11	21	-1						11	36 PCP
TEHERAN	71.29	301.9	11	24	1							
COPENHAGEN	73.66	336.6	11	36K	-1						16	20
SIMFEROPOL	74.14	318.4	11	38A	-2							
SHIRAZ	74.70	296.5	11	42K	-1	22	16	57				
KRAKOW	76.04	329.5	11	51	0						12	10 PCP
RACIBORZ	76.63	330.5	11	53	-1						12	8 PCP
COLLMBERG	77.31	334.0	11	57A	-1						14	44 PP
HALLE	77.46	334.7	11	58	-1				12	10		
WITTEVEEN	77.78	338.3	12	0	-1							
PRUHONICE	77.95	332.5	12	1A	-1						14	39
JENA	78.07	334.6	12	1	-1						12	54
BRATISLAVA	78.63	330.1	12	1	-4							
VIENNA-H.	78.82	330.5	12	5A	-2							
KASPERSKE H.	79.01	332.6	12	7A	-1							
WICHITA MTS.	79.30	51.4	12	12	3							
BENSBERG	79.32	337.2	12	8A	-1				12	20		
ISTANBUL UN.	79.55	318.8	12	9	-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.

HEIDELBERG	80.28	335.6	12 14	0							
FAYETTEVILLE	80.65	47.7	12 16	0							
STUTTGART	80.68	335.0	12 15	-1							
KEW	80.72	341.8	12 17	0							
SOFIA	80.75	323.3	12 16	-1							
TUBINGEN	80.95	335.0	12 17	-1							
STRASBOURG	81.29	335.8	12 19	-1						12 50	
LJUBLJANA	81.36	330.5	12 19	-1							
KSARA	81.60	309.9	12 21	0							
BASLE	82.29	335.4	12 24	-1							
PARIS	82.53	339.1	12 27	1						12 40	PCP
BESANCON	83.01	336.3	12 29	0							
FOLINIERE	83.29	340.9	12 29	-1							
GARCHY	83.79	338.1	12 32	-1						12 41	PCP
ATHENS	84.44	320.3	12 25	-11							
CLERMONT-FD.	85.17	337.5	12 42	2							
MONACO	85.76	333.9	12 41	-2							
PALISADES	85.85	31.8			23 15	-1					
HELWAN	87.10	310.3	12 49	0							
BAGNERES	88.46	338.5	12 55	-1							
SCOTT BASE	122.85	175.9	18 58	0							
BYRD STATION	133.85	166.0	19 14	-5							

APRIL 20 21.H 39.M 7.S EPICENTRE -15.99-172.40 DEPTH= 0.KM

A=-0.95333 B=-0.12728 C=-0.27379 D=-0.1323 E= 0.9912
G= 0.2714 H= 0.0362 K=-0.9618 HT= 5.6

SE= 4.63

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	2.15	16.1	0 35A	-3				
APIA	2.26	15.4	0 36	-4	0 55	-13		
SUVA	9.03	254.9	2 14	-1	3 49	-10		
ONERAHI	22.97	208.5	5 10	3				
CHATEAU	25.42	202.2	5 25	-6				
WELLINGTON	27.54	201.2						6 5
BRISBANE	34.18	244.7	7 26	37	12 25	9		
RABAUL	36.73	284.8	7 7	-4				
RIVERVIEW	37.28	234.7	7 10A	-6				8 57
HAWAII V.OB.	39.02	26.2	7 29	-1	13 17	-13		
CANBERRA	39.45	233.4	7 26	-8			7 41	7 45 *SP
HONOLULU	39.62	21.2	7 42	7				
KIPAPA	39.76	21.2	7 32	-5				
PORT MORESBY	39.95	274.4	7 38	0	13 36	-8		17 11 SS
MELBOURNE	43.32	231.4	7 59	-7				
MOORLANDS	43.44	224.3	8 16A	9				
FORT NELSON	43.54	223.6	8 5	-2			8 16	
TARRALEAH	43.87	224.8	8 4A	-6				8 21 SP
ADELAIDE	47.50	237.1	8 31	-8				8 46 *SP
CAPE HALLETT	57.23	186.2	9 55K	3	18 6	19		12 11 PP
SCOTT BASE	62.74	184.9	10 33K	3				10 47 *SP
MUNDARING	66.10	241.8	10 48	-3				
BYRD STATION	68.23	171.4	11 8	3				11 24 PCP
TUKUBASAN	68.63	320.2	10 56K	-11	19 52	-18		27 23 SSS
MATUSIRO	70.01	319.4	11 5	-11	20 8	-18		
WILKES	70.29	204.7	11 17K	-1				
ABUYAMA	70.69	316.6	11 21	1				
BERKELEY	71.31	39.9	11 23A	-1				11 45
LICK	71.36	40.6	11 24A	0				
PASADENA	71.74	45.1	11 25	-1	20 47	1		
FRESNO	72.19	42.1	11 28	-1				
SHASTA	73.01	37.5	11 33	-1				
PETROPAVLOVK	73.13	342.2	11 36	1				
MINERAL	73.26	38.2	11 33A	-2				
RENO	73.84	39.8	11 38A	-1				
SOUTH POLE	74.11	180.0	11 44	4				11 57 PCP
Y.-SAKHLINSK	74.54	329.9	11 46	3				
CORVALLIS	75.02	34.0	11 53	8				
BOULDER CITY	75.03	45.1	11 43	-3				
TUCSON	75.96	50.2	11 52	1	21 25	-9		14 52 PP
TUCSON TELE.	76.08	50.1	11 51	1				
EUREKA	76.22	41.6	11 52	0				
RUTH	76.71	42.3	11 56K	1	21 44	2		
LEMBANG	78.55	266.1	12 13	8				

ZO-SE	79.09	306.8	12 12	4	21 47	-20					
SALT LAKE C.	79.57	42.3	12 11	0							
TACUBAYA	80.09	66.5	12 15	1							
FLAMING GRGE	81.25	43.1	12 18	-2							
NANKING	81.35	306.8	12 25	5							
BUTTE	81.92	37.5	12 22	-1							
CHANGCHUN	82.26	319.7	12 30	5	22 24	-16					
HUNGRY HORSE	82.38	35.0	12 40	14							
BOZEMAN	82.63	38.3	12 28	1							
COLLEGE	82.77	10.3	11 59	-29						12 21	PCP
LARAMIE	83.96	44.1	12 34	0							
WICHITA MTS.	86.23	52.4	12 46	1	23 21	1				16 19	PP
PEKING	86.58	313.2	12 52	5							
RAPID CITY	86.77	42.4	12 49	1							
MAWSON	87.54	198.4	12 50	-1			12 59				
YAKUTSK	90.02	336.5	12 55	-8							
KUNMING	92.15	295.4	13 21	8							
CHENGTU	92.66	301.0	13 22	7							
ULAN-BATOR	95.63	318.2	13 38	9							
LA PAZ	98.63	109.8	13 37	-6						25 33	
RESOLUTE	102.04	15.4	13 53	-5							
PALISADES	106.64	51.4			25 2	4				28 2	PS
KHEYS	111.75	352.2	18 50	13							
SCORESBY SD.	122.62	11.4	19 9	11							
QUETTA	124.16	295.8	19 10	9							
TROMSOE	125.92	355.1	19 2	-3							
SODANKYLA	127.18	350.9	19 9	2							
KIRUNA	127.53	353.9	19 17	9							
KAJAANI	130.01	348.6	19 10	-2							
UMEA	131.43	352.6	19 13	-2							
SKALSTUGAN	132.35	357.2	19 16	-1							
KIMBERLEY	132.52	200.6	19 25	8							
NURMIJARVI	133.86	348.4	19 17	-3							
MOSCOW	134.17	336.8	19 14	-6							
UPPSALA	135.60	352.8	19 22	-1						23 6	PKS
BULAWAYO	138.58	210.6	19 29	1							
TIFLIS	139.03	316.3	19 38	9							
WINDHOEK	140.56	193.9								22 14	
BROKEN HILL	143.39	215.4	19 33	-4							
SIMFEROPOL	143.50	327.8	19 49	12							
LWOW	143.72	342.0	19 40	3							
COLLMBERG	144.51	354.2	19 35	-4						23 8	PKS
KRAKOW	144.59	346.3	19 43	4							
RACIBORZ	144.93	348.1	19 24	-15							
JENA	145.00	355.6	19 36	-4						22 54	PP
BENSBERG	145.12	0.5	19 35	-5						19 49	PKP2
SKALNATE PL.	145.33	345.4								20 50	
PRUHONICE	145.63	352.0	19 37	-4						23 5	PKS
KASPERSKE H.	146.59	352.9	19 41	-1							
FOLINIERE	146.65	9.7	19 42	0							
HEIDELBERG	146.67	358.7	19 41	-1							
BRATISLAVA	146.97	348.3	19 59	16							
PARIS	147.00	6.2	20 2	19						23 22	PP
HURBANOVO	147.03	346.8	19 52	9							
VIENNA-H.	147.03	349.2	19 41	-2						19 55	PKP2
STUTTGART	147.28	357.9	19 41	-2						33 12	PSKS
STRASBOURG	147.50	359.8	19 44	0						19 57	PKP2
TUBINGEN	147.53	358.2	19 44	0							
BUCHAREST	147.63	334.9	19 56A	12							
EBINGEN	147.88	358.3	19 43	-1							
RAVENSBURG	148.26	357.4	19 46	1							
BASLE	148.55	0.0	19 38	-7						29 35	
GARCHY	148.58	5.9	19 54	8						20 42	
BESANCON	148.80	2.1	19 53	7						20 0	PKP2
ISTANBUL KA.	148.86	327.6	19 58	12							
ISTANBUL UN.	148.93	327.7	19 46	0							
KSARA	148.96	310.1	19 48	2						23 28	PP
NEUCHATEL	149.08	0.9	19 59	13							
BELGRADE	149.28	342.0	19 59K	12						21 22	
ZAGREB	149.44	348.4	20 2A	15							
LJUBLJANA	149.48	350.5	19 44	-3						23 13	PP
TRIESTE	149.99	351.4	19 47	-1						42 33	SS
CLERMONT-FD.	150.08	6.3	20 5A	17							
SOFIA	150.17	336.3	19 52	4							
PADOVA	150.45	353.9	20 12	24						23 18	
SERRA PILAR	151.29	26.0	19 46K	-4						20 2	PKP2
ISOLA	151.90	0.8	19 55K	4						20 8	PKP2
BAGNERES	152.27	11.8	20 3	12							

LWIRO	152.30	231.0	19	58	7						
MONACO	152.35	0.3	20	8	17						
ROME	153.84	351.7	19	53	0					23	50
ATHENS	153.90	330.1	19	59	6						
TOLEDO	154.12	20.9	19	22	-32					20	7 PKP2
HELWAN	154.22	306.5	20	1	7					23	55
ALICANTE	156.62	16.2	19	38	-19	27	0	-2		20	23 PKP2
GRANADA	156.68	23.1	20	36A	39					24	23 PP
BANGUI	164.18	224.3	19	11	-54					20	17

APRIL 21 20.H 10.M 44.S EPICENTRE 47.98 154.94 DEPTH= 51.KM

A=-0.60857 B= 0.28458 C= 0.74072 D= 0.4236 E= 0.9059
G=-0.6710 H= 0.3138 K=-0.6718 HT= -4.7

DEPTH OF FOCUS= 0.003R

SE= 2.56

	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	
PETROPAVLOVK	5.57	23.8	1	20	-3	2	26	0					
Y.-SAKHLINSK	8.33	267.9	2	1	0						3	42	
KLYUCHI	9.11	21.3	2	14	2						4	7	
OKHA	9.42	310.7	2	16	0						4	12	
MAGADAN	11.84	349.7	2	49	0						5	8	
MIZUSAWA	13.35	233.5	3	25	16	5	23	-14					
TUKUBASAN	16.07	228.4	3	38K	-6						6	28	
MATUSIRO	16.81	233.3	3	48A	-5	6	52	-6					
VLADIVOSTOK	16.83	261.7	3	56	2	7	2	4					
ABUYAMA	19.49	234.8	4	25	-1	8	5	8					
YAKUTSK	19.98	324.0	4	32	1	8	9	1					
CHANGCHUN	20.96	269.6	4	36	-5	8	22	-5					
TIKSI	26.64	341.9	5	34	-2	10	2	-3					
PEKING	28.75	268.4	5	57	2	10	39	0					
ZO-SE	30.70	249.0	6	11	-1	11	11	1					
NANKING	31.59	253.0	6	21	1	11	23	-1					
ULAN-BATOR	31.76	288.2	6	24	2								
IRKUTSK	32.19	296.9	6	17	-8						7	27	PP
COLLEGE	34.41	39.5	6	44	-1				6	59			
SIAN	36.74	265.2	7	5	1	12	45	1					
LANCHOW	39.12	271.5	7	24	0								
HONG KONG	41.35	246.3				13	58	5					
SITKA	41.63	50.5	7	47	2								
CHENGTU	42.21	264.8	7	49	-1	14	4	-2					
KHEYS	44.15	346.5	8	2	-4	14	30	-4			18	4	SSS
KUNMING	46.69	259.9	8	25	-1	14	40	-31					
SEMIPALATNSK	46.94	302.4	8	25	-3								
HAWAII V.OB.	49.14	107.6	8	44	-1						22	22	
RESOLUTE	49.27	19.2	8	45K	-1	15	52	5			10	48	PP
NORD	50.59	358.4	8	53	-3								
LHASA	51.55	273.4	9	4	1	16	22	4					
VICTORIA	51.81	56.8	9	2	-3								
RABAUL	52.02	183.5	9	5	-2						39	47	
NHATRANG	52.10	242.5	9	12	5				9	21			
ALMATA	52.55	295.9	9	6	-5								
PENTICTON	53.48	54.3	9	15	-3								
SHILLONG	53.65	269.0	9	16K	-3	16	44	-3					
SVERDLOVSK	53.77	317.2	9	18	-2						20	58	SS
CORVALLIS	54.06	60.9	9	23	1								
FRUNSE	54.21	296.6	9	21	-2	16	58	3					
CHATRA	55.97	273.5	9	35	-1								
SHASTA	56.89	64.2	9	43K	1								
HUNGRY HORSE	57.06	52.6	9	43	0								
MINERAL	57.58	64.1	9	46K	-1								
TASHKENT	58.30	298.0	9	57	5						19	32	SCS
TROMSOE	58.36	343.4	9	52	-1								
SODANKYLA	58.54	339.1	9	53A	-1								
BERKELEY	58.71	66.8	9	55	0								
BOKARO	58.89	271.9	10	6	10	18	1	5					
RENO	59.16	63.8	9	58K	0								
BUTTE	59.28	54.1	9	58	-1								
LICK	59.42	66.9	9	59K	-1								
KIRUNA	59.57	341.7	9	59	-2	18	7	2					
BOZEMAN	60.32	53.6	10	7	1								
DUZHANBE	60.32	295.8	10	6	0	18	17	2					

KAJAANI	60.88	336.4	10	10	0					
FRESNO	60.92	66.3	10	19	9					
LAHORE	61.36	286.3	10	12	-1					
EUREKA	61.49	61.7	10	15	1				19	57
SCORESBY SD.	61.83	358.8	10	17	1					
UMEA	62.98	339.3	10	22	-2					
SALT LAKE C.	63.05	58.3	10	24	0					
PULKOVO	63.53	332.3	10	26	-2				14	36 PPP
PASADENA	63.63	67.6	10	27	-1	19 4	7			
MOSCOW	64.12	326.0	10	32	1					
FLAMING GRGE	64.34	56.8	10	34	1					
BOULDER CITY	64.47	64.0	10	32	-2					
NURMIJARVI	64.61	335.3	10	33	-2				11	7 PCP
SKALSTUGAN	64.94	342.6	10	35	-2					
RAPID CITY	65.55	50.8	11	40	59					
GLEN CANYON	65.73	61.3	10	42	0					
LARAMIE	66.19	54.3	10	45	0					
QUETTA	66.99	289.9	10	49A	-1	19 38	0	10 59	13	17 PP
UPPSALA	67.04	338.2	10	48	-2	19 37	-1			
CHARTERS TS.	68.21	188.8	10	57	0				11	45
LEMBANG	68.61	231.6	10	55	-5					
BERGEN	69.19	344.4	11	2	-1					
TUCSON	69.43	64.5	11	6	1					
TUCSON TELE.	69.43	64.4	11	5	0					
MADRAS	70.26	267.6							20	19
GOTEBORG	70.31	339.9	11	9K	-1					
POONA	70.57	276.3	11	11	-1	20 24	4			
BOMBAY	70.99	277.3	11	21	7	20 29	4			
TIFLIS	71.46	312.2	11	17	0				15	51 PPP
COPENHAGEN	72.02	338.7	11	20	-1	20 28	-9			
GORIS	72.34	309.7	11	30	8	20 43	2			
TEHERAN	72.38	303.9	11	23	0	20 44	3			
WARSAW	72.70	332.4							21	29
LAWRENCE	73.35	49.9	11	23	-5					
LWOW	73.78	329.3	11	30	-1	21 1	4		14	36 PP
SIMFEROPOL	73.91	320.6	11	31	-1	20 57	-1		21	38 PS
WICHITA MTS.	74.75	55.0	11	37	1	21 21	13		15	58 PPP
KRAKOW	74.93	331.8	11	35	-3	21 11	1		14	24
RACIBORZ	75.45	332.9	11	38	-2				12	11
SKALNATE PL.	75.59	331.2	11	34	-7					
DURHAM	75.72	346.2							12	31
COLLMBERG	75.85	336.5	11	42K	-1	21 34	14		14	34 PP
HALLE	75.95	337.2	11	43	0				14	45 PP
FAYETTEVILLE	76.08	51.2	11	44K	0					
ST. LOUIS 1	76.13	47.1	11	43	-1					
SHIRAZ	76.18	298.9	11	44A	-1	21 23	0		21	38 SKS
JENA	76.56	337.2	11	47	0	21 28	0		12	16
MUNSTER	76.58	339.9	11	46	-1					
PRUHONICE	76.61	335.0	11	47K	0	21 32	4			
SHAWINIGAN	77.05	31.6	11	49K	-1					
BRATISLAVA	77.47	332.6	11	49A	-3				21	32 PP
BENSBERG	77.62	339.8	11	52	-1					
VIENNA-H.	77.63	333.1	11	51	-2					
BREBEUF	77.65	32.7	11	52	-1					
KASPERSKE H.	77.65	335.2	11	55K	2				13	46
KEW	78.68	344.5	11	59	0	21 54	4			
HEIDELBERG	78.70	338.3	11	59	0					
KARLSRUHE	79.14	338.3	12	2	1					
STUTTGART	79.14	337.7	12	0	-1	21 59	4		12	24
ISTANBUL KA.	79.21	321.4	12	0	-1					
ISTANBUL UN.	79.27	321.4							14	45
BELGRADE	79.32	328.9	12	1K	-1	22 1	4		31	48 SSS
TUBINGEN	79.41	337.7	12	3	0					
STRASBOURG	79.69	338.5	12	4	0	22 0	-1		12	55
EBINGEN	79.76	337.6	12	4	0					
RAVENSBURG	79.96	337.1	12	6	1					
PENNSYLVANIA	79.99	37.9	12	5	-1					
MORGANTOWN	80.09	39.9	12	7	1					
SOFIA	80.12	326.0	12	7A	1					
LJUBLJANA	80.16	333.2	12	6	-1					
PARIS	80.68	341.9	13	10	61					
BASLE	80.72	338.3	12	8A	-1					
TRIESTE	80.75	333.5	12	9	-1	22 23	11		15	34 PP
WESTON	81.18	32.8	12	12	0					
FOLINIERE	81.30	343.8							12	44
NEUCHATEL	81.37	338.5	12	13	0					
PALISADES	81.40	35.2							28	35 SS
PADOVA	81.52	334.7							13	24
HALIFAX	81.77	26.7	12	16	1					

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GARCHY	82.00	341.1	12 16	0				12 24 PCP
KSARA	82.03	312.7	12 17	1	22 26	1		
FLORENCE X.	83.19	334.4	12 16	-6	22 43	6		
CLERMONT-FD.	83.42	340.6	12 28	5				
CHAPEL HILL	83.57	41.4	12 25	1				
ISOLA	83.97	337.4	12 26	0				22 27
JERUSALEM	84.00	312.0	12 27K	1				
ATHENS	84.03	323.3	12 25	-2				
COLUMBIA	84.27	43.8	12 28	0				
MONACO	84.29	337.0	12 27	-1				
ROME	84.54	332.8	12 33	4	22 54	4		
MELBOURNE	85.90	187.9	12 37	1				
HELWAN	87.48	313.6	12 44	1	23 22	3		
MOORLANDS	90.30	185.7	13 9A	12				
TOLEDO	90.55	344.0	12 57	-1				
CAPE HALLETT	120.47	174.6						36 36 SS
SCOTT BASE	125.78	176.9	18 56	0				
LA PAZ	132.84	63.3	19 16	6				22 43 PKS
BYRD STATION	136.08	165.5	19 4	-12				19 32

APRIL 21 21.H 26.M 45.S EPICENTRE 51.74-173.89 DEPTH= 37.KM

A=-0.61821 B=-0.06618 C= 0.78322 D=-0.1064 E= 0.9943
G=-0.7788 H=-0.0834 K=-0.6217 HT= -6.1

DEPTH OF FOCUS= 0.001R

SE= 2.28

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	16.78	285.2	3 54	1				
COLLEGE	18.79	35.6	4 16	-2	7 51	8		4 56
MAGADAN	21.18	305.4	4 47	3				
SITKA	22.84	61.4	5 3	2				
YAKUTSK	31.47	311.2	6 21	1				
TIKSI	31.84	329.6	6 24	1				
CORVALLIS	33.91	81.8	6 49	8				
PENTICTON	33.92	72.2	6 40	-1				
SHASTA	36.58	86.8	7 1	-3				
MATUSIRO	36.87	264.8	7 6A	0	12 46	-2		8 43 PP
VLADIVOSTOK	36.90	278.4	7 7	0	12 51	3		
MINERAL	37.27	86.7	7 10A	0				
HUNGRY HORSE	37.65	70.8	7 14	1				
RESOLUTE	38.13	25.0	7 17	0				
BERKELEY	38.35	90.4	7 19K	0				
RENO	38.86	86.4	7 26	3				
LICK	39.07	90.6	7 24A	-1				7 52
ABUYAMA	39.59	265.0	7 31A	2				
CHANGCHUN	40.53	283.6	7 35A	-2			7 51	9 21 PP
FRESNO	40.57	89.9	7 52	15				
BOZEMAN	40.76	72.8	7 40	1				
EUREKA	41.28	83.8	7 43	0				
SALT LAKE C.	43.04	79.4	9 5	67				
PASADENA	43.28	91.5	8 0	1				
BOULDER CITY	44.16	87.0	8 7	0				
FLAMING GRGE	44.44	77.6	8 8	-1	13 41	-60		
KHEYS	44.79	349.4	8 12A	0				
GLEN CANYON	45.54	83.5	8 17	-1				
RAPID CITY	46.28	70.2	9 24	61				11 16 PP
NORD	46.34	4.5	8 23	-1				9 58 PCP
LARAMIE	46.51	74.8	8 27	2				
PEKING	48.28	284.9	8 39A	0	15 39	4		
ULAN-BATOR	48.86	298.7	8 43	-1				
TUCSON	49.11	87.8	8 46	0				
TUCSON TELE.	49.12	87.6	8 46	0				
ZO-SE	51.06	272.6	8 59A	-1	16 19	5	9 16	
NANKING	51.89	275.3	9 5	-2				
LAWRENCE	54.12	70.6	9 17	-6				
WICHITA MTS.	54.97	76.7	9 29	0	17 15	8		10 16
SIAN	56.43	284.2	9 40	0	17 31	4	9 53	
FAYETTEVILLE	56.68	72.5	9 40	-2				10 0
ST. LOUIS 1	57.26	67.7	9 44	-2	18 38	61		
LANCHOW	58.23	289.2	9 52	-1				
TROMSOE	58.58	354.8	9 55	0				
SODANKYLA	60.21	351.0	10 5	-1				10 50 PCP

KIRUNA	60.27	353.8	10	6	-1						
OTTAWA	60.42	53.3	10	7	-1						
SEMIPALATNSK	60.46	315.0	10	6	-2						
SHAWINIGAN	61.05	50.7	10	11	-1						
BREBEUF	61.39	52.0	10	13	-1						
CHENGTU	61.90	284.6	10	18	0	18	44	7	10	33	
MORGANTOWN	62.32	60.5	10	20K	-1						
PENNSYLVANIA	62.59	58.3	10	21	-1	18	49	3			
SVERDLOVSK	62.88	329.8	10	24	0						
KAJAANI	63.29	349.6	10	27	0						
UMEA	64.25	353.1	10	32	-1						
WASHINGTON	64.39	59.2	10	29	-5						
PALISADES	64.51	55.7	10	34	-1	19	12	2	10	48	23 38 SS
WESTON	64.80	53.1	10	37A	0						
SKALSTUGAN	64.92	357.0	10	38	0						
CHAPEL HILL	65.49	62.7	10	41	0						
COLUMBIA	65.78	65.5	10	43	0						
KUNMING	66.69	281.3	10	48A	-1	19	42	6	11	4	
HALIFAX	66.78	46.8	10	50	1						
NURMIJARVI	67.11	350.2	10	50A	-2						
PULKOVO	67.13	347.0	10	49	-3						
UPPSALA	68.37	353.8	10	59	0						
MOSCOW	69.75	341.6	11	7	-1						
LHASA	70.27	292.9	11	13A	2	20	25	6			
GOTEBORG	70.81	356.7	11	14	0						
ANDIJAN	71.39	312.8									11 45
NAMANGAN	71.53	313.4	11	21	2						
TASHKENT	72.31	315.1	11	22	-1						
NHATRANG	72.39	267.4	11	29	5						11 43 *SP
SHILLONG	72.86	289.5	11	25A	-2						21 13
CHATRA	74.62	293.7	11	38	1						
STALINABAD	74.78	313.8	11	38	0						
HALLE	77.01	356.3	11	51	0						12 6 PCP
KEW	77.02	4.1	12	5	14						
COLLMBERG	77.17	355.6	11	51A	0						
WARSAK DAM	77.22	309.2	11	50A	-2						
JENA	77.60	356.5	11	53	-1						13 23
BENSBERG	77.67	359.3	11	54	0						
LWOW	77.67	348.2	11	54	0						
BOKARO	77.72	292.8	11	54	0						
LAHORE	77.83	305.8	11	55	0						
RACIBORZ	78.03	352.1	11	56	0						
PRUHONICE	78.40	354.4	11	59A	1						13 28
HEIDELBERG	79.21	358.3	12	3	0						
KASPERSKE H.	79.30	355.0	12	6A	3						
KARLSRUHE	79.61	358.5									15 58
KISHINEV	79.70	344.4	12	6	1						
FOLINIERE	79.71	4.4	12	6	1						
PARIS	79.78	2.4	12	7	1						
STUTTGART	79.83	357.9	12	6	0						
BRATISLAVA	80.02	352.6	10	7	-120						
STRASBOURG	80.05	358.9	12	8	1						
TUBINGEN	80.07	358.0	12	8	1						
EBINGEN	80.43	358.1	12	9	0						
SIMFEROPOL	80.70	340.2	12	11	0						
RAVENSBURG	80.81	357.6	12	12	1						
TIFLIS	81.03	331.7	12	13	1						
BASLE	81.10	359.0	12	3	-10						22 8
GARCHY	81.32	2.1	12	15	1						12 30 PCP
NEUCHATEL	81.63	359.4	12	16	1						
LJUBLJANA	82.32	354.1	12	19	0						12 39
QUETTA	82.56	310.3	12	21A	1	22	36	3	12	34	22 53 SCS
CLERMONT-FD.	82.83	2.1	12	23	1						13 2
BELGRADE	83.02	349.8	12	24K	1						
TEHERAN	84.29	324.5	12	31	2	22	54	4			
ISOLA	84.45	359.3	12	32	2						12 50 SP
MONACO	84.90	359.0	12	33	1						
BAGNERES	85.42	4.4	12	35	0						
BALBOA HTS.	85.71	81.1	12	14	-22						12 55
SAN JUAN	86.26	65.0	12	28	-11						12 52 PCP
POONA	88.63	298.6	12	50A	0						
SHIRAZ	89.29	320.9	12	53K	0	23	37	-1			16 24 PP
ATHENS	89.34	346.2	12	52A	-2						
KARAPIRO	89.78	188.3	12	53	-3						
KSARA	90.88	335.6	13	2	1	23	55	3			16 31 PP
CANBERRA	92.60	209.6	13	17	8						
JERUSALEM	92.99	335.5	13	11K	0						
HELWAN	95.77	338.2	13	24	1						23 57 SKS
CAPE HALLETT	124.26	185.8									39 13 SS

SCOTT BASE	129.88	185.3	19 19	13			22 38 SKP
BYRD STATION	135.07	168.4	19 13	-2			
BROKEN HILL	138.70	326.1	19 19	-3			
BULAWAYO	143.88	322.4	19 30A	-1			
MAWSON	148.65	218.0	19 41A	2		19 52	
PRETORIA	149.10	318.7	19 44	4			
WINDHOEK	149.66	339.6	19 41	0			
PIETERMZBURG	151.47	311.4	19 50	7			

APRIL 23 5.H 14.M 25.S EPICENTRE 26.07 129.96 DEPTH= 31.KM

A=-0.57773 B= 0.68938 C= 0.43702 D= 0.7664 E= 0.6423
G=-0.2807 H= 0.3349 K=-0.8995 HT= 3.0

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ILAN	7.54	261.9	2 9	19	3 52	36		
TAIPEI	7.70	264.1	1 36	-16				
HWALIEN	7.85	256.4	1 49	-6				
TAWU	9.06	247.8	2 13	2	5 7	73		
ZO-SE	9.21	305.0	2 11	-2	4 0	3		
HENGCHUN	9.34	246.3	2 35	20				
TAINAN	9.38	253.1	2 27	11				
ABUYAMA	10.02	27.5	2 23	-2				
NANKING	11.46	304.0	2 41A	-3	4 55	3		
MATUSIRO	12.59	32.0	3 1	2	5 23	3		3 35
BAGUIO CITY	12.98	224.2	3 4	-1				6 12
TUKUBASAN	13.32	38.1	3 9K	0				3 30
MANILA	14.06	218.0	3 24	5	6 6	11		
HONG KONG	14.89	258.8	3 31	1	6 13	-1		
CANTON	15.41	262.5	3 32	-4				
MIZUSAWA	16.05	33.0	3 49	4				5 0
VLADIVOSTOK	17.09	4.8	3 56A	-2				
PEKING	18.07	323.8	4 10A	0	7 34	6		
CHANGCHUN	18.12	349.1	4 10A	-1	7 33	4		
GUAM	18.70	129.3	4 17	-1	8 13	31		
SIAN	19.92	299.2	4 30A	-2	8 19	10		
Y.-SAKHLINSK	23.23	22.5	5 5	0	9 18	7		
CHENGTU	23.27	287.3	5 2	-3	9 14	2		
LANCHOW	24.44	300.4	5 16	-1				
KUNMING	24.56	273.8	5 19A	1	9 39	5		
UGLEGORSK	24.83	19.2	5 21K	0				
ULAN-BATOR	28.35	326.3	5 52	-1				
IRKUTSK	32.54	330.4	6 31A	1				
SHILLONG	34.22	277.7	6 44K	-1	12 6	-2		8 11 PPP
PETROPAVLOVK	34.42	30.9	6 45K	-1	12 15	4		
LHASA	34.49	285.0	6 49	2				
CHITTAGONG	34.90	272.2	6 52	2	12 22	3	7 22	8 21 PP
YAKUTSK	35.95	359.8	6 59	0				
MAGADAN	36.46	17.7	7 3	-1	12 47	4		
RABAUL	36.99	141.2	7 7	-1				
MEDAN	37.41	238.6	7 11	-1	12 48	-9		
PORT BLAIR	37.89	254.9	7 20	4	13 20	15		
CALCUTTA	37.96	273.8	6 17	-59	12 10	-56		
CHATRA	38.19	280.9	7 19	1	13 11	2		8 50 PP
PORT MORESBY	39.01	152.4	7 23	-2	13 22	0		
DJAKARTA	39.14	218.2	7 20K	-6				8 56
LEMBANG	39.24	216.6	7 26K	-1	13 18	-7		10 10
BOKARO	39.97	276.6	7 34	1	13 30	-6		9 12
SEMIPALATNSK	44.93	316.3	8 13	0	14 48	-1		
TIKSI	45.60	359.5	8 17A	-2				
DEHRA DUN	45.63	287.8	8 17	-2	14 59	0		10 13 PP
HYDERABAD	48.36	270.6	8 40	0	15 41	3		10 38 PP
MADRAS	48.41	264.3	8 40	-1	15 43	5		10 35
LAHORE	48.62	290.1	8 43	0	15 33	-8		
ANDIJAN	49.43	302.4	8 51A	2				
NAMANGAN	49.95	302.7	8 54A	1				16 6
WARSAK DAM	50.61	293.7	8 58K	0				
TASHKENT	51.74	303.2	9 6	0	16 29	4		
POONA	52.13	273.8	9 8	-1	16 32	2		
STALINABAD	52.33	299.8	9 13	2	16 37	4		
BOMBAY	52.94	274.7	9 15	0	16 44	3		9 34 PCP
QUETTA	55.11	289.8	9 31K	0	17 14	4	9 55	11 36 PP
SVERDLOVSK	57.35	322.3	9 47K	0	17 42	2		

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BRISBANE	57.51	155.9	9	47	-1	17	45	3				
ADELAIDE	61.27	171.8	10	12K	-2							
KHEYS	61.52	349.8	10	16	0	18	38	4				
RIVERVIEW	62.87	160.2	10	24K	-1						19	12
COLLEGE	63.44	28.2	10	28	-1	19	7	9	11	4	20	32 SCS
CANBERRA	63.65	162.7	10	29K	-1							
MELBOURNE	65.10	166.9	10	38	-2							
TEHERAN	66.48	299.6	10	49	1	19	42	7				
SHIRAZ	67.34	293.0	10	53	-1	19	49	3	11	6	13	43 PP
MAKHACH-KALA	67.46	308.0	10	54	-1	19	49	2				
AFIAMALU	69.20	117.9	10	46	-19						11	29
TIFLIS	69.73	307.3	11	9K	0	20	21	7				
MOORLANDS	69.99	166.5	11	10	0							
MOSCOW	70.14	323.1	11	11	0	20	30	11				
FORT NELSON	70.50	166.5	11	13	0							
SITKA	71.00	35.2	11	17	1							
SODANKYLA	71.17	336.6	11	17K	0							
NORD	71.23	355.1	11	16K	-2							
KAJAANI	72.02	333.2	11	22K	0							
PULKOVO	72.50	328.5	11	24	-1	20	48	2				
KIRUNA	73.13	338.1	11	28K	-1				11	57	20	56 SCS
NURMIJARVI	74.79	330.4	11	38K	-1							
UMEA	75.11	334.4	11	38	-2							
RESOLUTE	75.42	11.2	11	42K	0	21	19	0				
SIMFEROPOL	75.96	313.3	11	45	0	21	27	2				
KARAPIRO	76.68	144.5	11	49K	0				11	59		
CHATEAU	77.64	145.4	11	54K	-1						12	38
COBB RIVER	77.69	148.3	11	53	-2							
UPPSALA	78.19	331.5	11	57K	-1						21	50 SCS
KAIMATA	78.22	150.0	12	2	4							
SKALSTUGAN	78.23	336.1	11	57K	-1							
KISHINEV	78.47	316.8	11	59	0	21	53	1				
WELLINGTON	78.83	147.2	11	59	-2							
KSARA	79.12	302.3	12	2K	-1	21	55	-4	12	35	14	59 PP
IASI	79.16	317.3	12	3	0							
GEBBIES PASS	79.71	150.0	11	54	-12							
LWOW	80.04	320.8	12	8	0	22	12	4				
JERUSALEM	80.46	300.6	12	11K	1						15	20 PP
WARSAW	80.50	323.9									16	11
ISTANBUL KA.	80.94	311.2	12	13	0	22	32	14	12	34	15	21 PP
VICTORIA	81.06	40.2	12	14	1							
BUCHAREST	81.35	315.3	12	15	0	22	27	5			12	47
SCORESBY SD.	81.67	350.8	12	17K	1	22	36	11	12	28	22	41 SKS
GOTEBORG	81.83	331.4	12	16K	-1							
KRAKOW	82.22	322.3	12	20K	1	22	36	5			15	29
CHORZOW	82.60	322.8	12	23A	2							
PENTICTON	82.81	38.2	12	22	0							
COPENHAGEN	82.83	329.6	12	23K	1	22	43	6	12	47	23	45 PS
CORVALLIS	83.07	43.6	12	25K	1							
RACIBORZ	83.14	322.9	12	26	2						13	0
BUDAPEST	84.09	320.4	12	30	1	22	49	-1				
HELWAN	84.30	300.3	12	30K	0	22	53	1				
BELGRADE	84.65	317.6	12	41	9	23	8	13			14	30
PRUHONICE	85.15	324.2	12	35K	1	23	4	4			15	55 PP
VIENNA-H.	85.16	322.1	12	35K	1	22	50	-10				
PRAGUE	85.16	324.3	12	35	1							
COLLMBERG	85.18	325.8	12	34K	0	23	2	2			15	52 PP
HALLE	85.58	326.4	12	38	2	22	57	-7				
SHASTA	85.61	46.6	12	37	1							
ATHENS	86.05	310.5	12	38A	0							
JENA	86.11	326.1	12	37	-2	23	15	5			16	1 PP
KASPERSKE H.	86.16	323.9	12	40K	1						15	54 PP
CHEB	86.22	325.1	12	40	1							
MINERAL	86.30	46.6	12	40K	0							
HUNGRY HORSE	86.42	36.9	12	42	2							
BERKELEY	87.14	49.0	12	45K	1							
CONCORD	87.22	48.8	12	45K	1							
WITTEVEEN	87.27	329.5	12	45K	1							
MUNSTER	87.38	328.5	12	45	0							
LJUBLJANA	87.45	321.0	12	46	1						16	0 PP
LICK	87.84	49.2	12	41A	-6							
RENO	87.90	46.6	12	48K	1							
BENSBERG	88.26	327.9	12	49K	0	23	35	5	13	13	16	20 PP
VINEYARD	88.32	49.6	11	51	-59							
DE BILT	88.43	329.5	12	51K	1	23	35	4			16	25 PP
HEIDELBERG	88.51	326.0	12	50	0							
BUTTE	88.60	38.2	12	52	1							
STUTTGART	88.62	325.3	12	51	0	23	22	-11			16	21 PP

TUBINGEN	88.88	325.2	12 52	0			
KARLSRUHE	88.91	325.9	12 51	-1			16 27
RAVENSBURG	89.07	324.4	12 53	0			
EBINGEN	89.16	325.0	12 53	0			
PADOVA	89.32	321.6			23 51 11		
FRESNO	89.39	48.9	12 55	0			
DURHAM	89.40	334.3	12 54K	-1	23 45 5		
STRASBOURG	89.51	325.8	12 55	0	23 35 -6		16 31 PP
BOZEMAN	89.66	37.8	12 57	1			
EUREKA	90.41	45.0	13 0	1			16 31 PP
ROME	91.10	318.5	13 3	0	24 0 4		16 37 PP
RUTH	91.18	44.7	13 4K	1			
KEW	91.31	331.5	13 3K	-1	23 38 -20		
MESSINA	91.36	314.1	13 1	-3			16 42 PP
PASADENA	91.93	50.4	13 6	0	23 47 -16		23 19 SKS
PARIS	91.94	328.3	13 7	1			16 50 PP
SALT LAKE C.	92.20	42.1	13 9	1			
GARCHY	92.73	327.0	13 10	0			
ISOLA	92.76	322.8	13 9	-1			16 55 PP
MONACO	92.85	322.3	13 10	-1			
BOULDER CITY	93.16	47.3	13 11	-1			16 52 PP
FOLINIERE	93.34	329.7	13 12	-1			
FLAMING GRGE	93.56	40.8	13 14	0			
CLERMONT-FD.	93.75	325.9					17 4
CUGLIERI	94.48	319.0					14 25
GLEN CANYON	94.67	45.0	13 20	1			
RAPID CITY	94.92	35.4	13 21	1			
LARAMIE	95.51	38.6	13 24	1			
TUCSON	98.04	48.3	13 36	2			17 32 PP
TUCSON TELE.	98.06	48.2	13 36	2			
TOLEDO	101.64	325.6	13 50	-1			18 15 PP
WICHITA MTS.	104.04	39.5	14 5	4			18 7 PP
SCOTT BASE	105.93	172.4	18 21	777			
PALISADES	109.68	19.0			25 46 44		30 32 PPS
BYRD STATION	119.03	169.2	18 45	-1			
CHINCHINA	140.41	42.5	19 29	3			22 31 PP
FUQUENE	141.13	39.6	19 31	4			
BOGOTA	141.62	40.8	19 39	11			23 11 SKP
HUANCAYO	152.40	64.4	19 50	4			
PORT STANLEY	153.72	169.0	20 6	19			
AREQUIPA	157.87	68.7	19 56	3			
LA PAZ	160.66	64.1	20 0	4			

APRIL 23 9.H 1.M 38.S EPICENTRE 44.86 150.31 DEPTH= 0.KM

A=-0.61780 B= 0.35222 C= 0.70304 D= 0.4953 E= 0.8687
G=-0.6108 H= 0.3482 K=-0.7111 HT= -3.5

SE= 2.64

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NEMURO	3.74	247.4	1 2A	1	1 46	0		
ABASHIRI	4.40	261.1	1 14A	4	2 6	3		
KUSIRO	4.67	248.3	1 15A	1	2 7	-3		
OBIHIRO	5.49	251.8	1 27A	1	2 32	2		
HIROO	5.70	245.5	1 30A	2	2 33	-2		
Y.-SAKHLINSK	5.72	294.8	1 31	2	2 41	5		2 25
ASAHIGAWA	5.80	262.0	1 35	5	2 59	21		
URAKAWA	6.11	246.3	1 34A	0	2 44	-2		
WAKKANAI	6.13	278.2	1 40A	6	3 6	20		
RUMOE	6.29	264.7	1 40A	3	2 56	6		
TOMAKOMAI	6.71	253.6	1 51	8	3 13	12		
SAPPORO	6.71	257.6	1 46A	3	2 57	-4		
SEVERO-KUR.	6.99	31.8	1 49	2	3 8	0		
UGLEGORSK	7.04	309.7	1 52	5	3 7	-2		
MURORAN	7.24	252.7	1 51A	1	3 13	-1		
SUTTSU	7.58	257.7	1 57	2	3 19	-3		
HAKODATE	7.60	249.7	1 55A	0	3 16	-7		
MORI	7.60	252.1	1 56A	1	3 25	2		
AOMORI	8.09	243.3	2 1	-1	3 29	-6		
MIYAKO	8.09	232.8	1 59	-3	3 25	-10		
MORIOKA	8.52	235.9	2 5A	-3	3 33	-13		
MIZUSAWA	8.92	233.2	2 13	0	3 42	-14		
AKITA	9.15	239.4	2 14A	-3	3 57	-5		
SENDAI	9.65	230.2	2 20	-4	3 56	-18		
SAKATA	9.82	236.3	2 26	0	3 52	-26		

PETROPAVLOVK	9.83	30.9	2	26	0				4	12
HUKUSIMA	10.26	229.5	2	29	-3	4	10	-19		
ONAHAMA	10.63	225.2	2	33	-4	4	35	-3		
SHIRAKAWA	10.86	228.0	2	40	0	4	27	-17		
NIIGATA	10.93	234.5	2	36	-5	4	19	-27		
MITO	11.30	224.8	2	43	-3	4	50	-4		
AIKAWA	11.34	237.1	2	45	-2	4	41	-14		
UTUNOMIYA	11.47	227.2	2	46	-3	4	42	-17		
KAKIOKA	11.56	225.2	2	45	-5	4	48	-13		
TUKUBASAN	11.61	225.4	2	44A	-6	4	40	-22	3	8 PPP
TYOSI	11.64	221.5	2	43	-8	4	48	-15		
TAKADA	11.96	233.7	2	53	-2	5	0	-11		
MAEBASI	12.01	229.1	2	54	-2	4	44	-28		
KUMAGAYA	12.03	227.4	2	53	-3	5	4	-8		
HONGO	12.17	224.9	2	59	1				5	32
TOKYO C.M.O.	12.20	224.9	2	54	-4	5	8	-8		
NAGANO	12.29	232.4	3	1	1	6	11	52		
TITIBU	12.32	227.8	3	0	0	5	10	-9		
OIWAKE	12.34	230.4	2	59	-1	5	17	-3		
MATUSIRO	12.38	232.0	2	58A	-3	5	8	-13	3	30
YOKOHAMA	12.45	224.5	3	0	-2	5	18	-4		
WAZIMA	12.57	238.1	3	1	-2	5	17	-8		
MATUMOTO	12.72	231.7	3	5	0					
MERA	12.77	222.6							3	38
KOHU	12.83	228.3	3	7	0	5	24	-8		
TOYAMA	12.84	235.1	3	5	-2	5	25	-7		
HUNATU	12.85	227.2	3	13	6	5	26	-6		
AJIRO	13.03	225.0	3	12	3	5	52	16		
MISIMA	13.05	225.7	3	7	-3	5	36	-1		
OSIMA	13.11	223.5	3	12	1					
TAKAYAMA	13.20	233.2	3	8	-3					
KLYUCHI	13.26	26.4	3	12	-1				6	42
KANAZAWA	13.28	235.9	3	20	7					
IIDA	13.33	229.9	3	14	0	6	28	44		
VLADIVOSTOK	13.37	269.0	3	15	1					
SHIZUOKA	13.45	226.8	3	16	1	6	47	61		
OMAESAKI	13.83	226.3							3	39
HAMAMATU	14.00	227.9	3	32	10					
GIHU	14.01	232.2	3	20	-2	6	18	18		
NAGOYA	14.06	231.1	3	23	0	5	54	-7		
TSURUGA	14.23	234.6	3	23	-2					
HIKONE	14.39	233.1	3	27	0	6	12	3		
KAMEYAMA	14.58	231.4	3	30	0	6	34	21		
MAGADAN	14.71	1.0	3	32	0	6	20	3		
MAIZURU	14.75	235.6	3	33	1	6	12	-5		
KYOTO	14.87	233.6	3	32	-2	6	30	10		
TOYOOKA	15.05	237.1	3	35	-1				8	12
NARA	15.06	232.5							4	27
ABUYAMA	15.07	233.6	3	34A	-2					
OSAKA	15.25	233.1	3	40	1	6	57	28		
OWASE	15.30	230.1	3	50	11	6	51	21		
KOBE	15.43	234.0	3	40	-1	6	28	-5		
TOTTORI	15.45	238.3	3	40	-1	6	15	-19		
SAIGO	15.52	242.0	3	43	1	6	48	12		
SUMOTO	15.83	233.7	3	54	8	6	57	14	7	56
YONAGO	16.00	239.8	3	47	-1	6	54	7		
SIOMISAKI	16.01	229.6	3	52	3	7	3	16		
HIMEJI	16.01	235.2	3	42	-7				8	28
MATSUE	16.16	240.4	3	50	-1				9	8
TOKUSIMA	16.21	233.7	3	51	0					
TAKAMATU	16.34	235.5	3	51	-2	7	4	9		
TSURUGISAN	16.70	234.4	3	55	-2					
MUROTO	17.04	232.6	4	3	1	7	27	16		
HAMADA	17.14	240.8	4	3A	0	7	26	13		
KOTI	17.19	234.7	4	1	-3	7	18	4		
HIROSIMA	17.27	238.8	4	3A	-2	6	54	-22		
MATUYAMA	17.43	236.8	4	7	1	7	32	12		
CHANGCHUN	17.90	275.5	4	10A	-2					
UWAZIMA	17.99	235.9	4	7	-7	7	40	7		
SIMIDU	18.07	234.0	4	13	-2	7	41	7		
OOITA	18.55	237.6	4	20A	0	7	39	-6		
HUKUOKA	19.06	240.6	4	23A	-4	7	57	0		
ASOSAN	19.11	237.9	4	28	1	8	16	18		
SAGA	19.33	240.0	4	33	3	8	24	21		
ITUHARA	19.35	243.9	4	29A	-1	8	6	3		
KUMAMOTO	19.39	238.4	4	31A	1	8	19	15		
MIYAZAKI	19.59	235.2	4	35A	2	8	18	9		
UNZENDAKE	19.72	239.0	4	37K	3	8	11	0		

NAGASAKI	19.95	239.6	4	38A	1	8	22	6				
KAGOSIMA	20.36	236.1	4	42A	1	8	29	4				
TOMIE	20.71	241.2	4	46A	1	9	4	32				
YAKUTSK	20.95	332.4	4	46	-1	8	34	-3				
YAKUSIMA	21.21	234.0	4	50	0	8	58	16				
PEKING	25.53	271.2	5	33A	1	10	1	3				
ZO-SE	26.59	248.9	5	43A	1	10	18	2				
NANKING	27.62	253.3	5	51A	0	10	34	2				
TIKSI	28.76	346.1	5	56	-6	11	5	14			7	0 PP
ULAN-BATOR	29.81	291.6	6	9	-2	11	8	0				
TAIPEI	30.55	239.3	5	56	-22	12	47	88				
ILAN	30.60	238.6	6	49	31	11	55	35				
IRKUTSK	30.88	300.5	6	18	-3	11	15	-10			7	24 PP
HWALIEN	31.28	237.8	6	40	16							
TAICHUNG	31.71	239.2	6	36	8							
ALISHAN	32.11	238.3	6	37	6							
TAINAN	32.85	238.4	6	46	8							
TAWU	32.93	236.7	6	40	1	11	56	-1				
HENGCHUN	33.29	236.5	6	48	6							
SIAN	33.30	266.0	6	42A	0							
LANCHOW	36.03	272.4	7	6A	1	12	47	2				
CANTON	37.12	246.6	7	16A	2	13	2	1			8	45 PP
HONG KONG	37.15	244.8	7	16A	1	12	28	-34				
BAGUIO CITY	37.80	230.9	7	20	0	13	9	-3				
CHENGTU	38.73	264.7	7	28A	0	13	24	-2			8	59 PP
COLLEGE	38.84	36.9	7	29	0	13	25	-2			10	41 PP
MANILA	38.96	228.7	7	32	2	13	25	-4				
KUNMING	42.97	259.0	8	3A	0	14	29	0				
SEMIPALATNSK	45.94	303.2	8	25	-2						13	55 SCP
SITKA	46.09	46.9	8	30	2	15	17	3				
KHEYS	46.46	346.9	8	27	-4	15	17	-2			10	17 PP
LHASA	48.53	272.8	8	50A	3						10	43 PP
RABAUL	48.87	177.5	8	49	-1						15	51
SHILLONG	50.36	268.0	9	1A	0	16	13	-1			10	58 PP
ALMATA	51.03	295.8	9	7	1	16	14	-9			10	59 PP
HAWAII V.OB.	51.47	101.1	8	59	-11	16	34	5				
CHITTAGONG	52.41	264.8	9	19	2	16	45	3	9	36	11	23 PP
FRUNSE	52.74	296.4	9	20	1	16	44	-3				
CHATRA	52.94	272.5	9	21	0	16	49	0			11	17 PP
RESOLUTE	53.24	17.5	9	21A	-2	16	50	-3				
NORD	53.59	357.6	9	22A	-3	16	53	-5			19	14 SCS
SVERDLOVSK	53.88	317.1	9	26	-2	16	55	-7			10	34 PCP
PORT MORESBY	54.09	183.9	9	29	0	17	6	1				
CALCUTTA	54.75	267.6	8	49	-45	17	24	10			10	55 PP
ALBERNI	55.05	52.7	9	36	0							
BOKARO	55.76	270.6	9	41A	0	17	28	1			11	49 PP
VICTORIA	56.23	53.0	9	45	0							
TASHKENT	56.91	297.4	9	49	-1	17	41	-2				
DEHRA DUN	57.28	281.8	9	52	0	17	49	1			12	10 PP
PENTICTON	57.92	50.6	9	55	-2							
CORVALLIS	58.41	56.9	10	1A	1							
PORT BLAIR	59.03	254.7	10	5	1	18	13	3				
BANFF	59.08	47.0	10	3	-2							
LAHORE	59.13	285.2	10	5	0	18	6	-6				
WARSAK DAM	59.57	289.1	10	3	-5	18	16	-2				
SODANKYLA	60.29	338.2	10	10	-3							
MEDAN	61.04	243.4	10	18A	0	18	32	-4	10	32		
SHASTA	61.17	60.1	10	19	0							
KIRUNA	61.49	340.6	10	18A	-3	18	51	9			39	48 PKPPKP
HUNGRY HORSE	61.51	49.1	10	21	0	18	41	-1				
MINERAL	61.87	60.0	10	23A	-1							
KAJAANI	62.41	335.3	10	26A	-1							
SAN FRANCSCO	62.87	62.8	10	29	-1							
BERKELEY	62.93	62.6	10	31	0	18	50	-10			22	58 SS
RENO	63.45	59.8	10	35A	1							
LICK	63.65	62.7	10	36A	0							
BUTTE	63.71	50.5	10	36	0	19	9	-1				
DJAKARTA	64.03	229.6	10	32A	-6	19	7	-7				
LEMBANG	64.15	228.4	10	38A	-1	19	11	-4				
VINEYARD	64.17	63.1	10	53	14							
UMEA	64.72	338.0	10	39	-4							
CHARTERS TS.	64.74	184.2	10	41	-2						14	58
PULKOVO	64.75	331.0	10	40	-3	19	14	-9			14	39 SCP
BOZEMAN	64.76	50.0	10	46	3	19	26	3			37	2 PKPPKP
SCORESBY SD.	64.83	357.1	10	43A	0	19	12	-12			19	34 PS
MOSCOW	64.87	324.8	10	42	-2	19	17	-7			14	45 PPP
QUETTA	64.99	288.4	10	44A	0	19	23	-3	10	54	12	59 PP
HYDERABAD	65.12	270.2	10	42A	-3	19	26	-1			13	1 PP

FRESNO	65.16	62.2	10	45	0							
ASHKABAD	65.71	299.9	10	50	1						13	13 PP
EUREKA	65.83	57.8	10	49	-1				11	5	39	16 PKPPKP
NURMIJARVI	66.05	333.9	10	48A	-3	19	30	-9			20	44 SCS
RUTH	66.58	57.5	10	55A	0							
MADRAS	66.88	265.4	10	55A	-1	19	48	-1			13	25 PP
SKALSTUGAN	66.91	341.0	10	55	-2						11	26
SALT LAKE C.	67.44	54.6	11	0	0							
POONA	67.66	274.2	11	0A	-1	19	52	-6			13	30 PP
SUVA	67.75	151.0				21	5	66			25	22 SS
PASADENA	67.84	63.5	11	2A	-1	20	2	2			13	26 PP
AFIAMALU	67.86	139.9	11	6	3	20	4	3				
BOMBAY	68.15	275.2	11	5	1	20	7	3			13	36 PP
KARACHI	68.33	283.8	11	6	0						20	24 *SS
NOUMEA	68.44	163.9	11	9	3	20	2	-6				
UPPSALA	68.68	336.5	11	5A	-3	20	2	-8			39	26 PKPPKP
FLAMING GRGE	68.75	53.1	11	7	-1	20	4	-7			13	50 PP
BOULDER CITY	68.75	60.1	11	7	-1						39	36 PKPPKP
MAKHACH-KALA	68.79	309.9	11	9A	1							
RAPID CITY	70.01	47.3	11	16	0	21	25	59			13	44 PP
LARAMIE	70.63	50.8	11	20	0							
KODAIKANAL	70.70	265.2	11	12A	-8	20	18	-16			13	48 PP
TIFLIS	71.11	310.3	11	24A	1	20	38	-1			24	52 SS
REYKJAVIK	71.18	356.4	11	23A	0							
BERGEN	71.27	342.5				20	35	-6			11	40 PCP
COLOMBO	71.32	261.0	11	24	0	20	41	0				
TEHERAN	71.39	302.0	11	26	2	20	44	2				
BRISBANE	71.94	177.7	11	28	0	20	50	1				
GOTEBORG	72.07	338.0	11	26A	-2							
COPENHAGEN	73.70	336.7	11	37A	-1	21	1	-7	11	52	16	1 PPP
TUCSON	73.71	60.7	11	38	0	20	56	-13			14	22 PP
TUCSON TELE.	73.71	60.6	11	38	0	21	11	2	11	52	14	23 PP
WARSAW	73.90	330.3									15	39
SIMFEROPOL	74.21	318.5	11	41A	0	21	14	0			16	5 PPP
LWOW	74.75	327.2	11	44	0	21	17	-3				
SHIRAZ	74.81	296.7	11	45K	1	21	16	-5			21	45 SP
IASI	75.41	323.7	11	45	-3							
ABERDEEN	75.74	344.9	11	49K	-1	21	29	-2			14	51 PP
KRAKOW	76.09	329.6	11	52	0						18	10
BACAU	76.19	323.6	11	54	2							
RACIBORZ	76.68	330.6	11	56A	1						13	36
SKALNATE PL.	76.69	328.9	11	57	2	21	41	-1				
FOCSANI	76.75	322.9	11	53	-2							
EDINBURGH	77.13	345.1									45	37
COLLMBERG	77.35	334.1	11	58A	-1	21	43	-6			14	42 PP
HALLE	77.49	334.8	11	59	0	21	47	-3				
WITTEVEEN	77.81	338.4	12	2A	1							
DURHAM	77.91	343.8	12	1K	-1	21	51	-4	12	17	14	52 PP
PRAGUE	77.96	332.7	12	2	0	21	49	-6			30	28 SSS
PRUHONICE	78.00	332.6	12	2A	0	21	52	-4			27	16 SS
CAMPULUNG	78.01	323.9	12	6	4							
JENA	78.11	334.8	12	2	-1	21	48	-9			15	5 PP
LUBBOCK	78.16	54.3	12	7	4							
BUCHAREST	78.24	322.7	12	4A	0	21	56	-2			15	42 PP
MUNSTER	78.32	337.5	12	4	0							
RIVERVIEW	78.33	179.3	12	3	-1	21	54	-5			12	13 PCP
HURBANOVO	78.54	329.4	12	7	2	21	45	-16			12	22 PCP
BUDAPEST	78.57	328.7	12	6	1	22	0	-2			17	18 PP
CHEB	78.60	333.9	12	4	-2	21	52	-10			27	4 SS
BRATISLAVA	78.68	330.2	11	52	-14	21	42	-21				
DE BILT	78.85	338.9	12	7A	0	22	2	-3			15	4 PP
VIENNA-H.	78.87	330.6	12	7A	0	22	4	-1			22	49 PS
CHIHUAHUA	79.16	60.4				22	10	2			16	46 PPP
TIMISOARA	79.17	326.4	12	10	1	22	8	0				
WICHITA MTS.	79.18	51.5	12	8	-1	22	3	-5			14	56 PP
BENSBERG	79.35	337.3	12	9A	-1	22	6	-4	12	22	15	3 PP
ISTANBUL KA.	79.56	318.9	12	11A	0	22	19	7				
ISTANBUL UN.	79.62	318.9	12	12	1	22	21	8				
CANBERRA	79.82	181.1	12	14	2	22	16	1	12	32		
ADELAIDE	80.15	189.6	12	15K	1	22	18	-1	12	33		
BELGRADE	80.24	326.3	12	15A	1	22	17	-2			15	40 PP
HEIDELBERG	80.32	335.7	12	15A	0							
FAYETTEVILLE	80.54	47.8	12	14A	-2	21	50	-33			27	38 SS
ST. LOUIS 1	80.60	43.7	12	16	0	22	19	-4				
STUTTGART	80.71	335.1	12	17A	0	22	22	-2			15	27 PP
KEW	80.74	341.9	12	17A	0	22	21	-4			22	55
KARLSRUHE	80.76	335.7	12	20	3	22	21	-4				
SOFIA	80.81	323.4	12	18	1	22	25	0				
TUBINGEN	80.99	335.1	12	19A	1							

ZAGREB	81.08	329.6	12	18	-1					
OTTAWA	81.31	30.9	12	18	-2					
STRASBOURG	81.33	335.9	12	20A	0	22	27	-4	27	16 SS
EBINGEN	81.33	335.0	12	20A	0					
SHAWINIGAN	81.36	28.5	12	19	-1					
LJUBLJANA	81.40	330.6	12	20A	-1	22	24	-7	15	26 PP
TERRE HAUTE	81.41	41.5	13	22	61	23	22	50		
RAVENSBURG	81.49	334.4	12	21	0					
DALLAS	81.57	51.6	12	23	2					
KSARA	81.69	310.0	12	23	1	22	37	3	15	33 PP
BREBEUF	81.98	29.5	12	22	-2					
TRIESTE	82.02	330.9	12	26	2	22	48	10		
CLEVELAND	82.31	36.6	12	25A	0	22	35	-6		
BASLE	82.33	335.5	12	23	-2	22	43	2		
MELBOURNE	82.46	184.3	12	26	0	22	44	2		
MUNDARING	82.53	208.7	12	26	0					
PARIS	82.55	339.2	12	27	0	22	39	-4	15	30 PP
PADOVA	82.87	331.9	12	31	3	22	46	0	15	40 PP
NEUCHATEL	82.99	335.7	12	29	0	22	52	4		
JERSEY	83.29	342.2	12	29	-1	23	52	61		
FOLINIERE	83.31	341.0	12	30	0					
JERUSALEM	83.59	309.1	12	33A	1	22	50	-4		
GARCHY	83.82	338.2	12	33	0	22	53	-3	15	33 PP
PAVIA	83.95	333.5							27	18 SS
AUCKLAND	84.32	160.5				23	0	-1	28	42
PENNSYLVANIA	84.40	34.6	12	35	-1	22	54	-8	15	49 PP
PRATO	84.48	331.7	12	35	-1	23	10	7		
ATHENS	84.51	320.4	12	35A	-1					
FLORENCE X.	84.51	331.5	12	37A	1	23	9	6		
MORGANTOWN	84.52	36.6	12	37K	0	22	56	-7		
TARANTO	85.18	326.0							13	12
CLERMONT-FD.	85.20	337.6	12	41A	1	23	30	20		
KARAPIRO	85.51	160.2	12	43	2			13	0	
WESTON	85.51	29.6	12	41	0	23	30	17	16	12 PP
ISOLA	85.51	334.4	12	41	0	23	6	-7		
ROME	85.74	329.8	12	42A	-1	23	16	1	15	57 PP
PALISADES	85.76	32.0	12	43	0	23	9	-6	16	1 PP
MONACO	85.80	334.0	12	42	-1					
FORDHAM	85.91	32.0	12	46	3	22	45	-32		
HALIFAX	85.95	23.5	12	44	0					
WASHINGTON	86.33	35.1	12	43	-3	23	28	7	15	39 PP
TONGARIRO	86.71	160.6							13	14
CHATEAU	86.71	160.6	12	50	3					
MOORLANDS	86.96	182.3	12	49K	0			12	58	
HELWAN	87.19	310.5	12	50A	0	23	31	2		
FORT NELSON	87.45	182.2				23	30	-1		
MESSINA	87.80	326.0	12	55	2				23	32
REGGIO CALA.	87.84	325.8	13	7	14				23	31
COBB RIVER	87.89	163.2	12	58	5	23	36	1	13	18
CHAPEL HILL	88.01	38.0	12	54	0					
BAGNERES	88.49	338.6	12	56	0					
WELLINGTON	88.52	161.8	12	56	0	23	20	-21	13	17
CUGLIERI	88.63	331.7							14	42
COLUMBIA	88.72	40.5	12	57	0	23	38	-5		
KAIMATA	89.02	164.6	13	2	3	23	49	3		
GEBBIES PASS	90.40	164.0	13	6	1				13	25
ROXBURGH	91.52	166.7	13	20	10	24	14	6	30	22 SS
VERA CRUZ	92.22	60.1				23	54	-21	16	58 PP
TOLEDO	92.54	340.5	13	15	0	24	21	4	16	46 PP
ALICANTE	93.08	337.4	13	21	4	24	26	4	17	6 PP
COIMBRA	93.19	343.9	13	17A	-1				13	30 PCP
MERIDA	94.77	54.3							31	22 SS
GRANADA	95.00	339.4	14	9K	43	24	45	6	26	8 S
ALMERIA	95.02	338.4	13	23	-3				34	55 SSS
TANANARIVE	112.04	264.9	19	24	46					
BANGUI	114.73	304.9	18	20	-23				19	35
WILKES	115.01	196.6							29	40 SCSP
CARACAS	115.44	41.2	18	47	3				19	45 PP
CHINCHINA	115.61	52.5							19	57 PP
FUQUENE	116.25	50.5							19	52 PP
BOGOTA	116.77	51.3							20	1 PP
CAPE HALLETT	117.71	173.2				25	43	1	20	10 PP
MBOUR	119.92	345.8	18	47	-6				20	12 PP
BROKEN HILL	122.53	282.5	18	59A	1				20	34 PP
SCOTT BASE	122.86	175.9	18	59	0				20	29 PP
BULAWAYO	126.28	277.4	19	6A	1				21	0 PP
LUANDA	128.47	300.7							21	18 PP
HUANCAYO	129.21	64.5	19	14	3					

MAWSON	129.58	209.8	19 11	-1	19 30	22 33	SKP
BYRD STATION	133.84	166.0	19 5	-15		19 40	
KIMBERLEY	134.37	271.5	19 1	-20			
SOUTH POLE	134.67	180.0	19 16	-5		19 37	
AREQUIPA	134.96	64.7	19 34	12			
WINDHOEK	135.92	284.4	19 20	-3			
LA PAZ	137.12	61.2	19 28	2		32 34	PS
HERMANUS	141.44	268.3				22 41	PP

APRIL 23 12.H 17.M 56.S EPICENTRE 44.89 150.13 DEPTH= 19.KM

A=-0.61638 B= 0.35401 C= 0.70339 D= 0.4980 E= 0.8672
G=-0.6099 H= 0.3503 K=-0.7108 HT= -3.5

SE= 2.21

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
UGLEGORSK	6.92	310.1	1 46	3	3 10	8		3 36
SEVERO-KUR.	7.04	32.7	1 44	-1	3 4	-1		
MIZUSAWA	8.83	232.4	2 8	-2	3 36	-14		
OKHA	9.86	334.1	2 25	1				4 40
PETROPAVLOVK	9.87	31.5	2 23	-1	4 19	3		3 18
TUKUBASAN	11.53	224.8	2 41	-6				4 39
MATUSIRO	12.29	231.4	2 52K	-5	5 38	23		3 15
VLADIVOSTOK	13.25	268.7	3 10	0				
MAGADAN	14.69	1.3	3 25	-4				
ABUYAMA	14.98	233.1	3 46K	14				
CHANGCHUN	17.77	275.4	4 7	-1				
YAKUTSK	20.86	332.5	4 41	-2	8 29	-1		
PEKING	25.40	271.0	5 28A	0	9 58	7		
ZO-SE	26.48	248.6	5 37	-1	10 14	5		
NANKING	27.50	253.1	5 46	-1	10 29	4		
ULAN-BATOR	29.68	291.5	6 6	-1				
SIAN	33.18	265.8	6 37	0	11 57	2		
CANTON	37.02	246.3	7 10	0				
CHENGTU	38.61	264.5	7 23	0				
MANILA	38.89	228.5	7 27	1	13 23	0		
COLLEGE	38.90	36.9	7 24	-2				8 56 PCP
KUNMING	42.85	258.8	7 59A	1	14 23	1		
KHEYS	46.40	346.9						10 13
LHASA	48.40	272.7	8 44	1				
RABAUL	48.91	177.3	8 46	-1				
SHILLONG	50.23	267.8	8 57A	0				
ALMATA	50.90	295.7	9 2	0				
CHITTAGONG	52.29	264.7	9 14	2				
FRUNSE	52.61	296.3	9 14	-1				
RESOLUTE	53.25	17.5	9 17A	-2				
NORD	53.56	357.6	9 18	-4				
TASHKENT	56.78	297.3	9 45	0				
CORVALLIS	58.51	56.8	10 11	14				
DUZHANBE	58.64	294.8	10 3	5	18 4	4		
LAHORE	59.00	285.1	10 0	-1				
WARSAK DAM	59.44	289.0	10 3	-1				
SODANKYLA	60.21	338.2	10 6K	-3				
TROMSOE	60.34	342.4	9 49	-21				
SHASTA	61.27	60.0	10 21	5				
KIRUNA	61.42	340.6	10 14	-3				
MINERAL	61.96	59.9	10 20K	-1				
KAJAANI	62.33	335.2	10 21	-2				
BUTTE	63.80	50.4	10 30	-3				
LEMBANG	64.07	228.3	10 32A	-3				
UMEA	64.65	337.9	10 36	-3				
MOSCOW	64.78	324.7	10 36	-3				
SCORESBY SD.	64.80	357.1	10 39	-1				
QUETTA	64.85	288.2	10 39A	-1				
ASHKABAD	65.59	299.8	10 41	4				
EUREKA	65.92	57.8	10 45	-2	11 0			
KURMIJARVI	65.97	333.9	10 44K	-3				
WOODY	66.52	62.5	10 47	-4				
SKALSTUGAN	66.84	340.9	10 50	-3				
UPPSALA	68.61	336.4	11 1A	-3				
FLAMING GRGE	68.83	53.0	11 6	1	11 17	17 5		
BOULDER CITY	68.85	60.0	11 7	2		15 4	PP	
RAPID CITY	70.08	47.3	11 12	-1				
GLEN CANYON	70.17	57.4	11 11	-2	11 26	15 1	PP	

LARAMIE	70.71	50.7	11	15	-2							
TIFLIS	70.99	310.2	11	19A	1							
TEHERAN	71.27	301.9	11	21	1	20	31	-4				
GOTEBORG	71.99	337.9	11	23	-1							
TUCSON	73.81	60.6	11	40	5				11	57	12	57
TUCSON TELE.	73.81	60.5	11	42	7						12	55
SIMFEROPOL	74.10	318.4	11	35	-2							
LWOW	74.66	327.1	11	39	-1							
SHIRAZ	74.68	296.5	11	40K	0	21	16	2				
KRAKOW	76.00	329.5	11	47	0							
RACIBORZ	76.59	330.5	11	49	-2							
COLLMBERG	77.27	334.0	11	53A	-2						14	49 PP
HALLE	77.41	334.7	11	54	-1						22	12
PRUHONICE	77.91	332.5	11	59A	1						12	10
JENA	78.03	334.6	11	58	-1						12	49
VIENNA-H.	78.78	330.5	12	3	0							
WICHITA MTS.	79.26	51.4	12	4	-2						17	34
BENSBERG	79.28	337.2	12	4	-2				12	18		
HEIDELBERG	80.24	335.6	12	10	-1							
FAYETTEVILLE	80.62	47.7	12	12	-1							
STUTTGART	80.63	335.0	12	12	-1						12	34
EBINGEN	81.25	334.9	12	16	0							
KSARA	81.57	309.9	12	19	1							
BASLE	82.25	335.4	12	24	3						23	26
PARIS	82.48	339.1	12	22	-1							
FOLINIERE	83.24	340.9	12	26	0							
JERUSALEM	83.47	309.0	12	28A	0				12	43		
GARCHY	83.74	338.1	12	29	0							
HELWAN	87.07	310.3	12	45	0							
SAN JUAN	108.90	36.4	15	15	777							
BYRD STATION	133.90	166.0	19	14	-2							
SOUTH POLE	134.70	180.0	19	33	15							

APRIL 23 16.H 51.M 5.S EPICENTRE 44.98 149.99 DEPTH= 49.KM

A=-0.61452 B= 0.35497 C= 0.70453 D= 0.5002 E= 0.8659
G=-0.6101 H= 0.3524 K=-0.7097 HT= -3.5

DEPTH OF FOCUS= 0.003R

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
Y.-SAKHLINSK	5.46	294.5	1	25	4	2	36	13				
UGLEGORSK	6.79	310.0	1	43	3	3	9	12				
MIZUSAWA	8.81	231.5	2	16	8	3	34	-13				
OKHA	9.73	334.3	2	22	2						4	37
PETROPAVLOVK	9.85	32.1	2	22	0						4	10
TUKUBASAN	11.53	224.0	2	37	-8						4	35
MATUSIRO	12.27	230.7	2	48A	-7	5	6	-5				
VLADIVOSTOK	13.15	268.2	3	7	1	5	35	3				
KLYUCHI	13.26	27.3	3	33	25							
MAGADAN	14.60	1.6	3	24	-1						6	21
ABUYAMA	14.96	232.5	3	26	-4							
CHANGCHUN	17.66	275.0	4	3	-1							
YAKUTSK	20.73	332.5	4	38	-1	8	28	5			5	4 PP
PEKING	25.30	270.7	5	24A	0	9	51	7				
ZO-SE	26.42	248.3	5	34A	0	10	8	6				
NANKING	27.43	252.7	5	43	0	10	27	8				
ULAN-BATOR	29.55	291.3	6	2	0							
IRKUTSK	30.62	300.3	6	11	-1						7	19 PP
SIAN	33.08	265.5	6	33	0							
LANCHOW	35.79	272.0	6	58	1							
CANTON	36.96	246.1	7	8	2	12	55	7				
HONG KONG	36.99	244.3				12	56	8				
CHENGTU	38.51	264.3	7	20A	1	13	15	4				
MANILA	38.87	228.2	7	24	2	13	24	7				
COLLEGE	38.88	37.0	7	21	-1	13	19	2	7	33	7	53
KUNMING	42.76	258.6	7	55A	0	14	19	4				
KHEYS	46.29	346.9	8	21	-2	15	7	2			10	13 PP
LHASA	48.29	272.5	8	41	3	15	41	7				
RABAUL	49.00	177.1	8	40	-4							
SHILLONG	50.14	267.7	8	51A	-2							
CHITTAGONG	52.19	264.5	8	59	-9						10	59 PP
FRUNSE	52.48	296.2	9	11	1	16	39	7				

CHATRA	52.70	272.2	9 13	1					9 55	
RESOLUTE	53.20	17.5	9 14A	-2	16 43	2				
NORD	53.46	357.6	9 15K	-3						
SVERDLOVSK	53.64	317.0	9 18	-1						
BOKARO	55.53	270.3	9 34	1						
TASHKENT	56.65	297.1	9 41	0					17 37	PS
DEHRA DUN	57.03	281.5	9 42	-2	17 40	7				
CORVALLIS	58.54	56.8	9 59	5						
WARSAW DAM	59.32	288.8	10 0A	1						
SODANKYLA	60.09	338.1	10 3K	-2						
TROMSOE	60.22	342.3	9 48	-18						
MEDAN	60.89	243.1	10 10	0						
KIRUNA	61.30	340.5	10 12	-1						
SHASTA	61.31	60.0	10 12	-1						
HUNGRY HORSE	61.61	49.0	10 14	-1						
KAJAANI	62.21	335.2	10 18	-1						
RENO	63.59	59.7	10 31	3						
BUTTE	63.82	50.4	10 29	-1						
LEMBANG	64.06	228.1	10 28	-3						
UMEA	64.52	337.8	10 33	-1						
PULKOVO	64.54	330.9	10 32	-2					19 32	PS
MOSCOW	64.64	324.6	10 34	-1					19 18	SCS
SCORESBY SD.	64.70	357.0	10 36K	1					19 28	PS
QUETTA	64.73	288.1	10 36A	0	19 18	7	10 56		12 56	PP
CHARTERS TS.	64.85	183.9	10 31	-5						
BOZEMAN	64.86	49.9	10 37	1						
ASHKABAD	65.45	299.7	10 42	2						
NURMIJARVI	65.85	333.7	10 42K	-1						
EUREKA	65.96	57.7	10 41	-2			10 56			
MADRAS	66.66	265.1	10 24	-24	19 42	8			10 49	PCP
SKALSTUGAN	66.72	340.9	10 47	-1						
POONA	67.43	274.0	10 52	-1	19 48	5				
SALT LAKE C.	67.56	54.4	10 52	-2						
BOMBAY	67.91	275.0	10 55	-1	19 47	-2				
PASADENA	67.99	63.4	11 11	15	19 53	3				
KARACHI	68.08	283.6	11 1	4						
UPPSALA	68.48	336.4	10 57	-2						
BOULDER CITY	68.89	60.0	11 2	0						
RAPID CITY	70.09	47.2	11 10	1						
GLEN CANYON	70.21	57.4	11 9	-1						
LARAMIE	70.73	50.6	11 12	-1						
TIFLIS	70.86	310.1	11 16A	2	20 35	11			11 32	PCP
TEHERAN	71.13	301.8	11 18	3	20 38	11				
GOTEBORG	71.87	337.8	11 13K	-7						
BRISBANE	72.07	177.4	11 36	15	20 48	10				
COPENHAGEN	73.50	336.5	11 30	1	21 9	15				
WARSAW	73.68	330.1	11 31	0						
TUCSON	73.85	60.6	11 32	0						
TUCSON TELE.	73.86	60.4	11 31	-1						
SIMFEROPOL	73.97	318.3	11 34	2	21 6	7				
LWOW	74.52	327.0	11 36	1	21 16	10			11 50	PCP
SHIRAZ	74.55	296.4	11 36K	0	21 9	3	11 51		21 23	SKS
KRAKOW	75.87	329.4	11 41	-2						
RACIBORZ	76.46	330.4	11 48	2					12 38	
COLLMBERG	77.14	333.9	11 50A	0			12 13		14 35	PP
WITTEVEEN	77.61	338.2	11 54	1						
DURHAM	77.73	343.6	11 47	-7						
PRAGUE	77.75	332.5	11 53	-1						
PRUHONICE	77.78	332.4	11 56A	2	21 57	16				
JENA	77.90	334.6	11 55	1	21 49	6			27 13	SS
BUCHAREST	78.00	322.5	11 56A	1						
MUNSTER	78.12	337.3	11 57	1						
RIVERVIEW	78.45	179.0			21 53	6			12 30	
VIENNA-H.	78.65	330.4	12 1	2					12 14	PCP
DE BILT	78.65	338.7	11 55	-4						
BENSBERG	79.15	337.1	12 2K	1			12 16		14 39	PP
WICHITA MTS.	79.28	51.3	12 1	-1	21 59	2			27 20	SS
ISTANBUL KA.	79.32	318.7	11 52	-10						
BELGRADE	80.01	326.1	12 7K	1	22 39	34			25 45	
HEIDELBERG	80.11	335.5	12 7	0						
STUTTGART	80.51	334.9	12 9	0	22 24	14			12 33	
KEW	80.56	341.7	12 10	1	22 17	6			12 32	
SOFIA	80.58	323.2	12 11	2	22 20	9				
FAYETTEVILLE	80.63	47.6	12 8K	-1			12 36			
TUBINGEN	80.78	334.9	12 12	2						
EBINGEN	81.13	334.8	12 13	1						
LJUBLJANA	81.19	330.4	12 13	1					12 35	
RAVENSBURG	81.28	334.2	12 14	1						

KSARA	81.43	309.8	12	15A	2	22	30	10	27	32 SS
TRIESTE	81.80	330.6	12	18	3					
BASLE	82.13	335.3	12	9	-8					
PARIS	82.36	339.0	12	21	3				12	27 PCP
FOLINIERE	83.12	340.8	12	23	1					
JERUSALEM	83.34	308.9	12	25	2					
GARCHY	83.62	338.0	12	25	0				12	39 PCP
ATHENS	84.27	320.2	12	28	0				13	11
FLORENCE X.	84.30	331.3	12	28	0	23	2	14		
PENNSYLVANIA	84.43	34.4	12	25	-4	22	53	3		
MORGANTOWN	84.56	36.4	12	31	2					
CLERMONT-FD.	85.00	337.4	12	34	2					
WESTON	85.52	29.4	12	33K	-1					
ROME	85.52	329.6	12	30	-4	23	1	1		
KARAPIRO	85.70	160.0	12	40	5					
PALISADES	85.78	31.7				23	2	-1	28	48 SS
HELWAN	86.93	310.2	12	41	0					
MESSINA	87.57	325.7	12	48	4					
COLUMBIA	88.78	40.2	12	52	2					
ROXBURGH	91.69	166.5				24	5	7		
BANGUI	114.47	304.7	18	13	-22				20	13 *PPP
SCOTT BASE	123.00	175.8	19	10	19					
BYRD STATION	134.01	166.0	19	11	-1					
SOUTH POLE	134.79	180.0	19	29	15					

APRIL 24 12.H 27.M 39.S EPICENTRE 44.87 150.19 DEPTH= 34.KM

A=-0.61696 B= 0.35345 C= 0.70316 D= 0.4971 E= 0.8677
G=-0.6101 H= 0.3495 K=-0.7110 HT= -3.5

DEPTH OF FOCUS= 0.000R

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
Y.-SAKHLINSK	5.64	295.0	1	27	3	2	40	12				
UGLEGORSK	6.97	310.0	1	45	2							
SEVERO-KUR.	7.03	32.3	1	44	0	3	5	2				
MIZUSAWA	8.85	232.7	2	42	33	3	40	-9				
PETROPAVLOVK	9.86	31.2	2	22	-1	4	16	3				
OKHA	9.89	334.0	2	25	2	4	25	11				
TUKUBASAN	11.55	225.0	2	39A	-7						4	39
MATUSIRO	12.32	231.6	2	51A	-5	5	10	-3				
VLADIVOSTOK	13.29	268.9	3	8	-1	5	45	8				
MAGADAN	14.70	1.2	3	27	-1	6	17	7				
CHANGCHUN	17.81	275.4	4	6	-1							
YAKUTSK	20.90	332.5	4	39	-3	8	31	3				
PEKING	25.45	271.1	5	27A	0							
ZO-SE	26.52	248.7	5	36	-1	10	12	6				
NANKING	27.54	253.2	5	45	-1							
ULAN-BATOR	29.72	291.5	6	5	0							
SIAN	33.22	265.9	6	35A	-1							
LANCHOW	35.94	272.3	7	0	0							
HONG KONG	37.07	244.6				13	0	8				
CHENGTU	38.65	264.6	7	22	0							
COLLEGE	38.88	36.9	7	23	-1	13	23	3			7	46
MANILA	38.91	228.6	7	26	2	13	24	4				
KUNMING	42.89	258.9	7	57	0	14	21	2				
LHASA	48.44	272.8	8	43	2							
RABAUL	48.89	177.4	8	41	-4							
SHILLONG	50.28	267.9	8	54A	-1							
ALMATA	50.95	295.8	9	1	0							
FRUNSE	52.65	296.3	9	13	0							
RESOLUTE	53.26	17.5	9	16A	-2							
NORD	53.58	357.6	9	17A	-3							
SVERDLOVSK	53.82	317.1	9	20	-2							
TASHKENT	56.83	297.3	9	43	-1	17	39	6				
DEHRA DUN	57.20	281.7									17	35
CORVALLIS	58.48	56.8	10	11	16							
LAHORE	59.04	285.1	9	58	-1							
WARSAK DAM	59.49	289.0	9	59A	-3							
SODANKYLA	60.25	338.2	10	2	-6							
TROMSOE	60.37	342.4	10	7	-1							
SHASTA	61.24	60.0	10	13	-1							
KIRUNA	61.45	340.6	10	13	-3							
HUNGRY HORSE	61.57	49.0	10	15	-2							

MINERAL	61.93	60.0	10	15K	-4				10	36
KAJAANI	62.37	335.3	10	21	-1					
RENO	63.52	59.8	10	42	13					
LICK	63.72	62.7	10	35	4					
BUTTE	63.77	50.4	10	31	0					
UMEA	64.68	337.9	10	36	-1					
CHARTERS TS.	64.75	184.1	10	38	1					
MOSCOW	64.82	324.7	10	37	-1					
SCORESBY SD.	64.82	357.1	10	38	0					
QUETTA	64.90	288.3	10	37A	-1	19	28	12	12	58 PP
FRESNO	65.26	62.2	10	55	14					
ASHKABAD	65.64	299.8	10	44	1				19	41 PS
EUREKA	65.89	57.8	10	43	-2				12	0
NURMIJARVI	66.01	333.8	10	44	-2					
WOODY	66.49	62.6	10	46	-3					
UPPSALA	68.64	336.5	11	1	-1					
BOULDER CITY	68.82	60.1	10	52	-11					
RAPID CITY	70.06	47.3	12	9	58					
GLEN CANYON	70.14	57.4	10	55	-16				11	9
LARAMIE	70.69	50.7	11	27	12					
TIFLIS	71.04	310.3	11	17A	0	20	37	8	11	33 PCP
TEHERAN	71.31	301.9	11	21	3					
TUCSON	73.78	60.7	11	32	-1					
SIMFEROPOL	74.15	318.5	11	35	0	21	9	4		
LWOW	74.70	327.2	11	39	1					
SHIRAZ	74.73	296.6	11	38K	0	21	12	1	18	3
KRAKOW	76.04	329.5							26	44
NIEDZIKA	76.42	329.0	11	48	0					
RACIBORZ	76.63	330.5	11	50	1					
SKALNATE PL.	76.64	328.9	11	52	3					
COLLMBERG	77.30	334.1	11	53A	0				14	47 PP
HALLE	77.45	334.8	11	58	4				14	58 PP
WITTEVEEN	77.77	338.3	11	57	1					
PRUHONICE	77.95	332.5	11	57A	0				15	7 PP
JENA	78.06	334.7	11	56	-1				12	26
MUNSTER	78.28	337.4	11	59	1					
BRATISLAVA	78.63	330.1	12	54	54					
VIENNA-H.	78.82	330.6	12	2	1					
WICHITA MTS.	79.24	51.4	12	3	-1	22	1	1	15	14 PP
BENSBERG	79.31	337.2	12	3	-1					
FAYETTEVILLE	80.60	47.8	12	10	-1					
STUTTGART	80.67	335.0	12	11	0					
KARLSRUHE	80.71	335.6	12	19	7	22	31	16		
SOFIA	80.75	323.3	11	55	-17					
STRASBOURG	81.29	335.8	12	20	5					
KSARA	81.61	309.9	12	18	2					
PARIS	82.51	339.1	12	31	10					
BESANCON	83.00	336.3	12	25	2					
FOLINIERE	83.27	341.0	12	25	0					
JERUSALEM	83.52	309.0	12	27A	1				12	41
GARCHY	83.78	338.2	12	27	0					12 36 PCP
MORGANTOWN	84.56	36.5	12	31	0					
KARAPIRO	85.54	160.1	12	45	9					
PALISADES	85.80	31.9				23	12	6		28 44 SS
HELWAN	87.12	310.4	12	46	2					13 30
WELLINGTON	88.56	161.7								26 21
ROXBURGH	91.55	166.7								30 21 SS
BYRD STATION	133.87	166.0	19	14	0					
SOUTH POLE	134.68	180.0	19	28	12					

APRIL 25 0.H 28.M 17.S EPICENTRE 44.41 149.78 DEPTH= 75.KM
A=-0.61928 B= 0.36066 C= 0.69743 D= 0.5033 E= 0.8641
G=-0.6027 H= 0.3510 K=-0.7167 HT= -3.3

DEPTH OF FOCUS= 0.007R

SE= 3.70

	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
Y.-SAKHLINSK	5.59	300.3	1	21	-2						3	6
UGLEGORSK	7.06	314.1	1	44	1							
MIZUSAWA	8.35	233.7	2	31	30	3	59	25				
PETROPAVLOVK	10.41	31.0	2	35	6						4	26
TUKUBASAN	11.02	225.4	2	37	0							

MATUSIRO	11.80	232.2	2 48	0		3 33	
VLADIVOSTOK	13.00	270.5	3 15	11		3 41	
MAGADAN	15.17	2.0	3 29	-3			
YAKUTSK	21.18	333.4	4 40	-1	8 27 0		
TIKSI	29.11	346.5	5 49	-7			
MANILA	38.38	228.5	7 16	0	14 8 63		
COLLEGE	39.43	36.6	7 22	-3		7 49	
SHILLONG	49.97	268.0	8 50A	1			
FRUNSE	52.60	296.5	9 11	2		9 38	
RESOLUTE	53.78	17.3	9 14	-4			
SVERDLOVSK	53.96	317.2	9 18	-1			
SODANKYLA	60.57	338.2	10 2	-3			
TROMSOE	60.72	342.3	10 4	-2		10 45	
KIRUNA	61.79	340.5	10 11	-3		10 38	
KAJAANI	62.66	335.2	10 17	-3			
LEMBANG	63.57	228.1	10 52	27			
CHARTERS TS.	64.27	183.7				11 47	
QUETTA	64.77	288.2	10 36	3			
PULKOVO	64.96	330.9				11 11 PCP	
UMEA	65.00	337.8	10 34	-1		11 1	
SCORESBY SD.	65.26	356.9	10 35	-1	11 2		
ASHKABAD	65.61	299.8				11 8 PCP	
NURMIJARVI	66.29	333.8	10 41	-2			
EUREKA	66.39	57.4	10 58	14			
WOODY	66.96	62.2	11 11	24			
AFIAMALU	67.76	139.3	10 42	-10			
UPPSALA	68.95	336.4	10 58	-2		11 24	
BOULDER CITY	69.31	59.7	11 25	23			
RAPID CITY	70.59	46.9	11 14	4			
GLEN CANYON	70.64	57.1	11 27	17			
TIFLIS	71.11	310.2	11 16	3			
TUCSON	74.26	60.3	11 37	6		12 1 PCP	
TUCSON TELE.	74.26	60.2				11 57 PCP	
SIMFEROPOL	74.30	318.3				11 59	
SHIRAZ	74.67	296.4	11 36	2			
LWOW	74.92	327.0	11 36	1			
KRAKOW	76.28	329.4	11 44	1		12 27	
NIEDZIKA	76.66	328.8	11 47	2		12 13	
RACIBORZ	76.88	330.3	12 14	28			
COLLMBERG	77.59	333.9	11 51A	1			
HALLE	77.74	334.6	11 47	-4		15 21 PP	
PRUHONICE	78.22	332.3	11 55	1	12 21	12 31 *SP	
JENA	78.35	334.5	11 55	1		13 10	
MUNSTER	78.59	337.2				12 23	
KASPERSKE H.	79.28	332.4	12 1	2		12 27	
BENSBERG	79.62	337.0	12 28	27			
WICHITA MTS.	79.75	51.1	12 0	-2		12 27	
STUTTGART	80.96	334.8	12 14	6		12 36	
FAYETTEVILLE	81.12	47.4	12 34K	25	13 0		
STRASBOURG	81.58	335.6	12 42	30			
KSARA	81.68	309.7	12 42	30			
PARIS	82.84	338.9	12 21	3		12 47	
BESANCON	83.31	336.1	12 50	30			
JERUSALEM	83.58	308.8	12 26	4		12 51	
FOLINIERE	83.61	340.7	12 23	1			
GARCHY	84.09	337.9	12 52	28		13 14	
MORGANTOWN	85.10	36.3	12 56K	27			
KARAPIRO	85.21	159.8	13 7	37			
WESTON	86.09	29.2	13 1	27			
PALISADES	86.35	31.6				23 46	
HELWAN	87.19	310.1	13 9	29		14 0	
BYRD STATION	133.49	166.1	19 7	-1			
SOUTH POLE	134.22	180.0	19 36	26			

APRIL 25 1.H 17.M 36.S EPICENTRE 44.59 150.22 DEPTH= 3.KM

A=-0.62015 B= 0.35489 C= 0.69961 D= 0.4967 E= 0.8679
G=-0.6072 H= 0.3475 K=-0.7145 HT= -3.4

SE= 3.15

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
Y.-SAKHLINSK	5.78	297.5	1 31	3	2 40	4		1 47 *SP
UGLEGORSK	7.17	311.7	1 50	2				3 18
SEVERO-KUR.	7.26	31.0	1 48	-1	3 7	-6		
MIZUSAWA	8.70	234.3	2 9	0	3 40	-9		

PETROPAVLOVK	10.10	30.3	2	26	-3					4	10
TUKUBASAN	11.37	226.1	2	43A	-3					4	42
MATUSIRO	12.16	232.7	2	54A	-3	5	14	0		3	20
VLADIVOSTOK	13.31	270.1	3	12	0					5	49
KLYUCHI	13.54	26.1	3	21	6					6	2
ABUYAMA	14.85	234.2	3	29A	-3						
MAGADAN	14.99	1.1	3	30	-4						
CHANGCHUN	17.86	276.3	4	10A	-1						
YAKUTSK	21.16	332.8	4	45	-3	8	34	-5			
PEKING	25.47	271.7	5	31A	1	10	5	9			
ZO-SE	26.43	249.3	5	40A	1	10	16	4			
NANKING	27.48	253.7	5	49A	0	10	27	-2			
IRKUTSK	30.96	300.9	6	17	-3					7	30 PP
SIAN	33.22	266.3	6	39	-1						
HONG KONG	36.97	245.0	7	12	0	13	2	5			
CHENGTU	38.64	265.0	7	26A	0	13	21	-2			
MANILA	38.73	228.9	7	49	22	13	49	25			
COLLEGE	39.10	36.7	7	28	-2	12	27	-63		10	4 PP
KUNMING	42.85	259.2	8	1A	0	14	26	0			
SEMIPALATNSK	46.04	303.3	8	24	-2						
KHEYS	46.71	347.0	8	27	-5	15	16	-5		10	16 PP
LHASA	48.48	273.0	8	47A	2	15	50	4			
RABAUL	48.60	177.4	8	46	0						
SHILLONG	50.29	268.1	8	57A	-2						
ALMATA	51.09	296.0	9	5	-1	16	25	2			
CHITTAGONG	52.32	265.0	9	16	1	16	38	-1	9 42	11	19 PP
FRUNSE	52.80	296.5	9	18	0	16	43	-3			
RESOLUTE	53.52	17.5	9	20A	-4						
NORD	53.87	357.6	9	22A	-4						
SVERDLOVSK	54.04	317.2	9	25	-2					21	0 SS
BOKARO	55.70	270.7	9	36	-4						
TASHKENT	56.98	297.5	9	48	-1	17	44	2		11	57 PP
DUZHANBE	58.82	295.0	10	1	-1						
WARSAK DAM	59.60	289.2	10	5	-2						
SODANKYLA	60.52	338.3	10	8	-5						
TROMSOE	60.64	342.4	10	11	-3						
KIRUNA	61.72	340.7	10	18	-4	18	50	7		20	10
HUNGRY HORSE	61.74	48.9	10	22	0						
MINERAL	62.06	59.8	10	21	-3						
KAJAANI	62.64	335.3	10	25	-3						
BERKELEY	63.12	62.4	10	33	2	19	0	-1			
RENO	63.65	59.6	10	41	7						
LICK	63.83	62.6	10	46	10						
LEMBANG	63.92	228.4	10	34K	-2					12	50
BUTTE	63.94	50.3	10	29	-7						
CHARTERS TS.	64.46	184.1	10	27	-13						
UMEA	64.95	338.0	10	42	-1						
PULKOVO	64.96	331.0	10	39	-4	19	19	-5		14	40 PPP
BOZEMAN	64.99	49.9	10	40	-3						
QUETTA	65.01	288.4	10	42A	-1	19	25	1	10 57	19	57 PS
MOSCOW	65.06	324.8	10	40	-4	19	22	-3		20	34 SCS
SCORESBY SD.	65.10	357.1	10	41A	-3	19	26	0	11 6		
FRESNO	65.34	62.1	10	46	1						
ASHKABAD	65.79	300.0	10	49	1						
EUREKA	66.03	57.7	10	48	-2				11 5	21	20 PCP
NURMIJARVI	66.27	333.9	10	48	-3						
MADRAS	66.79	265.4	11	6	11						
POONA	67.62	274.3	10	58	-2						
SALT LAKE C.	67.65	54.4	10	58	-2						
PASADENA	68.02	63.4	11	12	10	20	2	1		24	0 SS
BOMBAY	68.11	275.3	11	1	-2	20	1	-1			
UPPSALA	68.91	336.5	11	4A	-4	20	14	2		20	58 *SS
BOULDER CITY	68.95	60.0	11	6	-2						
FLAMING GRGE	68.97	53.0	11	9	1						
RAPID CITY	70.24	47.2	11	14	-2						
LARAMIE	70.85	50.6	11	18	-2						
COLOMBO	71.21	261.0								20	55
TIFLIS	71.24	310.3	11	22	0	20	42	3			
TEHERAN	71.48	302.0	11	29	5	20	50	8			
BERGEN	71.52	342.5	11	22	-2						
GOTEBORG	72.30	338.0	11	28	0						
TUCSON	73.90	60.6	11	36	-2				11 53		
TUCSON TELE.	73.91	60.5	11	37	-1						
COPENHAGEN	73.92	336.7	11	36A	-2	21	9	0		16	54 PPP
WARSAW	74.11	330.3	11	38	-1					21	13
SIMFEROPOL	74.37	318.5	11	40A	-1	21	12	-2		11	52 PCP
SHIRAZ	74.87	296.7	11	43K	0	21	14	-6	11 56	14	30 PP
LWOW	74.95	327.2	11	43	-1					11	56 PCP

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IASI	75.59	323.6	11	47	-1						21	31	
KRAKOW	76.29	329.6	11	49A	-3								
RACIBORZ	76.88	330.6	11	54	-1								
SKALNATE PL.	76.90	328.9	11	57	2						12	9	PCP
COLLMBERG	77.57	334.1	11	57A	-2						14	46	PP
HALLE	77.72	334.8	11	58	-1	21	43	-8					
WITTEVEEN	78.04	338.4	12	2	1								
DURHAM	78.15	343.8	12	1A	-1	21	44	-12			21	56	SKS
PRAGUE	78.17	332.7	12	12	10								
PRUHONICE	78.21	332.6	12	1A	-1	21	57	1			22	30	PS
JENA	78.33	334.7	12	1	-2	21	57	-1			14	4	
BUCHAREST	78.42	322.7	12	2A	-1	21	59	0			22	31	PS
MUNSTER	78.55	337.5	12	3	-1								
BUDAPEST	78.77	328.6	12	5	0	22	4	2					
BRATISLAVA	78.88	330.1									15	24	
VIENNA-H.	79.07	330.6	12	7A	0								
DE BILT	79.08	338.9	12	7	0	22	14	8					
KASPERSKE H.	79.26	332.7	12	7A	-1						13	37	
WICHITA MTS.	79.40	51.4	12	6	-3	22	7	-2			15	21	PP
BENSBERG	79.58	337.3	12	8	-2				12	22	12	32	*SP
ISTANBUL KA.	79.72	318.9	12	8A	-2	22	12	0					
ADELAIDE	79.87	189.6	12	10	-1								
BELGRADE	80.43	326.3	12	14K	0	22	32	12			28	25	SS
HEIDELBERG	80.54	335.7	12	14	-1								
FAYETTEVILLE	80.78	47.7	12	13	-3				12	38			
STUTTGART	80.94	335.0	12	16	-1	22	23	-2					
KEW	80.98	341.9	12	15	-2	22	21	-5					
SOFIA	80.99	323.3	12	18	1	22	27	1					
TUBINGEN	81.21	335.0	12	17	-1								
STRASBOURG	81.55	335.8	12	20	0	22	34	3			15	40	PP
EBINGEN	81.55	334.9	12	18	-2								
LJUBLJANA	81.61	330.5	12	20	0						15	39	PP
SHAWINIGAN	81.63	28.4	12	19	-1								
KSARA	81.81	310.0	12	22K	1	22	36	2			15	27	PP
TRIESTE	82.23	330.8				22	34	-4					
BREBEUF	82.25	29.4	12	21	-3								
MUNDARING	82.25	208.7	11	11	-73								
BASLE	82.55	335.5	12	24	-1								
PARIS	82.79	339.2	12	27	1						12	40	PCP
NEUCHATEL	83.22	335.7	12	30	1								
BESANCON	83.27	336.4	12	29	0								
FOLINIERE	83.55	341.0	12	29	-1								
JERUSALEM	83.71	309.1	12	32A	1	22	55	2					
GARCHY	84.05	338.2	12	33	0						12	45	PCP
PENNSYLVANIA	84.66	34.6				22	54	-9			12	51	PP
ATHENS	84.68	320.4	12	35A	-1								
FLORENCE X.	84.72	331.5	12	39	3	23	3	0					
MORGANTOWN	84.78	36.6	12	36	-1								
KARAPIRO	85.27	160.2	12	39	0								
CLERMONT-FD.	85.43	337.6	12	41	1								
ISOLA	85.73	334.4	12	41K	0				12	55			
WESTON	85.78	29.5	12	39	-3								
MONACO	86.02	333.9	12	42	-1								
PALISADES	86.03	31.9	12	54	11	23	7	-9			28	59	SS
HELWAN	87.32	310.4	12	48	-1	23	36	8					
CHAPEL HILL	88.27	38.0	12	52	-2								
BAGNERES	88.72	338.5	12	54	-2								
COLUMBIA	88.98	40.4	13	9	12								
TOLEDO	92.78	340.5	13	13	-2								
BANGUI	114.83	304.8	18	56	14						19	34	
BROKEN HILL	122.53	282.3	18	58	1								
SCOTT BASE	122.59	175.9	19	10	13								
BULAWAYO	126.25	277.1	19	4K	0								
BYRD STATION	133.59	166.1	19	16	-2								
SOUTH POLE	134.40	180.0	19	20	1								
LA PAZ	137.31	61.4	19	40	15								

APRIL 25 11.H 16.M 38.S EPICENTRE -33.04-178.46 DEPTH= 0.KM

A=-0.93962 B=-0.02264 C=-0.54270 D=-0.0270 E= 0.9996
G= 0.5425 H= 0.0146 K=-0.8399 HT= 0.8

SE= 2.48

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

RAOUL ISLAND	3.81	7.1	0	57	-4	1	37	-10				
ONERAHI	6.52	243.4	1	41	2							
AUCKLAND	6.72	233.5	1	44	2	3	6	5			2	5
TUAI	6.76	210.6	1	41	-2	2	56	-5			3	39
KARAPIRO	6.91	223.4	1	42	-3						2	2
CHATEAU	7.83	216.6	1	55	-3	3	27	-1			2	17
TONGARIRO	7.84	216.7	1	55	-3	3	22	-6			2	16
WELLINGTON	9.83	211.4	2	20	-6	4	2	-16			2	48
COBB RIVER	10.67	218.7	2	44	7	4	25	-13			3	23
KAIMATA	12.38	217.3	3	3	3	5	4	-16				
GEBBIES PASS	12.71	210.6	3	3	-2	5	10	-18			3	27
NOUMEA	17.11	304.9	4	4	2	7	54	42				
PORT VILA	19.34	318.8	4	32	3							
AFIAMALU	20.00	19.3	4	32	-5	8	7	-10			6	12
RIVERVIEW	25.34	259.8	5	31A	1						6	10 PP
BRISBANE	25.44	275.2	5	30	-1	10	4	8				
CANBERRA	26.96	256.0	5	46	1							
FORT NELSON	28.53	239.8	5	59	0							
MOORLANDS	28.58	240.8	6	0	0							
TARRALEAH	29.10	241.3	6	6K	2							
MELBOURNE	30.05	250.4	6	11	2							
CHARTERS TS.	33.93	283.4	6	45	-2	12	9	-2				
ADELAIDE	35.36	254.7	6	59K	0						9	28 PCP
PORT MORESBY	39.47	298.7	7	33	-1							
RABAUL	39.69	310.0	7	34	-1							
CAPE HALLETT	39.78	185.4	7	39	3	13	47	6				
SCOTT BASE	45.38	184.4	8	27	5							
BYRD STATION	52.41	169.1	9	14	-2							
WILKES	52.64	208.7	9	17A	-1	16	42	-3			26	0
MUNDARING	54.28	252.1	9	27	-3							
SOUTH POLE	57.13	180.0	9	50	-1							
MAWSON	69.71	201.0	11	12K	-1						11	36 PCP
LEMBANG	72.84	273.0	11	37	5						14	9
MANILA	74.68	299.2	11	58	15							
MATUSIRO	80.19	325.9	12	12	-2	22	14	-4			27	18 SS
HONG KONG	84.58	300.8									15	53 PP
Y.-SAKHLINSK	87.02	334.6	12	48	0							
PASADENA	87.59	46.1	12	51	0	23	20	-12			24	40 PS
LICK	87.79	41.9	12	53K	1							
BERKELEY	87.82	41.2	12	52	0	23	26	-8				
FRESNO	88.43	43.3	12	59	4							
SHASTA	89.77	39.1	13	1	0							
MINERAL	89.94	39.8	13	2K	0							
BOULDER CITY	90.85	46.6	13	6	0							
TUCSON	90.99	51.6	13	9	2	24	13	10			30	44 PKKP
TUCSON TELE.	91.12	51.6	13	9	1							
CORVALLIS	92.10	35.9	13	13	1							
EUREKA	92.48	43.4	13	14	0				13	29	17	7 PP
RUTH	92.89	44.1	13	17	1	23	58	-22				
LA PAZ	97.28	114.9	13	31	-5	24	16	3				
COLLEGE	100.49	12.8	13	31	-19							
COLOMBO	103.50	269.5									25	13
BOGOTA	104.56	94.0				24	50	2			27	50 PS
HERMANUS	110.87	195.6									34	46 SS
RESOLUTE	119.87	17.7	18	49	-3							
PALISADES	120.96	58.7				25	53	0			27	29 SKKS
BULAWAYO	121.13	210.0	18	55	0							
QUETTA	125.04	285.9	19	3	1						21	2 PP
BROKEN HILL	126.22	212.9	18	42	-23							
XHEYS	127.69	350.0	19	7	0							
SHIRAZ	136.68	279.7	19	23	-1						23	2 PKS
TROMSOE	142.09	350.2	19	32	-2							
KIRUNA	143.49	348.1	19	32	-4							
TIFLIS	144.86	297.0	19	37	-2							
KAJAANI	144.96	340.3	19	37	-2							
MOSCOW	146.25	323.1	19	39	-2							
UMEA	147.07	344.8	19	42	-1						20	7
PULKOVO	147.21	333.3	19	42	-1							
BANGUI	147.33	212.8	19	44	1						21	1 *PPP
NURMIJARVI	148.63	338.1	19	47	2							
UPPSALA	151.15	343.2	19	53	4							
KSARA	151.41	281.1	19	50	1						23	41 PP
JERUSALEM	151.61	276.7	19	31	-19							
SIMFEROPOL	152.22	304.9	19	50	-1							
BERGEN	152.52	356.0	20	6	15							
GOTEBORG	154.34	347.0	20	4	11							
MELMAN	154.43	270.9	19	52	-2						27	34
LWOW	156.37	321.8	19	56	0							
COLLMBERG	159.92	338.7	20	40	39							

PRUHONICE	160.53	334.2	20	43A	42								34	52 SKSP
KASPERSKE H.	161.58	334.3	20	47	45									
STUTTGART	163.25	342.0	20	16	12									
LJUBLJANA	163.63	326.3	19	40	-24									

APRIL 26 7.H 39.M 4.S EPICENTRE 45.07 150.16 DEPTH= 64.KM

A=-0.61465 B= 0.35263 C= 0.70559 D= 0.4976 E= 0.8674
G=-0.6120 H= 0.3511 K=-0.7086 HT= -3.6

DEPTH OF FOCUS= 0.005R

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
NEMURO	3.72	243.7	0	49	-8	1	31	-9				
ABASHIRI	4.33	258.0	1	3	-2	2	4	9				
KUSIRO	4.65	245.3	1	2A	-8	1	55	-8				
OBIHIRO	5.46	249.3	1	15	-6							
Y.-SAKHLINSK	5.53	293.3	1	22	0	2	34	9				
HIROO	5.69	243.0	1	17	-7	2	19	-10				
ASAHIGAWA	5.72	259.7	1	23	-2	2	36	6				
WAKKANAI	6.00	276.3	1	27A	-1	3	16	39				
URAKAWA	6.10	244.0	1	24	-6	2	43	4				
RUMOE	6.21	262.6	1	30	-1	3	20	38				
SAPPORO	6.65	255.6	1	34A	-4	3	5	12				
TOMAKOMAI	6.66	251.5	1	35	-3							
UGLEGORSK	6.82	308.9	1	41	1						3	14
SEVERO-KUR.	6.88	33.4	1	42	1	3	6	7				
MURORAN	7.20	250.8	1	40	-5	3	9	3				
SUTTSU	7.52	255.9	1	46	-4	3	9	-5				
MORI	7.57	250.3	1	46	-4	3	22	6				
HAKODATE	7.57	247.8	1	44	-6	3	9	-7				
AOMORI	8.08	241.6	2	1	4	3	7	-21				
MIYAKO	8.13	231.1	1	52	-6							
MORIOKA	8.54	234.2	1	54	-10	3	21	-19				
MIZUSAWA	8.95	231.6	1	59	-10	3	19	-31				
AKITA	9.16	237.8	1	56	-16							
SENDAI	9.70	228.7	2	9	-11	3	47	-21				
OKHA	9.71	333.6	2	21	1							
PETROPAVLOVK	9.71	31.9	2	19	-1	4	8	0			4	40
SAKATA	9.85	234.9	2	26	4	4	12	0				
HUKUSIMA	10.31	228.2	2	20	-8	4	6	-17				
ONAHAMA	10.70	223.9	2	23	-10	4	12	-20				
SHIRAKAWA	10.92	226.8	2	27	-9	4	16	-21				
NIIGATA	10.97	233.2	2	28	-9	4	18	-21				
AIKAWA	11.36	235.8	2	36	-6	4	32	-16				
MITO	11.37	223.6	2	33	-9	4	29	-19				
KAKIOKA	11.63	224.0	2	31	-15	4	33	-22				
TUKUBASAN	11.67	224.3	2	30A	-16	4	34	-22			3	6
TYOSI	11.72	220.4	2	43	-4	4	35	-22				
TAKADA	11.99	232.5	2	35	-16							
MAEBASI	12.06	227.9	2	41	-10	4	50	-15				
KUMAGAYA	12.09	226.3	2	41	-11	4	50	-16				
HONGO	12.24	223.8	2	42	-12						5	19
TOKYO C.M.O.	12.28	223.8	2	52	-2	4	52	-18				
NAGANO	12.33	231.3	2	50	-5	5	23	12				
TITIBU	12.38	226.6	2	51	-5							
OIWAKE	12.39	229.2	2	54	-2	5	22	9				
MATUSIRO	12.42	230.8	2	46K	-10	4	51	-23				
YOKOHAMA	12.52	223.4	3	15	17	5	34	18				
WAZIMA	12.58	237.0	2	50	-8							
MATUMOTO	12.76	230.6	3	1	0							
MERA	12.85	221.5	3	24	22							
TOYAMA	12.87	234.0	2	52	-10	6	40	76				
KOHU	12.88	227.2	2	58	-4	5	9	-16				
HUNATU	12.91	226.2	3	10	7	5	10	-15				
AJIRO	13.10	224.0	3	1	-4	5	11	-19				
MISIMA	13.12	224.6	3	6	1	5	23	-7				
KLYUCHI	13.13	27.1	3	12	6						6	4
OSIMA	13.19	222.4									3	27
TAKAYAMA	13.24	232.2	2	57	-10							
VLADIVOSTOK	13.27	268.0	2	56	-11							
IIDA	13.38	228.8	3	4	-5							
SHIZUOKA	13.51	225.8	3	15	4	6	57	77				

OMAESAKI	13.89	225.3	3	20	4				9	2
GIHU	14.05	231.2	3	9	-9	5	58	6		
HAMAMATU	14.05	226.9	3	33	15					
NAGOYA	14.11	230.1	3	9	-9	5	36	-18		
TSURUGA	14.26	233.6	3	25	5					
HIKONE	14.43	232.1	3	15	-8				7	44
MAGADAN	14.51	1.3	3	23	-1				6	49
KAMEYAMA	14.62	230.4	3	24	-1	6	14	8		
KYOTO	14.91	232.7	3	20	-9	6	17	4		
ABUYAMA	15.10	232.6	3	22A	-9					
OSAKA	15.29	232.1	3	56	22	6	40	19		
OWASE	15.35	229.1	3	46	12	6	20	-3		
KOBE	15.46	233.0	3	23	-13	7	33	68		
SAIGO	15.52	241.0							3	56
YONAGO	16.01	238.9	3	36	-7					
SIOMISAKI	16.06	228.7	3	44	1	6	50	11		
MATSUE	16.17	239.5	3	39	-6					
TAKAMATU	16.37	234.6	3	41	-6					
HAMADA	17.15	239.9	3	50A	-7	7	12	8		
KOTI	17.22	233.8	3	52	-6	7	13	7		
HIROSIMA	17.29	237.9	3	56	-3	6	58	-9		
MATUYAMA	17.45	236.0	3	47	-14	7	23	12		
CHANGCHUN	17.77	274.8	4	0A	-5					
UWAZIMA	18.02	235.0	4	3	-5				9	26
SIMIDU	18.10	233.2	3	54	-15	7	28	3		
OOITA	18.56	236.8	4	13	-1	7	41	5		
HUKUOKA	19.07	239.8	4	14A	-6	7	53	6		
SAGA	19.34	239.2	4	21	-2				5	39
KUMAMOTO	19.40	237.6	4	16	-8	8	0	6		
MIYAZAKI	19.63	234.4				8	4	5		
UNZENDAKE	19.73	238.2							5	40
NAGASAKI	19.96	238.8	4	25	-5	8	9	3		
TOMIE	20.71	240.5	4	30	-8					
YAKUTSK	20.71	332.3	4	35	-3	8	27	7		
PEKING	25.42	270.6	5	22A	-2	9	50	7		
ZO-SE	26.57	248.3	5	32A	-2	10	8	6		
NANKING	27.57	252.8	5	40A	-3	10	22	4		
TIKSI	28.53	346.1	5	48	-4				12	46 PCS
ULAN-BATOR	29.63	291.2	5	59	-3					
TAIPEI	30.56	238.8							11	58
IRKUTSK	30.68	300.2	6	8	-3	11	6	-2	7	9 PP
TAICHUNG	31.72	238.7							14	16
LANCHOW	35.91	272.0	6	56A	0	12	36	7		
CANTON	37.11	246.2	7	4A	-2	12	52	5		
HONG KONG	37.14	244.3	7	4	-3	12	41	-7		
BAGUIO CITY	37.84	230.5	7	7	-5	12	56	-3		
CHENGTU	38.64	264.3	7	17A	-2	13	12	1		
COLLEGE	38.74	37.1	7	19	-1	13	18	6		
MANILA	39.02	228.3	7	19	-3	13	24	8		
KUNMING	42.90	258.7	7	52A	-2	14	17	3		
SEMIPALATNSK	45.74	302.9	8	17	0					
SITKA	46.03	47.0	8	23	4	14	59	0		
KHEYS	46.23	346.9	8	20	-1	15	2	0	10	8 PP
TOCKLAI	47.48	266.8	8	48	17					
KIPAPA	48.37	101.5	8	36	-2				8 52	
LHASA	48.41	272.6	8	39A	1					
RABAUL	49.08	177.3	8	37	-6					
SHILLONG	50.26	267.7	8	48A	-4	15	58	0	10	36 PP
ALMATA	50.84	295.6	8	57	0	16	10	4		
HAWAII V.OB.	51.61	101.2	8	58	-4	16	25	8		
CHITTAGONG	52.32	264.6	9	7	-1	16	30	3	9 15	11 6 PP
FRUNSE	52.55	296.2	9	9	0	16	40	10		
CHATRA	52.82	272.3	9	10	-1	16	41	8		11 13 PP
RESOLUTE	53.08	17.6	9	12A	-1	16	43	6		
NORD	53.38	357.6	9	13A	-3					
SVERDLOVSK	53.66	317.0	9	16	-2					12 23 PPP
PORT MORESBY	54.28	183.7	9	17	-5	16	52	-1		
BOKARO	55.65	270.4	9	29A	-3	17	19	7		11 42 PP
VICTORIA	56.19	53.0	9	42	6					
TASHKENT	56.72	297.2	9	39	-1	17	32	6		13 14 PPP
PENTICTON	57.88	50.6	9	50	2					
CORVALLIS	58.39	56.9	9	52	0					
DUZHANBE	58.58	294.7	9	53	0					
LAHORE	58.97	285.0	9	55	-1					
WARSAK DAM	59.40	288.9	9	55	-4					
ARCATA	60.02	60.8	10	19	16					
SODANKYLA	60.06	338.1	10	2	-1					
TROMSOE	60.17	342.3	10	2	-2					
MEDAN	61.04	243.2	10	11	1	18	28	6		

SHASTA	61.17	60.1	10	10	-1					
KIRUNA	61.26	340.6	10	9A	-2	18	30	5	19	59 SCS
HUNGRY HORSE	61.46	49.1	10	11	-2					
MINERAL	61.86	60.0	10	13K	-2					
KAJAANI	62.18	335.2	10	16	-1				10	36
SEHORE	62.23	275.7							11	0
BERKELEY	62.94	62.6	10	20	-2	18	52	6	22	56
RENO	63.44	59.8	10	24	-2					
LICK	63.65	62.7	10	26A	-1					
BUTTE	63.67	50.5	10	28	1	19	2	7		
DJAKARTA	64.08	229.3	10	41	11					
VINEYARD	64.18	63.1	10	28	-2					
LEMBANG	64.21	228.2	10	26A	-5				10	52
UMEA	64.49	337.9	10	31	-2					
PULKOVO	64.52	330.9	10	31	-2	19	8	3	12	58 PP
SCORESBY SD.	64.62	357.1	10	33A	0	19	19	12	20	38 SCS
MOSCOW	64.64	324.7	10	31	-3	19	14	7	14	34 PPP
QUETTA	64.82	288.2	10	34A	-1	19	8	-1	12	55 PP
CHARTERS TS.	64.94	184.0	10	30	-5					
HYDERABAD	65.01	270.0	10	34	-2	19	15	4	13	1 PP
FRESNO	65.16	62.2	10	36K	-1					
ASHKABAD	65.52	299.7	10	39	0				13	5 PP
EUREKA	65.81	57.8	10	39	-2			10 55	38	54 PKPPKP
NURMIJARVI	65.82	333.8	10	39	-2	19	26	5	15	14
RUTH	66.56	57.5	10	47K	1					
SKALSTUGAN	66.68	340.9	10	45	-1				11	15
MADRAS	66.78	265.2	10	48	1	19	42	9	13	16 PP
SALT LAKE C.	67.41	54.6	10	40	-11					
POONA	67.54	274.1	10	50	-2	19	45	3	11	4 PCP
PASADENA	67.85	63.5	10	55	1	19	46	0		
BOMBAY	68.02	275.1	10	53	-2	19	53	5		
KARACHI	68.17	283.7	10	56	0					
UPPSALA	68.45	336.4	10	56A	-2	19	53	0	39	7 PKPPKP
NOUMEA	68.67	163.8	10	55	-4					
BOULDER CITY	68.75	60.1	10	58	-1					
RAPID CITY	69.95	47.3	11	0	-7				13	57 PP
GLEN CANYON	70.06	57.5	10	54	-13					
LARAMIE	70.58	50.7	11	9	-2					
KODAIKANAL	70.61	265.0							13	41
TIFLIS	70.89	310.2	11	14A	1	20	32	10	15	22 PPP
BERGEN	71.05	342.4	11	14	1	20	30	7	40	8
SIDA	71.10	354.5	11	16K	2					
TEHERAN	71.19	301.9	11	15	1	20	35	10		
GOTEBORG	71.84	337.9	11	20	2					
BRISBANE	72.15	177.5	11	17	-3	20	40	4		
COPENHAGEN	73.47	336.6	11	28A	0	21	0	9	25	7 SS
WARSAW	73.67	330.2	11	29A	0				12	55
TUCSON	73.70	60.7	11	28	-1	21	1	7	14	18 PP
TUCSON TELE.	73.71	60.5	11	28	-1					
SIMFEROPOL	73.98	318.4	11	31A	0	21	6	9	11	46 PCP
LWOW	74.52	327.1	11	34	0	21	10	7		
SHIRAZ	74.62	296.5	11	34K	0	21	4	0	11 49	13 24 PP
IASI	75.18	323.5	11	38	0					
KRAKOW	75.85	329.5	11	42	1				13	9
RACIBORZ	76.44	330.5	11	47	2				14	33
HALLE	77.26	334.7	11	49	0	21	20	-13		
WITTEVEEN	77.58	338.3	11	43K	-8					
DURHAM	77.68	343.7	11	52K	0	21	47	10	12	0 PCP
PRUHONICE	77.76	332.5	11	53A	1	21	44	6	16	41 PPP
JENA	77.87	334.6	11	53	0	21	44	5	13	5
BUCHAREST	78.01	322.6	11	53	0	21	50	9	22	17 PS
LUBBOCK	78.13	54.2	11	57	3					
HURBANOVO	78.30	329.2	12	1	6					
BUDAPEST	78.33	328.6	11	57	2	21	21	-23		
CHEB	78.37	333.8	11	54	-1					
BRATISLAVA	78.44	330.0	11	56K	0				15	4 PP
RIVERVIEW	78.53	179.2	12	8	12	21	50	4	22	21
DE BILT	78.62	338.8	11	59	2	21	54	7	30	56 SS
VIENNA-H.	78.63	330.5	11	59	2	22	2	15		
KASPERSKE H.	78.82	332.6	11	59A	1				13	25
BENSBERG	79.12	337.2	11	59	-1	21	56	3	12 13	14 39 PP
WICHITA MTS.	79.14	51.4	11	58	-2	21	56	3	14	57 PP
ISTANBUL KA.	79.33	318.8	12	0A	-1	22	14	19	15	8 PP
ISTANBUL UN.	79.39	318.8	12	2	1					
BELGRADE	80.01	326.2	12	3	-1	22	22	20	14	48
CANBERRA	80.02	181.0	12	6	2					
HEIDELBERG	80.08	335.6	12	4	-1					
ADELAIDE	80.34	189.5	12	6K	0					

STUTTGART	80.48	335.0	12	6	-1	22	7	0		13	21
FAYETTEVILLE	80.48	47.8	12	6	-1	22	7	0			
KEW	80.51	341.8	12	8	1	22	17	10		27	38 SS
KARLSRUHE	80.52	335.6	12	7	0	22	22	15			
ST. LOUIS 1	80.53	43.7	12	6	-1	22	9	2			
SOFIA	80.58	323.3	12	10	3	21	58	-10			
TUBINGEN	80.76	335.0	12	8	0						
STRASBOURG	81.10	335.8	12	11	1	22	20	7		25	32 PPS
EBINGEN	81.10	334.9	12	10	0						
LJUBLJANA	81.17	330.5	12	10A	-1					13	7
SHAWINIGAN	81.23	28.4	12	10	-1						
RAVENSBURG	81.26	334.3	12	12	1						
KSARA	81.47	309.9	12	12	0	22	22	5		15	19 PP
TRIESTE	81.78	330.7	12	13	-1	22	38	18		31	36 SSS
BREBEUF	81.85	29.4	12	14	0						
BASLE	82.10	335.4	12	25	10					22	35
CLEVELAND	82.21	36.5	12	28	12	22	26	1			
PADOVA	82.64	331.8	12	28	10	22	35	6		13	56
MELBOURNE	82.65	184.1	12	19	1						
MUNDARING	82.66	208.6	12	15	-3						
NEUCHATEL	82.76	335.6	12	21	2						
BESANCON	82.81	336.3	12	21	2						
FOLINIERE	83.08	340.9	12	22	2						
JERUSALEM	83.38	309.0	12	24A	2	22	49	13			
PAVIA	83.72	333.4	12	39	15					24	10 PS
PRATO	84.24	331.6	12	46	20						
ATHENS	84.28	320.3	12	25A	-1						
FLORENCE X.	84.28	331.4	12	27	1	22	51	6			
PENNSYLVANIA	84.29	34.6	12	28	2	22	52	7			
MORGANTOWN	84.42	36.5	12	28	1						
AUCKLAND	84.55	160.4				22	46	-2		26	46
TARANTO	84.94	325.9	12	34	4	22	44	-8			
CLERMONT-FD.	84.96	337.5	12	31	1	23	9	17			
ISOLA	85.28	334.3	12	30	-1					12	36 PCP
WESTON	85.38	29.5	12	32	0				12 44	23	2
ROME	85.51	329.7	12	39	7	23	18	21		23	45 PS
MONACO	85.57	333.9	12	41	8						
PALISADES	85.65	31.9	12	33	0	22	59	0	12 59	28	31 SS
KARAPIRO	85.74	160.1	12	31	-3						
FORDHAM	85.80	31.9	12	39	5	23	18	18			
HALIFAX	85.80	23.4	12	39	5						
WASHINGTON	86.23	35.0	12	39	3						
HELWAN	86.97	310.4	12	38	-2	23	2	-9			
CUGLIERI	88.39	331.6								14	46
COLUMBIA	88.64	40.4	12	47	-1						
ROXBURGH	91.75	166.6				24	6	11		23	28 SKS
TOLEDO	92.31	340.4	12	57	-8	23	47	-13		25	29 PS
ALICANTE	92.84	337.3	13	7	0	24	12	7		16	52 PP
GRANADA	94.76	339.2				24	37	16		27	51
LWIRO	113.33	291.7								19	24
BANGUI	114.52	304.9	18	23	-10					19	26 *PPP
CAPE HALLETT	117.92	173.2								29	41 PS
SCOTT BASE	123.07	175.9	18	46	-4						
BULAWAYO	126.15	277.4								18	57 PP
HUANCAYO	129.22	64.2	18	59	-3						
MAWSON	129.70	209.8	19	17	15						
BYRD STATION	134.06	166.0	19	9	-2						
KIMBERLEY	134.26	271.6	19	11	0					19	31
SOUTH POLE	134.88	180.0	19	12	0						
LA PAZ	137.12	60.9	19	17	1					22	56 PKS

APRIL 26 19.H 32.M 34.S EPICENTRE 44.81 150.22 DEPTH= 32.KM

A=-0.61789 B= 0.35353 C= 0.70231 D= 0.4966 E= 0.8680
G=-0.6096 H= 0.3488 K=-0.7119 HT= -3.5

SE= 1.62

	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	5.68	295.6	1	26	1						2	49
UGLEGORSK	7.03	310.4	1	46	2						3	24
SEVERO-KUR.	7.08	31.9	1	46	2						3	20
MIZUSAWA	8.83	233.2	2	26	17	3	38	-10				
PETROPAVLOVK	9.91	31.0	2	24	0						4	8
OKHA	9.96	334.0	2	26	1						4	45

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TUKUBASAN	11.52	225.4	2 43	-3							4 43	
MATUSIRO	12.29	231.9	2 53	-3	5	8	-5				3 15	
VLADIVOSTOK	13.31	269.2	3 10	0							6 17	
MAGADAN	14.77	1.2	3 27	-2								
CHANGCHUN	17.84	275.7	4 7	-1								
YAKUTSK	20.97	332.5	4 43	0	8	27	-3					
PEKING	25.47	271.2	5 27A	0							9 59	
ZO-SE	26.51	248.9	5 37	0								
NANKING	27.54	253.3	5 45	-1								
TIKSI	28.80	346.1	5 54	-4								
LANCHOW	35.97	272.4	7 1A	1								
HONG KONG	37.06	244.7	7 11	2	13	4	11					
CHENGTU	38.66	264.7	7 23	0	13	17	0					
COLLEGE	38.92	36.9	7 26	1	13	26	5	7	39			
KUNMING	42.89	259.0	7 58A	0	14	22	2					
SEMIPALATNSK	45.92	303.2	8 20	-2							18 32	SS
KHEYS	46.50	346.9	8 24	-3								
LHASA	48.47	272.8	8 44	2								
RABAUL	48.82	177.4	8 45	0								
SHILLONG	50.30	268.0	8 55A	-1								
ALMATA	51.00	295.8	9 1	0								
FRUNSE	52.71	296.4	9 14	0							16 54	PS
CHATRA	52.88	272.5	9 16	1								
RESOLUTE	53.32	17.5	9 17A	-2								
NORD	53.65	357.6	9 18	-3								
SVERDLOVSK	53.88	317.1	9 22	-1							20 50	SS
NAMANGAN	55.55	295.8	9 35A	0								
TASHKENT	56.88	297.4	9 45	0							10 38	PCP
CORVALLIS	58.50	56.8	9 57A	1								
DUZHANBE	58.74	294.9	9 58	0	18	0	1					
LAHORE	59.08	285.2	10 3	3								
WARSAK DAM	59.53	289.1	10 3A	0								
SODANKYLA	60.32	338.2	10 6K	-3								
TROMSOE	60.44	342.4	10 7	-2							10 28	
SHASTA	61.26	60.0	10 15K	0								
KIRUNA	61.52	340.6	10 14	-3								
HUNGRY HORSE	61.60	49.0									10 40	
KAJAANI	62.44	335.3	10 22K	-1								
RENO	63.54	59.7	10 31	1								
BUTTE	63.80	50.4	10 31	-1								
CHARTERS TS.	64.68	184.1	10 37	0								
UMEA	64.75	337.9	10 38	0								
BOZEMAN	64.85	50.0	10 39	0								
MOSCOW	64.89	324.8	10 36	-3								
SCORESBY SD.	64.89	357.1	10 39A	0								
QUETTA	64.95	288.3	10 40A	1	19	21	4	10	52		13 6	PP
EUREKA	65.91	57.8	10 45	0				11	0			
NURMIJARVI	66.08	333.9	10 45K	-1								
SKALSTUGAN	66.94	341.0	10 52	0								
PASADENA	67.92	63.5	10 58	0							11 31	
UPPSALA	68.71	336.5	11 1A	-2								
BOULDER CITY	68.84	60.1	11 3	-1							17 29	
LARAMIE	70.71	50.7	11 15	0								
TIFLIS	71.10	310.3			20	35	4					
TEHERAN	71.37	302.0	11 21	2	20	39	5					
GOTEBORG	72.10	337.9	11 20	-3								
COPENHAGEN	73.73	336.6	11 33	0								
TUCSON	73.79	60.7	11 30	-3								
TUCSON TELE.	73.80	60.5	11 34	1								
SIMFEROPOL	74.21	318.5	11 36A	0	21	12	6					
LWOW	74.77	327.2	11 40	1								
SHIRAZ	74.78	296.6	11 40K	1	19	8	-124	11	53			
KRAKOW	76.11	329.6	11 47	0								
NIEDZIKA	76.49	329.0	11 48	-1								
RACIBORZ	76.70	330.5	11 50	0							12 29	
SKALNATE PL.	76.71	328.9	11 51	1								
COLLMBERG	77.37	334.1	11 54A	0							14 30	PP
HALLE	77.52	334.8	11 56	1							12 9	PCP
WITTEVEEN	77.84	338.4	11 57	1								
DURHAM	77.95	343.7	11 58A	1								
PRUHONICE	78.02	332.5	11 58A	1							13 0	
JENA	78.13	334.7	11 58	0							12 47	
MUNSTER	78.35	337.4	11 59	0								
BRATISLAVA	78.70	330.1	11 57	-4								
KASPERSKE H.	79.07	332.7	12 4A	1								
WICHITA MTS.	79.27	51.4	12 4	0	22	6	5				15 19	PP
BENSBERG	79.38	337.2	12 5	0				12	18			
ISTANBUL UN.	79.62	318.9	12 9	3								
HEIDELBERG	80.34	335.6	12 10	0								

FAYETTEVILLE	80.63	47.8	12	11A	-1			12	26		
STUTTGART	80.74	335.0	12	12	0						
KEW	80.78	341.8	12	12	0						
SOFIA	80.82	323.3	12	14	1						
STRASBOURG	81.36	335.8	12	17	2					13	48
EBINGEN	81.36	334.9	12	16	1						
LJUBLJANA	81.42	330.5	12	17	1						
KSARA	81.68	310.0	12	17	0						
PARIS	82.59	339.2	12	24	2						
FOLINIERE	83.34	341.0	12	26	0						
JERUSALEM	83.58	309.0	12	28A	1						
GARCHY	83.85	338.2	12	30	2					12	40 PCP
ATHENS	84.51	320.3	12	32K	0						
MORGANTOWN	84.60	36.6	12	39	7						
KARAPIRO	85.47	160.2	12	37	1						
PALISADES	85.85	31.9								23	28 PS
HELWAN	87.18	310.4	12	59	14						
BROKEN HILL	122.49	282.4								18	22
BYRD STATION	133.80	166.0	19	12	-2						
SOUTH POLE	134.61	180.0	19	14	-2						

APRIL 29 9.H 19.M 28.S EPICENTRE 40.76-127.42 DEPTH= 0.KM

A=-0.46157 B=-0.60327 C= 0.65039 D=-0.7942 E= 0.6077
G=-0.3952 H=-0.5165 K=-0.7596 HT= -2.0

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	
FERNDALE	2.41	93.3	0	38	-3								
ARCATA	2.54	86.3	0	40A	-3								
UKIAH	3.62	115.4	0	55	-3	2	0	18					
SHASTA	3.82	89.3	1	0A	-1								
MINERAL	4.45	93.4	1	12A	2								
CORVALLIS	4.88	37.2	1	14A	-2						2	11	
SAN FRANCSCO	4.88	126.2	1	13	-3	1	20	-54					
BERKELEY	4.93	124.2	1	13A	-4	2	15	-1					
BRANNER	5.27	127.6	1	19A	-3								
LICK	5.65	125.4	1	24A	-3								
RENO	5.96	99.4	1	29A	-2						2	7	
VINEYARD	6.19	128.4	1	30A	-5						1	43	
FRESNO	7.16	121.4	1	46	-2								
TINEMAHA	8.06	114.3	2	3	2								
VICTORIA	8.26	18.8	2	2	-2								
WOODY	8.42	124.2	2	3	-3								
EUREKA	8.87	94.6	2	11	-1								
RUTH	9.67	95.1	2	23	0						2	57	
PASADENA	9.88	129.0	2	23A	-3	4	14	-5					
PENTICTON	10.18	30.2	2	28	-2								
BOULDER CITY	10.97	111.8	2	42	1								
SALT LAKE C.	11.81	84.9	2	52	-1						9	8	
BUTTE	12.01	59.1	2	53	-2	5	18	7			14	40	
HUNGRY HORSE	12.18	47.0	2	57	-1	5	46	31					
BOZEMAN	12.90	62.2	3	6	-1	5	23	-10					
GLEN CANYON	12.90	102.0	3	8	1	4	31	-62					
FLAMING GRGE	13.66	83.4	3	16	-1	5	5	-46					
TUCSON	15.80	117.3	3	47	2						4	49	
TUCSON TELE.	15.82	116.8	3	48	3						5	1	
LARAMIE	16.49	80.9	3	53	-1						7	17	
SITKA	17.09	345.2	4	4	2	6	56	-15					
CHIHUAHUA	21.25	118.1	4	58	8	9	5	23			11	23	
LUBBOCK	21.55	101.2	4	53	0								
WICHITA MTS.	23.52	95.6	5	13A	1	9	34	11			12	32	SCP
LAWRENCE	24.69	83.6	5	26	2								
DALLAS	25.68	98.1	5	34	1								
FAYETTEVILLE	26.35	89.4	5	40A	1	7	20	-171			6	40	
COLLEGE	26.86	340.8	5	43	-1	10	28	8			9	5	PCP
ST. LOUIS 1	28.56	82.0	5	58	-1	10	46	-1					
TACUBAYA	32.17	123.0	6	38K	7								
KIPAPA	32.29	242.6	6	33	1								
HONOLULU	32.43	242.5	6	30	-4	11	58	10					
CLEVELAND	34.27	73.4	6	54A	4	12	22	5					
VERA CRUZ	34.30	119.4	7	8	18	12	58	41			11	34	
MORGANTOWN	35.93	75.9	7	3A	-1								

PENNSYLVANIA	37.11	73.2	7	17	3	13	7	6		8	37 PP
COLUMBIA	37.13	85.2	7	20	6						
RESOLUTE	37.13	13.7	7	13K	-1						
OTTAWA	37.51	65.2	7	16	-1						
MERIDA	37.61	110.2	7	23	5					10	32
CHAPEL HILL	37.86	81.3	7	21	1						
WASHINGTON	38.28	75.9	7	23	-1						
BREBEUF	38.93	64.6	7	29	0						
COMITAN	39.07	118.3								9	16 PP
SHAWINIGAN	39.29	62.7	7	31	-1						
PALISADES	39.92	71.5	7	38	1	13	43	0	7 46	9	9 PP
WESTON	41.35	68.6	7	51	2	14	8	4		9	23 PP
HALIFAX	46.00	63.0	8	27	0						
PETROPAVLOVK	49.81	310.5	9	5	9	16	12	6			
MAGADAN	52.05	320.3	9	12	-1	16	45	8			
NORD	52.86	9.9	9	18K	-2						
TIKSI	55.96	338.2	9	38	-4						
SAN JUAN	56.62	94.0	9	47	0						
SCORESBY SD.	57.01	22.7	9	48A	-2						
CHINCHINA	58.40	113.2	10	4	5	18	10	8			
FUQUENE	59.38	111.2	10	9A	3						
BOGOTA	59.73	112.2	10	9	0	18	21	2			
YAKUTSK	60.41	328.1	10	12	-1						
CARACAS	60.94	101.7	10	17	0	18	40	6			
UGLEGORSK	60.95	311.2	10	17	0						
Y.-SAKHLINSK	61.60	308.9	10	21	0	18	46	3			
TROMSOE	67.18	12.2	10	57	-1						
AFIAMALU	68.16	227.0	11	6K	2	20	38	34			
KIRUNA	69.04	12.5	11	7	-2						
TUKUBASAN	69.14	300.2	11	8K	-2						
VLADIVOSTOK	70.13	310.1	11	12	-4						
MATUSIRO	70.19	301.4	11	15K	-1	20	26	-2		32	9
SODANKYLA	70.40	10.4	11	16	-2						
SKALSTUGAN	71.18	17.8	11	21K	-1						
UMEA	72.65	14.4	11	33	2						
ABUYAMA	72.91	301.4	11	32K	-1						
CHANGCHUN	73.40	313.9	11	34K	-2	21	9	4			
KAJAANI	73.66	11.1	11	35	-2						
DURHAM	74.20	29.2	11	41K	1						
UPPSALA	75.69	17.4	11	47K	-2						
NURMIJARVI	76.52	13.8	11	52	-1						
AREQUIPA	76.99	125.3	12	4	8						
IRKUTSK	77.05	330.3	11	56K	0						
KEW	77.24	30.8	11	58	1						
COPENHAGEN	78.05	21.9	12	3	1						
WITTEVEEN	78.69	26.4	12	7	2						
DE BILT	78.77	27.6	12	9	3						
LA PAZ	79.13	122.9	11	50	-18	22	16	9			
FOLINIERE	79.30	32.6	12	9	0						
ULAN-BATOR	79.44	326.2	12	9	-1						
MUNSTER	79.72	26.4	12	11	0						
BENSBERG	80.41	27.2	12	14	-1					12	22 PCP
PARIS	80.45	30.9	12	17	2						
PEKING	80.95	315.9	12	17K	-1	22	33	7			
SERRA PILAR	81.40	42.0	12	20K	0					12	26 PP
JENA	81.91	24.8	12	21	-2					13	14
COLLMBERG	82.03	23.8	12	24K	1					23	8
COIMBRA	82.17	42.6	12	24	0					12	32 PCP
HEIDELBERG	82.26	27.2	12	24	0						
SVERDLOVSK	82.54	355.5	12	25	-1						
STRASBOURG	82.62	28.2	12	27	1						
LISBON	82.89	44.0	12	28K	0				12 45	16	17 PP
STUTTGART	82.99	27.2	12	28	0						
MOSCOW	83.04	8.5	12	26	-2						
BESANCON	83.08	29.9	12	29	0						
TUBINGEN	83.13	27.4	12	29	0						
CLERMONT-FD.	83.17	32.4	12	37	8						
EBINGEN	83.39	27.7	12	31	1						
WARSAW	83.41	18.9								14	50
PRUHONICE	83.66	23.6	12	32K	0						
RAVENSBURG	83.96	27.5	12	33	0						
BAGNERES	84.08	35.7	12	34	0						
KASPERSKE H.	84.11	24.6	12	34K	0						
ZO-SE	84.46	306.6	12	35K	-1						
TOLEDO	84.61	40.2	12	38A	2						
RACIBORZ	84.63	21.4	12	37	0					15	2
CHORZOW	84.66	20.9	12	37	0					15	2
CHUR	84.72	28.1	12	36K	-1						
KRAKOW	85.13	20.4	12	39	0					15	16

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NANKING	85.22	308.8	12	39K	0	23	16	7			23 2 SKS
RABAUL	85.47	260.6	12	36	-5						
VIENNA-H.	85.75	23.3	12	42	0						12 49 PCP
SKALNATE PL.	86.01	20.6	12	54	11						
SEMIPALATNSK	86.03	342.7	12	43	-1						
BRATISLAVA	86.04	22.9	12	43	-1						12 52 PCP
ISOLA	86.05	31.0	12	46	2				12	53	
MONACO	86.58	31.0	12	51	5						
GRANADA	86.92	41.6	12	51K	3						
LJUBLJANA	87.12	25.5	12	49	0				12	55	
TRIESTE	87.22	26.1	12	50	1	23	32	3	12	57	20 9
ZAGREB	87.80	24.7	12	52	0						15 32
BELGRADE	90.05	22.2	13	11K	8						
KISHINEV	90.08	16.0	13	3	0						
LANCHOW	90.24	320.8	13	5K	1						
PORT MORESBY	92.63	259.9				23	59	-19			25 46 PS
SIMFEROPOL	93.08	13.0	13	17A	0						
ALMATA	93.51	342.4	13	17	-2						
CHENGTU	94.48	317.5	13	24	1						
CANTON	95.05	306.2	13	28	2	24	49	48			
HONG KONG	95.12	305.1	13	34	8						25 10 PS
ISTANBUL KA.	95.80	17.6	13	34	5						
ISTANBUL UN.	95.81	17.7	13	7	-22						
MANILA	96.07	295.1	13	35	5						
ANDIJAN	96.90	345.0	13	35	1						
KUNMING	99.59	315.1	13	52	6						
STALINABAD	99.67	347.2	13	32	-15						
RIVERVIEW	105.44	238.6				24	47	-5			18 37 PP
QUETTA	108.17	346.9	18	40	777						
BYRD STATION	120.61	178.4	18	50	-4						
WINDHOEK	145.08	69.6	19	40K	1						
BROKEN HILL	146.40	45.7	19	44K	3						22 42
BULAWAYO	151.02	52.0	19	50	1						23 6
MAWSON	152.52	188.5	19	57K	6						23 45 PP
KIMBERLEY	154.32	70.9	20	3	10						
PRETORIA	154.81	61.1	20	19	25						
TANANARIVE	157.81	12.7	20	8	10						24 12 PP

APRIL 29 9.H 29.M 11.S EPICENTRE 71.13 -7.64 DEPTH= 0.KM
A= 0.32255 B=-0.04328 C= 0.94556 D=-0.1330 E=-0.9911
G= 0.9372 H=-0.1257 K=-0.3254 HT=-12.0

SE= 2.47

	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
SCORESBY SD.	4.77	269.0	1	11	-3						1	56
AKUREYRI	6.69	220.2	1	54	12	2	51	-8				
SIDA	8.38	213.5	2	7	2	3	51	9				
REYKJAVIK	8.85	224.6	2	14	2	3	55	2			2	51
VIK	8.88	215.1				4	0	6				
TROMSOE	9.03	86.8	2	11	-3	3	51	-7			5	29
KIRUNA	10.33	95.0	2	30K	-2	4	15	-15				
NORD	10.72	352.9	2	34A	-3	4	26	-13				
SKALSTUGAN	10.72	125.0	2	35K	-2	4	29	-10				
BERGEN	11.97	147.6	2	51	-3	4	54	-16			3	19 PPP
SODANKYLA	12.59	90.6	3	0	-3	5	18	-7				
UMEA	12.83	110.9	3	6	0	5	23	-8			5	50
ABERDEEN	14.21	167.6	3	24	0	6	12	8				
KAJAANI	14.98	100.4	3	34	0	6	14	-8				
UPPSALA	15.25	125.0	3	35A	-3	6	48	20			5	12
DURHAM	16.63	167.7	3	56K	0	7	7	6			4	20 PP
NURMIJARVI	16.70	113.1	3	55	-1	6	52	-10				
COPENHAGEN	17.75	140.4	4	8A	-2	7	35	9			8	6 SSS
PULKOVO	19.02	107.2	4	24	-1	8	0	5			4	56 PPP
WITTEVEEN	19.46	153.2	4	29A	-1							
DE BILT	19.95	156.4	4	36A	0	8	23	7				
KEW	20.01	166.5	4	34A	-3	8	13	-4			5	1 PP
MUNSTER	20.43	152.2	4	10	-31	7	11	-74				
BENSBERG	21.34	153.6	4	49A	-1	8	51	8			5	16 PP
HALLE	21.61	145.3	4	52	-1	8	56	8				
COLLMBERG	22.00	143.8	4	57A	0	9	2	6			5	26 PP
JENA	22.09	146.4	4	57	-1	8	59	2			10	19
JERSEY	22.17	170.3	4	57	-2	9	3	4				
FOLINIERE	22.68	167.6	5	2	-2							

PARIS	22.89	162.6	5	6	0	9	17	5	5	37 PP
CHEB	23.05	145.7	5	4	-3	9	14	-1		
HEIDELBERG	23.09	152.0	5	8A	0					
KARLSRUHE	23.42	152.7	5	11	0	9	27	6		
PRAGUE	23.45	142.5	5	11	0	9	29	7	5	41 PP
PRUHONICE	23.56	142.4	5	13A	1	9	25	1	10	14 SS
RESOLUTE	23.70	318.6	5	11A	-3	9	26	0		
STRASBOURG	23.75	154.0	5	15A	1	9	28	1	10	15 SS
STUTTGART	23.79	151.5	5	15A	0	9	26	-2		
TUBINGEN	23.99	152.0	5	17A	0					
KASPERSKE H.	24.18	144.5	5	20A	2					
EBINGEN	24.32	152.3	5	21A	1					
MOSCOW	24.59	105.1	5	24	2	9	44	2	6	2 PP
RAVENSBURG	24.81	151.5	5	25	1					
BESANCON	24.82	157.5	5	24	-1					
NEUCHATEL	25.19	156.1	5	28	0	10	6	14		
SKALNATE PL.	25.54	134.6	5	26	-5				6	5 PP
VIENNA-H.	25.57	140.9	5	34	2	10	4	6	6	14 PP
CHUR	25.70	152.1	5	33A	0				12	9
BRATISLAVA	25.80	139.9	5	36K	2	10	6	4	6	8 PP
LWOW	25.87	128.8				10	5	2	6	21 PP
CLERMONT-FD.	25.96	162.6	5	36A	1					
HURBANOVO	26.32	138.6	5	45	6	10	5	-5		
BUDAPEST	26.87	137.6	5	45	0	10	23	-3	6	34 PP
LJUBLJANA	27.32	145.1	5	46	-2				6	30 PP
PADOVA	27.47	149.3	5	56	7	10	42	13	7	0 PP
TRIESTE	27.57	146.4	5	50	0	10	35	4	11	19
ISOLA	27.97	157.1	5	54	0	10	56	19		
BAGNERES	28.40	167.9	5	57	-1					
MONACO	28.46	156.7	5	58	0					
FLORENCE X.	28.96	151.0	6	14	11	11	16	23		
IASI	29.20	126.3	6	5	0					
BELGRADE	29.71	137.4	6	11K	2	11	18	13	7	10 PP
SERRA PILAR	30.07	181.4	6	12K	-1	9	8	-123	7	15 PP
CAMPULUNG	30.35	131.0	6	19	4					
TORTOSA	30.66	167.8	6	17	-1	11	14	-6		
ROME	30.99	150.1	6	20	-1	11	18	-7	7	9 PP
COIMBRA	31.00	181.2	6	20A	-1				7	26 PP
TOLEDO	31.37	174.7	6	24A	0	11	33	2	7	35 PP
BUCHAREST	31.41	130.2	6	25	1	11	29	-3	7	37 PP
SOFIA	32.37	134.9	6	34	1	11	45	-2		
SIMFEROPOL	33.05	119.9	6	39	0	11	57	-1	13	49 SS
ALICANTE	33.06	169.6	6	32	-7	12	46	48	7	40 PP
TARANTO	33.22	144.1	6	25	-15				13	35
GRANADA	34.08	174.2	6	51A	3	12	14	0	8	7 PP
ALMERIA	34.45	172.7	6	51A	0	12	19	0	8	8 PP
TIKSI	34.72	22.5	6	53	0					
MESSINA	35.12	147.4	6	55	-2					
REGGIO CALA.	35.23	147.3	6	56	-2				12	30
ATHENS	36.97	136.8	7	12A	0					
HALIFAX	37.63	255.8	7	18	0					
SHAWINIGAN	38.86	266.4	7	28	0					
MAKHACH-KALA	38.86	106.3	7	32	4					
TIFLIS	39.16	110.0	7	33	2				8	56 PP
COLLEGE	41.56	335.7	7	49	-1				9	41
GORIS	41.66	109.7	7	55	4	14	7	-2	9	40 PP
SEMIPALATNSK	42.76	70.4	8	1	1				9	39 PP
KIZYL-ARVAT	45.06	99.6	8	22	3	15	3	5	10	8 PP
JERUSALEM	45.68	125.9	8	24A	0	15	14	7		
HELWAN	46.50	131.1	8	30	0	15	19	0		
TEHERAN	46.68	106.5	8	33	1	15	28	7		
ASHKABAD	46.86	98.3	8	36	3				19	37 SSS
TASHKENT	47.36	85.9				15	34	3	19	19 SS
MORGANTOWN	47.38	268.8	8	41A	4					
FRUNSE	47.72	80.1	8	47	7				10	38 PP
ALMATA	48.07	77.8	8	44	1	15	46	5	10	36 PP
ULAN-BATOR	52.50	50.5	9	17	0					
SHIRAZ	52.67	108.3	9	18A	0	16	45	0	11	17 PP
WARSAK DAM	54.76	87.6	9	32K	-1					
QUETTA	56.78	93.8	9	48K	0	17	42	2	11	49 PP
MBOUR	57.01	190.8	9	55	6					
WICHITA MTS.	57.88	283.5	9	53	-3				39	41 PKPPKP
LAHORE	57.92	86.2	9	58	2					
EUREKA	58.70	300.7	9	59	-2					
DEHRA DUN	60.26	83.3	9	5	-67				18	26
Y.-SAKHLINSK	60.26	22.9	10	13	1					
CHANGCHUN	60.53	37.5	10	14	0	18	31	2		
PEKING	62.18	46.2	10	27	2	18	53	3		

SAN JUAN	62.75	245.6	10	28	-1					
LANCHOW	62.78	58.0	10	30	1					
TUCSON TELE.	63.83	293.3	10	35	-1					
PASADENA	64.30	300.5	10	37	-2					
CHATRA	66.42	76.3	10	54	1				19	46
CHENGTU	67.89	59.8	11	2	0	20	3	3		
BOKARO	68.78	78.7							16	0
SHILLONG	69.06	72.5	11	8A	-1				20	16
BOMBAY	69.18	92.7	10	21	-49				11	14
POONA	69.86	91.8	10	18	-56				11	14
MATUSIRO	69.90	28.8	11	13	-1	20	25	1	14	4
NANKING	70.40	46.5	11	18	1	20	31	1		
CARACAS	70.45	243.8	11	21K	3					
ZO-SE	71.88	44.7	11	28	2	20	49	2		
CHITTAGONG	72.05	73.7	11	30	3	20	54	5	14	13 PP
KUNMING	72.76	62.8	11	32	0	20	58	1		
MADRAS	77.09	87.8							11	55
BRISBANE	134.86	24.9							17	26
ADELAIDE	139.64	44.6	19	30	1					
CANBERRA	142.05	31.8	19	38	4					
MAWSON	146.28	139.4	19	41K	0				20	11
KARAPIRO	146.69	355.4	19	46	4					
TONGARIRO	147.96	355.4	19	47	3					
TARRALEAH	148.34	38.1	19	49	5					
MOORLANDS	148.62	37.2	19	50K	5					
FORT NELSON	149.13	37.2	19	54K	8	26	2	-50		
ROXBURGH	154.24	4.9	19	48	-5					
SCOTT BASE	173.08	170.1	21	38	88				25	33
CAPE HALLETT	178.63	151.4							26	8 PP

APRIL 30 7.H 33.M 51.S EPICENTRE 52.51 -31.91 DEPTH= 0.KM

A= 0.51883 B=-0.32308 C= 0.79148 D=-0.5286 E=-0.8489
G= 0.6719 H=-0.4184 K=-0.6112 HT= -6.3

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
REYKJAVIK	12.76	20.2	3	19	14							
ABERDEEN	17.71	62.9	4	5A	-4						5	34
DURHAM	18.06	70.7	4	10A	-4	7	40	7				
SCORESBY SD.	18.60	10.5	4	24	4						8	6
JERSEY	19.05	88.1	4	22	-4	8	11	15				
KEW	19.41	80.4	4	28A	-2	8	3	-1				
SERRA PILAR	19.50	116.4	4	28K	-3	7	57	-9			4	45 PP
FOLINIERE	20.19	88.1	4	38	-1							
COIMBRA	20.24	118.1	4	37K	-2							
LISBON	20.94	122.1	4	45K	-2	8	40	4			5	17 PPP
BERGEN	21.77	54.1	4	55	0						8	58 PPP
HALIFAX	22.26	261.9	4	57	-3							
DE BILT	22.53	76.2	5	3	0	9	9	3				
TOLEDO	22.89	112.4	5	5A	-1	9	18	6			5	36 PP
WITTEVEEN	23.22	73.8	4	52	-17						5	12
BAGNERES	23.35	101.0	5	18	7							
CLERMONT-FD.	23.71	92.4	5	16	2	9	34	7				
MUNSTER	24.01	75.4	5	16	-1							
BENSBERG	24.06	78.0	5	17	0	9	33	0			5	41 PP
BESANCON	24.77	87.0	5	24	0							
TORTOSA	24.91	105.0	5	23	-3	9	18	-29				
GRANADA	25.04	116.5	5	27K	0	9	54	5			6	39 PP
STRASBOURG	25.29	82.9	5	31K	2	9	54	0			10	51 SS
SKALSTUGAN	25.32	46.8	5	30	0							
KARLSRUHE	25.51	81.6	5	33	2	10	5	8				
HEIDELBERG	25.54	80.6	5	31	-1							
BASLE	25.62	85.3	4	33	-59							
COPENHAGEN	25.87	65.2	5	34	-1	10	13	10	5	45	6	40 PPP
ALMERIA	25.90	115.5	5	37	2						6	8 PP
ALICANTE	25.96	110.5	5	39	3	10	9	4			6	20 PP
TUBINGEN	26.10	82.2	5	35	-2							
STUTTGART	26.13	81.6	5	35	-2	10	14	6				
EBINGEN	26.19	83.0	5	37	-1							
JENA	26.69	75.8	5	41	-1	10	18	1			9	54
HALLE	26.71	74.5	5	43	0	9	18	-59				
SHAWINIGAN	26.90	273.7	5	44	0							
ISOLA	26.92	92.3	5	48	4						6	38 PP

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CHUR	27.12	85.3	5	39K	-7							
COLLMBERG	27.40	74.4	5	48A	-1						6	55 PPP
CHEB	27.48	77.2	5	52	2							
PAVIA	27.70	88.8				10	24	-9			12	4
UPPSALA	27.94	55.1	5	52	-2	10	35	-2				
WESTON	28.19	264.8	6	27	31							
KASPERSKE H.	28.57	78.4	5	58	-1						7	47
PRAGUE	28.70	76.1	6	6	5							
TROMSOE	28.78	34.3	6	2	1							
PRUHONICE	28.81	76.2	6	2	0	10	53	2				
UMEA	28.87	46.5	6	4	2							
KIRUNA	29.08	38.2	6	3A	-1	10	17	-38				
OTTAWA	29.26	273.7	6	5	-1							
NORD	29.59	4.5	6	8	-1							
TRIESTE	30.26	84.6				11	15	1				
PALISADES	30.56	264.9	6	30	13	11	28	9				
VIENNA-H.	30.62	78.4	6	20	2							
BRATISLAVA	31.09	78.1	6	22	0	11	31	4				
NURMIJARVI	31.31	52.6	6	23	-1						9	16 PCP
SODANKYLA	31.43	39.3	6	24	-1						9	23 PCP
ROME	31.50	91.7									7	19
WARSAW	31.72	69.0	6	34	7							
KAJAANI	32.14	45.5	6	30	-1							
PENNSYLVANIA	33.10	267.9				12	3	4				
RESOLUTE	33.20	334.4	6	41K	1	12	1	1			9	22
PULKOVO	34.23	52.7	6	49	0	12	17	1				
LWOW	34.44	71.6	6	51	0							
BELGRADE	34.75	81.4	6	57	3						8	15
MORGANTOWN	35.07	268.0	6	57A	0							
CHAPEL HILL	36.89	262.3	7	3	-9							
KHEYS	38.66	15.2	7	29	2	13	29	5				
MOSCOW	39.33	56.7	7	31	-1							
COLUMBIA	39.39	261.8	7	34	1							
ST. LOUIS I	41.96	274.7	7	54	0	14	18	5				
ISTANBUL UN.	42.05	80.7	7	55	0							
SIMFEROPOL	42.81	72.7	8	5	4	14	27	1				
SAN JUAN	43.28	231.2	8	5	0							
LAWRENCE	44.80	278.6	8	17	0							
FAYETTEVILLE	46.02	274.8	8	26K	-1							
RAPID CITY	46.37	289.4	8	30	0							
TRINIDAD	48.06	220.6	8	44	1							
LARAMIE	49.46	288.0	8	54	0							
WICHITA MTS.	49.60	276.7	8	54	-1	16	5	2			10	16 PCP
SVERDLOVSK	49.74	46.0	8	57	1	16	5	0				
DALLAS	49.78	273.5	8	56	0							
HUNGRY HORSE	49.79	300.1	8	55	-1							
BUTTE	50.45	296.9	9	2	1							
CARACAS	50.54	227.0	9	2	0	16	19	3				
HELWAN	50.86	90.5	9	3	-1						17	21
KSARA	50.99	83.4	9	4	-1	16	16	-5			11	1 PP
TIFLIS	50.96	69.7	9	6	1							
MAKHACH-KALA	51.69	66.9	9	12	1	16	32	0				
JERUSALEM	51.90	85.7	8	14K	-58						9	44 PCP
FLAMING GRGE	51.91	290.0	9	12	0							
PENTICTON	52.09	304.0	9	13	-1							
COLLEGE	53.01	331.3	9	21	0				10	34	11	42 PP
SALT LAKE C.	53.42	291.4	9	23	-1							
VICTORIA	54.51	305.3	9	29	-3							
TIKSI	55.41	7.3	9	34A	-4							
GLEN CANYON	55.33	287.8	8	41	-60							
EUREKA	56.62	292.8	9	47	0							
CORVALLIS	57.11	301.7	9	51	1							
BOULDER CITY	58.40	289.1	9	50	-9							
TUCSON TELE.	58.55	283.2	10	1	1							
TUCSON	58.63	283.2	10	2	1	18	11	6				
RENO	58.72	295.3	10	3A	1							
TEHERAN	58.78	70.9	10	3	1							
BOGOTA	59.01	231.3	10	6	2	18	12	2				
MINERAL	59.14	297.1	10	4K	-1							
SHASTA	59.32	297.9	10	5	-1						17	41
CHINCHINA	59.45	233.1	10	4K	-3							
FRESNO	60.67	293.0	10	17K	2							
BERKELEY	61.26	295.5									19	3
LICK	61.29	294.7	10	20K	1							
PASADENA	61.62	289.9	10	23	2	18	47	4				
SEMIPALATNSK	62.57	41.9	10	27	-1							
SHIRAZ	63.82	74.9	10	35	-1	19	11	0			38	57 PKPPKP
TASHKENT	64.45	55.0	10	41	1							

YAKUTSK	64.89	9.4	10 42	-1					
NAMANGAN	65.90	53.7	10 53	3					
STALINABAD	66.26	57.3	10 53	1					
ANDIJAN	66.42	53.5	10 54	1					
ALMATA	66.66	48.8	10 55	1					
WARSAK DAM	71.20	58.6	11 21	-1					
QUETTA	71.68	64.3	11 24	-1				14	7 PP
ULAN-BATOR	73.96	27.4	11 40	1					
HUANCAYO	74.33	224.3	11 42	1					
LWIRO	74.46	115.2	11 41	-1				19	5
LA PAZ	75.54	215.8	11 47	-1	21 33	5			
POONA	84.69	66.5	12 37	0					
SHILLONG	88.12	48.7	12 54A	0					
BYRD STATION	140.80	196.0	19 24	-8					
CHARTERS TS.	147.61	3.2	19 48	5					
MUNDARING	149.11	61.0	19 50	4					
SCOTT BASE	153.66	188.8	19 52	-1					
BRISBANE	154.66	350.2	20 5	11				21	19

APRIL 30 11.H 15.M 28.S EPICENTRE 45.76 149.93 DEPTH= 80.KM

A=-0.60588 B= 0.35083 C= 0.71402 D= 0.5011 E= 0.8654
G=-0.6179 H= 0.3578 K=-0.7001 HT= -3.8

DEPTH OF FOCUS= 0.007R

SE= 4.33

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NEMURO	3.94	233.6	0	44	-16	1	24	-21				
ABASHIRI	4.37	248.6	0	59	-7	1	38	-18				
KUSIRO	4.84	237.0	0	57	-15	1	49	-19				
Y.-SAKHLINSK	5.14	286.8	1	16	0						2	34
OBIHIRO	5.60	241.9	1	12	-11	2	24	-2				
ASAHIGAWA	5.73	252.5	1	18	-7	2	45	15				
WAKKANAI	5.80	269.6									3	23
HIROO	5.90	236.2	1	14	-13	2	14	-20				
RUMOE	6.18	256.0	1	24	-7	2	46	5				
URAKAWA	6.29	237.6	1	20K	-12	2	37	-7				
SEVERO-KUR.	6.42	37.8	1	34	0						2	56
SAPPORO	6.70	249.4	1	28	-10	2	51	-3				
TOMAKOMAI	6.76	245.4	1	43	4							
MURORAN	7.30	245.1	1	34	-12	3	6	-2				
SUTTSU	7.56	250.4	1	37	-13	3	18	3				
MORI	7.68	244.9	1	44	-7	3	17	-1				
HAKODATE	7.72	242.5	1	35	-17	2	56	-23				
HATINOHE	8.06	232.6	1	48	-9	3	9	-18				
AOMORI	8.30	236.7	1	51	-9	3	10	-23				
MIYAKO	8.46	226.6									2	41
MORIOKA	8.84	229.9	1	52	-15	3	18	-28				
OKHA	9.02	332.4	2	15	5						4	29
PETROPAVLOVK	9.22	34.9	2	13	1	4	0	4				
MIZUSAWA	9.28	227.6	2	3	-10	3	29	-28				
SENDAI	10.05	225.1	2	11	-13	3	41	-34				
SAKATA	10.14	231.0				3	46					
HUKUSIMA	10.67	224.7	2	12	-20	4	1	-29				
ONAHAMA	11.10	220.8				4	7					
NIIGATA	11.27	229.8	3	16	36	4	59	14				
SHIRAKAWA	11.28	223.5	2	27	-13	4	15	-30				
AIKAWA	11.63	232.5	2	43	-2							
MITO	11.77	220.6	2	28	-19	4	24	-33				
UTUNOMIYA	11.91	223.0	2	46	-3	4	26	-34				
KAKIOKA	12.02	221.1	2	22	-28	4	34	-29				
TUKUBASAN	12.07	221.3	2	29	-22						4	31
MAEBASI	12.42	225.0	2	43	-12	4	44	-28				
KUMAGAYA	12.46	223.3	2	52	-4	4	44	-30				
KLYUCHI	12.60	29.0									3	29
NAGANO	12.65	228.3	2	42	-16	5	30	12				
TOKYO C.M.O.	12.67	221.0	2	38	-21	4	46	-32				
OIWAKE	12.73	226.3	3	12	12	5	7	-13				
MATUSIRO	12.74	227.9	2	41K	-19	4	48	-32			3	22
WAZIMI	12.84	233.9	2	46	-15							
YOKOHAMA	12.93	220.6				5	1	-26				
VLADIVOSTOK	13.15	264.9	2	58	-7						5	18
TOYAMA	13.16	231.0	3	12	7							
KOHU	13.25	224.5	3	5	-1	5	7	-25				

HUNATU	13.28	223.4	3 15	8	5 5	-28		
MISIMA	13.50	222.0	3 2	-8				
OSIMA	13.60	219.9						4 49
IIDA	13.73	226.1	3 7	-6				
SHIZUOKA	13.89	223.1						6 17
NAGOYA	14.44	227.5	3 24	2	5 45	-15		
KAMEYAMA	14.95	227.9	3 32	4				
KYOTO	15.21	230.1	3 19	-13	6 0	-18		
ABUYAMA	15.41	230.1	3 7A	-27	7 22	59		
OSAKA	15.60	229.7	3 46	9				
SUMOTO	16.16	230.4	3 45	1				
HAMADA	17.37	237.6	3 46	-13	7 5	-2		
KOTI	17.51	231.6	3 58	-2	7 2	-8		
HIROSIMA	17.53	235.7	3 48	-13				
CHANGCHUN	17.56	272.5	3 54	-7				
MATUYAMA	17.71	233.8	3 50	-13	7 46	31		
SIMIDU	18.40	231.1	3 45	-26	7 27	-3		
OOITA	18.82	234.7	4 4	-12	7 25	-14		
HUKUOKA	19.29	237.7	4 14	-7	7 38	-11		
SAGA	19.57	237.2	4 30	6				
KUMAMOTO	19.64	235.6	4 9	-16				
MIYAZAKI	19.90	232.5	4 19	-9	8 28	26		
NAGASAKI	20.19	236.9	4 20A	-11	8 14	6		
PEKING	25.26	269.0	5 17A	-3	9 43	5		
ZO-SE	26.68	246.8	5 26	-8	9 57	-4		
NANKING	27.63	251.3	5 35	-7				
TIKSI	27.83	345.9						6 54 PPP
ULAN-BATOR	29.24	290.0	5 55	-2				
TAIPEI	30.79	237.5						11 46
LANCHOW	35.73	270.9	6 50	-3	12 26	3		
CANTON	37.24	245.1	6 59	-7	12 46	0		
HONG KONG	37.29	243.3	6 59	-7	12 44	-3		
COLLEGE	38.29	37.6	7 15	1	13 12	10	7 29	10 1 PP
CHENGTU	38.56	263.3	7 11A	-6	13 5	-1		
MANILA	39.36	227.4	7 18	-5	13 15	-3		
KUNMING	42.88	257.8	7 47A	-5	14 11	0		
SEMIPALATNSK	45.23	302.3	8 8	-3				
KHEYS	45.53	346.7	8 14	0				15 19 PS
LHASA	48.22	271.8	8 33	-2	15 32	5		
RABAUL	49.78	177.1	8 33	-14				
SHILLONG	50.13	267.0	8 44A	-5	16 1	7		10 36 PP
ALMATA	50.40	295.0	8 51	0				
FRUNSE	52.10	295.6	9 4	0	16 30	9		
RESOLUTE	52.47	17.7	9 7A	0	16 36	10		
CHATRA	52.63	271.6	9 4	-4	16 35	7		
NORD	52.69	357.5	9 8	-1				
SVERDLOVSK	53.05	316.5	9 10	-1				20 32 SS
PORT MORESBY	54.96	183.3			16 53	-6		17 41 SKS
BOKARO	55.48	269.7	9 27	-2	17 25	19		13 5
VICTORIA	55.91	53.3	9 30	-2				
TASHKENT	56.27	296.7	9 34	-1	17 26	9		17 42 PS
DEHRA DUN	56.84	281.0	9 41	2	17 29	5		
PENTICTON	57.57	50.8	9 42	-2				
CORVALLIS	58.15	57.1	9 52	4				
WARSAK DAM	59.03	288.4	9 51	-3				
SODANKYLA	59.36	337.9	9 55	-1				
TROMSOE	59.47	342.1	9 56	-1				
KIRUNA	60.56	340.3	10 3	-2	18 10	-2		18 30 PS
SHASTA	60.97	60.3	10 6	-1			10 20	
HUNGRY HORSE	61.13	49.2	10 7	-1				
MEDAN	61.20	242.6	10 2A	-7				
KAJAANI	61.49	335.0	10 12	1				
MINERAL	61.66	60.2	10 10A	-2				
BERKELEY	62.77	62.8	10 33	14			10 42	
RENO	63.24	60.0	10 22	-1				
BUTTE	63.36	50.6	10 27	4				
LICK	63.48	62.9	10 21	-3			10 39	
UMEA	63.79	337.6	10 25	-1				
PULKOVO	63.84	330.7	10 25	-1	18 57	3		14 20 PPP
SCORESBY SD.	63.93	357.0			19 11	16		
VINEYARD	64.01	63.3	10 27	-1				
QUETTA	64.45	287.7	10 28	-2	19 8	7	10 46	12 46 PP
ASHKABAD	65.04	299.3	10 34	0	19 24	15		
NURMIJARVI	65.14	333.6	10 34	-1				
EUREKA	65.58	58.0	10 35	-3			10 50	
SKALSTUGAN	65.98	340.7	10 40	0				
RUTH	66.33	57.6	10 45	3				
MADRAS	66.68	264.7	10 41	-4	19 34	5		

POONA	67.33	273.6	10	45	-4						
PASADENA	67.68	63.6	10	50	-1	19	42	1		24	8 SS
UPPSALA	67.76	336.2	10	50	-1	19	53	12		20	47 SCS
BOMBAY	67.80	274.6								11	11
MAKHACH-KALA	68.02	309.4	10	52	-1						
FLAMING GRGE	68.43	53.2	10	52	-4						
BOULDER CITY	68.55	60.2	10	45	-11						
RAPID CITY	69.60	47.4	10	56	-7						
GLEN CANYON	69.83	57.6	10	47	-17				11	2	
LARAMIE	70.27	50.8	11	10	3						
TIFLIS	70.33	309.9	11	8A	1						
TEHERAN	70.69	301.5	11	10	1	20	29	13			
GORIS	71.03	307.3	11	12	1	20	32	12			
COPENHAGEN	72.77	336.4	11	22	0	20	46	6			
BRISBANE	72.84	177.3	11	19	-3	20	36	-5			
WARSAW	72.99	330.0	11	24	1	20	56	14			
SIMFEROPOL	73.36	318.1	11	26	1	20	59	13		15	56 PPP
TUCSON	73.51	60.7	11	25	-1	20	34	-14			
TUCSON TELE.	73.51	60.6	11	25	-1						
LWOW	73.85	326.9	11	31	3	21	6	14		11	45 PCP
SHIRAZ	74.17	296.2	11	28K	-2	21	0	5	11	45	21 21 SKS
KRAKOW	75.18	329.3	11	36	0	21	5	-2			
RACIBORZ	75.77	330.3	11	41	2					12	8
COLLMBERG	76.43	333.8	11	43A	0					14	38 PP
WITTEVEEN	76.88	338.1	11	47	2						
DURHAM	76.98	343.5	11	47	1						
PRUHONICE	77.08	332.3	11	48A	2	21	43	16			
JENA	77.18	334.4	11	46	-1	21	42	14		12	27
MUNSTER	77.39	337.2	11	49	1						
CHEB	77.69	333.6	11	51	1	21	39	5			
BRATISLAVA	77.77	329.8	11	50K	0	21	22	-13			
DE BILT	77.92	338.6	11	54	3	21	50	14			
VIENNA-H.	77.96	330.3	11	51	0						
KASPERSKE H.	78.13	332.4	11	53A	1				12	7	13 6
BENSBERG	78.43	337.0	11	54A	0				12	10	12 1 PCP
ISTANBUL KA.	78.71	318.6	11	54A	-1	22	12	27			
ISTANBUL UN.	78.77	318.6	11	57	1						
WICHITA MTS.	78.84	51.4	11	54	-2	21	54	8			27 14 SS
RIVERVIEW	79.22	179.0	12	1	3	21	41	-9			
BELGRADE	79.35	326.0	12	1K	2	21	56	4			
HEIDELBERG	79.39	335.4	11	59	0						
STUTTGART	79.79	334.8	12	1	0	22	42	46			
KEW	79.81	341.6	12	1	0	22	9	13			
KARLSRUHE	79.83	335.4	12	0	-1	22	20	23			
TUBINGEN	80.07	334.8	12	4	1						
FAYETTEVILLE	80.14	47.7	12	2K	-1				12	31	
ST. LOUIS 1	80.14	43.6	12	1	-2	22	6	6			
STRASBOURG	80.40	335.6	12	6	1	22	16	13			28 32 SS
LJUBLJANA	80.49	330.3	12	6	1						12 52
RAVENSBURG	80.57	334.1	12	7	2						
CANBERRA	80.71	180.8	12	16	10						21 53
KSARA	80.91	309.7	12	9	2						22 37 SCS
ADELAIDE	80.99	189.3	12	0	-8						
BASLE	81.41	335.2	12	8	-2						
PARIS	81.62	338.9	12	14	3						
BESANCON	82.12	336.1	12	15	1						
FOLINIERE	82.38	340.8	12	16	1						
JERUSALEM	82.82	308.8	12	18	1						
GARCHY	82.89	338.0	12	19	2						12 35 PCP
FLORENCE X.	83.60	331.2	12	42	21	23	16	41			
ATHENS	83.65	320.1	12	21K	0						
PENNSYLVANIA	83.82	34.4				22	55	18			
MORGANTOWN	83.96	36.4	12	23	0						
CLERMONT-FD.	84.27	337.3	12	27	3						
TARANTO	84.29	325.7	12	42	18						
ISOLA	84.59	334.1	12	28	2						12 32 PCP
ROME	84.83	329.5	12	37	10	23	6	19			22 48 SKS
WESTON	84.87	29.4	12	27A	0						
MONACO	84.88	333.7	12	26	-1						
PALISADES	85.15	31.7	12	43	14	22	59	9			28 53 SS
KARAPIRO	86.44	160.0	12	28	-7						
BAGNERES	87.56	338.3	12	43	2						
WELLINGTON	89.45	161.5	12	44	-5						
TORTOSA	89.57	337.3	12	13	-37	23	46	14			
TOLEDO	91.61	340.3	13	1	1	24	3	13			25 21
ROXBURGH	92.45	166.5				24	0	2			23 32 SKS
LWIRO	112.92	291.8									19 16 PP
BOGOTA	116.42	50.6									29 39 PS
SCOTT BASE	123.77	175.8	18	35	-14						

BULAWAYO	125.90	277.7	18	50	-3							
BYRD STATION	134.77	165.8	18	48	-22						19	2
LA PAZ	136.92	60.0	19	32	18							

APRIL 30 14.H 48.M 11.S EPICENTRE -15.24-174.41 DEPTH= 0.KM

A=-0.96067 B=-0.09405 C=-0.26129 D=-0.0974 E= 0.9952
G= 0.2600 H= 0.0255 K=-0.9653 HT= 5.7

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AFIAMALU	2.87	62.8	0	42A	-6	1	19	-5					
SUVA	7.45	246.2	2	6	13						2	50	
PORT VILA	16.75	259.1	4	0	2								
NOUMEA	19.42	245.9	4	17	-14								
ONERAHI	22.78	204.1	5	10	5								
AUCKLAND	23.58	202.0				9	29	4			5	36	
KARAPIRO	24.28	199.6	5	18	-2						8	2	
CHATEAU	25.45	198.4	5	26	-5						8	29	
TONGARIRO	25.45	198.4	5	30	-1								
WELLINGTON	27.59	197.8	5	47	-4								
KAIMATA	29.79	201.4	6	19	8								
RABAUL	34.66	285.0	6	49	-5						9	32	
RIVERVIEW	36.15	232.9	7	2	-4	12	40	-6			8	37	
CHARTERS TS.	37.72	256.8	7	18	-1						9	40	
PORT MORESBY	37.96	274.2	7	20	-1	13	14	0					
CANBERRA	38.36	231.8	7	23	-2				7	27	16	13	
MOORLANDS	42.64	222.8	8	3K	3						9	58	PCP
TARRALEAH	43.06	223.3	8	6	3						10	1	PCP
ADELAIDE	46.29	236.0	8	30K	1						19	9	
DARWIN	53.14	265.8	9	21	-1								
CAPE HALLETT	57.77	185.5	9	58	3	18	7	13			20	8	SCS
SCOTT BASE	63.33	184.4	10	35	2						11	1	PCP
MUNDARING	64.75	241.6	10	40	-3								
MATUSIRO	68.19	320.3	11	3A	-2	20	5	0			24	27	SS
BYRD STATION	69.26	171.2	11	9	-2								
PETROPAVLOVK	71.84	343.3	11	24	-3	20	45	-2					
VINEYARD	71.90	42.5	11	33	6								
BERKELEY	72.00	41.1	11	30	2	20	49	0					
LICK	72.08	41.8	11	29A	1								
PASADENA	72.61	46.3	11	31	0	20	59	3			25	25	SS
Y.-SAKHLINSK	72.93	330.9	11	33	0	21	0	0					
FRESNO	72.95	43.2	11	35	2								
SHASTA	73.63	38.7	11	38	1								
MINERAL	73.89	39.3	11	40A	1								
RENO	74.53	40.8	11	44A	1								
UGLEGORSK	74.73	332.0	11	45	1	21	21	1					
BOULDER CITY	75.90	46.2	11	49	-1								
EUREKA	76.96	42.6	11	55	-1				12	5	14	54	PP
TUCSON	76.99	51.2	11	59	2								
ZO-SE	77.10	307.5	11	59	2	21	44	-2					
TUCSON TELE.	77.11	51.1	11	57	0								
MIRNY	77.17	204.2	11	56	-2								
VICTORIA	77.95	31.9	11	59	-3								
GLEN CANYON	78.66	46.6	12	5	-1								
HONG KONG	79.27	296.7				22	15	6					
NANKING	79.36	307.4	12	12	2	22	12	2					
MAGADAN	79.69	342.8									20	17	
CANTON	80.27	297.1	12	18	4	22	24	4					
SALT LAKE C.	80.33	43.1	12	16	1								
PENTICTON	80.41	32.8	12	14	-1								
FLAMING GRGE	82.05	43.9	12	22	-2						14	10	
COLLEGE	82.40	11.1	12	12	-14	22	45	3			38	50	PKPPKP
BUTTE	82.53	38.3	12	27	1						15	32	PP
HUNGRY HORSE	82.90	35.8	12	33	5								
BOZEMAN	83.27	39.1	12	31	1								
PEKING	84.66	313.8	12	38	1	23	3	-1					
LARAMIE	84.79	44.9	12	36	-2						15	59	
WICHITA MTS.	87.33	53.1	12	49	-1	23	34	4			16	29	PP
RAPID CITY	87.54	43.1	12	51	0								
KUNMING	90.08	295.9	13	3	0								
CHENGTU	90.62	301.5	13	2	-4								
FAYETTEVILLE	91.17	53.0	13	10	2								
ULAN-BATOR	93.79	318.6	13	22	2								

SHILLONG	99.71	293.9	13	47	0			24	29	
LA PAZ	100.71	110.4	13	33	-19					
RESOLUTE	101.84	15.5	13	56	-1					
PALISADES	107.69	51.4						25	34	SKKS
KHEYS	110.75	352.0	19	3	28					
QUETTA	122.10	296.2	18	59	2					
SODANKYLA	126.13	350.1	19	6	1					
KIRUNA	126.58	353.0						38	17	SS
UMEA	130.42	351.5	19	17	4					
SKALSTUGAN	131.50	356.0	19	19	4					
PULKOVO	131.99	343.5	19	13	-3					
MOSCOW	132.71	335.9	19	23	6					
UPPSALA	134.60	351.5						22	56	PKS
SHIRAZ	134.62	296.7	19	37	16			22	13	PP
TIFLIS	137.15	315.9	19	29	3					
BULAWAYO	138.19	213.4	19	27	-1					
DURHAM	140.17	6.5	19	36	5			22	36	PP
LWOW	142.39	340.4	19	36	1					
BROKEN HILL	142.82	218.6	19	34	-2					
MUNSTER	143.33	357.9	19	40	3					
HALLE	143.48	353.3	19	35	-2					
COLLMBERG	143.54	352.2	19	35	-2			24	10	
RACIBORZ	143.78	346.2	19	41	4					
JENA	144.08	353.5	19	35	-3			23	21	
BENSBERG	144.35	358.3	19	38	0					
PRUHONICE	144.60	350.0	19	37	-2			20	9	
KASPERSKE H.	145.58	350.7	19	40	0			23	14	
BRATISLAVA	145.82	346.2	19	41	0					
HURBANOVO	145.84	344.8	19	45	4					
VIENNA-H.	145.91	347.1	19	44A	3			20	12	
FOLINIERE	146.20	7.2	19	43	1					
KARLSRUHE	146.25	356.7	19	48	6					
STUTTGART	146.43	355.6	19	42	0			20	23	
PARIS	146.43	3.7	19	51	9					
TUBINGEN	146.68	355.8	19	45	3					
STRASBOURG	146.71	357.4	19	46	4			31	13	
KSARA	147.00	309.6	19	50	7					
EBINGEN	147.04	355.8	19	45	2					
ISTANBUL KA.	147.18	326.2	19	47	4			20	2	
BASLE	147.77	357.5	19	51	7			28	40	
GARCHY	147.99	3.2	19	55	11					
JERUSALEM	148.38	306.6	19	52	7					
LJUBLJANA	148.39	348.1	19	52	7					
SOFIA	148.68	334.4	19	55	9					
TRIESTE	148.92	348.9	19	58	12			20	21	PKP2
CLERMONT-FD.	149.50	3.4	20	0	13					
ISOLA	151.13	357.8	20	4	15					
LWIRO	151.20	234.8						19	59	
MONACO	151.57	357.2	20	5	15					
BAGNERES	151.88	8.5	20	31	40					
HELWAN	152.22	306.0	20	3	12			24	49	PP
TOLEDO	154.05	17.1	20	16	22					
GRANADA	156.68	18.8	20	48	51					

MAY 1 0.H 42.M 15.S EPICENTRE 35.96 141.18 DEPTH= 93.KM

A=-0.63210 B= 0.50865 C= 0.58457 D= 0.6269 E= 0.7791
G=-0.4554 H= 0.3665 K=-0.8113 HT= -0.2

DEPTH OF FOCUS= 0.009R

SE= 4.60

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TYOSI	0.35	228.5	0	2K	-13	0	11	-16				
MITO	0.71	306.7	0	9A	-9	0	24	-7				
KAKIOKA	0.85	289.0	0	11A	-8	0	17	-16				
TUKUBASAN	0.91	287.1	0	12	-7							
ONAHAMA	1.02	347.4	0	12A	-8	0	28	-7				
HONGO	1.17	258.3	0	19	-3							
TOKYO C.M.O.	1.19	257.0	0	18	-4	0	39	0				
UTUNOMIYA	1.21	299.7	0	16	-7	0	38	-2				
YOKOHAMA	1.35	247.5	0	19	-5	0	43	0				
SHIRAKAWA	1.39	326.7	0	19	-6	0	40	-4				
KUMAGAYA	1.47	278.1	0	22	-4	0	57	12				

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MERA	1.51	227.2	0	21	-5					
TITIBU	1.70	271.4	0	24	-5					
MAEBASI	1.76	285.2	0	25A	-4	0	49	-3		
HUKUSIMA	1.88	342.7	0	24A	-7	0	50	-4		
OSIMA	1.89	231.6	0	24	-7					
AJIRO	1.92	242.5	0	26	-5	0	55	0		
MISIMA	2.00	246.0	0	28	-4	1	0	3		
HUNATU	2.01	257.6	0	31	-2	1	8	11		
KOHU	2.15	263.1	0	33	-1	1	12	12		
OIWAKE	2.16	280.7	0	33	-2					
SENDAI	2.32	354.6	0	29	-8	0	58	-7		
YAMAGATA	2.38	344.2	0	32A	-6	1	6	0		
MATUSIRO	2.47	284.5	0	35K	-4				1	14
SHIZUOKA	2.47	247.3	0	32	-7	1	18	10		
ISINOMAKI	2.47	2.6	0	31	-8	1	2	-6		
NAGANO	2.51	287.4	0	37A	-2	1	16	7		
NIIGATA	2.60	319.6	0	41	0				1	11
MATUMOTO	2.61	277.4	0	39	-2	1	18	6		
TAKADA	2.62	296.7	0	36	-5	1	11	-1		
IIDA	2.76	261.9	0	40	-3	1	30	15		
OMAESAKI	2.77	241.6	0	38	-5	1	38	22		
AIKAWA	3.12	312.2	0	54	6	1	33	9		
SAKATA	3.13	340.4	0	48	0	1	26	1		
MIZUSAWA	3.17	359.3	0	47	-2	1	32	6		
TAKAYAMA	3.19	274.6	0	39	-10					
TOYAMA	3.30	284.2	0	50	0	1	40	11		
NAGOYA	3.52	258.3	0	54	1	1	42	8		
GIHU	3.63	262.5	1	52	57					
WAZIMA	3.72	293.7	1	2	6					
MORIOKA	3.74	359.9	0	53	-3	1	34	-6		
MIYAKO	3.74	9.4	0	56	0	1	38	-2		
AKITA	3.85	347.5	0	45	-13	1	57	15		
KAMEYAMA	4.00	255.4	1	12	12	2	5	19		
TU	4.01	253.1	1	0	0					
HUKUI	4.01	272.8	1	15	15					
HIKONE	4.07	261.8	1	4	3	1	55	7		
TSURUGA	4.16	267.3	1	3	1					
OWASE	4.50	246.7	1	20	13	2	23	25		
KYOTO	4.54	259.7	1	19	12	2	32	33		
NARA	4.55	255.3	1	19	11					
HATINOHE	4.58	3.4	1	10	2					
ABUYAMA	4.71	258.3	1	6A	-4					
OSAKA	4.80	255.9	1	34	23	2	35	29		
AOMORI	4.87	356.5	1	10	-2	2	5	-2		
SIOMISAKI	5.11	242.2	2	9	54	3	8	55		
TOYOOKA	5.19	267.2	1	32	16					
SUMOTO	5.38	254.4				2	52	32	1	55
HAKODATE	5.85	356.9	1	26	1	2	47	15		
MORI	6.15	355.8	1	32	3					
URAKAWA	6.31	10.9	1	35	3	2	36	-7		
HIROO	6.53	14.1	2	35	60	2	35	-13		
TOMAKOMAI	6.67	2.6	2	45	68	2	45	-8		
SAPPORO	7.11	1.0							2	1
OBIHIRO	7.13	12.1				2	55	-9		
HIROSIMA	7.34	260.1							3	50
KUSIRO	7.44	18.6				2	58	-13		
HAMADA	7.51	264.6							3	27
ASAHIGAWA	7.87	6.3	1	57	4					
NEMURO	8.11	23.4				3	8	-20		
HONG KONG	27.13	247.3							13	4
SHILLONG	43.22	270.3	7	49K	-4					
COLLEGE	50.11	31.8	8	46	-1					
QUETTA	61.09	287.8	10	6	0					
RESOLUTE	63.70	14.2	10	20	-3					
SODANKYLA	65.88	337.3	10	35	-3					
KIRUNA	67.46	339.3	10	50	3					
UMEA	70.19	336.1	11	4	0					
NURMIJARVI	70.81	332.0	11	8	0					
SHIRAZ	72.29	294.0	11	16K	-1				13	45 PP
SKALSTUGAN	72.85	338.6	11	18	-2					
UPPSALA	73.84	334.0	11	25	-1					
EUREKA	76.67	50.8	11	40	-2					
FLAMING GRGE	79.81	46.6	11	59	0					
COLLMBERG	81.94	330.1	12	11	1					
PRUHONICE	82.30	328.5	12	12	0				12	57 *SP
JERUSALEM	83.31	304.5	12	18	1					
KASPERSKE H.	83.36	328.4	12	18	0					
STUTTGART	85.42	330.4	12	27	-1					
WICHITA MTS.	90.29	45.4	12	56	5					

MAY 2 3.H 11.M 46.S EPICENTRE 71.23 -7.13 DEPTH= 0.KM

A= 0.32115 B=-0.04017 C= 0.94618 D=-0.1241 E=-0.9923
G= 0.9389 H=-0.1174 K=-0.3237 HT=-12.1

SE= 3.30

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SCORESBY SD.	4.93	268.2	1	14	-3	2	14	-2				
SIDA	8.56	214.5	2	12	4							
TROMSOE	8.85	87.9	2	10	-2	3	51	-3				
REYKJAVIK	9.05	225.3	2	14	-1							
KIRUNA	10.17	96.2	2	28	-3	4	35	8				
NORD	10.63	352.4	2	32	-5	4	25	-13				
SKALSTUGAN	10.65	126.4	2	33	-4	4	27	-11				
BERGEN	11.97	149.0	2	48	-7	4	53	-18				
SODANKYLA	12.42	91.6	2	58	-3							
UMEA	12.71	112.1	3	7	2	5	22	-7			5	51
ABERDEEN	14.28	168.8									4	9
KAJAANI	14.84	101.4	3	33	0	6	15	-4				
UPPSALA	15.17	126.1	3	37	0	6	31	4				
NURMIJARVI	16.59	114.1	3	56	0	6	52	-8				
DURHAM	16.70	168.8	4	0	3							
THULE	17.01	315.0	3	54	-7	7	3	-7				
KHEYS	17.13	30.4	4	8	5							
PULKOVO	18.89	108.2	4	26	2	7	53	0				
WITTEVEEN	19.48	154.3	4	32	1							
MUNSTER	20.44	153.2	4	40	-2							
BENSBERG	21.37	154.6	4	50	-1						5	17 PP
HALLE	21.61	146.3	4	55	1	8	53	4				
COLLMBERG	21.99	144.8	4	56	-2						5	34 PPP
JENA	22.09	147.3	4	55	-4						5	18 PP
FOLINIERE	22.75	168.6	5	3	-2							
WARSAW	22.85	131.6	5	10	4							
PARIS	22.94	163.5	5	8	1						5	30
HEIDELBERG	23.11	153.0	5	7	-2							
KARLSRUHE	23.45	153.7	4	56	-16							
PRUHONICE	23.55	143.3	5	13	0						7	23
RESOLUTE	23.73	318.7	5	18	3							
STRASBOURG	23.78	154.9	5	2	-13	9	38	10			5	51
STUTTGART	23.81	152.4	5	14	-1							
TUBINGEN	24.01	152.9	5	22	5							
KASPERSKE H.	24.18	145.4	5	18	-1							
MOSCOW	24.46	105.9	5	25	3							
GARCHY	24.51	163.1	5	22	0							
BASLE	24.78	155.8	5	24	-1							
BESANCON	24.85	158.4	5	33	7							
SKALNATE PL.	25.50	135.5	5	31	-1							
VIENNA-H.	25.56	141.8	5	32	0							
BRATISLAVA	25.78	140.8	5	33	-1							
LWOW	25.81	129.7	5	37	2	10	5	2				
CLERMONT-FD.	26.02	163.5	5	43	6							
LJUBLJANA	27.32	146.0	5	47	-1						6	34 PP
ISOLA	28.01	158.0	5	57	2							
BAGNERES	28.47	168.8	5	57	-2							
KISHINEV	29.62	125.6	5	48	-21							
SVERDLOVSK	30.94	81.8	6	23	2							
TOLEDO	31.47	175.5	5	25	-61							
TIKSI	34.56	22.8	6	52	-1							
SHAWINIGAN	39.03	266.8	7	36	6							
TIFLIS	39.04	110.7	7	33	3							
COLLEGE	41.53	335.9	7	49	-2							
YAKUTSK	43.70	27.8	8	9	0							
KSARA	43.85	124.9	8	13	3							
PALISADES	44.35	264.2				15	0	11				
HELWAN	46.45	131.8	8	32	1							
HUNGRY HORSE	50.05	303.6	9	1	2							
FAYETTEVILLE	55.37	280.5	9	36	-2							
FLAMING GRGE	55.57	296.1	9	45	5							
QUETTA	56.62	94.3	9	48	1							
WICHITA MTS.	58.02	283.9	9	54	-3						13	39
EUREKA	58.78	301.1	10	1	-1							
MINERAL	59.49	306.2	10	6A	-1							

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RENO	59.77	304.3	10 21	12
GLEN CANYON	59.88	296.3	9 57	-13
LICK	62.33	305.0	10 30A	3
CHINA LAKE	62.66	301.0	10 28	-1
TUCSON TELE.	63.94	293.7	10 37	0
TUCSON	64.06	293.7	10 38	0
MATUSIRO	69.73	29.2	11 15	1
MAWSON	146.25	139.6	19 43	1

MAY 2 22.H 44.M 55.S EPICENTRE -28.06-176.92 DEPTH= 99.KM

A=-0.88251 B=-0.04748 C=-0.46790 D=-0.0537 E= 0.9986
G= 0.4672 H= 0.0251 K=-0.8838 HT= 2.4

DEPTH OF FOCUS= 0.010R

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
RAOUL ISLAND	1.48	216.2	0 20	-6					
ONERAHI	10.67	221.7	2 33	2					
SUVA	10.75	335.6	2 29	-3					
KARAPIRO	11.70	210.8	2 35	-9					
WELLINGTON	14.84	205.2	3 20	-5	5 53	-15			
AFIAMALU	14.87	19.8	3 42	16	5 28	-40			
COBB RIVER	15.52	210.5	3 31	-3	6 9	-14			
NOUMEA	16.10	287.1	3 44A	3	6 50	14			
PORT VILA	17.03	304.0	3 54A	1	7 20	23			
KAIMATA	17.26	210.2	3 52	-4	6 52	-10			
GEBBIES PASS	17.72	205.5	3 53	-8	6 57	-16			
KOUMAC	18.68	289.4	4 12A	0	8 3	29			
ROXBURGH	20.54	208.5	4 29	-3	8 18	7			
BRISBANE	26.80	264.2	5 31	-1	10 15	16			
RIVERVIEW	27.91	250.1	5 42A	0	10 9	-8	5 53	6 33	PP
RIVERVIEW	27.91	250.1	5 42A	0	11 10	53	5 53	6 33	PP
HONIARA	28.59	305.9	5 46A	-2					
CANBERRA	29.78	247.3	6 0A	1	11 1	14		7 7	PP
FORT NELSON	32.38	233.2	6 22A	0			6 34		
TARRALEAH	32.86	234.6	6 30	4				9 11	PCP
CHARTERS TS.	34.44	275.1	6 38	-2				13 4	
RABAUL	37.79	303.3	7 6	-2					
ADELAIDE	38.20	248.2	7 11K	0					
PORT MORESBY	38.55	291.7	7 13	-1	13 5	3		8 56	
CAPE HALLETT	44.85	185.5	8 5K	-1	14 49	14		9 49	PP
SCOTT BASE	50.44	184.4	8 49K	0	16 15	21	8 59	9 52	PCP
HONOLULU	52.33	22.3	9 3	0	16 29	10			
KIPAPA	52.47	22.4	9 3	-1					
GUAM	55.52	312.9	9 29	2				13 2	
BYRD STATION	57.06	169.9	9 31	-7	16 49	-34			
MUNDARING	57.21	248.4	9 36	-3					
WILKES	57.66	207.1	9 40	-2	17 36	5		11 59	PP
SOUTH POLE	62.10	180.0	10 12	0					
MANILA	73.51	297.0	11 27	4	20 37	-7			
LEMBANG	74.00	270.7	11 25A	-1	20 54	5			
MAWSON	74.82	200.1	11 31	0	21 14	16			
DJAKARTA	75.00	271.0	11 30A	-2	21 10	10			
HONGO	75.43	324.8	11 34	0				21 36	
TUKUBASAN	75.66	325.3	11 34A	-2	21 12	5	11 42	14 33	PP
MATUSIRO	76.88	324.3	11 41A	-1	21 26	5		26 31	SS
ABUYAMA	77.02	321.5	11 43A	0					
MIZUSAWA	77.46	327.8	11 47	1				12 3	
Y.-SAKHLINSK	83.13	333.5	12 16	0	22 41	15			
PASADENA	83.18	45.6	12 15	-1	22 35	9		15 27	PP
LICK	83.19	41.3	12 16K	0					
BERKELEY	83.19	40.6	12 19K	3	22 39	13			
HONG KONG	83.22	299.5	12 18	2	22 15	-12		15 45	
ZO-SE	83.30	310.4	12 17A	0	22 50	22		22 41	SKS
CONCORD	83.37	40.6	12 20K	3					
PETROPAVLOVK	83.50	345.4	12 16	-2	22 37	7		17 28	PPP
UKIAH	83.52	39.1	12 20	2					
CANTON	84.30	299.8	12 24A	2	23 4	27			
PORT STANLEY	84.31	146.9	12 23	1					
VLADIVOSTOK	85.01	325.1	12 25	0	22 50	6		15 49	PP
SHASTA	85.07	38.4	12 25	0					
MINERAL	85.26	39.1	12 28K	2					
NANKING	85.51	309.9	12 29A	1					

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RENO	85.73	40.6	12	29	0						
BOULDER CITY	86.45	45.9	12	22	-10						
MEDAN	86.73	275.8	12	23	-11	22	59	-2			
TUCSON	86.84	50.9	12	35	1	23	1	-1			
TUCSON TELE.	86.97	50.9	12	35	0						
SANTA LUCIA	87.16	126.5	12	35A	-1	23	1	-4		28	53 SS
EUREKA	87.95	42.6	12	36K	-3					16	15 PP
CHIHUAHUA	88.17	56.2								21	44
TACUBAYA	88.69	67.3	12	46K	3	23	28	9		16	12 PP
CHANGCHUN	88.96	322.2	12	45A	1	23	43	21		23	15 SKS
GLEN CANYON	89.13	46.7	12	46	1						
OAXACA	89.51	70.5	12	7	-40					18	15
VICTORIA	90.00	32.3	12	46	-3						
VERA CRUZ	91.10	68.9	13	9	15	23	57	16		16	32 PP
SALT LAKE C.	91.23	43.5	12	55	0	23	24	-18			
MAGADAN	91.27	344.2	12	53	-2	23	27	-16			
PEKING	91.93	315.0	12	59A	1	24	10	22		23	31 SKS
FLAMING GRGE	92.83	44.5	13	2	0					16	17 PP
COMITAN	93.04	73.3				23	33	-25		24	5 SKKS
KUNMING	93.62	296.4	13	8A	2	23	44	-19			
BUTTE	93.96	39.0	13	7	0						
HUANCAYO	94.40	106.0	13	15	6	24	27	17			
HUNGRY HORSE	94.58	36.6								16	7 PP
BOZEMAN	94.60	39.9	13	11	1					15	18
CHENGTU	95.34	301.8	13	16A	2	23	50	11		24	40 S
COLLEGE	95.36	12.0	13	12	-2	24	29	50	13 26	30	8 PKKP
WICHITA MTS.	96.78	54.3	13	18	-2	23	56	9		17	10 PP
MERIDA	97.32	70.3				24	5	16		18	5
LA PAZ	98.11	113.5	13	33	7	24	57	63			
RAPID CITY	98.38	44.4	13	27	-1						
YAKUTSK	99.43	337.4	13	31	-1						
FAYETTEVILLE	100.59	54.8	13	29	-9	24	16	10		17	33
BALBOA HTS.	100.62	85.5				24	16	9			
CHITTAGONG	101.24	289.3								24	27 SKKS
ULAN-BATOR	101.78	318.1	13	42	-1					24	22 SKKS
CHINCHINA	102.29	90.9				24	22	8		18	23 PP
SHILLONG	102.57	292.3	13	42K	-4	24	21	6		27	0 PS
BOGOTA	103.50	91.9				24	34	14		18	34 PP
FUQUENE	104.19	91.3								18	21 PP
CALCUTTA	104.20	288.1				24	27	4			
COLOMBO	104.85	270.0	18	25	269	24	46	20		33	41
IRKUTSK	105.26	321.3								27	38 PS
BOKARO	106.89	288.3	17	23	777	24	44	9		27	56
CHATRA	106.95	291.7				24	51	15			
MADRAS	107.27	275.8	18	38	777	24	52	16		27	59
KODAIKANAL	108.46	271.9				25	0	18		29	15
HYDERABAD	110.63	279.2				25	14	23			
CARACAS	112.45	89.8				25	7	9		19	11 PP
PENNSYLVANIA	114.21	55.3				25	15	10		29	3 PS
RESOLUTE	114.74	16.9	18	27	-1						
POONA	115.09	278.4	17	59	-30					29	17
DEHRA DUN	115.67	292.1	18	9	-21					25	31
HERMANUS	116.01	194.8								19	40 PP
BOMBAY	116.13	278.4	18	40	9					21	59 PKS
SAN JUAN	116.40	82.4	19	2	30						
PALISADES	117.16	56.0				25	23	7		20	19 PP
WESTON	119.36	55.0	18	2	-35					29	54
KIMBERLEY	119.81	202.0	18	37	-1						
THULE	121.42	15.2	18	40	-1					22	11 PP
FRUNSE	121.52	305.1	18	42	0					20	14 PP
KHEYS	123.01	350.8	18	44	0					20	27 PP
QUETTA	124.82	288.7	18	50A	2					22	9 PKS
TASHKENT	125.20	302.5	18	50	1						
NORD	125.81	3.5	18	48A	-2						
BULAWAYO	126.10	210.1	18	52A	2						
WINDHOEK	127.88	196.5	18	50	-4						
SVERDLOVSK	130.66	322.3	18	50	-9					21	12 PP
BROKEN HILL	131.11	213.5	19	2	2						
ASHKABAD	133.20	297.0	19	5	1					21	37 PP
SCORESBY SD.	135.22	11.6	19	9	1					21	42 PP
SHIRAZ	136.93	284.4	19	3	-8					21	45 PP
TROMSOE	137.39	351.9	19	11	-1					22	11 PP
SODANKYLA	138.16	346.6	19	18	5					22	7 PP
TEHERAN	138.61	293.2	19	17	3					22	5 PP
KIRUNA	138.86	350.1	19	11	-3					22	8 PP
KAJAANI	140.66	343.2	19	14	-4					22	16 PP
LWIRO	141.02	223.6	19	16	-2						
MAKHACH-KALA	141.36	304.6	19	16	-3						

UMEA	142.55	347.6	19	20	-1					
GORIS	142.61	299.2	19	21	0	26	39	20	22	56 PKS
PULKOVO	143.24	337.2	19	19	-3				22	35 PP
TIFLIS	143.52	303.1	19	21	-2				32	37 SKSP
SKALSTUGAN	143.97	353.0	19	21	-2					
NURMIJARVI	144.41	341.8	19	22A	-2					
UPPSALA	146.69	346.6	19	29A	1				22	52 PP
SOTCHI	146.80	307.6	19	28	0					
BERGEN	147.63	357.9	19	35	5					
GOTEBORG	149.72	350.5	19	42	9					
SIMFEROPOL	150.13	312.7	19	34	0				23	13 PP
ABERDEEN	150.67	5.8							30	43 SKKS
KSARA	151.36	289.8	19	37	2				23	30 PP
COPENHAGEN	151.58	348.8	19	41K	5				23	21 PP
KISHINEV	152.36	320.2	19	36	-1					
WARSAW	152.39	335.9	19	42	5	26	47	15	23	13 PKS
IASI	152.96	321.6	19	47	9					
LWOW	153.01	329.3	19	38	0				23	33 PP
DURHAM	153.10	6.0	19	45	7				23	43 PP
KRAKOW	154.55	334.2	19	40	0				23	36 PP
CHORZOW	154.71	335.7	19	33	-7				20	12
ISTANBUL KA.	155.08	308.2	19	39	-2				23	45 PP
WITTEVEEN	155.12	354.8	19	53	12					
ISTANBUL UN.	155.14	308.2	20	6	25				23	44 PP
RACIBORZ	155.17	336.4	19	42	1				21	23
HELWAN	155.24	281.0	19	41	0				23	41 PP
BUCHAREST	155.40	317.7	19	44	3				20	27
COLLMBERG	155.61	344.8	19	41	0	26	23	-13	23	38 PP
HALLE	155.65	346.5	19	42A	1				20	21 PKP2
MUNSTER	155.87	353.1	19	43	1					
DE BILT	155.93	356.8	19	45	3				23	46 PP
JENA	156.25	346.7	19	42	-1				23	47 PP
PRAGUE	156.37	341.6	19	37	-5				23	44 PP
PRUHONICE	156.42	341.3	19	42	0				23	47 PP
KEW	156.48	5.3	19	43	1				23	41 PP
CHEB	156.89	344.6	19	52	9				24	3 PP
BENSBERG	156.92	353.4	19	43	0				23	53 PP
MBOUR	156.93	122.0	19	46	3				20	20 PKP2
BUDAPEST	156.96	331.6	20	5	22	27	22	45	24	0 PKS
HURBANOVO	156.98	333.3	20	32	49				23	35 PKS
BRATISLAVA	157.16	335.3	19	42A	-1				23	45 PP
VIENNA-H.	157.36	336.5	19	42	-2				20	27 PKP2
KASPERSKE H.	157.46	341.8	19	44	0				23	52 PP
SOFIA	158.03	317.0	19	44	0				23	24 PP
BELGRADE	158.28	325.0	19	42K	-3				23	53 PP
KARLSRUHE	158.68	350.3	19	46	1				20	25 PKP2
STUTTGART	158.77	348.6	19	45	0				24	2 PP
FOLINIERE	159.14	6.6	19	46	0					
STRASBOURG	159.19	351.2	19	47	1				24	5 PP
PARIS	159.27	1.1	19	39	-7					
ZAGREB	159.54	333.5	19	47	1					
LJUBLJANA	159.89	336.3	19	47A	0				24	12 PP
ATHENS	160.11	305.0							20	7
TRIESTE	160.51	337.1	19	48	1				24	10 PP
BESANCON	160.71	354.0	19	49	2					
PADOVA	161.32	340.4							20	40 PKP2
PAVIA	162.24	345.8	19	48	-1				31	20 SKKS
CLERMONT-FD.	162.32	359.9	19	51	2	26	59	17		
FLORENCE X.	162.99	339.4	19	50A	0				24	18 PP
ISOLA	163.60	349.8	19	52	2				24	31 PP
SERRA PILAR	163.82	33.3	19	49A	-2	26	10	-33	24	30 PP
MONACO	163.97	348.5	19	54	3					
ROME	164.20	333.4	19	53A	2	26	46	2	24	35 PP
COIMBRA	164.61	35.2	19	54K	3				24	42 PP
BAGNERES	164.83	8.2	19	52	0					
LISBON	165.27	40.7	19	54	2				24	43 PP
MESSINA	165.47	317.3							20	51 PKP2
REGGIO CALA.	165.48	316.8							20	49 PKP2
TOLEDO	166.81	24.8	19	56	3	26	38	-7	24	41 PP
TORTOSA	167.09	8.8	19	59	6				24	46 PP
GRANADA	169.31	30.0	20	2A	7	27	21	34	25	3 PP
ALICANTE	169.31	15.3	19	57	2	26	59	12	25	1 PP
ALMERIA	170.06	26.7	19	56A	1	26	44	-3	25	5 PP

MAY 3 0.H 26.M 18.S EPICENTRE 0.92 -26.36 DEPTH= 5.KM

A= 0.89589 B=-0.44400 C= 0.01593 D=-0.4441 E=-0.8960
G= 0.0143 H=-0.0071 K=-0.9999 HT= 7.2

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
MBOUR	16.28	34.3	3	49	-2	6	36	-16				
GRANADA	41.76	27.6	8	5A	13						9	49 PP
ALMERIA	42.03	29.0	7	51A	-3						9	28 PP
COIMBRA	42.36	20.5	7	56A	-1							
SAN JUAN	42.70	296.4	8	8	9							
TOLEDO	43.78	25.0	8	7	-1							
LA PAZ	44.69	245.3	8	12	-4							
BAGNERES	48.20	26.0	8	42	-1							
WINDHOEK	48.34	121.7	8	39	-5							
HUANCAYO	50.30	253.6	9	4	5							
CLERMONT-FD.	51.64	26.1	9	10K	0							
MONACO	52.17	30.7	9	17	3							
ISOLA	52.30	30.1	9	14	-1							
ROME	53.70	35.5	9	27	2							
BESANCON	54.04	26.8									17	23
FLORENCE X.	54.22	33.0	9	26	-3							
LWIRO	55.24	93.4	9	41	5							
STRASBOURG	55.84	26.8									14	39
BROKEN HILL	56.36	108.0	9	51	7							
KARLSRUHE	56.44	26.8	9	50	5							
STUTTGART	56.66	27.5	9	44	-3							
TRIESTE	56.79	32.7	9	46	-1						10	30
HEIDELBERG	56.87	26.6	9	45	-3							
KIMBERLEY	57.10	125.5	9	47A	-3							
BENSBERG	57.35	24.5	9	50A	-1							
DURHAM	57.38	16.8	9	55K	3						10	19
LJUBLJANA	57.46	32.7	9	51A	-1							
BULAWAYO	57.74	114.5	9	44	-10							
MUNSTER	58.30	24.0	9	56	-2							
PALISADES	58.59	319.1	9	55	-5	10	3					
KASPERSKE H.	58.97	29.5	10	0A	-3						12	10
JENA	59.25	26.9	10	1	-4						11	2
HALLE	59.81	26.6	10	6	-3							
VIENNA-H.	59.82	31.6	10	5	-4							
PRUHONICE	60.00	29.2	10	8	-2						11	20
BELGRADE	60.12	36.8	10	10K	-1						11	19
COLLMBERG	60.15	27.3	10	9A	-2						12	27 PP
BRATISLAVA	60.16	32.1	10	7	-4							
SOFIA	60.82	40.1	10	14	-1							
SHAWINIGAN	60.83	325.1	10	13	-3							
HELWAN	61.83	56.4	10	19A	-3							
NIEDZIKA	62.61	32.4	10	28	0						10	58
BUCHAREST	63.41	39.5	10	32	-1							
LWOW	64.85	33.5	10	40	-2							
UPPSALA	67.86	22.2	10	59	-2							
SKALSTUGAN	68.68	17.5	11	5	-1							
SCORESBY SD.	69.51	1.6	11	10K	-2							
NURMIJARVI	71.03	24.0	11	18K	-3							
UMEA	71.40	19.9	11	26	3							
FAYETTEVILLE	71.64	307.8	11	21	-4							
KIRUNA	74.06	16.7	11	37	-2							
KAJAANI	74.21	21.7	11	38	-2							
MOSCOW	74.86	31.8	11	42	-1							
WICHITA MTS.	74.90	305.7	11	40	-4						14	23
TIFLIS	75.39	47.1	11	46	0							
SODANKYLA	75.66	18.6	11	47K	-1							
THULE	78.97	350.7	12	1	-5							
SHIRAZ	79.88	60.2	12	10K	-1	22	20	6	12	19	15	11 PP
RAPID CITY	79.91	314.5	11	16	-55							
NORD	80.75	1.4	12	14	-2							
LARAMIE	81.29	311.5	12	18	-1							
RESOLUTE	83.53	345.6	12	28	-2							
FLAMING GRGE	84.12	310.9	12	39	6							
TUCSON	84.83	302.1	12	36	-1						13	47
BOZEMAN	85.63	315.6	12	43	2							
GLEN CANYON	85.63	306.8	12	41	0							
SALT LAKE C.	85.98	310.6	12	42	-1							
SVERDLOVSK	87.58	33.3	12	50	0							
HUNGRY HORSE	87.76	318.2	12	49	-2	22	57	-35				
KHEYS	88.18	9.4	13	1	8							
BOULDER CITY	88.22	305.8	12	51	-2							
EUREKA	89.12	309.3	12	56	-2							

BYRD STATION	91.45	190.0	13	7	-2						
WOODY	91.50	305.6	13	16	7						
QUETTA	92.41	59.9	13	13	0					13	23
CANBERRA	145.50	173.3	19	41K	2					19	49
RIVERVIEW	147.18	176.2	19	48	6						

MAY 4 2.H 17.M 31.S EPICENTRE 40.82-127.46 DEPTH= 0.KM

A=-0.46158 B=-0.60246 C= 0.65114 D=-0.7938 E= 0.6082
G=-0.3960 H=-0.5169 K=-0.7590 HT= -2.0

SE= 3.15

	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
FERNDALE	2.44	94.6	0	45	3							
UKIAH	3.67	116.0	0	51	-8							
SHASTA	3.85	90.1	0	59	-3							
MINERAL	4.48	94.1	1	8K	-3	1	57	-7				
CORVALLIS	4.85	37.8	1	13A	-3							
SAN FRANCSCO	4.94	126.5	1	14	-3							
BERKELEY	4.99	124.5	1	15A	-3	2	30	13				
BRANNER	5.33	127.9	1	18A	-5							
LICK	5.71	125.6	1	23A	-5							
RENO	5.99	99.8	1	34	2						1	59
VINEYARD	6.25	128.6	1	37	1							
FRESNO	7.22	121.6	1	47	-2							
VICTORIA	8.22	19.1	2	2	-1							
EUREKA	8.90	94.9	2	11	-2							
PASADENA	9.93	129.1	2	31	4							
PENTICTON	10.14	30.4	2	31	1							
BOULDER CITY	11.02	111.9	2	37	-5							
SALT LAKE C.	11.83	85.1	2	54	1							
BUTTE	12.00	59.4	2	54	-1							
HUNGRY HORSE	12.17	47.3	2	55	-2	4	48	-27				
BOZEMAN	12.90	62.5	3	7	0							
GLEN CANYON	12.94	102.2	3	12	4							
FLAMING GRGE	13.68	83.6	3	18	0							
TUCSON	15.85	117.4	3	53	7	7	3	20				
TUCSON TELE.	15.87	116.9	3	53	7							
RAPID CITY	18.18	71.6	4	17	2							
WICHITA MTS.	23.56	95.7	5	14	1	9	41	17			10	32
FAYETTEVILLE	26.38	89.5	5	40	0	10	21	9				
COLLEGE	26.79	340.8	5	44	1							
RESOLUTE	37.08	13.7	7	11	-3							
PENNSYLVANIA	37.12	73.3				13	5	4				
PALISADES	39.92	71.5				13	44	1			9	6 PP
MAGADAN	51.98	320.2	9	12	-1							
NORD	52.81	9.9	9	14	-5							
TIKSI	55.90	338.2	9	40	-2							
SAN JUAN	56.65	94.0	9	55	8						10	15
YAKUTSK	60.35	328.1	10	13	0							
KIRUNA	69.00	12.5	11	8	-1							
MATUSIRO	70.13	301.4	11	14	-2							
SODANKYLA	70.35	10.3	11	16K	-1							
SKALSTUGAN	71.14	17.8	11	19	-3							
UMEA	72.60	14.4	11	34	3							
KAJAANI	73.61	11.1	11	40	3							
UPPSALA	75.65	17.4	11	48	-1							
GOTEBORG	76.13	21.1	11	56	5							
NURMIJARVI	76.47	13.8	11	53	0							
PULKOVO	78.11	11.3	12	3	1							
WITTEVEEN	78.65	26.4	12	5	0							
FOLINIERE	79.27	32.5	12	16	7							
BENSBERG	80.37	27.2	12	15	0						12	21 PCP
PARIS	80.42	30.9	12	16	1							
HALLE	81.49	24.3	12	23	3							
JENA	81.87	24.8	12	19	-3						12	50
GARCHY	81.89	31.5	12	23	0							
COLLMBERG	81.99	23.8	12	23	0							
STRASBOURG	82.59	28.1	12	28	2							
STUTTGART	82.96	27.2	12	28	0							
MOSCOW	82.99	8.4	12	29	1							
PRUHONICE	83.62	23.6	12	32A	1						17	11
BAGNERES	84.05	35.7	12	37	3							
TOLEDO	84.59	40.2	12	36	0							

KRAKOW	85.09	20.4	12 39	0			
VIENNA-H.	85.71	23.3	12 41	-1			
NIEDZIKA	85.77	20.4	12 37	-5			12 59
BRATISLAVA	86.00	22.9	11 45	-58			
ISOLA	86.02	31.0	12 46	2			13 12
LJUBLJANA	87.08	25.4	12 50	1			
TRIESTE	87.18	26.1	12 51	2			
ROME	90.02	28.7			24 9 14		
BROKEN HILL	146.38	45.5					19 44 PKP2
BULAWAYO	151.01	51.8					19 55 PKP2

MAY 4 7.H 0.M 34.S EPICENTRE 17.91 -46.56 DEPTH= 0.KM

A= 0.65469 B=-0.69135 C= 0.30566 D=-0.7261 E=-0.6876
G= 0.2102 H=-0.2219 K=-0.9521 HT= 5.2

SE= 3.12

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DOMINICA	14.46	261.8	3 39	11				
ANTIGUA	14.60	269.3	3 26	-4				
ST. VINCENT	14.93	253.7	3 33	-1				
ST. KITTS	15.43	270.4	3 39	-1				
GRENADA	15.77	250.4	3 43	-2				
TRINIDAD	16.08	245.3	3 48	-1				
SAN JUAN	18.60	274.5	4 21	1				
FUQUENE	29.28	248.3	6 6K	0				
BOGOTA	29.98	247.1	6 19	7	11 13	3		
CHINCHINA	31.19	249.2	6 22	-1				
PALISADES	32.88	320.2			12 3	8		
PENNSYLVANIA	35.26	316.9	7 1	3	12 38	6		
SHAWINIGAN	35.83	328.6	7 3	0				
LA PAZ	40.25	213.1	7 40	0	13 55	7		
ALMERIA	43.02	54.9	8 4	1	14 27	-2		
FAYETTEVILLE	45.65	303.2	8 28	4				
WICHITA MTS.	49.02	300.7	8 48	-2				10 12 PCP
CLERMONT-FD.	49.49	44.6	9 2	8				
BENSBERG	53.63	39.3	9 25	0				
RAPID CITY	53.90	311.8	9 25	-2				
STUTTGART	54.34	42.4	9 29	-1				
LARAMIE	55.23	308.2	9 36	-1				
TRIESTE	56.73	46.8	9 49	1				
KASPERSKE H.	57.17	42.6	9 52K	1				
COLLMBERG	57.26	40.1	9 50	-1				
LJUBLJANA	57.32	46.4	9 55	3				
PRUHONICE	57.97	41.8	9 54	-2				10 13
FLAMING GRGE	58.07	307.4	9 57	0				
TUCSON TELE.	59.07	297.4	10 5	1				
GLEN CANYON	59.67	302.7	9 55	-13				
SALT LAKE C.	59.93	307.1	10 12	2				
UPPSALA	61.76	31.1	10 20	-3				
HUNGRY HORSE	61.90	315.7	10 22	-1				
BOULDER CITY	62.31	301.7	10 26	0				
RESOLUTE	62.42	347.1	10 26	-1				
EUREKA	63.08	305.7	10 31	0				
UMEA	63.88	27.0	10 40	4				
KIRUNA	64.91	22.7	10 42	-1				
NORD	64.93	4.6	10 42	-1				
NURMIJARVI	65.34	31.0	10 45	-1				
WOODY	65.59	301.6	10 48	0				
SODANKYLA	67.14	23.7	10 55	-3				
MINERAL	67.36	306.9	10 58A	-1				
LICK	67.67	303.6	11 10A	9				
ISTANBUL KA.	67.75	52.3	11 0	-1				
KSARA	74.12	59.1	12 0	20				
LWIRO	76.79	96.7	11 55	0				
COLLEGE	78.64	334.7	12 4	-1				
BROKEN HILL	80.65	108.5	12 14	-2				
SHIRAZ	88.87	59.3	12 57	0				

MAY 5 13.H 43.M 16.S EPICENTRE -28.09-176.32 DEPTH= 0.KM

A=-0.88171 B=-0.05665 C=-0.46838 D=-0.0641 E= 0.9979
G= 0.4674 H= 0.0300 K=-0.8835 HT= 2.4

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.82	230.1	0	34	1	0	52	-5					
SUVA	11.00	332.9	2	37	-5	4	35	-12					
KARAPIRO	11.95	212.7	2	49	-5								
TONGARIRO	12.99	209.3	3	4	-4								
AFIAMALU	14.73	17.6	3	21	-10	5	50	-26					
WELLINGTON	15.05	206.7	3	38	3	6	6	-18					
NOUMEA	16.62	286.4	4	0A	4	7	11	11					
PORT VILA	17.49	302.9	4	7	0								
KAIMATA	17.50	211.5				7	22	1					
GEBBIES PASS	17.93	206.8	4	9	-3	7	12	-18					
KOUMAC	19.18	288.7	4	27	0								
BRISBANE	27.32	264.1	5	46	-2						6	26	
RIVERVIEW	28.40	250.2									6	49	PP
HONIARA	29.04	305.1	6	0	-4								
CANBERRA	30.26	247.4	6	14	-1						11	23	
FORT NELSON	32.79	233.5	6	36A	-1								
MELBOURNE	33.70	243.2									20	38	PP
CHARTERS TS.	34.97	274.8	6	54	-2						8	18	
ADELAIDE	38.67	248.2	7	26K	-1	13	20	-4			17	24	
PORT MORESBY	39.05	291.2	7	30	0						16	46	
CAPE HALLETT	44.87	185.8	8	19	1	15	3	7	8	48	10	5	PP
SCOTT BASE	50.45	184.6	9	3K	2	16	14	-1			10	11	PCP
KIPAPA	52.30	21.7	9	14	-1								
BYRD STATION	56.94	170.0	9	47	-2								
MUNDARING	57.69	248.3	9	51	-3								
WILKES	57.87	207.1				20	53	178			21	56	SS
SOUTH POLE	62.07	180.0	10	24	-1				10	45			
MIRNY	64.85	206.2	10	40	-3								
LEMBANG	74.53	270.5	11	21A	-21								
MAWSON	74.98	199.9	11	47	2				12	1			
DJAKARTA	75.52	270.7									14	20	
TUKUBASAN	76.00	324.9	11	48A	-3	21	34	0			26	40	SS
MATUSIRO	77.21	323.9	11	54A	-3	21	48	1			26	26	SS
PASADENA	82.82	45.2	12	30	3	22	44	-1			33	38	SSS
LICK	82.87	41.0	12	19A	-8								
BERKELEY	82.87	40.2	12	29	1	22	49	3					
FRESNO	83.56	42.4	12	30	-1								
PETROPAVLOVK	83.66	345.1	12	28	-4								
HONG KONG	83.70	299.2	12	32	0	22	56	2					
ZO-SE	83.73	310.1	12	31	-1	22	56	2					
SHASTA	84.77	38.1	12	37	0								
CANTON	84.77	299.5	12	38	1	23	5	0					
MINERAL	84.96	38.8	12	36A	-2								
VLADIVOSTOK	85.34	324.8	13	0	20								
RENO	85.41	40.3	12	45	5								
NANKING	85.94	309.6	12	41	-2	23	25	9			23	8	SKS
BOULDER CITY	86.10	45.6	12	44	0								
TUCSON	86.46	50.6	12	46	0								
TUCSON TELE.	86.58	50.6	12	47	1								
SANTA LUCIA	86.72	126.3	12	46	-1	23	15	-9			16	25	PP
EUREKA	87.61	42.3	12	49	-2				13	3			
GLEN CANYON	88.76	46.4	12	54	-3								
CHANGCHUN	89.30	322.0	12	57	-2	23	57	9					
MAGADAN	91.44	343.9	13	6	-3								
PEKING	92.32	314.8	13	12	-1	24	23	8			23	48	SKS
FLAMING GRGE	92.49	44.2	13	13	-1								
KUNMING	94.10	296.2	13	20	-1	24	40	10			23	58	SKS
HUNGRY HORSE	94.30	36.3	13	23	1								
COLLEGE	95.28	11.8	13	23	-4						17	21	PP
CHENGTU	95.80	301.6	13	28	-1	24	7	2			24	54	S
WICHITA MTS.	96.37	54.1	13	28	-4	24	11	3			26	4	PS
YAKUTSK	99.66	337.2									17	48	PP
CHITTAGONG	101.75	289.1									17	54	PP
COLOMBO	105.38	269.7									25	4	
TIKSI	106.42	344.3									18	34	PP
MADRAS	107.80	275.5									22	10	
RESOLUTE	114.61	16.8	18	39	-3						27	28	
HERMANUS	116.11	194.3									35	57	SS
BOMBAY	116.65	278.1									15	2	
KHEYS	123.12	350.8	18	56	-3								
QUETTA	125.33	288.6	19	3	0	26	5	-2			38	30	SS
SVERDLOVSK	131.00	322.4	19	26	12								

SHIRAZ	137.45	284.3	19	27	1	22	56	PKS
SODANKYLA	138.31	346.9	19	27	0			
KIRUNA	138.98	350.4	19	24	-4	22	16	PP
LWIRO	141.36	222.8	19	29	-4			
MAKHACH-KALA	141.80	304.7	19	31	-2			
UMEA	142.70	348.0	19	27	-8			
MOSCOW	143.21	328.2	19	31	-5			
PULKOVO	143.47	337.6	19	32	-4			
TIFLIS	143.98	303.2	19	35	-2			
SKALSTUGAN	144.07	353.5	19	35	-2			
NURMI JARVI	144.61	342.2	19	35	-3			
UPPSALA	146.84	347.1	19	41A	-1	42	6	SS
GOTEBORG	149.83	351.1	19	59	12			
SIMFEROPOL	150.54	313.0	19	53	5			
COPENHAGEN	151.71	349.5	19	56	6	21	33	
KSARA	151.87	289.8	19	50	0	23	42	PP
KISHINEV	152.72	320.6	19	58	7			
LWOW	153.30	329.9	20	0	8			
KRAKOW	154.81	334.9	20	19	25	38	29	SKSP
ISTANBUL KA.	155.51	308.5	19	55	0	23	55	PP
HELWAN	155.76	280.9				20	23	
COLLMBERG	155.77	345.6	20	5	10	24	9	PP
BUCHAREST	155.78	318.2	20	34	39	24	52	
JENA	156.42	347.4	20	6	10	24	23	PP
KEW	156.45	6.3	20	13	17	43	57	SS
PRUHONICE	156.61	342.1	20	6	10	23	58	PP
BENSBERG	157.01	354.3				20	32	*SPKP
BRATISLAVA	157.40	336.1	19	57	-1			
KASPERSKE H.	157.65	342.7				20	34	PKP2
SOFIA	158.41	317.6				20	34	
STUTTGART	158.90	349.7	19	57	-2			
STRASBOURG	159.30	352.3				20	36	*SPKP
LJUBLJANA	160.13	337.3	20	1	0	20	41	
TRIESTE	160.74	338.2				20	49	PKP2
TARANTO	163.34	321.3				21	47	
ROME	164.46	334.8				28	38	PPP
TOLEDO	166.61	26.5				44	45	SS
TORTOSA	167.03	10.8	20	23	16	24	50	PP
GRANADA	169.06	32.2				25	48	PP

MAY 6 16.H 4.M 43.S EPICENTRE 37.89 11.09 DEPTH= 79.KM

A= 0.77638 B= 0.15213 C= 0.61163 D= 0.1923 E=-0.9813
G= 0.6002 H= 0.1176 K=-0.7911 HT= -0.9

DEPTH OF FOCUS= 0.007R

SE= 3.19

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MESSINA	3.54	83.7	0	47	-7	1	25	-10			1	36	S*
REGGIO CALA.	3.61	85.3	0	52	-3						1	45	
ROME	4.14	14.6	0	58	-4	1	58	8			2	19	S*
FLORENCE X.	5.88	1.2	1	24	-2	2	42	9					
PRATO	5.98	0.1	1	36	9	3	31	56					
MONACO	6.45	335.7	1	33	-1								
ISOLA	6.98	335.4	1	38	-3	2	56	-4					
PAVIA	7.42	349.4									5	36	
PADOVA	7.53	4.2	1	49	0						4	1	
TRIESTE	8.00	13.5	1	53	-2	3	32	7			4	40	SGSGSG
LJUBLJANA	8.54	16.3	2	1A	-2	3	37	-1			2	9	PP
TORTOSA	8.71	292.9	2	9	4								
ALICANTE	9.13	276.4	2	4	-7	3	47	-6			2	12	PP
BAGNERES	9.80	305.2	2	14	-6								
CLERMONT-FD.	9.86	325.5	2	19	-2	5	6	56					
BELGRADE	9.86	42.5									2	44	
BASLE	9.97	346.1	2	27	5								
ATHENS	9.98	85.7	2	2	-20						2	22	PPP
TUBINGEN	10.73	352.8	2	31	-1								
ALMERIA	10.84	268.6	2	33	-1	4	37	3					
STRASBOURG	10.95	348.3	2	34	-1						2	56	
STUTTGART	10.95	353.7	2	33	-2								
GARCHY	11.08	330.4	2	34	-3						3	25	
KASPERSKE H.	11.38	8.3	2	40	-1						3	10	
HEIDELBERG	11.63	352.3	2	43	-1								

GRANADA	11.68	271.0	2	57A	12	5	7	13				
TOLEDO	11.96	284.2	2	42	-7						2	53 PP
PRUHONICE	12.33	10.5	2	52K	-2						6	10
PARIS	12.57	333.0	3	54	57						4	53
JENA	13.04	1.4	3	1	-2	5	42	15			3	11 PP
BUCHAREST	13.05	55.3									6	39
BENSBERG	13.36	349.2	3	8	1							
COLLMBERG	13.47	5.2	3	8K	-1	5	39	2			3	18 PP
HALLE	13.62	2.3	3	9	-2	5	46	6				
KRAKOW	13.70	24.7	3	20	8							
FOLINIERE	13.73	326.0	3	10	-2							
LWOW	15.11	33.8									7	56
COIMBRA	15.34	284.7	3	32K	-1							
KEW	15.78	332.9	3	36	-2							
HELWAN	18.59	109.5	4	10	-3						4	28
SIMFEROPOL	18.62	60.5	4	12	-1	7	52	17				
GOTEBORG	19.83	1.4	4	27	1							
KSARA	20.48	93.9	4	35	2							
JERUSALEM	20.70	99.9	4	35	0	8	20	3				
UPPSALA	22.37	8.7	4	51	-1							
NURMIJARVI	24.21	16.4	5	10K	0						5	38
PULKOVO	25.11	23.1	5	18	-1	9	52	17				
MOSCOW	25.21	36.4	5	19	-1							
SKALSTUGAN	25.73	1.2	5	23	-1							
UMEA	26.54	9.1	5	32	0							
KIRUNA	30.44	7.0	6	6	-1	11	5	4				
SODANKYLA	30.80	11.7	6	9K	-1							
TROMSOE	32.08	5.2	6	20	-1							
SHIRAZ	35.18	91.0	6	48	0	12	24	10				
SCORESBY SD.	36.97	342.3	7	4	1							
SVERDLOVSK	37.52	43.4									5	48
NORD	44.93	354.4	8	4	-4							
KHEYS	46.22	9.6	8	20	1	15	13	15				
QUETTA	46.34	82.2	8	20	1							
SEMIPALATNSK	49.45	51.9	8	44A	0							
HALIFAX	54.74	302.5	9	22K	-1							
RESOLUTE	57.88	342.4	9	45	-1							
SHILLONG	67.85	74.3	10	49A	-3							
COLLEGE	76.24	350.9	11	41	0				11	53		
LARAMIE	82.26	317.2	12	15	1							
WICHITA MTS.	82.68	308.6	12	16	0							
PENTICTON	82.83	330.0	12	19	2							
VICTORIA	84.94	331.6	12	28	1							
EUREKA	88.95	321.8	12	48	1							
RENO	90.73	324.2	12	57	2							
MINERAL	90.89	325.8	12	57A	1							
LA PAZ	91.75	250.5	13	7	7							
SOUTH POLE	127.71	180.0	18	56	0							
CANBERRA	146.32	98.7	19	33	3							

MAY 6 19.H 38.M 2.S EPICENTRE -1.47 -15.53 DEPTH= 0.KM

A= 0.96319 B=-0.26759 C=-0.02552 D=-0.2677 E=-0.9635
G=-0.0246 H= 0.0068 K=-0.9997 HT= 7.2

SE= 3.14

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
MBOUR	15.81	354.9	3	46	0	6	48	6					
LOME	18.34	65.6	4	14	-3								
WINDHOEK	38.01	126.0	7	22	0								
GRANADA	40.02	14.9	7	44A	6	13	53	8			9	50	PP
ALICANTE	41.99	17.8	7	59	5	14	21	7			9	53	PCP
TOLEDO	42.47	13.1	7	59	1	14	22	1			9	35	PP
LWIRO	44.31	91.7	8	14	1								
TORTOSA	44.55	17.4	8	22	7								
BROKEN HILL	45.33	108.9	8	21K	-1								
HERMANUS	46.11	139.2				15	18	4					
BAGNERES	46.53	15.8	8	35	4								
BULAWAYO	46.93	116.4	8	33K	-1								
KIMBERLEY	47.03	129.1	8	34A	-1								
MESSINA	48.79	32.7	8	50	1								
ISOLA	49.73	21.2	8	56	0						9	27	
CLERMONT-FD.	49.85	17.0	8	57	0	16	16	9					
ROME	50.06	27.2	8	59	0	16	15	5			10	57	PP
FLORENCE X.	51.03	24.8	9	4	-2	16	31	8					

GARCHY	51.21	16.2	9	12	5				9	43
PARIS	52.46	14.9	9	17	0					
PADOVA	52.62	24.1							10	28
BASLE	52.82	19.5	9	17	-2					
ATHENS	53.40	38.5	9	11K	-13					
TRIESTE	53.60	25.2	9	24	-1	17	5	7		
TITOGRAD	53.79	31.6							16	58
STRASBOURG	53.80	19.0	9	25	-2	16	58	-3	10	5
LA PAZ	53.87	250.7	9	31	4	17	12	10		
LJUBLJANA	54.24	25.4	9	29A	-1				10	6
KEW	54.30	11.7	9	31	1	17	7	-1		
STUTTGART	54.46	19.9	9	30	-2	17	9	-1		
HELWAN	54.47	51.1	9	34	2	17	26	16		
HEIDELBERG	54.82	19.2	9	33	-1					
BENSBERG	55.70	17.2	9	40	-1					
BELGRADE	56.09	30.2	9	44K	1				13	22 PPP
SOFIA	56.18	33.8	9	44	0				10	2
KASPERSKE H.	56.32	22.6	9	44K	-1				11	47
BRATISLAVA	57.00	25.5	9	45	-5					
JENA	57.09	20.1	9	48	-2	17	48	3	11	50 PP
PRUHONICE	57.38	22.6	9	50A	-3	17	54	5		
HALLE	57.69	20.0	9	50	-5				11	38
COLLMBERG	57.89	20.7	9	55	-1				12	6 PP
JERUSALEM	58.31	50.8	10	1	2	18	14	13		
FUQUENE	58.54	277.3	10	2	1					
ISTANBUL KA.	58.57	38.5	10	7	6	18	5	1	12	23 PP
BOGOTA	58.80	276.3	10	1	-2	18	13	6		
BUCHAREST	58.82	33.8	10	4	1	18	14	7	13	30 PP
KSARA	59.67	48.9	10	10	2	18	25	7	13	53 PPP
CHINCHINA	60.37	276.5	10	8	-5					
SANTA LUCIA	60.52	232.0							18	26
LWOW	61.33	28.0	10	19	-1					
KISHINEV	61.94	32.8	10	26	2					
SIMFEROPOL	63.79	37.1							13	29 PPP
UPPSALA	66.39	17.5	10	52	-1	19	41	-2		
SOTCHI	66.63	40.6	10	33	-22					
PALISADES	67.67	315.8							20	11 PS
SKALSTUGAN	68.11	13.0	11	3	-1					
NURMIJARVI	69.16	20.0	11	9	-1					
TIFLIS	69.29	44.1	10	11	-60					
UMEA	70.31	16.0	11	16	-1					
MOSCOW	71.45	28.5	11	24	0					
MAKHACH-KALA	71.61	43.6	11	22	-3					
SHIRAZ	71.77	58.2	11	25	-1	20	51	5	11	38
TEHERAN	72.30	51.8	11	29	0				14	10 PP
KAJAANI	72.71	18.4	11	32	0					
KIRUNA	73.53	13.4	11	37	0	21	4	-2		
TROMSOE	74.65	11.9	11	54	11					
SODANKYLA	74.74	15.6	11	43	-1					
FAYETTEVILLE	81.71	306.6	12	23	1					
NORD	83.01	359.8	12	32	3					
SVERDLOVSK	83.67	32.5	12	32	0					
QUETTA	84.23	59.6	12	37	2	22	58	-2		
WICHITA MTS.	85.13	304.8	12	38	-1	23	13	4		
STALINABAD	86.44	51.4	12	50	4				28	31 SS
TASHKENT	87.05	48.7	12	44	-5					
WARSAK DAM	88.39	56.1	12	59	4					
SOUTH POLE	88.54	180.0	12	59	3				14	12
RESOLUTE	88.60	344.8	12	57	1	23	52	10		
KHEYS	88.79	9.1	12	56	-1					
ANDIJAN	89.35	49.4	13	11	11					
LAHORE	90.64	58.6	13	3	-3					
BYRD STATION	90.98	189.7	13	8	1					
FLAMING GRGE	93.88	310.7	13	16	-5					
HUNGRY HORSE	96.75	318.4	13	37	3					
CHARTERS TS.	152.10	141.1	20	1	10				20	24

MAY 6 22.H 33.M 0.S EPICENTRE 6.18 126.25 DEPTH= 167.KM

A=-0.58797 B= 0.80178 C= 0.10696 D= 0.8064 E= 0.5914
G=-0.0632 H= 0.0863 K=-0.9943 HT= 6.9

DEPTH OF FOCUS= 0.021R

SE= 3.03

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

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	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S	
BAGUIO CITY	11.59	331.8	2	40	-1	4	56	8					
GUAM	19.59	66.9	4	16	-1								
HONG KONG	19.82	325.1	4	21	1	7	54	5			8	18	PCP
CANTON	20.92	324.8	4	33	2	8	19	10					
LEMBANG	22.64	235.5	4	49A	2	8	49	10					
DJAKARTA	22.95	238.0	4	48	-2	8	28	-16					
ZO-SE	25.24	349.8	5	12	0	9	34	11					
PORT MORESBY	25.95	126.4	5	17	-2	9	31	-4					
NANKING	26.68	345.8	5	26	1	9	54	8					
MEDAN	27.59	265.9	5	33K	-1	10	6	5					
RABAUL	27.86	111.1	5	36	0								
KUNMING	29.35	312.5	6	0	11								
CHENGTU	32.08	322.1	6	24	11								
MATUSIRO	32.14	18.3	6	11	-3	11	14	1			9	1	PCP
SIAN	32.21	332.4	6	17	3	11	25	11					
CHARTERS TS.	32.69	143.5	6	17	-2	11	28	7					
PEKING	34.90	346.4	6	38	1	12	3	8					
LANCHOW	36.15	328.4	6	47	-1								
VLADIVOSTOK	37.12	6.9	6	6	-50								
SHILLONG	38.09	304.2	7	3	-1								
MUNDARING	39.13	193.6	7	11	-2								
BRISBANE	42.09	143.7	7	38K	1	13	49	6					
CHATRA	42.47	303.4	7	44	4								
ADELAIDE	42.58	164.8	7	41A	0								
ULAN-BATOR	44.75	341.5	7	59	1	14	20	-2					
CANBERRA	46.51	154.2	8	13	1								
IRKUTSK	49.37	342.4	8	35	1	15	37	10					
DEHRA DUN	51.19	304.2	8	38	-10	15	55	3					
TARRALEAH	51.65	160.9	8	53A	1				9	11			
MOORLANDS	52.01	160.4	8	56	2								
FORT NELSON	52.50	160.5	8	58A	0								
BOMBAY	53.47	288.9	9	6	1	16	29	6					
LAHORE	54.61	304.5	9	9	-4								
YAKUTSK	55.78	2.0	9	21	-1	17	1	7					
WARSAK DAM	57.53	306.5	9	25	-9								
QUETTA	60.46	301.1	9	53	-1	17	56	2	10	17	12	10	PP
STALINABAD	60.96	310.9	9	56	-2	18	6	5					
TASHKENT	61.41	314.0	10	15	14								
KARAPIRO	63.42	137.9	10	14	0								
TONGARIRO	64.11	139.1	10	20	1								
CHATEAU	64.11	139.1	10	19	0								
TIKSI	65.39	0.9	10	26	-1	19	5	9					
MACQUARIE I.	66.35	159.9	10	34	1								
SHIRAZ	72.84	299.0	11	10K	-2	20	31	8	11	22	21	9	SP
TIFLIS	79.54	311.2	11	49	-1								
KHEYS	80.44	351.1	11	55	0	21	54	9					
COLLEGE	82.71	25.4	12	5	-1				12	34	15	5	PP
MOSCOW	84.16	325.4	12	14	0	22	30	7					
MAWSON	85.87	200.1	12	23	1								
SCOTT BASE	86.81	172.1	12	28	1								
KSARA	86.91	303.5	12	29	2				13	1	13	15	*SP
JERUSALEM	87.66	301.5	12	32	1								
PULKOVO	87.69	329.8	12	32	1								
SODANKYLA	88.03	337.6	12	32K	0								
KAJAANI	88.21	334.2	12	32K	-1								
TROMSOE	90.20	340.5	12	44	1						13	15	
KIRUNA	90.23	338.6	12	42	-1	23	24	4	13	5	23	4	SKS
NURMIJARVI	90.34	331.0	12	43	0								
NORD	90.62	354.9	12	44	-1								
UMEA	91.48	334.8	12	48	-1								
UPPSALA	93.90	331.3	12	59	-1	23	23	-29					
SKALSTUGAN	94.88	335.8	13	7	3				13	29			
RESOLUTE	95.51	10.1	13	7	0								
SOUTH POLE	96.14	180.0	13	11	1				13	40	17	19	PP
PRUHONICE	98.96	322.6	13	25	2						13	55	
COLLMBERG	99.39	324.2	13	26	1				13	51	14	18	
HALLE	99.92	324.7	12	39	-48								
BYRD STATION	100.17	170.7	13	31	3						17	41	PP
HUNGRY HORSE	104.42	36.7	13	49	2								
EUREKA	106.91	45.7	14	1	777						18	51	PP
FLAMING GRGE	110.81	42.0	18	4	-9								
WICHITA MTS.	121.34	42.9	18	37	4						28	36	PKKP
SHAWINIGAN	124.84	15.9	18	44	4								
BREBEUF	125.56	17.1	18	44	2								
SAN JUAN	152.71	26.4	19	41	12								
HUANCAYO	157.91	106.8	20	17	41								
LA PAZ	162.58	127.3	19	49	8								

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MAY 6 23.H 13.M 24.S EPICENTRE -17.31 167.95 DEPTH= 8.KM

A=-0.93424 B= 0.19946 C=-0.29565 D= 0.2088 E= 0.9780
G= 0.2891 H=-0.0617 K=-0.9553 HT= 5.3

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	0.55	140.0	0 12K	-2				
KOUMAC	4.75	226.4	1 9K	-4	2 2	-8		
NOUMEA	5.16	195.6	1 15	-4	2 14	-6		
SUVA	10.02	96.4	2 56	29	4 46	25		
HONIARA	11.04	314.2	2 41	0				
BRISBANE	17.23	231.7	3 59	-3	7 15	2		
RAOUL ISLAND	17.58	135.1	4 3	-4				
AFIAMALU	19.81	83.0	4 32K	-2				
RABAUL	20.22	308.3	4 39	1				16 12
CHARTERS TS.	20.73	258.9	4 42K	-1	8 34	4		
KARAPIRO	21.60	163.5	4 51	-1				
PORT MORESBY	21.69	288.6	4 50	-3	8 55	7		
RIVERVIEW	22.32	219.3	4 56	-3	9 5	5	5 13	5 30 PP
CHATEAU	22.80	164.6	5 4A	0				
COBB RIVER	24.05	171.1	5 19	3				
WELLINGTON	24.60	167.6	5 20	-2				
CANBERRA	24.63	219.6	5 20	-2	9 32	-8	5 48	
GEBBIES PASS	26.61	172.4	5 38	-2				
MOORLANDS	30.68	210.9	6 19	2			6 35	
TARRALEAH	30.94	211.9	6 21	2				
FORT NELSON	30.97	210.1	6 26	6				
ADELAIDE	31.42	230.3	6 22K	-2				9 15 PCP
MACQUARIE I.	37.77	188.6	7 16	-2				
MUNDARING	48.81	242.5	8 45	-2				
HONOLULU	50.79	42.2	9 11	8				
KIPAPA	50.93	42.2	9 3	-1				
CAPE HALLETT	55.02	179.2	9 32K	-2	17 18	3		19 16 SCS
MANILA	56.10	301.7	9 43	1	17 23	-6		
LEMBANG	59.70	272.2	10 6K	-1				11 10
ABUYAMA	60.32	329.5	10 9A	-2				
MATUSIRO	60.48	332.7	10 10A	-2	18 25	-1		
SCOTT BASE	60.58	180.3	10 11K	-2			10 21	10 28 *SP
HONG KONG	65.72	305.0	10 47	0				13 39 *PPP
ZO-SE	65.84	316.8	10 46	-2	19 34	0		
CANTON	66.78	305.2	10 54	0	19 55	10		
Y.-SAKHLINSK	67.94	341.7	11 0	-1	20 0	1		
NANKING	68.03	316.1	11 0	-2				
MIRNY	68.27	204.6	11 0	-3				
VLADIVOSTOK	68.64	332.4	11 4	-2				
BYRD STATION	70.05	169.8	10 48	-26			11 10	
CHANGCHUN	72.27	329.0	11 25A	-3	20 49	-1		
SOUTH POLE	72.80	180.0	11 29	-2			11 51	
PEKING	74.67	321.3	11 40	-2	21 17	0		
SIAN	76.02	313.0	11 49A	0	21 28	-4		
KUNMING	76.21	302.1	11 50A	0	21 35	1		
CHENGTU	77.78	307.6	11 58	-1	21 50	-1		
MAGADAN	77.85	351.2	11 56	-3				
MAWSON	79.75	202.1	12 9K	-1	22 12	0		12 16 PCP
LANCHOW	80.52	312.3	12 14A	0				
YAKUTSK	84.65	343.0	12 34	-1				
ULAN-BATOR	84.70	323.8	12 35	-1				
BERKELEY	85.39	48.2	12 36	-3				
LICK	85.60	48.9	12 40K	0				
SHASTA	86.54	45.6	12 44	-1				
FRESNO	86.70	50.0	12 44	-1				
PASADENA	86.86	52.9	12 44	-2				24 30 PS
MINERAL	86.93	46.2	12 44A	-3				
LHASA	87.54	301.9	12 50	1	23 36	7		16 22 PP
RENO	87.83	47.5	12 50A	-1				
COLLEGE	88.57	17.3	12 50	-4				
VICTORIA	89.39	38.3	12 56	-2				
BOULDER CITY	90.09	52.3	13 0	-2				
EUREKA	90.54	48.7	13 2	-2				16 57 PP
MADRAS	91.71	283.0			23 39	-31		
TUCSON	91.92	56.9	13 10	0				
TUCSON TELE.	92.04	56.9	13 10	-1				

TIKSI	92.59	348.5	13	10	-3	24	11	-4			
HUNGRY HORSE	95.05	40.9	14	35	71						
FLAMING GRGE	95.77	49.1	13	26	-2				17	3	PP
BOMBAY	100.14	286.7				24	26	-1			
WICHITA MTS.	102.42	57.3	14	18	20				18	1	PP
STALINABAD	107.64	305.7							19	28	
RESOLUTE	108.46	16.1	18	24	777				28	16	
SVERDLOVSK	113.78	325.0	18	37	-2						
SHIRAZ	120.17	294.6	18	50K	-1	25	45	-3	20	46	PP
PALISADES	122.29	52.1							37	59	PKPPKP
SHAWINIGAN	122.44	45.5	19	1	5						
SODANKYLA	124.14	343.0	18	58	-1						
TROMSOE	124.30	347.4	18	57	-4						
KIRUNA	125.41	345.5	19	0	-2						
TIFLIS	125.95	309.3	19	3	0						
MOSCOW	126.40	327.6	19	2	-2						
SCORESBY SD.	126.50	4.1	19	4	0						
PULKOVO	127.74	334.5	19	5	-1						
UMEA	128.55	342.4	19	4	-4						
BROKEN HILL	129.06	234.2	19	9A	0						
NURMIJARVI	129.48	337.5	19	9	0				22	30	PKS
SKALSTUGAN	130.83	345.9	19	14	2						
UPPSALA	132.39	340.2							22	39	PKS
SIMFEROPOL	132.68	315.8	19	16	0						
KSARA	134.16	300.5	19	20	2				21	55	PP
LWOW	136.50	326.3	19	22	-1				20	6	
ISTANBUL KA.	137.53	312.6	19	24	0				22	23	PP
HELWAN	138.55	295.7	19	25	-1				22	29	PP
COLLMBERG	140.66	335.2	19	28	-2				23	22	PKS
PRUHONICE	141.01	332.6	19	25	-6				22	46	PP
JENA	141.51	335.9	19	31	-1						
KASPERSKE H.	142.06	332.5	19	29	-4				22	40	PP
BENSBERG	143.08	339.7	19	30	-4						
LJUBLJANA	143.82	328.1	19	33A	-3				21	38	
HEIDELBERG	143.84	336.9	19	32	-4						
STUTTGART	144.14	335.7	19	34	-2						
KARLSRUHE	144.28	336.8	19	35	-1						
TUBINGEN	144.41	335.7	19	35	-2						
TRIESTE	144.49	328.3	19	36	-1				22	50	PP
EBINGEN	144.73	335.4	19	36	-1						
RAVENSBURG	144.79	334.4	19	36	-1						
STRASBOURG	144.87	337.0	19	38	1				20	33	
PADOVA	145.59	329.6	19	41	2				20	4	
BASLE	145.81	336.1	19	40A	1				21	36	
PARIS	146.42	342.5	19	48	8						
NEUCHATEL	146.49	336.2	19	42	2						
BESANCON	146.64	337.4	19	41	1						
PAVIA	147.02	331.9							42	42	
FLORENCE X.	147.07	328.2	19	18	-23				23	11	PP
GARCHY	147.61	340.6	19	44	2						
ROME	147.73	324.5	19	33	-9				22	43	PP
MESSINA	148.11	316.3	19	44	1						
ISOLA	148.74	333.0	19	48A	4	19	57				
CLERMONT-FD.	148.93	339.2	19	49	5						
MONACO	148.93	332.1	19	48	4						
BAGNERES	152.30	340.5	19	55	6						
TOLEDO	156.46	344.4							20	6	PKP2

MAY 7 0.H 25.M 38.S EPICENTRE -6.11 154.47 DEPTH= 64.KM

A=-0.89729 B= 0.42859 C=-0.10575 D= 0.4310 E= 0.9023
G= 0.0954 H=-0.0456 K=-0.9944 HT= 6.9

DEPTH OF FOCUS= 0.005R

SE= 2.00

	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
RABAUL	2.97	309.6	0	47	1						9	32
HONIARA	6.35	121.6	1	33	0	2	30	-15				
PORT MORESBY	7.95	245.3	1	54	-1	3	24	-1				
CHARTERS TS.	16.02	209.1	3	43	0	6	49	11				
KOUMAC	17.23	147.4	3	58A	0	7	9	3				
PORT VILA	17.79	131.7	4	5A	0	7	17	-1				
NOUMEA	19.82	145.5	4	27A	-1	8	5	3				
BRISBANE	21.22	184.2	4	43	1	8	35	6				

GUAM	21.71	333.6	4	47	0	8	22	-16			
RIVERVIEW	27.75	185.9	5	44A	-1	10	13	-8	6	6	
CANBERRA	29.50	189.1	6	1	1	10	52	3	7	9	PP
ADELAIDE	32.18	204.7	6	24K	0	11	31	0	9	10	PCP
AFIAMALU	34.09	105.7	7	8	28	12	9	8			
RAOUL ISLAND	34.77	134.7	6	38	-8						
TARRALEAH	36.73	190.0	7	4A	1				7	42	*SP
MOORLANDS	36.75	189.0	7	4A	1				9	25	PCP
KARAPIRO	37.01	151.8	7	6K	1				9	25	PCP
FORT NELSON	37.20	188.7	7	7A	0						
TONGARIRO	38.04	153.1	7	13	-1						
CHATEAU	38.04	153.0	7	14	0						
MANILA	39.02	302.2	7	23	1	13	23	7			
BAGUIO CITY	40.31	304.2	7	33	0	13	32	-3			
ROXBURGH	41.29	164.1				12	56	-54			
SIOMISAKI	43.16	336.9							19	37	PP
TAWU	43.36	311.8	8	0	2						
HWALIEN	43.82	314.2	8	7	6						
MUNDARING	44.00	229.3	8	2	-1						
TUKUBASAN	44.21	343.3	8	2A	-2	14	35	2	9	50	
MATUSIRO	45.08	341.4	8	10A	-1	14	41	-4			
LEMBANG	46.54	266.4	8	23	0						
DJAKARTA	47.35	267.2	8	27	-2				15	22	
MACQUARIE I.	48.38	176.5	8	37	0						
HONG KONG	48.51	306.9	8	40A	2	15	38	4			
ZO-SE	48.80	321.3	8	40A	-1	15	38	0			
CANTON	49.57	307.3	8	48A	1	15	55	7			
NANKING	50.96	320.4	8	57A	0	16	11	3			
VLADIVOSTOK	53.11	339.4	9	10	-3						
Y.-SAKHLINSK	53.91	350.1	9	17	-2				17	25	
KIPAPA	54.03	58.1	9	24	4						
CHANGCHUN	56.26	334.9	9	33A	-3						
MEDAN	56.53	278.3	9	36A	-2	17	38	15			
PEKING	57.90	325.8	9	46A	-2	17	45	4			
SIAN	58.83	316.3	9	55A	1						
PETROPAVLOVK	59.01	2.9	9	51	-4	17	52	-3	13	43	PPP
KUNMING	59.09	304.0	9	58A	2	18	1	5			
CHENGTU	60.54	310.3				18	18	3			
LANCHOW	63.31	315.5	10	25A	1	18	53	3			
MAGADAN	65.52	357.9	10	37	-2	19	15	-2			
CAPE HALLETT	66.84	174.8	10	48K	1	19	38	5	11	16	PCP
WILKES	67.31	197.7	10	44	-6	19	30	-9	13	22	PP
ULAN-BATOR	68.10	327.6	10	55A	0	19	52	4			
SHILLONG	68.41	300.4	10	57	0	19	54	2	20	32	PS
LHASA	70.41	304.3	11	12	3	20	21	5	13	52	PP
SCOTT BASE	71.99	177.3	11	19K	0						
IRKUTSK	72.05	330.3	11	18A	-1	20	34	-1			
CHATRA	72.82	300.4	11	27	3	20	49	6			
BOKARO	73.22	297.0	11	40A	14	21	9	21	14	29	PP
COLOMBO	75.55	278.7	11	40	1	21	19	5			
MADRAS	76.18	284.9	11	42	-1	21	25	4	22	9	PS
TIKSI	79.39	352.0				21	51	-4	15	11	PP
DEHRA DUN	81.44	301.8	12	13	1	22	19	3	15	20	PP
COLLEGE	82.46	21.4	12	14	-3				15	41	PP
POONA	83.09	289.4	12	20A	0	22	34	1	28	7	SS
BYRD STATION	83.33	169.9	12	19	-2				15	35	PP
SOUTH POLE	83.93	180.0	12	25	1				12	54	
BOMBAY	84.11	289.7	12	25	0	22	44	1	24	4	PPS
LAHORE	84.82	302.4	12	26	-3	22	42	-8			
MAWSON	85.00	202.6	12	31	1	22	53	1	24	12	PS
FRUNSE	86.72	313.5	12	38	0	23	12	3	22	59	SKS
WARSAK DAM	87.54	304.4	12	43	1						
KHOROG	88.10	307.8				23	24	2			
BERKELEY	88.42	51.8	12	47	1				24	36	
SHASTA	88.76	49.0	12	48	0						
LICK	88.83	52.4	12	50A	2				16	25	
VINEYARD	88.95	53.0	12	50	1						
MINERAL	89.30	49.5	12	50	0						
FRESNO	90.21	53.2	12	55	0						
TASHKENT	90.39	311.4	12	55	0	23	49	6			16 37 PP
RENO	90.56	50.5	12	57A	1						
QUETTA	90.89	300.1	12	58	0	23	49	2	13	24	16 42 PP
PASADENA	91.21	56.0	13	1A	2	23	22	-28			25 10 PS
PENTICTON	91.92	40.8	13	2	-1						
EUREKA	93.50	50.8	13	11	1						16 57 PP
BOULDER CITY	94.11	54.4	13	14	1						
HUNGRY HORSE	95.52	42.1	12	41	-38	23	2	-46			23 32
KHEYS	97.04	350.5									17 21 PP

TUCSON	97.19	58.3	13 32	5				17 35	PP
TUCSON TELE.	97.29	58.3	13 29	2					
BOZEMAN	97.46	44.8	13 28	0					
ASHKABAD	98.54	307.4	13 32	-1	24	9	5	17 32	PP
FLAMING GRGE	98.61	49.6	13 32	-1				14 45	
RESOLUTE	101.25	14.7	13 43	-2					
RAPID CITY	103.08	46.3			23	54	-32		
WICHITA MTS.	107.38	55.7	14 16	777				18 32	PP
TACUBAYA	107.39	71.7						19 22	
GORIS	107.85	309.4						18 41	PP
TIFLIS	108.70	311.9						18 55	PP
MOSCOW	109.95	327.5						18 58	PP
VERA CRUZ	110.29	71.9						38 54	SSS
KIRUNA	111.11	343.0						19 13	PP
SOTCHI	112.04	314.6						19 15	PP
NURMIJARVI	114.01	335.4	18 34	2					
SIMFEROPOL	115.55	317.2						19 40	PP
KSARA	117.05	304.8						19 50	PP
UPPSALA	117.22	337.1						19 53	PP
JERUSALEM	117.98	302.7	18 41	2				19 59	PP
KISHINEV	118.27	320.9						19 57	
PRETORIA	119.02	236.2	18 43	2					
LWOW	119.89	325.3						20 11	PP
WARSAW	120.26	328.9						20 6	PP
ISTANBUL KA.	120.31	314.4						20 12	PP
KIMBERLEY	120.46	231.6	18 46	2					
BULAWAYO	120.74	242.4	18 47A	2					
BUCHAREST	121.07	319.0						19 58	
HERMANUS	121.61	223.1						30 9	PS
HELWAN	121.64	301.3	19 11	24				30 12	
SANTA LUCIA	121.93	135.7						37 26	SS
COPENHAGEN	122.08	335.7						20 22	PP
BROKEN HILL	122.68	248.6	18 51A	2					
SHAWINIGAN	122.85	37.1	18 50	1					
PALISADES	124.68	43.5						20 39	PP
COLLMBERG	124.80	331.6	18 55	2				20 43	PP
PRUHONICE	124.89	329.6	18 53	0				20 56	PP
HALLE	125.16	332.3	18 54	1				25 24	PP
JENA	125.71	331.9	18 55	1				20 55	PP
WESTON	125.79	40.9						38 7	SS
KASPERSKE H.	125.91	329.2	18 56	1				21 6	PP
HUANCAYO	127.30	110.1	19 2	5					
LJUBLJANA	127.30	325.7	18 59	2				20 59	PP
TRIESTE	127.97	325.7						21 2	PP
STUTTGART	128.44	331.3	18 58	-1					
PADOVA	129.16	326.5						22 54	
WINDHOEK	129.49	234.2	19 4	2				21 53	
CHINCHINA	130.15	88.7	19 6A	3					
KEW	130.18	339.6	18 53	-10				32 21	PKS
ROME	130.94	322.5						22 29	PKS
MESSINA	130.97	316.7						21 25	
PARIS	131.27	335.6						22 28	
BOGOTA	131.66	89.3	19 12	6				21 45	PP
FUQUENE	132.06	88.1	19 9A	2				21 33	PP
GARCHY	132.21	333.9	19 40	33				22 30	
SAN JUAN	138.61	69.1	19 14	-5				22 36	PP
TOLEDO	141.22	333.3	19 28	5	19	56		42 19	SS
DOMINICA	143.64	72.5	19 28	0					
GRENADA	143.80	78.0	19 25	-3					
ST. VINCENT	144.11	76.0	19 26	-2					
TRINIDAD	144.25	80.3	19 28	-1					
BARBADOS	145.73	75.7	19 33	2					

MAY 7 4.H 32.M 12.S EPICENTRE -8.62 111.22 DEPTH= 56.KM

A=-0.35796 B= 0.92179 C=-0.14889 D= 0.9322 E= 0.3620
G= 0.0539 H=-0.1388 K=-0.9889 HT= 6.7

DEPTH OF FOCUS= 0.004R

SE= 1.44

	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
LEMBANG	3.99	296.2	1	1K	1							
DJAKARTA	4.99	298.8	1	14A	0						1	44
MEDAN	17.42	313.6	3	57	-3						9	47

MUNDARING	23.69	169.4	5	5	-2							
MANILA	25.12	23.0	5	23	2	9	17	-22				
HONG KONG	30.86	5.3	6	14	1	10	48	-23			7	31
CANTON	31.58	3.7	6	20	1	11	28	5				
KUNMING	34.54	346.4	6	47	2	12	15	6				
PORT MORESBY	35.48	94.1	6	54	1	12	20	-3			12	48
CHARTERS TS.	35.72	112.5	6	55A	0	12	27	0				
CHITTAGONG	36.19	328.6	6	59	0	12	32	-2			8	35 PP
ADELAIDE	36.36	140.2	7	OK	0	12	30	-7				
MADRAS	37.58	304.5	7	8	-2	12	54	-1			8	54 PPP
TOCKLAI	38.61	336.1	5	37	-102							
SHILLONG	38.85	331.5	7	20A	-1	13	15	0				
CHENGTU	39.66	350.2	7	28	0	13	28	1				
ZO-SE	40.63	13.2	7	38A	2	13	45	4				
NANKING	41.09	9.8	7	42A	3	13	51	3				
MELBOURNE	42.10	139.0	7	49	1							
CHATRA	42.26	327.2	7	49	0						17	47
SIAN	42.69	357.2	7	54A	1							
LHASA	42.71	333.7	7	55	2	14	14	2			9	46 PP
BRISBANE	43.44	120.9	8	2	3	14	28	6				
CANBERRA	43.54	133.3	8	OK	0						9	48 PCP
RIVERVIEW	44.46	130.3	8	6A	-1	14	29	-8			8	32
LANCHOW	44.97	351.5	8	11A	0							
TARRALEAH	45.65	143.2	8	17K	1						9	55 PCP
POONA	45.69	306.4	8	16	-1	14	52	-3				
MOORLANDS	46.17	142.9	8	20	-1							
FORT NELSON	46.55	143.4	8	23K	-1							
BOMBAY	46.71	306.1	8	23	-2	15	7	-2			15	30 PPS
HONIARA	48.10	94.9	8	36	0							
PEKING	48.62	5.1	8	40A	0	15	35	-1				
DEHRA DUN	50.14	321.9	9	22	31	15	53	-4			19	8 SS
MATUSIRO	51.58	27.8	9	1A	-1	16	12	-5	9	29	10	16 PCP
TUKUBASAN	52.22	29.6	9	4A	-3						10	18
KOUMAC	52.49	109.2	7	54	-75						9	59
CHANGCHUN	53.74	12.6	9	16A	-2	16	44	-3				
KARACHI	54.40	308.8	9	26A	3							
VLADIVOSTOK	54.83	18.4	9	25	-1							
PORT VILA	56.15	105.5	8	16	-80						9	4
ULAN-BATOR	56.42	356.5	9	38	0	17	22	-1				
WARSAK DAM	56.67	320.6	9	39	-1							
QUETTA	57.41	314.2	9	43	-2	17	30	-6			11	54 PP
MIRNY	59.18	188.4	9	54	-3							
MACQUARIE I.	59.41	149.9	9	58	-1							
ANDIJAN	60.77	326.9	10	7	-1	18	19	0				
FRUNSE	61.11	329.9	10	10A	0	18	24	0				
NAMANGAN	61.31	326.7	10	11	-1	18	18	-8				
STALINABAD	61.35	322.9	10	10	-2	18	18	-9				
Y.-SAKHLINSK	62.08	23.9	10	16	-1	18	34	-2				
TANANARIVE	62.41	253.2	10	19A	0				10	59	16	47
TASHKENT	62.87	325.5	10	20	-2							
UGLEGORSK	63.51	22.1	10	27	1	18	53	-1				
KARAPIRO	64.53	127.9	10	33	0							
SEMIPALATNSK	64.65	338.6	10	33A	-1	19	7	-1				
MAWSON	67.08	198.1	10	49	0						11	8 PCP
SHIRAZ	68.05	306.7	10	55K	0	19	35	-14	11	7	13	17 PP
TEHERAN	71.48	312.1	11	16	0	20	9	-20				
YAKUTSK	71.88	9.1	11	18	-1	19	33	-61				
CAPE HALLETT	72.69	164.1	11	24K	1	20	53	10			25	39 SS
PETROPAVLOVK	73.41	27.7	11	28	0	20	51	0				
SCOTT BASE	74.69	169.6	11	35K	0	20	56	-9			11	46 PCP
MAGADAN	74.93	19.6	11	36	0	21	6	-2				
AFIAMALU	75.43	102.1	11	40	1							
SVERDLOVSK	77.25	334.2	11	49	-1	21	32	-1				
MAKHACH-KALA	77.28	317.6	11	49A	-1	21	31	-3				
TIFLIS	78.62	315.6	11	58	1	21	48	0				
PRETORIA	80.08	245.3	12	6	1							
BULAWAYO	80.19	251.0	12	7A	1							
BROKEN HILL	80.92	256.7	12	10A	1							
TIKSI	80.93	5.6	12	8	-1	22	3	-9				
SOUTH POLE	81.44	180.0	12	12	0				13	9	15	22 PP
LWIRO	82.18	268.9	12	18A	2							
KSARA	82.77	305.7	12	21A	2				12	42	15	26 PP
JERUSALEM	82.78	303.6	12	21A	2						15	33 PP
KIMBERLEY	82.81	242.0	12	20K	1							
HELWAN	85.59	300.9	12	34	1				13	3		
SIMFEROPOL	87.03	316.1	12	41	1	23	14	1				
BYRD STATION	87.85	172.2	12	45	1				13	16	16	16 PP
MOSCOW	87.98	327.1	12	45A	0	23	21	-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.

ISTANBUL KA.	89.73	311.5	12	52A	-1	23	40	2	13	7	16	22 PP
WINDHOEK	90.51	247.2	12	59K	2							
KISHINEV	91.09	317.3	12	59	0							
BUCHAREST	92.50	314.4	13	6A	0	23	32	-30			23	6 SKS
PULKOVO	92.83	330.0	13	8	1	23	57	-8				
KHEYS	92.85	352.4	13	7	0	23	56	-9				
ATHENS	93.28	307.7	13	9	0							
SOFIA	94.23	312.4	13	15	1							
LWOW	94.71	319.5	13	11	-5						23	46
KAJAANI	94.86	334.0	13	18A	1							
NURMIJARVI	95.74	330.2	13	20A	-1						16	40 PP
SODANKYLA	95.81	337.2	13	20A	-1							
UMEA	98.10	333.4	13	35A	4							
KIRUNA	98.22	337.5	13	31A	-1							
RACIBORZ	98.48	319.4				24	0	-5				
TARANTO	98.54	309.7									20	20 PPP
UPPSALA	99.20	329.3	13	36A	0							
MESSINA	99.71	307.3									16	23
LJUBLJANA	100.79	315.2	13	44A	0						14	6
PRUHONICE	100.83	319.2	13	44	0	24	8	-8			25	0 S
TRIESTE	101.32	314.8	17	49	243							
KASPERSKE H.	101.46	318.4	13	46	-1						16	47 PP
SKALSTUGAN	101.65	333.2	13	47A	0				14	5	17	59 PP
COLLMBERG	101.81	320.6	13	48	0						18	0
ROME	102.20	311.0				24	11	-12			22	28
COLLEGE	102.41	25.4	13	49	-2						29	51 PKKP
HALLE	102.46	320.8	13	52	1	25	25	61				
PADOVA	102.64	314.6									22	48
JENA	102.72	320.2	18	5	253						24	26
NORD	103.69	353.1	13	55A	-1							
ISOLA	106.12	313.4									18	17 PP
GARCHY	108.59	317.0	18	24	777						19	7
PARIS	108.76	318.6	18	35	777							
DURHAM	110.09	325.3				23	57	-61			18	48 PP
FOLINIERE	110.71	318.9									18	25 PP
THULE	112.23	359.9	18	29	0							
RESOLUTE	112.31	7.3	14	34	-235						18	30
CORVALLIS	120.95	42.7	18	49	3							
PENTICTON	121.41	36.5	18	50	3							
SHASTA	122.87	46.8	18	52	2							
MINERAL	123.55	46.9	18	52A	1							
BERKELEY	123.83	50.0	18	54	3							
LICK	124.45	50.4	18	56A	3						20	43
VINEYARD	124.82	51.0	18	56	3							
RENO	125.12	47.3	18	57K	3							
HUNGRY HORSE	125.12	35.4	18	56	2							
FRESNO	126.03	50.5	18	59	3							
BUTTE	127.17	37.2	19	1	3							
EUREKA	127.90	46.0	19	2	3						21	15 PP
PASADENA	128.09	53.1	19	3	3						21	22
BOZEMAN	128.26	36.9	19	3	3							
FLAMING GRGE	131.75	41.4	19	8	1						21	23 PP
GLEN CANYON	132.08	47.2	19	12	5						22	30 SKP
RAPID CITY	133.72	34.3	19	13	3							
TUCSON	134.53	52.8	19	13	1						22	40 SKP
TUCSON TELE.	134.58	52.6	19	5	-7						20	55
SHAWINIGAN	142.05	4.5	19	23	-3							
WICHITA MTS.	142.29	42.0	19	23	-3	26	18	-10			22	32 PP
OTTAWA	142.87	8.1	19	26	-1							
BREBEUF	143.02	5.7	19	27	0							
HALIFAX	143.86	353.7	19	28A	-1							
FAYETTEVILLE	144.17	36.4	19	29	0				19	56	22	39 PP
CLEVELAND	145.38	17.0	18	59	-32							
WESTON	146.30	3.4	19	34K	1						22	55 PP
PENNSYLVANIA	146.95	12.7	19	36	2							
PALISADES	147.42	7.2	19	37	2				19	55	23	1 PP
MORGANTOWN	147.54	16.2	19	38A	3							
WASHINGTON	148.94	12.6	19	41	4						23	12 PP
COLUMBIA	152.34	22.3	19	46	4							
LA PAZ	155.03	181.5	19	51	5							
HUANCAYO	158.46	162.3	19	56	6							
SAN JUAN	169.96	345.4	20	3	3						25	8 PP
CHINCHINA	172.30	117.6	20	5A	3						21	31 PKP2
TRINIDAD	172.45	286.1	20	6	4							
BOGOTA	173.41	126.8	20	9	7						25	40 PP
FUQUENE	174.17	122.2	20	5	2							
CARACAS	177.39	315.9	20	6	3						25	40 PP

MAY 7 10.H 22.M 54.S EPICENTRE 5.93 126.85 DEPTH= 149.KM

A=-0.59660 B= 0.79595 C= 0.10267 D= 0.8002 E= 0.5998
G=-0.0616 H= 0.0822 K=-0.9947 HT= 7.0

DEPTH OF FOCUS= 0.018R

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	10.37	327.3	2	26	1	4	43	23				
BAGUIO CITY	12.10	330.0	2	46	-2	4	50	-10				
HENGCHUN	17.03	340.3	4	2	12							
TAWU	17.31	341.2	3	57	4							
TAINAN	18.13	340.0	4	10	7							
HWALIEN	18.63	344.9	3	50	-18							
GUAM	19.14	65.7	4	14	0	8	6	28				
ILAN	19.36	345.9	4	24	8							
HONG KONG	20.37	324.3	4	26A	0							
CANTON	21.46	324.0	4	37	0	8	23	2				
LEMBANG	23.00	236.8	4	55	3	8	57	9				
DJAKARTA	23.33	239.3	4	50	-5	8	42	-11				
PORT MORESBY	25.32	126.8	5	21	7	10	41	74				
ZO-SE	25.60	348.7	5	16A	-1	9	32	1				
NANKING	27.07	344.8	5	31	1							
RABAUL	27.21	111.1	5	28	-3							
ABUYAMA	29.90	14.5	5	53	-2							
KUNMING	29.96	312.1	5	56	0	10	45	4				
CHARTERS TS.	32.14	144.1	6	13	-2	11	45	30				
MATUSIRO	32.19	17.3	6	12A	-4	11	19	3			7	26 PP
TUKUBASAN	32.50	20.2	6	12A	-6	11	43	22	6	22	13	18 SS
CHENGTU	32.65	321.7	6	18A	-1	11	21	-2				
SIAN	32.71	331.8	6	21A	1							
PEKING	35.28	345.7	6	44	2	12	8	4				
HONIARA	36.34	114.6	6	39	-12							
LANCHOW	36.67	327.9	6	54A	0							
TOCKLAI	36.91	307.7	5	17K	-99							
VLADIVOSTOK	37.30	6.1	6	58	-1							
CHITTAGONG	37.55	299.3				12	42	4	7	21	8	35 PP
CHANGCHUN	37.77	358.2	7	1A	-2	12	37	-5				
SHILLONG	38.72	304.1	7	9K	-2	13	5	9				
MUNDARING	39.03	194.4	7	12	-1							
CALCUTTA	40.62	297.9	7	56	30						16	18
LHASA	41.17	309.3	7	32	1	13	39	6				
BRISBANE	41.54	144.1	7	35	1	13	45	7				
ADELAIDE	42.19	165.4	7	39A	0	13	52	5			17	0 SS
CHATRA	43.10	303.4	7	46	-1	14	4	3			17	43 SSS
BOKARO	43.27	298.7	7	53A	5	14	14	11			9	52 PPP
UGLEGORSK	44.89	14.2	8	0A	-1							
ULAN-BATOR	45.18	341.1	8	2	-1	14	36	5				
RIVERVIEW	45.75	151.4	8	4K	-4	14	38	-1	8	29	14	59 PS
CANBERRA	46.03	154.6	8	10A	0	14	52	9			15	20 PS
MADRAS	46.51	282.2	8	13	-1	14	57	7			18	0 SS
HYDERABAD	48.62	287.9	8	48	18	15	52	33			10	45 PP
IRKUTSK	49.79	342.0	8	38A	-1							
TARRALEAH	51.22	161.4	8	50K	0						9	27 *SP
MOORLANDS	51.58	160.8	8	53K	0						9	29 *SP
DEHRA DUN	51.82	304.1	8	54	0	16	11	8			19	14
FORT NELSON	52.07	161.0	8	56K	0							
POONA	53.10	288.6	9	1	-3	16	21	0			18	46 SCS
PETROPAVLOVK	53.66	23.3	9	8	0							
BOMBAY	54.12	289.0	9	10	-1	16	39	5			10	9 PCP
YAKUTSK	56.01	1.6	9	23	-2							
MAGADAN	56.54	14.3	9	27	-2							
WARSAK DAM	58.16	306.5	9	35	-5							
FRUNSE	58.82	317.2	9	44	-1	17	45	9				
ANDIJAN	59.62	314.2	9	50	0	17	58	11				
KARACHI	60.18	295.1	9	54K	0						18	40 SS
NAMANGAN	60.19	314.2	9	54	0	18	6	12				
QUETTA	61.10	301.2	9	59K	-1	18	11	6	10	17	19	41 SCS
STALINABAD	61.58	310.8	10	3	0	18	19	8				
TASHKENT	62.01	313.9	10	5	-1	18	23	6				
KARAPIRO	62.84	138.1	10	11	-1						10	37
AFIAMALU	64.00	108.5	10	25	6							
TIKSI	65.63	0.7	9	26K	-64							
MACQUARIE I.	65.91	160.2	10	32	0						11	17

SVERDLOVSK	72.17	328.1	11	10	0	20	24	6						
SHIRAZ	73.48	299.0	11	17A	-1	20	38	5	11	55	13	44	PP	
HONOLULU	73.95	69.6	11	23	3				11	43				
KIPAPA	74.03	69.5	11	23	2				11	41				
TEHERAN	74.76	305.3	11	11	-14	20	35	-12						
MIRNY	76.32	193.3	11	33	-1									
MAKHACH-KALA	78.19	312.5	11	45A	1	21	30	5						
TIFLIS	80.15	311.2	11	57	2	21	44	-1						
KHEYS	80.78	351.1	11	59	1	21	59	7						
TANANARIVE	81.85	250.0	12	4A	0						13	48		
COLLEGE	82.68	25.4	12	9	1	22	24	13	12	33	15	42	PP	
CAPE HALLETT	82.92	167.8	12	10K	1	22	33	20			28	15	SS	
MOSCOW	84.70	325.4	12	18A	0	22	35	4						
MAWSON	85.84	200.2				22	43	1			12	24	PCP	
SCOTT BASE	86.48	172.2	12	28K	1				12	54	28	48	SS	
KSARA	87.55	303.6	12	33	1	23	4	6	12	56	16	2	PP	
SIMFEROPOL	87.79	314.8	12	34A	1	23	8	7						
PULKOVO	88.21	329.8	12	35	0	23	11	7						
JERUSALEM	88.30	301.6	12	38	3	23	21	16						
SODANKYLA	88.49	337.6	12	36K	0	23	18	11						
KAJAANI	88.70	334.3	12	38K	1	23	18	9			23	1	SKS	
KIRUNA	90.67	338.6	12	46	0	23	36	9	13	8	23	11	SKS	
NURMIJARVI	90.84	331.1	12	48K	1	23	37	9			13	21		
NORD	90.92	355.0	12	46	-2									
KISHINEV	91.15	317.3	12	49	0				13	13				
UMEA	91.96	334.8	12	49	-3						13	22		
IASI	91.97	317.7	12	57	5									
ISTANBUL KA.	91.99	311.4	12	52	-1	23	44	6	13	16	17	2	PP	
ISTANBUL UN.	92.05	311.4	12	54	1									
FOCSANI	92.50	316.2				24	9	26						
BUCHAREST	93.52	315.1	13	1A	1	23	30	-22	13	33				
LWOW	93.71	320.7	13	2	2	24	4	11						
UPPSALA	94.40	331.4	13	3	-1	24	3	4	13	32				
SKALSTUGAN	95.35	335.9	13	8	0				13	32				
RESOLUTE	95.64	10.2	13	9	0									
SOUTH POLE	95.89	180.0	13	12	2				13	34				
KRAKOW	96.21	321.7	13	13	1						23	41		
SKALNATE PL.	96.26	320.8	13	13	1									
ATHENS	96.65	309.2	13	13K	-1									
RACIBORZ	97.26	322.0	13	18	1									
THULE	97.30	3.6	13	16	-1									
BELGRADE	97.34	316.5	13	18K	1	24	32	53			13	52		
GOTEBORG	97.93	330.5	13	18	-2									
LWIRO	98.24	268.6	17	14	233									
COPENHAGEN	98.52	328.6				24	22	37						
VIENNA-H.	98.99	320.7	13	26A	2						13	51		
PRUHONICE	99.52	322.7	13	29A	2	25	2	72						
BROKEN HILL	99.55	256.4	13	28	1									
BULAWAYO	99.74	250.6	13	28A	0									
CORVALLIS	99.76	43.0	13	34	6									
BYRD STATION	99.82	170.7	13	30	2				13	52	17	11		
COLLMBERG	99.94	324.3	13	30A	1	24	37	45	13	45	16	51	PP	
KASPERSKE H.	100.41	322.2	16	33	182						18	18		
HALLE	100.47	324.8	13	31	0	25	47	113						
PENTICTON	100.50	37.6	13	33	2									
JENA	100.91	324.4	13	35	2	24	36	40			17	46	PP	
SCORESBY SD.	100.91	349.8									24	49	SKKS	
LJUBLJANA	100.93	319.0	13	34A	1				14	8	17	44	PP	
TRIESTE	101.57	318.8	13	41	5	24	12	12	14	13	17	17	PP	
SHASTA	101.62	46.5	13	38	2									
MESSINA	102.80	311.2									18	0		
PADOVA	102.89	319.1									17	46		
STUTTGART	103.16	323.0	13	46	3	25	23	76			18	2	PP	
LICK	103.22	49.6	13	45A	2						17	37		
KIMBERLEY	103.40	242.0	13	45	1									
BENSBERG	103.41	325.6	13	47	3						14	18		
ROME	103.78	315.6	17	37	231	25	29	79			18	32	PP	
RENO	103.86	47.0									18	36		
FLORENCE X.	103.92	317.7	17	38	232									
HUNGRY HORSE	104.26	37.0	13	50	2				14	9	29	31	PKKP	
FRESNO	104.79	49.7									17	30		
BUTTE	106.20	38.7	14	1	777						17	27	PKP	
EUREKA	106.66	45.9	14	1	777						18	40	PP	
PASADENA	106.92	51.8	13	10	777						18	28	PP	
KEW	107.21	328.5									29	54	SS	
GARCHY	107.54	323.6	18	13	777						19	33		
FLAMING GRGE	110.60	42.3	18	18	4						14	18	P	
GLEN CANYON	110.82	46.9									29	18	PKKP	
TUCSON	113.33	51.2	19	32	72						29	16	PKKP	

TUCSON TELE.	113.38	51.1								29	14	PKKP
TOLEDO	115.83	319.7								35	47	SS
WICHITA MTS.	121.11	43.3	18	38	3	25	36	18		20	7	PP
FAYETTEVILLE	123.19	39.5	18	42	3					20	48	PP
ST. LOUIS 1	123.89	34.7	18	43	3							
SHAWINIGAN	124.91	16.4	18	45	3							
OTTAWA	125.05	19.3	18	44	2							
BREBEUF	125.62	17.6	18	46	3							
PENNSYLVANIA	128.25	23.8							19 20	22	46	
MORGANTOWN	128.35	26.4	18	52K	3					22	10	PKS
HALIFAX	128.81	9.6	18	53A	3							
WESTON	129.15	17.3	18	52	2					22	12	PP
PALISADES	129.55	20.4	18	54	3	26	21	38		20	45	PP
WASHINGTON	130.19	24.5	19	15	23					22	50	PP
COLUMBIA	132.32	31.7	19	1	5							
SANTA LUCIA	148.17	151.5	19	26	1					23	25	
BALBOA HTS.	149.80	60.9	19	35	8							
SAN JUAN	152.66	27.7	19	36	5							
ST. KITTS	155.01	22.1	19	54	20							
CHINCHINA	155.08	64.7	19	40A	6					34	20	PSKS
FUQUENE	156.54	61.5	19	43	7							
BOGOTA	156.63	63.8	19	49	13	26	41	15		34	30	PSKS
HUANCAYO	157.27	107.1	19	45	8					20	41	PKP2
DOMINICA	157.37	21.1	20	14	38							
TRINIDAD	161.59	26.5	19	48	6							
LA PAZ	161.95	126.8	19	49	7					24	38	PP

MAY 7 12.H 14.M 20.S EPICENTRE 34.96 134.40 DEPTH= 37.KM

A=-0.57460 B= 0.58685 C= 0.57047 D= 0.7145 E= 0.6996
G=-0.3991 H= 0.4076 K=-0.8213 HT= 0.1

DEPTH OF FOCUS= 0.001R

SE= 3.60

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HIMEJI	0.46	179.5	0	4	-7	0	7	-12				
OKAYAMA	0.48	234.2	0	9K	-2	0	18	-2				
TOTTORI	0.57	342.1	0	7A	-5	0	13	-9				
TOYOOKA	0.66	31.5	0	7A	-6	0	15	-9				
TAKAMATU	0.70	204.0	0	13A	-1	0	24	-1				
KOBE	0.71	113.5	0	9A	-5	0	18	-7				
SUMOTO	0.75	145.6	0	12A	-3	0	23	-3				
MAIZURU	0.96	57.9	0	14	-3	0	25	-5				
ABUYAMA	0.97	95.2	0	13	-4							
WAKAYAMA	0.97	138.7	0	14A	-3	0	15	-15				
OSAKA	0.98	108.3	0	14A	-3	0	27	-3				
KYOTO	1.10	86.7	0	15K	-4	0	28	-5				
MATSUE	1.19	294.4	0	21	1	0	37	2				
NARA	1.21	103.1	0	18K	-3	0	33	-3				
SAIGO	1.51	325.1	0	17	-8	0	36	-7				
TSURUGA	1.53	63.0	0	22K	-3	0	41	-3				
HIKONE	1.55	78.1	0	22	-3	0	42	-3				
KOTI	1.58	207.2	0	27K	1	0	47	2				
KAMEYAMA	1.71	93.2	0	26K	-2	0	47	-2				
MUROTO	1.72	186.0	0	27K	-1	0	49	0				
HIROSIMA	1.73	250.5	0	28K	0	0	52	3				
OWASE	1.74	120.4	0	25A	-3	0	48	-1				
MATUYAMA	1.74	230.4	0	29K	1	0	52	3				
TU	1.77	98.0	0	28	0	0	49	-1				
HUKUI	1.85	53.6	0	26K	-4	0	50	-2			2	0
SIOMISAKI	1.89	142.6	0	28A	-2	0	56	3				
HAMADA	1.91	268.7	0	31K	1	0	59	5				
GIHU	1.99	76.7	0	29K	-3	0	53	-3				
NAGOYA	2.12	83.7	0	31K	-2	0	57	-2				
UWAZIMA	2.31	222.0	0	35	-1	1	10	6				
SIMIDU	2.48	209.0	0	39	0	1	16	8				
TAKAYAMA	2.61	62.2	0	38	-2	1	13	2				
TOYAMA	2.86	52.0	0	46	2	1	25	7				
IIDA	2.87	77.9	0	41	-3	1	20	2				
OOITA	2.88	233.9	0	45K	1	1	29	11				
SIMONOSEKI	3.04	251.5	0	46K	0	1	24	2				
WAZIMA	3.15	39.3	0	51	3							
OMAESAKI	3.17	95.5	0	48	0	1	35	10				

MATUMOTO	3.18	65.2	0	50	1	1	34	8			
SHIZUOKA	3.29	88.8	0	47	-3	1	37	9			
ASOSAN	3.45	234.3	0	54	2	1	50	18			
KOHU	3.48	77.1	0	52	-1	1	30	-3			
MATUSIRO	3.48	62.0	0	50K	-3	1	42	9			
NAGANO	3.53	60.1	0	55	2	1	48	13			
HUKUOKA	3.60	248.6	0	54K	0	1	38	2			
HUNATU	3.62	80.3	0	56	1	1	26	-11			
OIWAKE	3.65	66.9	0	55	0	1	47	9			
MISIMA	3.74	86.3	0	55	-1	1	48	8			
KUMAMOTO	3.74	236.2	0	57K	0	2	0	20			
TAKADA	3.78	54.6	0	54	-3	1	42	1			
SAGA	3.80	244.4	0	59A	2	2	3	21			
AJIRO	3.86	87.4	0	52	-6	1	51	8			
MIYAZAKI	3.92	220.2	1	6	7	2	4	19			
TITIBU	3.96	73.8	0	59	0	1	56	11			
MAEBASI	4.07	68.0	1	2K	1	2	1	13			
OSIMA	4.10	91.3	1	1	-1	1	43	-6			
UNZENDAKE	4.11	238.3	1	10A	8	2	3	14			
KUMAGAYA	4.23	72.3	1	3A	0	2	7	15			
ITUHARA	4.29	261.2	1	3K	-1	1	57	3			
YOKOHAMA	4.33	82.3	1	9	4	2	10	15			
AIKAWA	4.35	44.4	1	28	23	2	7	12			
NAGASAKI	4.37	240.6	1	6K	1	2	15	19			
TOKYO C.M.O.	4.44	79.2	1	9	3	2	11	14			
HONGO	4.46	78.9	1	11	4				2	0	
MERA	4.46	89.0	1	15	8						
KAGOSIMA	4.67	224.6	1	28K	18	2	30	27	1	52	
UTUNOMIYA	4.72	68.9	1	8	-2	2	22	17			
NIIGATA	4.77	50.5	1	23	12	2	20	14	2	41	
TUKUBASAN	4.81	73.3	1	8K	-4	2	21	14	1	16	*SP
HATIDYOZIMA	4.85	111.0							1	37	
KAKIOKA	4.88	73.3	1	11	-2	2	22	13			
MITO	5.14	72.3	1	15	-1	2	32	17			
SHIRAKAWA	5.19	63.8	1	18	1						
TOMIE	5.23	245.1	1	22	4	2	36	18			
TYOSI	5.33	80.0	1	30	11	2	35	15			
YAKUSIMA	5.57	217.2	1	22	0	3	2	36			
HUKUSIMA	5.63	58.7	1	22	-1						
ONAHAMA	5.64	67.5	1	31	8	2	45	17			
YAMAGATA	5.80	53.9	1	24	-2						
SAKATA	5.86	46.3	1	39	13						
SENDAI	6.18	55.9	1	28	-3	2	41	0			
ISINOMAKI	6.55	56.1	1	35A	-1	2	48	-2			
MIZUSAWA	6.80	50.4	1	48	8	3	49	52			
MORIOKA	7.17	46.8	1	46	1	3	11	5			
MIYAKO	7.63	50.0	1	49	-2	3	17	0			
AOMORI	7.72	38.9	1	57	5	3	27	7			
VLADIVOSTOK	8.37	347.4	1	57	-4						
MORI	8.61	32.3	2	13	8						
SUTTSU	9.05	28.4							4	3	
URAKAWA	9.72	40.0	2	21	1						
SAPPORO	9.73	31.7	2	27	7	4	11	2			
OBIHIRO	10.49	38.1	2	44	13						
CHANGCHUN	11.30	324.3	2	47A	5						
ZO-SE	11.74	254.5	2	48K	0	5	5	7			
NANKING	13.35	261.9	3	9	0						
Y.-SAKHLINSK	13.57	25.0	3	10	-2	5	46	4			
PEKING	15.32	294.6	3	35K	0	6	33	9			
SIAN	20.97	275.4	4	53	11						
HONG KONG	21.73	239.9	4	51	2	8	58	15			
CANTON	21.84	242.8	4	53	2	8	56	11			
ULAN-BATOR	24.19	310.7	5	12	-2						
LANCHOW	24.86	281.4	5	18	-2						
PETROPAVLOVK	24.91	36.1	5	12	-9	9	46	7			
CHENGTU	25.84	269.0	5	29	0						
IRKUTSK	27.52	318.2	5	40	-5	10	26	4			
KUNMING	29.00	258.9	5	57	-1						
LHASA	36.81	274.1	7	10	4						
TIKSI	36.35	357.1	7	3	-3	12	53	5	8	30	PP
SHILLONG	37.67	267.5	7	11K	-2						
CHATRA	41.02	272.0	7	41	0						
FRUNSE	46.33	298.5	8	22	-2						
TASHKENT	50.54	297.7	8	57	1						
SVERDLOVSK	52.93	318.6	9	12	-2						
KHEYS	53.52	348.6				16	42	-5	11	20	PP
COLLEGE	53.84	31.1	9	19	-2						
POONA	55.71	269.5	9	33K	-2						

CHARTERS TS.	55.90	166.5	9	34	-2		
QUETTA	56.07	285.5	9	36	-1		
NORD	62.71	355.4	10	20	-3		
SODANKYLA	64.59	335.9	10	33A	-2		
MOSCOW	65.44	321.9	10	38	-3	19 20	-1
TEHERAN	65.60	297.5	10	24	-18		
KAJAANI	65.87	332.5	10	42	-2		
RESOLUTE	65.95	12.8	10	42	-2		
KIRUNA	66.35	337.8	10	45	-2		
GORIS	67.49	303.2	10	52	-2		
TIFLIS	67.51	305.9	10	53	-1	19 49	3
SHIRAZ	67.55	291.2	10	52A	-2	19 50	3
UMEA	68.77	334.3	10	59	-3		
NURMIJARVI	68.99	330.1	11	1A	-2		
SKALSTUGAN	71.65	336.5	11	20	1		
UPPSALA	72.20	331.7	11	20	-3		
SIMFEROPOL	72.68	313.0	11	24	-1		
CORVALLIS	74.10	46.6	11	37	3		
KISHINEV	74.62	316.9	11	34	-3		
IASI	75.22	317.5	11	41	1		
LWOW	75.55	321.2	11	41	-1		
SHASTA	76.83	49.5	11	52	3		
HUNGRY HORSE	77.08	39.5	11	52	1		
MINERAL	77.53	49.4	11	58A	5		
BUCHAREST	77.69	315.9	11	52K	-2		
BERKELEY	78.54	51.8	12	4	5		
RENO	79.11	49.3	12	8	6		
JERUSALEM	79.20	301.1	12	4	2		
LICK	79.25	51.9	12	19	16		
BUTTE	79.33	40.7	12	8	5		
COLLMBERG	79.90	327.0	12	5A	-1		
PRUHONICE	80.11	325.4	12	7	0	15 14	PP
HALLE	80.22	327.6	12	8	0	12 13	PCP
FRESNO	80.77	51.5	12	24	13		
JENA	80.79	327.4	12	10	-1	12 52	
KASPERSKE H.	81.15	325.2	12	13	0	12 34	
EUREKA	81.51	47.5	12	12	-3	12 32	
BENSBERG	82.66	329.5	12	22	1		
LJUBLJANA	82.85	322.5	12	21A	-1		
HELWAN	83.03	301.5	12	21	-2		
STUTTGART	83.38	327.0	12	24	0		
TRIESTE	83.52	322.6	12	31	6		
FLAMING GRGE	84.41	43.1	12	22	-8		
BOULDER CITY	84.41	49.6	12	9	-21		
PARIS	86.25	330.5	12	38	-1		
GARCHY	87.22	329.2	12	42	-1	12 50	PCP
WICHITA MTS.	94.81	41.3	13	37	18		
SOUTH POLE	124.78	180.0	18	34	-22		
BYRD STATION	126.97	167.9	19	2	2		

MAY 7 15.H 40.M 49.S EPICENTRE 71.68 -7.62 DEPTH= 0.KM

A= 0.31349 B=-0.04196 C= 0.94866 D=-0.1327 E=-0.9912
G= 0.9403 H=-0.1258 K=-0.3163 HT=-12.2

SE= 5.04

	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
SCORESBY SD.	4.81	262.4	1	12	-4	2	14	1				
SIDA	8.85	211.5	2	12	0							
NORD	10.17	352.5	2	31	1	4	26	-1				
KIRUNA	10.38	98.0	2	29	-4	4	25	-7				
SKALSTUGAN	11.04	127.3	2	35	-7	4	30	-18				
BERGEN	12.43	149.0	2	52	-9	5	2	-20				
SODANKYLA	12.60	93.1	3	0	-3							
UMEA	13.03	113.1	2	59	-10	5	19	-17			5	49
ABERDEEN	14.75	168.1				6	2	-15			6	25 SS
KAJAANI	15.09	102.4	3	39	3	6	10	-15				
UPPSALA	15.57	126.6	3	35	-7	6	21	-15			6	54
GOTEBORG	16.20	139.8	3	51	0							
THULE	16.58	313.8	3	38	-18						4	2
KHEYS	16.83	31.1	4	7	8	7	20	14				
NURMIJARVI	16.92	114.8	3	55	-5	6	50	-18				
COPENHAGEN	18.18	141.5	4	20	4							
PULKOVO	19.18	108.8	4	26	-2							

BENSBERG	21.84	154.3	4 51	-5					5 42	
HALLE	22.05	146.2	4 54	-4	9	1	5			
COLLMBERG	22.44	144.6	4 57A	-5	9	2	-2		5 24	PP
JENA	22.55	147.1	4 59	-4	8	59	-7		5 20	PP
FOLINIERE	23.22	168.0							6 4	
WARSAW	23.26	131.7			9	21	2		12 30	PCS
RESOLUTE	23.29	317.8	5 13	3						
PARIS	23.42	163.0	5 6	-6					5 47	
HEIDELBERG	23.58	152.6	5 10	-3						
PRUHONICE	24.00	143.2	5 13	-4	9	28	-4			
STRASBOURG	24.25	154.6	5 31	11					6 1	
STUTTGART	24.28	152.1	5 16	-4	9	57	20			
KASPERSKE H.	24.63	145.3	5 20A	-3						
RACIBORZ	24.64	137.7	5 34	11						
MOSCOW	24.74	106.2	5 23	-1	9	49	4			
GARCHY	24.99	162.6	5 11	-16					6 11	PP
KRAKOW	25.04	135.2	5 24	-3	9	58	8			
BASLE	25.25	155.4	5 29	0						
BESANCON	25.33	158.0	5 29	-1						
SKALNATE PL.	25.93	135.4	5 30	-6						
LWOW	26.21	129.7	5 34	-4	10	14	5			
BRATISLAVA	26.22	140.7	5 36	-2						
LJUBLJANA	27.77	145.7	5 49	-4					6 39	PP
PADOVA	27.95	149.9							6 51	
TRIESTE	28.03	147.0							6 42	PP
BAGNERES	28.94	168.2	6 1	-2						
FLORENCE X.	29.44	151.5	6 26	18	12	2	61			
IASI	29.52	127.1	6 20	12					12 33	SS
KISHINEV	30.01	125.6	6 11	-2	11	10	-1			
SVERDLOVSK	31.03	82.1	6 22	0						
ROME	31.47	150.6	6 36	10	11	31	-2	6 58	16 38	
BUCHAREST	31.77	130.9	6 23	-5					12 39	SS
SIMFEROPOL	33.33	120.6			12	5	3			
TIKSI	34.21	22.8	6 54	5	12	28	12			
ISTANBUL KA.	35.65	129.2	6 54	-8	12	34	-4			
MAKHACH-KALA	39.01	106.9							9 53	
TIFLIS	39.34	110.6	7 33	0	13	44	9			
COLLEGE	41.06	335.4	7 49	2					9 36	PCP
YAKUTSK	43.38	27.7	8 9	3						
KSARA	44.23	124.8							8 51	
PALISADES	44.24	263.3							14 58	
TEHERAN	46.83	107.0	8 17	-17	15	10	-14			
WASHINGTON	47.16	265.1	8 35	-1						
TASHKENT	47.32	86.4	8 41	4	15	35	4			
NAMANGAN	48.38	84.4	8 53	7						
ANDIJAN	48.81	83.9	8 52	3						
STALINABAD	49.66	88.4	8 22	-33						
HUNGRY HORSE	49.67	302.9	8 58	2						
BUTTE	51.42	300.5	9 7	-2						
ULAN-BATOR	52.15	50.8	9 19	5						
SHIRAZ	52.84	108.7	9 17	-3					11 57	PP
QUETTA	56.81	94.1	9 47	-2	17	49	8			
WICHITA MTS.	57.76	283.2	9 59	4						
LAHORE	57.88	86.5	9 56	0						
EUREKA	58.42	300.4	9 56	-4						
DEHRA DUN	60.19	83.6							18 31	
SHILLONG	68.89	72.7	11 10	1						
MAWSON	146.69	138.9	19 42	0						
SOUTH POLE	161.56	180.0	20 47	45						
BYRD STATION	162.69	212.9	19 42	-22						

MAY 8 19.H 23.M 39.S EPICENTRE -24.65 -70.53 DEPTH= 51.KM

A= 0.30332 B=-0.85785 C=-0.41483 D=-0.9428 E=-0.3334
G=-0.1383 H= 0.3911 K=-0.9099 HT= 3.5

DEPTH OF FOCUS= 0.003R

SE= 2.56

	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
ANTOFAGASTA	0.96	5.9	0	17	-1							
COPIAPO	2.69	176.6	0	38	-4	1	9	-5				
SANTA LUCIA	8.75	180.6	2	9	2	3	57	12				
HUANCAYO	13.34	339.2	3	16	7	5	43	7				
BOGOTA	29.30	352.8	6	1A	1	10	53	5				

CHINCHINA	29.86	349.8	6	3A	-2	11	1	4				
FUQUENE	30.10	353.6	6	7A	0	11	17	16				
BALBOA HTS.	34.55	344.1	6	46	0	12	20	10				
CARACAS	35.12	6.2	6	49A	-2	12	17	-2				
TRINIDAD	36.20	15.3									18	48
ST. KITTS	42.43	11.1	7	54	2							
VERA CRUZ	50.22	327.9				16	23	23			10	1 PCP
TACUBAYA	51.93	324.9	9	6K	0	16	22	-2			11	8 PP
COLUMBIA	59.18	349.8	9	56	-2	17	59	-1				
WASHINGTON	63.52	354.3	10	26	-2	19	11	16				
FAYETTEVILLE	64.42	338.9	10	32A	-1	18	44	-23	10	47	12	46 PP
MORGANTOWN	64.55	352.0	10	33K	-1	19	11	3				
WICHITA MTS.	64.77	334.6	10	34	-2	19	11	0			12	54 PP
MBOUR	65.08	59.3	10	39	1	19	30	15				
PALISADES	65.40	357.2	10	38	-2	19	0	-19			14	30 PPP
PENNSYLVANIA	65.47	353.9	10	37	-3	19	25	6				
SOUTH POLE	65.49	180.0	10	40	0				10	52		
CLEVELAND	66.58	351.0	10	46K	-1							
WESTON	66.70	359.4	10	46A	-2	19	36	2			11	16 PCP
TUCSON	68.43	323.9	10	59	0	20	1	6				
TUCSON TELE.	68.44	324.0	10	59	0							
HALIFAX	69.23	5.3	11	4A	0							
BREBEUF	69.87	357.7	10	37	-31							
OTTAWA	69.88	356.1	11	7	-1							
SHAWINIGAN	70.89	358.4	11	14A	0							
GLEN CANYON	72.48	326.5	11	32	9							
BOULDER CITY	73.41	323.8	11	27	-2							
PASADENA	73.94	320.4	11	32	0	21	7	8			26	9 SS
FLAMING GRGE	74.57	330.4	11	35	-1							
RAPID CITY	74.67	336.2	11	36	0							
CAPE HALLETT	74.99	196.0	11	38	0	21	15	5			26	6 SS
HERMANUS	76.31	121.7				21	41	16			26	35 SS
EUREKA	76.62	325.5	11	48	1							
FRESNO	76.73	321.3	11	48	0							
LICK	78.19	320.7	11	57A	1							
RENO	78.70	323.3	12	1	2							
WINDHOEK	78.86	109.7	12	1	1							
BERKELEY	78.91	320.7	12	0	0	22	0	7				
BOZEMAN	79.09	332.4	12	2	1	21	59	4				
BUTTE	80.02	331.7	11	56	-10	22	9	4				
MINERAL	80.25	322.9	12	8K	1							
UKIAH	80.32	321.1	11	45	-22							
SHASTA	80.92	322.7	12	10	-1							
HUNGRY HORSE	82.46	332.4	12	18	-1	22	33	3				
KIMBERLEY	82.84	118.2	12	20	-1							
CORVALLIS	84.08	325.1	12	29K	2							
TOLEDO	89.17	44.9	12	53	1	23	54	20			14	11
WILKES	89.29	180.4									23	23
BULAWAYO	89.64	111.9	12	54A	0							
ALICANTE	90.70	47.7	13	18	19	24	9	21				
BROKEN HILL	92.01	106.8	13	8	3							
KARAPIRO	92.18	226.3	13	7	1							
BAGNERES	93.53	43.9	13	13	1							
GARCHY	97.40	41.2									15	50
KEW	97.52	36.4									17	10 PP
LWIRO	97.54	95.9	13	33	3						17	28
RESOLUTE	100.34	353.6	13	43	0							
STRASBOURG	100.81	41.5									17	46
FLORENCE X.	101.05	46.9	17	33	227	24	6	-13				
ROME	101.15	49.0	17	34	228	24	27	7			17	59 PP
LJUBLJANA	104.06	45.7									18	13 PP
KASPERSKE H.	104.56	42.5									18	27
COLLMBERG	104.98	40.2									18	3
PRUHONICE	105.45	41.9									18	14 PP
COPENHAGEN	106.19	35.8									27	54 PS
COLLEGE	106.84	334.2	14	19	777						19	33 PP
UPPSALA	110.08	32.5									28	30 PS
LWOW	111.28	43.9									19	9
HELWAN	111.59	66.1	18	36	7						21	39
ISTANBUL KA.	112.72	53.9				25	31	21			19	16 PP
KIRUNA	112.93	24.3									29	3 PS
BRISBANE	113.51	221.7									17	19
JERUSALEM	115.32	65.1	18	34	-2						19	38 PP
KSARA	116.35	63.0									19	42 PP
SIMFEROPOL	117.09	50.5									21	41
KHEYS	120.15	8.5	18	47	1							
MOSCOW	120.16	38.4									19	53 PP
HONIARA	120.25	241.8									18	2 PP

SOTCHI	120.92	52.6							22	40
TIFLIS	124.50	55.2							20	34
MAKHACH-KALA	126.55	53.8	18	59	1					
TEHERAN	129.24	63.1	19	5	2				21	11 PP
SHIRAZ	129.50	71.0	19	5K	1	26	1 -13		21	13 PP
TIKSI	131.72	351.9	19	7	-1					
SVERDLOVSK	132.51	34.2	19	11	2					
PETROPAVLOVK	133.62	320.8							17	49
YAKUTSK	140.21	345.2	19	24	0					
QUETTA	142.02	72.0	19	25	-2			19 44	22	45 PP
TASHKENT	142.79	53.5	19	25	-3					
STALINABAD	142.97	58.1	19	28	0					
NAMANGAN	144.62	53.3	19	34	3					
UGLEGORSK	144.74	322.1	19	32	1					
ANDIJAN	145.19	53.4	19	35	3					
Y.-SAKHLINSK	145.40	318.6	19	34	1					
SEMIPALATNSK	145.79	33.8	19	35	2					
WARSAK DAM	145.81	65.3	19	34	1					
FRUNSE	146.13	49.0	19	37	3					
POONA	146.39	93.4	19	38K	4					
LEMBANG	148.65	176.5	19	44A	6					
TUKUBASAN	151.30	300.9	19	41	-1				42	56 SS
IRKUTSK	152.15	6.8	19	45	2					
MATUSIRO	152.68	302.5	19	52	8				23	33 PP
ULAN-BATOR	156.69	4.4	19	51	2					
PEKING	163.67	341.4	19	59	2				24	35 PP
SHILLONG	164.03	83.0	19	59	2					
LANCHOW	167.65	21.9	20	4	4					
ZO-SE	167.82	304.4	20	3A	3				24	57 PP
NANKING	168.98	314.1	20	3	2				25	4 PP
SIAN	170.43	2.8	20	5	3				25	9 PP
CHENGTU	172.30	37.8	20	6	3				25	18 PP
KUNMING	173.87	84.3	20	7	3				25	31 PP
HONG KONG	175.09	242.4	20	7	3				32	23
CANTON	176.13	247.0	20	8	4				25	42 PP

MAY 11 8.H 38.M 28.S EPICENTRE -37.27 -73.17 DEPTH= 40.KM

A= 0.23097 B=-0.76360 C=-0.60297 D=-0.9572 E=-0.2895
G=-0.1746 H= 0.5771 K=-0.7978 HT= -0.7

DEPTH OF FOCUS= 0.001R

SE= 3.05

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CONCEPCION	1.00	64.3	0	14	-4	0	24	-8					
SANTA LUCIA	4.34	29.2	1	8	2						2	12	
COPIAPO	10.17	14.3	3	5	38	5	4	43					
ANTOFAGASTA	13.73	10.7	3	14	0	6	42	55					
PORT STANLEY	18.04	148.0	4	10	1	8	5	39					
LA PAZ	21.16	13.5	4	48	4	8	52	20					
HUANCAYO	25.19	355.0	5	27	3						10	4	PPP
BOGOTA	41.68	358.7	7	50A	3	14	9	9			13	34	
CHINCHINA	42.08	356.4	7	52A	2	14	13	7					
FUQUENE	42.52	359.2	7	54A	1	14	18	5					
BYRD STATION	46.39	190.0	8	24	-1				8	50	10	33	*PPP
GALERAZAMBA	47.83	357.2				15	41	12			16	17	PS
CARACAS	47.87	8.3	8	37	1	15	32	3					
TRINIDAD	48.93	15.4	8	46	2								
GRENADA	50.22	14.6	8	56	2								
ST. VINCENT	51.40	14.9	9	3	0								
SOUTH POLE	52.92	180.0	9	14	-1				9	41	10	20	PCP
ST. KITTS	55.20	12.2	9	30	-1								
SAN JUAN	55.75	7.9	9	34	-1								
COMITAN	56.15	337.9				17	32	9					
SCOTT BASE	59.70	192.3	10	2K	-1	18	7	-2			10	45	PCP
TACUBAYA	61.47	331.9	10	18	3						17	3	
CAPE HALLETT	62.30	198.0	10	19K	-2	18	33	-9			10	56	PCP
MAWSON	70.32	163.6	11	11A	-1	20	22	3			11	36	PCP
COLUMBIA	71.28	353.1	11	17	0	20	32	1					
CHIHUAHUA	72.46	329.9									19	32	
MBOUR	73.67	57.1	11	35	4	21	25	27					
WICHITA MTS.	75.42	338.6	11	41	-1	21	24	7			14	44	PP
FAYETTEVILLE	75.55	342.5	11	42A	0				11	58			
WASHINGTON	75.88	356.9	11	39	-5								

MIRNY	75.96	174.3	11	42	-3					
MORGANTOWN	76.78	354.6	11	50K	1					
ST. LOUIS 1	77.16	346.4	11	51	0	21	39	3		
GRAHAMSTOWN	77.49	122.3	12	2	9					
TUCSON	77.59	328.0	11	55	1				12	40
TUCSON TELE.	77.62	328.1	11	55	1					
PENNSYLVANIA	77.81	356.4	11	54	-1	21	48	5	14	54 PP
PALISADES	77.90	359.4	11	55	-1	21	50	6	14	51 PP
LAWRENCE	78.54	342.6	11	58	-1					
CLEVELAND	78.74	353.6				21	59	6		
KIMBERLEY	78.95	117.6	12	2K	1					
WESTON	79.29	1.4	12	4A	1	22	4	5	15	5 PP
CHATEAU	81.11	227.1	12	21	8					
LUANDA	81.86	94.9	12	19A	2					
KARAPIRO	81.95	228.1	12	24	7					
HALIFAX	81.97	6.9	12	20K	3					
GLEN CANYON	81.98	329.8	12	20	3					
BREBEUF	82.39	359.7	12	20	0					
PASADENA	82.48	323.7	12	21	1	22	40	8	23	34 PS
BOULDER CITY	82.49	327.1	12	22	2					
PRETORIA	83.17	117.1	12	28	5					
SHAWINIGAN	83.44	0.3	12	26A	1					
LARAMIE	83.64	336.0	12	28	2					
FLAMING GRGE	84.60	333.3	12	31	0					
SALT LAKE C.	85.37	331.6	12	37	3					
FRESNO	85.38	324.2	12	37	2					
RAPID CITY	85.42	338.8	12	35	0					
EUREKA	85.92	328.2	12	39	2				30	41 PKKP
LICK	86.71	323.3	12	34K	-7					
BULAWAYO	86.94	112.9	12	43A	1					
BERKELEY	87.43	323.2	12	55	10					
RENO	87.64	325.8	12	49	3					
MINERAL	89.10	325.1	12	53	0					
BOZEMAN	89.33	334.5	12	54	0	23	41	3		
SHASTA	89.74	324.9	12	55	-1					
BUTTE	90.17	333.7	13	0	2					
BROKEN HILL	90.37	108.4	13	1A	2					
HUNGRY HORSE	92.68	334.1	13	11	2					
BANGUI	94.05	87.6	13	17	2				17	0 PP
RIVERVIEW	98.10	216.0							13	23
LWIRO	98.15	99.1	13	38A	4				17	36
TOLEDO	99.57	46.8	13	42	1				15	28
TANANARIVE	101.04	124.0							18	14 PP
BRISBANE	102.55	220.9	13	57	3					
KEW	108.86	39.2							18	52 PP
DURHAM	110.21	35.9				25	6	3		
ROME	110.86	52.8							27	34
STRASBOURG	111.56	44.8							28	44
STUTTGART	112.51	45.2							19	17 PP
TARANTO	113.22	56.1							27	43
SCORESBY SD.	113.57	16.6							29	17 PS
JENA	114.88	44.0							19	27 PP
COLLMBERG	115.84	44.1	18	38	-1				20	1 PP
PRUHONICE	116.10	45.9	18	42	3				29	30 PS
COLLEGE	117.07	332.5	18	41	0					
BELGRADE	117.35	53.1							19	55 PP
COPENHAGEN	117.54	39.6							20	13 PP
HELWAN	118.18	72.6	18	47	4				30	2
BUCHAREST	120.84	55.5							21	21 PKS
ISTANBUL KA.	121.50	60.1							20	14 PP
LWOW	121.61	49.0	18	51	1				20	26 PP
JERUSALEM	122.03	72.4	18	54	3				20	19 PP
NORD	122.12	8.3	18	50	-1					
KSARA	123.42	70.5	18	55	2	25	57	6	20	39 PP
UMEA	124.16	32.4	18	49	-6					
TROMSOE	125.10	25.3	18	57	0					
KIRUNA	125.23	27.6	18	57	0				20	49 PP
NURMIJARVI	125.29	36.9	18	59	2					
SIMFEROPOL	126.37	57.4	19	5	6				20	55 PP
SODANKYLA	127.48	28.7	19	2	1					
PULKOVO	127.90	38.6	19	2	0					
MOSCOW	131.11	44.6	19	6	-2				21	33 PP
TIFLIS	132.83	64.4	19	14	3				21	44 PP
KHEYS	132.93	9.7	19	13	1				21	37 PP
GORIS	133.31	67.7	19	2	-10				21	47 PP
SHIRAZ	134.58	83.0	19	16K	1				21	49 PP
MAKHACH-KALA	135.09	63.4	19	19	3				22	50 PKS
TEHERAN	135.96	74.5	19	20	3				21	59 PP

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PETROPAVLOVK	141.11	310.8	19	33	6			22	36 PP
ASHKABAD	141.94	73.7	19	26	-2	26 39	7		
TIKSI	143.74	348.4	19	26	-5				
SVERDLOVSK	143.83	42.2	19	31	0			22	46 PP
MAGADAN	144.23	322.8	19	31	-1				
BOMBAY	145.11	112.2	19	36	3			33	38
POONA	145.63	113.8	19	37	3				
MEDAN	145.65	165.5	19	36K	2			20	46
MADRAS	146.07	128.4	19	53	18				
QUETTA	146.28	90.2	19	39A	4		19 58	23	19 PP
TASHKENT	150.81	70.3	19	45	2			19	52 PKP2
WARSAK DAM	151.24	85.8	19	53	10				
YAKUTSK	151.44	337.4	19	44	0				
Y.-SAKHLINSK	151.88	301.7	19	53	9				
KHOROG	152.04	78.7	19	47	3			23	34 PP
LAHORE	152.67	92.3	19	48	3				
TUKUBASAN	153.39	277.9	19	45A	-1			23	48 PP
FRUNSE	154.82	67.2	19	51	3			23	52 PKS
MATUSIRO	154.95	277.9	19	48	0			23	55 PP
NHATRANG	154.97	185.5						19	59 PKP2
DEHRA DUN	155.16	97.7	19	52	3			30	40
SEMIPALATNSK	156.91	46.9	19	52	1				
CHITTAGONG	160.28	134.7	19	57	2				
SHILLONG	162.73	128.2	19	58A	1				
CHANGCHUN	164.51	300.8	19	59	0			24	48 PP
LHASA	164.79	115.4	20	3	3			24	46 PP
CANTON	164.80	203.5	20	1	1			24	47 PP
ZO-SE	166.63	246.8	20	7	6			25	3 PP
KUNMING	167.40	162.8	20	4	2			24	55 PP
NANKING	168.87	245.7	20	6	4			25	13 PP
PEKING	172.19	293.5	20	8	4			25	28 PP
CHENGTU	173.00	159.6	20	8	3			25	24 PP
LANCHOW	177.30	115.9	20	8	2				

MAY 12 3.H 40.M 51.S EPICENTRE -0.41 98.20 DEPTH= 382.KM

A=-0.14257 B= 0.98976 C=-0.00717 D= 0.9898 E= 0.1426
G= 0.0010 H=-0.0071 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.055R

SE= 4.21

	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	
MEDAN	4.00	6.9	2	27	76						4	27	
DJAKARTA	10.35	123.8	2	27	4	4	27	11					
NHATRANG	16.64	40.7	3	19	-13	6	42	18					
MADRAS	22.29	307.4	4	16	-11						4	41	PP
KUNMING	25.76	9.5	4	57	-2	9	31	32					
SHILLONG	26.55	347.1	4	59A	-7	9	39	27			10	44	SS
BOKARO	26.94	334.3	5	5	-5	9	43	25			11	4	SS
LHASA	30.66	347.7	5	39	-3								
CHENGTU	31.39	9.6	5	44	-4	10	57	29					
BOMBAY	31.45	309.0	5	59	10						13	5	
SIAN	35.92	15.2	6	23	-4								
DEHRA DUN	36.08	329.6	6	26	-2						12	17	
LANCHOW	36.65	7.7	6	30	-3								
NANKING	37.71	29.2	6	44	2								
ZO-SE	38.19	32.8	6	49	4								
QUETTA	42.55	318.4	7	17	-4								
PEKING	43.47	20.1	7	27	-1	14	2	34					
ANDIJAN	47.22	333.2	8	1	3	14	50	29					
STALINABAD	47.29	328.4	7	56	-2								
ALMATA	47.48	339.0	8	6	7								
ULAN-BATOR	48.73	7.8	8	9	0								
TASHKENT	49.11	331.2	8	9	-3	15	14	27					
CHANGCHUN	50.27	25.4	8	17	-4								
CHARTERS TS.	50.91	115.7	8	19	-6						9	43	
MATUSIRO	52.23	40.9	8	32	-3						26	14	
SHIRAZ	52.80	308.6	8	34	-5								
VLADIVOSTOK	52.82	30.7				16	16	23					
CANBERRA	58.60	132.1	9	18	-2								
TIFLIS	63.79	317.9	9	53	-1								
SVERDLOVSK	64.55	338.2	9	56	-3								
YAKUTSK	66.69	15.6	10	12	0	19	10	37					

			P	O-C	S	O-C	*PP		SUPP.	
	DELTA DEG.	AZ. DEG.	M	S S	M	S S	M	S	M	S
SOTCHI	67.97	318.1	10	17 -3	19	12 24				
HELWAN	70.26	301.9	10	34A 0						
BROKEN HILL	70.28	254.9	10	30A -4						
MOSCOW	74.21	329.2	10	54 -3						
TIKSI	74.58	9.7	10	57K -2						
BANGUI	79.64	274.5	11	26 -1						
KARAPIRO	79.77	128.4	11	24 -4						
CHATEAU	79.93	129.6	11	27 -1						
LWOW	80.14	320.8	11	38 9						
KAJAANI	81.93	335.3	11	47 8						
NURMIJARVI	82.30	331.4	11	41 0						
KHEYS	83.20	353.9	11	46 1						
SODANKYLA	83.35	338.3	11	47 1						
UMEA	85.06	334.2	11	57 3						
SCOTT BASE	85.15	168.6	12	0K 5						
UPPSALA	85.61	330.0	12	0 3						
KIRUNA	85.77	338.2	11	59 1						
LJUBLJANA	85.90	316.1	12	0 2						
COLLMBERG	87.31	321.2	13	9 64						
STUTTGART	89.59	318.6	12	18 2						
BYRD STATION	97.52	173.8	12	50 -2					12	58 PCP
COLLEGE	100.37	23.4							16	36 PP
HUNGRY HORSE	124.73	25.6	18	27 12						
EUREKA	130.16	34.7	18	30 5					21	51 PP
FLAMING GRGE	132.55	28.4	18	35 6						
WICHITA MTS.	142.44	23.0	18	47 -1						
FAYETTEVILLE	142.68	16.7	18	56 7						

MAY 13 14.H 18.M 42.S EPICENTRE -28.12-176.27 DEPTH= 4.KM

A=-0.88140 B=-0.05745 C=-0.46886 D=-0.0650 E= 0.9979
G= 0.4679 H= 0.0305 K=-0.8833 HT= 2.4

SE= 3.08

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
RAOUL ISLAND	1.83	231.8	0	35	2							
ONERAHI	11.01	223.8	2	54	12							
SUVA	11.05	332.7	2	38	-4							
KARAPIRO	11.95	213.0	2	48	-7							
TUAI	11.98	205.6				4	58	-12				
CHATEAU	12.98	209.5	3	3	-5	5	32	-2				
AFIAMALU	14.75	17.4	3	25	-7	5	52	-25				
WELLINGTON	15.04	206.9	3	40	5	6	7	-17				
COBB RIVER	15.76	212.1				6	26	-15				
NOUMEA	16.67	286.5	3	59K	3							
PORT VILA	17.54	302.8	4	17K	10							
GEBBIES PASS	17.92	206.9				7	11	-19				
KOUMAC	19.24	288.8	4	29	1							
BRISBANE	27.36	264.2	5	45	-4	10	33	6				
RIVERVIEW	28.43	250.3	5	57	-1	10	43	-2				
HONIARA	29.09	305.1	6	1	-3							
CANBERRA	30.29	247.5	6	14K	-1	11	14	0			6	27 *SP
MOORLANDS	32.80	234.4	6	37	0							
FORT NELSON	32.81	233.5	6	35	-2							
CHARTERS TS.	35.02	274.8	6	54	-2						17	18
ADELAIDE	38.71	248.3	7	25A	-2	13	22	-2				
PORT MORESBY	39.11	291.2	7	31	1							
CAPE HALLETT	44.85	185.8	8	18K	1	15	0	5			18	35 SCS
SCOTT BASE	50.42	184.6	9	2K	1	16	26	12			10	16 PCP
BYRD STATION	56.90	170.0	8	29	-80						10	30 PP
WILKES	57.86	207.1				17	55	1				
SOUTH POLE	62.04	180.0	9	6	-78	17	37	-71			10	23
MIRNY	64.84	206.2	10	39	-4							
LEMBANG	74.58	270.4	11	40A	-2							
MAWSON	74.96	199.9	11	43	-2						12	0 PCP
MATUSIRO	77.26	323.9	11	54	-4	21	40	-7			24	31
LICK	82.86	40.9	12	27A	0							
BERKELEY	82.87	40.2	12	26	-1							
KERGUELEN I.	82.94	217.1				22	56	10				
WOODY	83.41	43.7	12	29	-1							
Y.-SAKHLINSK	83.45	333.1	12	30	0	22	49	-2				
FRESNO	83.55	42.3	12	31	0							
HONG KONG	83.75	299.2				22	52	-2				
ZO-SE	83.78	310.0	12	30A	-2	22	57	2				
SHASTA	84.76	38.1	12	38	1							

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CANTON	84.83	299.4	12	38	1	23	13	8			
MINERAL	84.95	38.8	12	35A	-3						
VLADIVOSTOK	85.39	324.7	12	40	0						
RENO	85.41	40.3	12	42A	2						
NANKING	85.99	309.5	12	42A	-1	23	21	5		23	7 SKS
BOULDER CITY	86.09	45.6	12	43	-1						
TUCSON	86.44	50.5	12	44	-1						
TUCSON TELE.	86.57	50.5	12	45	-1						
EUREKA	87.61	42.3	12	49	-2						
GLEN CANYON	88.75	46.4	12	57	0						
CHANGCHUN	89.36	321.9	12	57	-2	23	51	3		23	27 SKS
MAGADAN	91.48	343.9	13	7	-2						
PEKING	92.38	314.7	13	13	0	24	21	6		23	47 SKS
FLAMING GRGE	92.48	44.2	12	41	-33						
SIAN	94.07	306.7	13	21	0						
KUNMING	94.16	296.1	13	22	0	24	38	8			
HUNGRY HORSE	94.29	36.3	13	14	-8						
COLLEGE	95.30	11.8	13	24	-3				13 35	17	13 PP
CHENGTU	95.86	301.5	13	29A	0	24	5	0		24	52 S
WICHITA MTS.	96.35	54.1	13	30	-2	24	9	1		24	56 S
RAPID CITY	98.03	44.1	13	42	3						
MADRAS	107.85	275.4								24	38
RESOLUTE	114.63	16.8	18	39	-3						
HERMANUS	116.09	194.2								35	59 SS
BOMBAY	116.71	278.1								22	39
KIMBERLEY	119.97	201.4	18	53	1						
THULE	121.33	15.3	18	50	-5						
KHEYS	123.16	350.8	18	56	-3						
ANDIJAN	123.32	302.1								20	42 PP
QUETTA	125.39	288.5	19	5	2	26	11	5		22	35 PKS
BULAWAYO	126.33	209.4	19	5	0						
SVERDLOVSK	131.06	322.4	19	13	-1						
SCORESBY SD.	135.17	11.9	19	22	1					23	2 PKS
SHIRAZ	137.50	284.2	19	27	1	28	48	134		22	52 PKS
TROMSOE	137.53	352.2	19	26	0						
SODANKYLA	138.35	346.9	19	25	-2						
KIRUNA	139.01	350.4	19	25	-3						
KAJAANI	140.88	343.6	19	34	2						
MAKHACH-KALA	141.87	304.7	19	29	-5						
UMEA	142.74	348.0	19	31	-4						
MOSCOW	143.26	328.2	19	30	-6						
PULKOVO	143.52	337.6	19	35	-1						
TIFLIS	144.03	303.1	19	35	-2						
SKALSTUGAN	144.10	353.5	19	34	-3						
NURMIJARVI	144.65	342.2	19	34K	-4					23	16 PKS
UPPSALA	146.88	347.2	19	41	-1					42	3 SS
SOTCHI	147.29	307.8	19	44	1						
GOTEBORG	149.87	351.2	19	51	4						
SIMFEROPOL	150.59	313.0	19	43	-5					26	48 SKKS
KSARA	151.92	289.7	19	53	3					23	42 PP
BANGUI	152.46	213.7	19	50	-1				19 58		
JERUSALEM	152.52	285.4	19	59K	8					24	38 PP
KISHINEV	152.77	320.6	19	52	1						
DURHAM	153.09	6.8	19	58A	6					20	20
LWOW	153.35	329.9	19	55	3					23	47
ISTANBUL KA.	155.57	308.5	19	54	-1					23	53 PP
ISTANBUL UN.	155.63	308.5								20	21
HELWAN	155.82	280.8	20	7	12					24	12 PP
COLLMBERG	155.82	345.7	19	56	1					20	22 PKP2
BUCHAREST	155.83	318.2	20	6	11					26	28
DE BILT	156.02	357.8	19	54	-2						
JENA	156.46	347.5	19	51	-5					20	10
PRUHONICE	156.66	342.2	20	8	12					24	1 PP
BENSBERG	157.04	354.4	19	58	1					20	26
KASPERSKE H.	157.69	342.8	19	58	0					20	30
SOFIA	158.47	317.6								20	35
STUTTGART	158.94	349.7	19	59	0						
FOLINIERE	159.13	7.8								20	35
LJUBLJANA	160.18	337.4	20	1	0					20	41
TRIESTE	160.78	338.2								21	4 PKP2
BESANCON	160.82	355.3	20	2	1					20	21
GARCHY	160.87	1.4	20	2	1						
MONACO	164.14	350.1	20	6	1						
ROME	164.51	334.8								24	40 PP
BAGNERES	164.80	10.1	20	5	0						

MAY 13 14.H 52.M 56.S EPICENTRE -17.71-178.72 DEPTH= 521.KM

A=-0.95296 B=-0.02124 C=-0.30234 D=-0.0223 E= 0.9998
G= 0.3023 H= 0.0067 K=-0.9532 HT= 5.2

DEPTH OF FOCUS= 0.077R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	2.75	260.4	1	13	1	2	12	3					
AFIAMALU	7.68	61.5	1	52K	-3	3	22	-4					
RAOUL ISLAND	11.51	176.5				4	40	-1					
NOUMEA	14.66	249.4	3	7K	1								
KOUMAC	16.31	257.3	3	29K	6	6	17	11					
ONERAHI	19.00	197.5	3	51	2	7	1	8					
KARAPIRO	20.76	192.9	4	6	1								
CHATEAU	21.99	192.0	4	14	-2								
HONIARA	22.29	288.9	4	18	-1								
BRISBANE	27.97	244.8	5	7K	-3	9	12	-5					
RIVERVIEW	31.37	233.4	5	38K	-1	10	8	-2	7	9	15	12	SCS
RABAUL	31.50	291.8	5	40	0								
CHARTERS TS.	33.18	260.2	5	53	-1	10	29	-9					
CANBERRA	33.59	232.1	5	58K	0	10	42	-2	7	36	7	36	PP
PORT MORESBY	34.14	279.5	6	2	0						7	34	
MOORLANDS	38.03	222.3	6	34K	0						8	38	PCP
FORT NELSON	38.18	221.5	6	34K	-2						8	39	PCP
TARRALEAH	38.44	223.0	6	38	0						8	40	PCP
MACQUARIE I.	40.55	199.9	6	54	-1								
ADELAIDE	41.48	237.0	7	2K	0	12	38	-3			8	52	PP
HONOLULU	43.72	28.4	7	19	-1								
KIPAPA	43.86	28.4	7	19	-2								
CAPE HALLETT	54.98	184.1	8	44A	1	15	16	-29			10	30	PP
MUNDARING	59.95	242.9	9	16	-1								
BYRD STATION	67.49	170.7	10	5	0				11	56			
MATUSIRO	67.57	323.5	10	4A	-2						10	22	PCP
ABUYAMA	67.96	320.6	10	8A	0								
SOUTH POLE	72.40	180.0	10	34	0				12	27	11	33	
LEMBANG	72.42	268.3	10	34K	0	19	30	14					
PETROPAVLOVK	73.11	345.9	10	36	-2								
Y.-SAKHLINSK	73.17	333.5	10	38	-1	18	16	-68					
MIRNY	73.23	204.7	10	36	-3								
ZO-SE	75.39	309.8	10	51	0	19	49	1					
VINEYARD	76.53	44.1	10	58A	1								
BERKELEY	76.59	42.7	10	58A	0								
LICK	76.69	43.4	10	59A	1						12	52	
HONG KONG	76.74	298.8	10	59	1	20	4	1					
CONCORD	76.77	42.7	11	0A	1								
PASADENA	77.31	47.8	11	1A	0				12	57			
FRESNO	77.59	44.8	11	4	1								
NANKING	77.64	309.6	11	3A	0	20	13	1	13	0			
CANTON	77.77	299.2	11	6	2	20	16	2					
SHASTA	78.15	40.3	11	7A	1								
MINERAL	78.44	40.9	11	7A	-1								
RENO	79.11	42.4	11	12A	1								
CHANGCHUN	79.78	322.5	11	14A	-1	20	38	4	13	7			
CORVALLIS	79.92	36.7	11	16A	1								
MAGADAN	80.90	344.8	11	18	-2								
EUREKA	81.59	44.1	11	24	0								
TUCSON	81.75	52.5	11	27	2	21	2	8	13	26			
TUCSON TELE.	81.88	52.5	11	28	3	21	4	9					
VICTORIA	82.25	33.5	11	26A	-1								
GLEN CANYON	83.36	48.0	11	35	2				13	37			
PEKING	83.43	315.5	11	33A	0	21	14	3					
MAWSON	83.94	199.8	11	35A	-1				13	34			
SALT LAKE C.	84.97	44.5	11	41	0								
COLLEGE	85.65	12.7	11	42	-2	21	30	-2	13	40			
SIAN	85.99	307.7	11	47A	1	21	42	7					
BUTTE	87.04	39.7	11	50	-1								
HUNGRY HORSE	87.33	37.1	11	51	-1	21	29	-18					
KUNMING	87.47	297.2	11	54A	1	21	52	3	13	53			
BOZEMAN	87.80	40.5	11	55	1								
CHENGTU	88.42	302.8	11	58A	1	22	2	5	13	58			
YAKUTSK	89.26	338.3	12	0	-1								
LANCHOW	90.53	307.7	12	9A	2								
WICHITA MTS.	92.11	54.3	12	14A	0	22	36	6	14	19	16	7	PP
RAPID CITY	92.17	44.3	12	15	1								

ULAN-BATOR	92.93	319.6	12 17	-1			
TIKSI	95.88	345.4	12 28	-3			
FAYETTEVILLE	95.96	54.2	12 31	-1		30 17	SS
SHILLONG	96.94	294.5	12 42K	6			
RESOLUTE	105.32	15.9	13 12	777		17 22	
THULE	111.86	13.8	17 32	-3		18 21	
KHEYS	112.58	351.5	17 36	0			
SHAWINIGAN	113.55	46.4	17 39	1			
WESTON	114.47	51.0				20 44	
NORD	115.62	2.9	17 40	-2		18 50	PP
QUETTA	119.42	295.1	17 51	1			
SVERDLOVSK	121.31	326.4	17 54	1			
SCORESBY SD.	125.39	9.4	18 1A	0	19 57		
TROMSOE	126.96	352.4	18 4	0			
SODANKYLA	127.74	347.9	18 5	-1		20 37	SKP
KIRUNA	128.42	350.9	18 7	0		20 16	SKP
KIMBERLEY	128.53	206.6	18 9	2			
KAJAANI	130.29	345.1	18 11	0		20 48	SKP
SHIRAZ	131.93	294.2	18 14	0		20 50	SKP
UMEA	132.13	348.8	18 12	-2		20 54	SKP
MOSCOW	133.12	332.7	18 16	0			
SKALSTUGAN	133.55	353.2	18 5	-12		20 57	SKP
MAKHACH-KALA	133.58	313.0	18 17	0			
BULAWAYO	133.80	216.7	18 19A	2			
NURMIJARVI	134.08	344.1	18 5	-13	20 30	20 52	PP
TIFLIS	135.88	312.2	18 22	1			
UPPSALA	136.28	348.1	18 9	-13		21 4	SKP
BROKEN HILL	138.28	221.7	18 19A	-7			
GOTEBORG	139.28	351.2	18 22	-5			
SIMFEROPOL	141.40	321.9				18 7	
DURHAM	142.94	2.7	18 31A	-4			
KISHINEV	143.01	328.3	18 32	-3			
LWOW	143.10	335.3	18 33	-2			
IASI	143.50	329.5	18 37	2			
BACAU	144.27	329.3	18 41	4			
KRAKOW	144.42	339.2	18 37	0		19 2	
CHORZOW	144.53	340.3	18 34K	-3		18 58	
WITTEVEEN	144.71	354.3	18 39A	2			
FOCSANI	144.73	328.0	18 40	3			
RACIBORZ	144.96	340.9	18 39A	1		18 46	PKP2
SKALNATE PL.	145.05	338.1	18 42A	4	20 40		
KSARA	145.15	304.2	18 40A	2	20 46		
COLLMBERG	145.21	347.1	18 39	1	20 47	21 59	*SPKP
HALLE	145.24	348.3	18 39	1		21 59	PP
MUNSTER	145.45	353.1	18 38	-1			
DE BILT	145.55	355.7	18 41A	2			
JENA	145.85	348.4	18 39	0	20 49	22 1	PP
PRAGUE	146.03	344.8	18 42	3			
PRUHONICE	146.08	344.6	18 40A	0	20 46	22 2	PP
BUCHAREST	146.18	327.3	18 40K	0		20 46	PP
KEW	146.29	1.8	18 40	0			
JERUSALEM	146.30	301.0	18 41A	1		22 46	PP
LWIRO	146.40	236.5	18 42	2		20 49	
BENSBERG	146.50	353.2	18 40	0	20 48		
CHEB	146.50	347.0	18 41	1			
ISTANBUL KA.	146.66	320.1	18 41	1	20 49	21 35	*SPKP
BRATISLAVA	146.98	340.4	18 41	0	20 40		
KASPERSKE H.	147.11	345.1	18 42A	1	20 51	22 10	
VIENNA-H.	147.14	341.3	18 41A	0		19 43	
HEIDELBERG	147.82	350.9	18 42	0			
KARLSRUHE	148.25	351.1	18 43	1		19 43	
STUTTGART	148.34	349.9	18 43	0		20 49	
BELGRADE	148.56	333.4	18 44K	1		20 52	
TUBINGEN	148.61	350.0	18 44	1			
STRASBOURG	148.76	351.7	18 44	1		27 4	
SOFIA	148.82	327.7	18 40	-3		18 46	PKP2
PARIS	148.96	358.4	18 45	2		22 20	
EBINGEN	148.97	350.0	18 49	6			
RAVENSBURG	149.24	349.0	18 44	0			
LJUBLJANA	149.67	341.6	18 46A	1	20 58		
HELWAN	150.05	299.4	18 47	2	21 2		
TRIESTE	150.26	342.2	18 47	1	20 59		
BESANCON	150.29	353.5	18 46	0			
NEUCHATEL	150.42	352.1	18 52	6			
GARCHY	150.47	357.5	18 53A	7	21 6	22 38	PP
PADOVA	151.00	344.5	18 34	-13			
PAVIA	151.83	348.1				20 21	
ATHENS	151.83	320.3	18 56A	8			

CLERMONT-FD.	151.98	357.3	18 50	2			
FLORENCE X.	152.68	344.1	18 47	-2			22 34 PP
ISOLA	153.17	350.8	18 52	2			22 56 PP
MONACO	153.54	350.0	18 51	1			
ROME	154.05	340.6	18 52	1			22 52 PP
BAGNERES	154.70	1.9	18 53	1			
SERRA PILAR	155.16	18.0	18 55A	3			19 22 PKP2
TOLEDO	157.43	10.7	18 58	2			23 11 PP
BANGUI	158.46	234.1	18 59	2			25 24
GRANADA	160.13	11.5	19 49A	51		21 16	23 34 PP

MAY 13 15.H 49.M 37.S EPICENTRE 43.74 147.79 DEPTH= 69.KM

A=-0.61322 B= 0.38633 C= 0.68899 D= 0.5330 E= 0.8461
G=-0.5829 H= 0.3673 K=-0.7248 HT= -3.1

DEPTH OF FOCUS= 0.006R

SE= 3.42

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	1.49	2.2	0 25A	-1	0 49	4		
NEMURO	1.66	256.3	0 24A	-4	0 44	-5		
ABASHIRI	2.55	277.4	0 37A	-4	1 9	-2		
KUSIRO	2.59	254.0	0 36	-5	1 15	3		
OBIHIRO	3.45	257.8	0 50	-3				1 35
ASAHIGAWA	3.93	272.4	1 3	3				
URAKAWA	4.01	248.3	0 58	-3	1 52	5		
RUMOE	4.47	274.8	1 6	-1	2 18	19		
TOMAKOMAI	4.67	258.4	1 9	-1				
WAKKANAI	4.67	293.1	1 11	1	2 15	11		
SAPPORO	4.74	264.1	1 9	-2	2 6	1		
Y.-SAKHLINSK	4.85	314.3	1 11	-2	2 7	-1		
MURORAN	5.19	256.4	1 14	-3	2 13	-4		
HAKODATE	5.52	251.9	1 18A	-4	2 19	-6		
MORI	5.55	255.3	1 20	-2	2 34	8		
SUTTSU	5.60	262.9	1 27	4	2 31	4		
HATINOHE	5.65	237.5	1 16	-8	2 15	-13		
AOMORI	5.96	243.1	1 22	-6	2 27	-9		
MIYAKO	5.97	228.8	1 31	3	2 22	-14		
MORIOKA	6.39	233.0	1 28	-6	2 35	-11		
UGLEGORSK	6.64	325.5	1 39	2				3 19
MIZUSAWA	6.80	229.6	1 34	-6	2 43	-13		
ISINOMAKI	7.21	224.8	1 37A	-8	2 53	-14		
SENDAI	7.55	225.9	1 43	-7	3 0	-15		
SAKATA	7.70	233.8	2 1	9				
YAMAGATA	7.86	228.2	1 46	-8	3 9	-14		
HUKUSIMA	8.16	225.3	1 49	-9	3 16	-14		
ONAHAMA	8.58	220.1			3 26	-14		2 46
SHIRAKAWA	8.78	223.6	2 1	-6	3 33	-12		
NIIGATA	8.81	231.7						2 25
MITO	9.25	219.8	2 5K	-8	3 42	-15		
UTUNOMIYA	9.40	222.8	2 15	0	3 44	-16		
KAKIOKA	9.50	220.4	2 9	-8	3 49	-14		
TUKUBASAN	9.55	220.7	2 9A	-8				3 34
MAEBASI	9.92	225.2	2 16	-6	4 3	-10		
KUMAGAYA	9.95	223.2	2 16	-7	4 2	-12		
TOKYO C.M.O.	10.15	220.2	2 16	-10	4 4	-15		
NAGANO	10.18	229.3	2 20	-6				
TITIBU	10.24	223.7						4 6
OIWAKE	10.24	226.8	2 30	3	4 26	5		
MATUSIRO	10.27	228.8	2 20A	-7	4 16	-5		
OKHA	10.32	343.6	2 27	-1	4 35	12		
YOKOHAMA	10.40	219.8			4 14	-11		
WAZIMA	10.44	236.2	2 24	-5				
TOYAMA	10.72	232.6	2 33	0				
KOHU	10.74	224.5	2 29	-5	4 20	-13		
HUNATU	10.77	223.2	2 41	7	4 22	-12		
MISIMA	10.99	221.4	2 33	-4				
IIDA	11.24	226.4	2 35	-5	4 48	3		
SHIZUOKA	11.38	222.8			4 32	-16		6 6
VLADIVOSTOK	11.57	272.4	2 41	-4				6 2
PETROPAVLOVK	11.75	34.0	3 0	13	5 19	22		
NAGOYA	11.96	227.9	2 59	9				
HIKONE	12.28	230.3	2 49	-5				
KYOTO	12.75	231.0	3 2	2				

ABUYAMA	12.95	230.9	2 57	-6				
MAGADAN	15.94	5.6	3 39	-3				6 48
CHANGCHUN	16.23	278.1	3 42	-3				
YAKUTSK	21.17	336.1	4 36	-6	8 28	0		
PEKING	23.75	272.0	5 6	-1	9 28	14		
ZO-SE	24.50	247.9	5 15A	1	9 41	14		
NANKING	25.56	252.6	5 24	0	9 59	14		
ULAN-BATOR	28.55	292.9	5 51	-1				
TIKSI	29.44	347.9	5 54	-6				
SIAN	31.42	265.8	6 17	0				
LANCHOW	34.26	272.3	6 42A	0				
CANTON	35.01	245.2	6 48A	0				
CHENGTU	36.82	264.2	7 3A	0	12 57	15		
MANILA	36.87	226.5	7 4	0				
COLLEGE	40.82	36.1	7 37	0			7 48	9 12 PP
KUNMING	40.97	258.1	7 38A	0	13 59	14		
SEMIPALATNSK	45.04	303.3	8 10	-1				
LHASA	46.77	272.2	8 26	1				
KHEYS	47.14	347.1	8 27	-1				
RABAUL	47.89	174.1	8 33	0				
SHILLONG	48.50	267.1	8 40A	2				
ALMATA	49.88	295.5	8 49	0				
CHATRA	51.17	271.7	8 59	0				
FRUNSE	51.61	296.0	9 2	0				
SVERDLOVSK	53.47	316.9	9 15	-1				
NORD	54.63	357.2	9 20	-4				
RESOLUTE	54.85	16.8	9 24	-2				
TASHKENT	55.81	296.8	9 32	-1				17 31 PS
STALINABAD	57.59	294.3	9 49	4				
DUZHANBE	57.59	294.3	9 44	-1				
LAHORE	57.66	284.4	9 46	0			9 57	17 58 *SS
THULE	57.92	9.5	9 43	-5				
WARSAK DAM	58.22	288.3	9 49	-1				
VICTORIA	58.34	51.3	9 49	-2				
CORVALLIS	60.54	55.1	10 7K	1				
SODANKYLA	60.65	337.7	10 5K	-1				
TROMSOE	60.91	341.8	10 6	-2				10 38
KIRUNA	61.93	340.0	10 13	-2				11 2
LEMBANG	62.06	226.5	10 15K	-1				
KAJAANI	62.66	334.7	10 18	-2				
SHASTA	63.30	58.3	10 24K	0				
CHARTERS TS.	63.53	181.6	10 24	-2				
QUETTA	63.61	287.4	10 26A	0			10 37	19 14 *SS
HUNGRY HORSE	63.61	47.5	10 26	0	18 39	-14		
MINERAL	64.00	58.2	10 27A	-2				
ASHKABAD	64.69	299.0	10 35	2				
MOSCOW	64.73	324.0	10 35	1				
UMEA	65.07	337.2	10 35	-1				
RENO	65.58	58.0	10 39A	0				
SCORESBY SD.	65.85	356.2	10 39A	-2				
POONA	65.93	273.0	10 40	-1				
NURMIJARVI	66.25	333.1	10 41K	-2				11 12 PCP
SKALSTUGAN	67.36	340.1	10 47	-3				
EUREKA	67.96	56.1	10 54	0				
UPPSALA	68.97	335.6	10 59	-1				
PASADENA	69.96	61.7	11 6	0				
TEHERAN	70.43	300.9	11 11	2				
TIFLIS	70.44	309.3	11 11	2				20 44 PS
BOULDER CITY	70.88	58.4	11 12	0				
GORIS	71.03	306.7	11 13	0	20 34	12		13 54 PP
RAPID CITY	72.09	45.7	11 20	1				
SIDA	72.24	353.5	11 22K	2				
GOTEBORG	72.41	336.9	11 20	-1				
SHIRAZ	73.67	295.4	11 29K	1	20 45	-7		14 12 PP
COPENHAGEN	73.99	335.5	11 31A	1				26 17 SS
LWOW	74.69	326.1	11 35	1				
KISHINEV	74.79	321.7	11 35	0				
IASI	75.21	322.5	11 40	3				
TUCSON	75.84	59.0	11 42	1				
KRAKOW	76.12	328.4	11 43	1				11 50 PCP
SKALNATE PL.	76.70	327.7	11 46	0				
RACIBORZ	76.74	329.3	11 46	0				11 54 PCP
RIVERVIEW	77.26	177.1	11 55	6				
COLLMBERG	77.54	332.9	11 50A	0				14 55 PP
HALLE	77.71	333.5	11 52	1				12 3 PP
BUCHAREST	78.01	321.4	11 53	0				
PRUHONICE	78.13	331.3	11 54A	0				14 37 PP
WITTEVEEN	78.16	337.1	11 55	1				

JENA	78.32	333.4	11 55	0		12 30
DURHAM	78.45	342.5	11 56	1		
MUNSTER	78.64	336.2	11 56	0		
CANBERRA	78.70	179.0	11 57K	0		12 9 PCP
ADELAIDE	78.77	187.6	11 51	-6		
ISTANBUL KA.	79.19	317.5	12 1	2		
KASPERSKE H.	79.19	331.4	12 1A	2		
ISTANBUL UN.	79.25	317.6	12 0	0		
BENSBERG	79.66	335.9	12 2A	0	12 13	12 18 *SP
HEIDELBERG	80.57	334.3	12 7	0		
SOFIA	80.61	322.0	12 7	0		12 14 PCP
MUNDARING	80.69	206.8	12 7	0		
STUTTGART	80.94	333.7	12 9	0		
KSARA	80.99	308.6	12 11	2		
TUBINGEN	81.22	333.7	12 11	1		
KEW	81.22	340.5	12 10	0		
WICHITA MTS.	81.29	49.8	12 11	0		15 11 PP
LJUBLJANA	81.46	329.1	12 13	2		
STRASBOURG	81.59	334.4	12 12	0		
FAYETTEVILLE	82.63	46.1	12 17	0		
JERUSALEM	82.87	307.6	12 21A	2		
PARIS	82.93	337.7	12 20	1		12 31 PCP
SHAWINIGAN	83.19	26.9	12 21	1		
BESANCON	83.32	334.9	12 22	1		
FOLINIERE	83.75	339.5	12 23	0		
GARCHY	84.16	336.7	12 26	1		12 37 PCP
ISOLA	85.71	332.8	12 34K	1		
MONACO	85.99	332.4	12 37	3		
HELWAN	86.51	308.8	12 39	2		13 14
WESTON	87.36	27.9	12 42	1		
BROKEN HILL	120.97	279.9	18 48	3		
BULAWAYO	124.60	274.7	18 55K	3		
BYRD STATION	133.19	166.2	19 9	-1		
SOUTH POLE	133.55	180.0	19 10	1		21 57 SKP

MAY 13 19.H 19.M 38.S EPICENTRE 25.52 122.48 DEPTH= 241.KM

A=-0.48518 B= 0.76228 C= 0.42840 D= 0.8436 E= 0.5370
G=-0.2300 H= 0.3614 K=-0.9036 HT= 3.2

DEPTH OF FOCUS= 0.033R

SE= 1.53

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TAIPEI	0.99	241.0	0 35	1	0 57	-3		
ILAN	0.99	221.7	0 32	-2	0 56	-4		
HSINCHU	1.54	242.7	0 41	3	1 5	-3		
HWALIEN	1.72	207.0	0 38	-1	1 8	-2		
TAICHUNG	2.12	230.6	0 43	0	1 13	-3		
YUSHAN	2.46	214.8	0 43	-3	1 13	-10		
ALISHAN	2.51	217.9	0 46	-1	1 20	-3		
HSINKONG	2.61	203.0	0 47	-1	1 21	-4		
TAITUNG	3.01	204.0	0 53	1	1 30	-3		
TAINAN	3.24	219.9	0 56	1	1 36	-2		
KAOHSIUNG	3.52	215.4	0 42	-16				
HENGCHUN	3.84	204.7	1 0	-2	1 48	-2		
ZO-SE	5.68	348.7	1 26	2				
HONG KONG	8.25	248.9	1 55	-2				
CANTON	8.68	255.7	2 1A	-1				
MANILA	10.87	187.2	2 33	3	4 33	5		
PEKING	15.41	341.5	3 28	2	6 20	10		
CHENGTU	17.08	291.6	3 44	-1	6 48	2		
MATUSIRO	17.37	47.0	3 48A	0	7 4	12		8 12 PCP
KUNMING	17.85	273.0	3 55	2	7 9	8		
CHANGCHUN	18.42	6.5	4 0	1	7 18	6		
LANCHOW	19.12	307.7	4 8	2				
ULAN-BATOR	25.51	335.2	5 6	-2				
SHILLONG	27.59	276.8	5 32K	5				
YAKUTSK	36.82	5.7	6 46	0	12 12	0		
SEMIPALATNSK	40.77	318.8	7 19	0				
RABAUL	41.26	131.5	7 24	1				
PORT MORESBY	42.21	142.2	7 30	0				
TIKSI	46.29	2.8	8 2A	-1	14 30	0		
STALINABAD	46.74	299.8						8 26

QUETTA	48.92	288.7	8 22	-1		9 43	PCP
CHARTERS TS.	50.89	150.8	8 37	-1		13 58	
BRISBANE	60.16	148.9	9 44	0		10 27	
KHEYS	60.88	350.2	9 48	-1			
SHIRAZ	61.29	291.2	9 50	-1			
ADELAIDE	62.09	164.9	9 56K	-1			
CANBERRA	65.51	156.3	10 19K	0			
MOSCOW	66.47	322.1	10 24	-1			
COLLEGE	67.08	27.6	10 29	0	11 27		
SODANKYLA	68.94	335.6	10 40K	0			
PULKOVO	69.37	327.3	10 43	0			
KAJAANI	69.40	332.1	10 43K	0			
TROMSOE	70.90	338.9	11 5	13			
TARRALEAH	71.02	161.4	10 53K	0			
KIRUNA	71.05	336.9	10 52K	-1			
NORD	71.14	354.2	10 51	-3			
MOORLANDS	71.36	160.9	10 55	0			
NURMIJARVI	71.85	328.9	10 57K	-1	11 53	11 17	PCP
UMEA	72.60	333.0	11 3K	1			
JERUSALEM	74.85	298.2	11 16A	1			
UPPSALA	75.35	329.7	11 17K	-1			
SKALSTUGAN	75.90	334.3	11 20K	-1			
RESOLUTE	77.17	9.5	11 28K	0			
THULE	78.08	2.6	11 29	-4			
HELWAN	78.66	297.7	11 37	1			
GOTEBORG	78.96	329.2	11 38	0			
KARAPIRO	80.38	140.1	11 47	2			
SCORESBY SD.	81.00	348.6	11 48A	-1	12 47		
CHATEAU	81.24	141.1	11 51	1			
PRUHONICE	81.51	321.6	11 52K	1		12 49	
COLLMBERG	81.70	323.3	11 53K	1	12 50	15 3	PP
KASPERSKE H.	82.48	321.2	11 57K	1			
JENA	82.66	323.4	11 56	-1			
LJUBLJANA	83.49	318.2	12 1	0			
BENSBERG	84.98	325.0	12 8	-1			
STUTTGART	85.08	322.4	12 9	0			
VICTORIA	85.72	37.5	12 14	2			
HUNGRY HORSE	90.77	33.8	12 39	3	13 38		
EUREKA	95.43	41.5	13 0	2			
WOODY	95.96	45.9	13 1	1			
SOUTH POLE	115.37	180.0	18 12	0			
BYRD STATION	119.73	169.8	18 22	1			
TRINIDAD	143.86	6.5	19 6	0			

MAY 14 15.H 8.M 1.S EPICENTRE 67.77 -18.81 DEPTH= 0.KM

A= 0.36024 B=-0.12268 C= 0.92476 D=-0.3224 E=-0.9466
G= 0.8754 H=-0.2981 K=-0.3806 HT=-11.2

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
AKUREYRI	2.13	172.1			1 0	-4		
SCORESBY SD.	2.95	339.0	0 47	-2				1 11
REYKJAVIK	3.87	200.6	0 59	-3	1 52	3		
SIDA	4.02	175.3	1 3	-1	1 58	6		
ABERDEEN	13.08	136.2			5 28	-9		3 27
SKALSTUGAN	13.38	93.5	3 26	13				
TROMSOE	13.69	64.9	3 13	-5				
NORD	13.92	1.3	3 18	-3				
KIRUNA	14.66	71.5	3 31	1	6 37	22		
DURHAM	15.35	139.6			6 10	-21		
UMEA	16.28	85.4	3 56	5				
SODANKYLA	17.05	70.1	4 2	1				
UPPSALA	17.67	98.9	4 6	-3				
KEW	18.69	141.8	4 21	0				
COPENHAGEN	18.85	114.5	4 23A	0	8 8	17		
KAJAANI	18.96	79.0	4 23	-2				
NURMIJARVI	19.90	90.2	4 33	-3				
BENSBERG	21.14	129.8	4 46	-3				
PARIS	21.83	139.8	5 1	5	8 58	5		
KHEYS	22.12	25.1	4 59	1				
HALLE	22.14	122.0	4 58	-1	9 10	11		
JENA	22.52	123.3	5 5	3	9 13	8		5 53
PULKOVO	22.54	86.7	5 1	-2				
COLLMBERG	22.66	120.8	5 3	-1				5 40 PPP

GARCHY	23.40	140.3	5	11	0					
STRASBOURG	23.45	131.7	5	12	0	9	47	25		
RESOLUTE	23.68	320.0	5	15	1					
PRUHONICE	24.30	120.4	5	19A	-1	9	46	9		
WARSAW	24.65	109.1	5	22	-1					
KASPERSKE H.	24.72	122.7	5	24A	0					
BAGNERES	26.75	148.1	5	40	-3					
LJUBLJANA	27.74	124.7	5	16	-36				5	49
ROME	30.90	131.0	6	58	38					
KISHINEV	31.80	106.4							14	48
PALISADES	39.71	256.3				13	47	7	16	33 SS
COLLEGE	42.79	330.8	8	2	1					
WICHITA MTS.	54.56	275.7	9	32	0					
EUREKA	56.71	293.3							10	9
ULAN-BATOR	57.66	40.3	9	56	2					
QUETTA	60.86	81.4	10	16	0					

MAY 14 15.H 38.M 7.S EPICENTRE 67.78 -18.45 DEPTH= 0.KM

A= 0.36084 B=-0.12039 C= 0.92483 D=-0.3165 E=-0.9486
G= 0.8773 H=-0.2927 K=-0.3804 HT=-11.2

SE= 3.11

	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
AKUREYRI	2.12	176.1	0	35	-2	1	6	2				
SCORESBY SD.	2.99	336.8	0	46	-3						0	59
REYKJAVIK	3.93	202.7	1	0	-2	1	54	4				
SIDA	4.02	177.5	1	6	2	2	0	8				
VIK	4.38	183.3	1	16	7	2	10	8			3	48
ABERDEEN	12.99	137.0									5	52
TROMSOE	13.56	65.0	3	13	-3							
NORD	13.91	1.1	3	19	-1							
KIRUNA	14.53	71.7	3	31	2	6	35	24				
DURHAM	15.28	140.3	3	42	4	6	35	6				
UMEA	16.15	85.7	3	54	5							
SODANKYLA	16.92	70.3	4	1	2							
THULE	16.94	321.7	3	58	-2							
UPPSALA	17.54	99.3	4	6	-1	7	32	11				
KEW	18.61	142.4	4	19	-1	7	53	7				
COPENHAGEN	18.73	115.1	4	32A	10	8	0	12				
KAJAANI	18.82	79.3	4	25	2							
NURMIJARVI	19.77	90.6	4	33	-1	8	24	12				
MUNSTER	20.28	128.3	4	36	-4							
BENSBERG	21.04	130.4	4	37	-10	8	51	13			9	34 SS
PARIS	21.76	140.4	4	54	-1	8	59	8				
HALLE	22.03	122.5	4	57	0	8	59	3				
KHEYS	22.05	25.1	4	59	1							
PULKOVO	22.40	87.0	5	0	-1							
JENA	22.41	123.8	5	1	0	9	11	8			5	46
COLLMBERG	22.54	121.3	5	2A	-1						5	26 PP
KARLSRUHE	23.15	130.8	5	8	0	9	31	14				
GARCHY	23.32	140.9	5	5	-5							
STRASBOURG	23.35	132.3	5	11	1	9	33	13			5	45
RESOLUTE	23.76	320.1	5	15	1	9	36	9				
BESANCON	24.08	136.3	5	18	0							
PRUHONICE	24.19	120.9	5	20A	1	9	45	10			6	11
BASLE	24.26	133.6	5	11	-8							
WARSAW	24.52	109.6	5	22	0	9	40	0				
KASPERSKE H.	24.61	123.2	5	24A	1						6	10
CLERMONT-FD.	24.75	142.1	5	25	1	9	59	15				
LJUBLJANA	27.64	125.2	5	50	-1							
TRIESTE	27.76	126.6	5	53	1							
MOSCOW	28.03	87.3	5	55	1							
TOLEDO	29.06	156.8									11	32
ROME	30.81	131.5				11	24	1			14	44 SS
BUCHAREST	32.93	112.4	6	37	-1						12	3
TARANTO	33.53	126.3									11	2
SIMFEROPOL	35.38	103.1	7	1	2							
ISTANBUL KA.	36.92	111.8	7	13	1						8	36 PP
PALISADES	39.85	256.6				13	43	1				
TIFLIS	42.16	95.1	7	58	3							
COLLEGE	42.84	331.0	8	2	1							
KSARA	45.81	109.4	8	24	-1							
JERUSALEM	47.42	111.3	8	39	1							

HELWAN	47.81	116.5	8	38	-3						10	32
HUNGRY HORSE	48.37	297.3	8	44	-1							
BOZEMAN	49.64	293.2	8	57	2							
WICHITA MTS.	54.69	276.0	9	32	-1						10	33
EUREKA	56.83	293.6	9	50	2							
ULAN-BATOR	57.57	40.5	9	56	3							
QUETTA	60.73	81.7	10	15	0							
TUCSON TELE.	61.34	285.4	10	21	2							
TUCSON	61.46	285.5	10	22	2							
MAWSON	146.33	136.9	19	43	2							

MAY 14 19.H 31.M 30.S EPICENTRE 40.62-127.44 DEPTH= 0.KM

A=-0.46281 B=-0.60435 C= 0.64851 D=-0.7939 E= 0.6080
G=-0.3943 H=-0.5149 K=-0.7612 HT= -1.9

SE= 3.89

	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	
UKIAH	3.57	113.2	0	52	-5								
SHASTA	3.85	87.2	1	0	-1						1	48	
MINERAL	4.47	91.6	1	7K	-3						2	0	
SAN FRANCSCO	4.81	124.7	1	14	-1								
BERKELEY	4.87	122.6	1	16	0	2	22	8					
CONCORD	4.94	120.7	1	17	0								
CORVALLIS	5.00	36.3	1	14	-4						2	14	
BRANNER	5.20	126.3	1	14	-6								
LICK	5.58	124.1	1	15A	-11						2	33	
RENO	5.95	98.0	1	38	7						2	18	
VINEYARD	6.12	127.2	1	32	-1								
FRESNO	7.11	120.3	1	52	5								
VICTORIA	8.40	18.6	2	2	-4								
EUREKA	8.87	93.7	2	13	1								
PASADENA	9.80	128.3	2	23	-2								
BOULDER CITY	10.94	111.0	2	43	3								
SALT LAKE C.	11.84	84.2	2	55	2								
BUTTE	12.10	58.6	2	55	-1								
HUNGRY HORSE	12.30	46.6	2	59	0	5	2	-16					
GLEN CANYON	12.89	101.3	3	11	4								
BOZEMAN	12.99	61.7	3	7	-1								
TUCSON	15.75	116.8	3	50	6								
TUCSON TELE.	15.77	116.3	3	51	6								
LARAMIE	16.53	80.5	3	56	2								
RAPID CITY	18.23	71.1	4	16	0								
WICHITA MTS.	23.53	95.2	5	14	2	9	42	19			5	30	
FAYETTEVILLE	26.37	89.1	5	46	7								
COLLEGE	26.99	340.9	5	43	-2						9	6	PCP
CLEVELAND	34.32	73.2	7	2	12	12	25	8					
PENNSYLVANIA	37.17	73.0	7	35	21	13	7	6					
RESOLUTE	37.27	13.7	7	12	-3	13	3	0					
WASHINGTON	38.34	75.7	7	18	-6						17	6	
PALISADES	39.98	71.3	7	40	2	13	46	2			9	10	PP
NORD	53.00	9.9	9	15	-5								
TIKSI	56.09	338.2	9	40	-3								
SAN JUAN	56.63	93.9	9	54	7								
SCORESBY SD.	57.15	22.7	9	49	-1	17	50	5					
KHEYS	58.97	358.9	10	2	-1								
YAKUTSK	60.52	328.1	10	12	-2								
TROMSOE	67.32	12.1	11	0	2								
KIRUNA	69.19	12.5	11	9	-1								
MATUSIRO	70.25	301.4	11	16	-1								
SODANKYLA	70.55	10.3	11	15	-3								
SKALSTUGAN	71.33	17.8	11	25	2								
UMEA	72.79	14.4	11	28	-4								
UPPSALA	75.83	17.3	11	46	-3								
GOTEBORG	76.31	21.1	11	45	-7								
NURMIJARVI	76.66	13.8	11	53	-1								
IRKUTSK	77.17	330.3	11	56	-1								
PULKOVO	78.30	11.3	12	8	5								
ULAN-BATOR	79.55	326.2	12	10	0								
BENSBERG	80.55	27.2	12	22	7								
PARIS	80.59	30.9	12	20	5								
HALLE	81.67	24.3	12	18	-3						12	55	
JENA	82.04	24.8	12	24	1						13	11	

GARCHY	82.05	31.5	12 26	3						
COLLMBERG	82.16	23.8	12 25	1					14 59	
SVERDLOVSK	82.68	355.5							11 56	
STRASBOURG	82.76	28.1	12 34	7						
MOSCOW	83.18	8.4	12 28	-1						
PRUHONICE	83.80	23.6	12 33	1					13 8	
BAGNERES	84.21	35.7	12 36	2						
KASPERSKE H.	84.25	24.5	12 34	0					13 15	
TOLEDO	84.74	40.2	12 36	-1						
ISOLA	86.18	31.0	12 50	6						
LWOW	86.51	18.1	12 51	5						
LJUBLJANA	87.26	25.4	12 45	-4						
TRIESTE	87.36	26.1	12 51	1			13 5			
FLORENCE X.	88.11	28.6	13 0	7						
ADELAIDE	114.32	244.1	14 15	-266						
SOUTH POLE	130.43	180.0	19 13	1						
BROKEN HILL	146.52	45.8							19 43	PKP2

MAY 15 19.H 12.M 12.S EPICENTRE -15.53 166.31 DEPTH= 35.KM

A=-0.93658 B= 0.22817 C=-0.26601 D= 0.2367 E= 0.9716
G= 0.2585 H=-0.0630 K=-0.9640 HT= 5.7

DEPTH OF FOCUS= 0.000R

SE= 4.19

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	2.92	138.9	0 44A	-2	1 18	-2		
NOUMEA	6.74	178.9	1 39A	-1	2 56	0		
HONIARA	8.67	313.6	2 3	-3	3 38	-6		
BRISBANE	17.24	224.6	4 2	2	7 19	10		
RABAUL	17.89	307.5	4 19	11				
CHARTERS TS.	19.62	253.7	4 28	-1	8 10	8		
PORT MORESBY	19.66	285.8	4 28	-1	8 12	9	4 41	5 18
RAOUL ISLAND	19.95	135.9	4 34	2				
AFIAMALU	21.25	88.5	4 44A	-2				
ONERAHI	21.41	161.8	4 51	4				
AUCKLAND	22.56	162.0	5 1	2	9 23	24		
RIVERVIEW	22.79	214.2	5 2A	1	9 5	2	5 17	5 32 PP
KARAPIRO	23.76	161.6	5 11K	1				
CHATEAU	24.94	162.8	5 23A	1				
CANBERRA	25.08	215.0	5 23A	0			5 44	5 56 *SP
WELLINGTON	26.69	165.7	5 36	-2				
MOORLANDS	31.45	207.7	6 21K	0			6 35	
TARRALEAH	31.68	208.7	6 23K	0			6 37	
FORT NELSON	31.77	206.9	6 23K	-1			6 37	
MUNDARING	48.26	240.9	8 39	-1				
MANILA	53.83	301.7	9 33	11	16 43	-10		
CAPE HALLETT	56.82	178.6	9 42K	-2				
LEMBANG	58.07	271.6	9 52A	-1	17 52	3		
MATUSIRO	58.19	333.5	9 49	-4	17 48	-3		20 1 SCS
SCOTT BASE	62.34	179.9	10 20K	-2			10 36	
HONG KONG	63.41	305.2	10 28	-1				
ZO-SE	63.47	317.2	10 37	8	18 54	-4		
CANTON	64.48	305.5	10 35	-1	19 9	-2		
NANKING	65.66	316.6	10 42	-1	19 21	-4		
Y.-SAKHLINSK	65.77	342.5	10 56	12				
VLADIVOSTOK	66.35	333.1			19 33	0		
MIRNY	69.23	204.2	11 3	-3				
CHANGCHUN	69.94	329.6	11 8	-2	20 16	0		
BYRD STATION	72.07	169.8	11 21	-2				
PEKING	72.30	321.8	11 23	-1	20 44	0		
CHENGTU	75.45	308.0	11 41	-2	21 19	0		
LANCHOW	78.16	312.8	11 57	-1				
MAWSON	80.80	202.2	12 12	0				
ULAN-BATOR	82.35	324.3	12 17	-3				
YAKUTSK	82.50	343.5	12 18	-3				
SHILLONG	83.14	298.8	12 23A	-1				
LICK	85.64	49.5	12 32A	-5				
IRKUTSK	86.08	327.1	12 46	7				
MINERAL	86.85	46.7	12 47A	4				
WOODY	87.09	51.9	12 41	-3				
COLLEGE	87.36	17.9	12 41	-4				12 53
CORVALLIS	87.41	42.4	12 54	9				
CHATRA	87.54	298.6	12 46	0				

RENO	87.81	48.0	12 55	8				
BOULDER CITY	90.26	52.7	12 58	-1				
EUREKA	90.56	49.1	12 58	-2			13 10	16 40 PP
TUCSON	92.28	57.3	13 18	10				
TUCSON TELE.	92.39	57.2	13 8	-1				
HUNGRY HORSE	94.75	41.2	13 16	-3				
FLAMING GRGE	95.80	49.3	13 21	-3				
SHIRAZ	118.00	295.6	18 42	-2				20 4 PP
SODANKYLA	121.99	342.8	18 49	-2				
TROMSOE	122.24	347.1	19 11	19				
KIMBERLEY	122.37	220.3	18 52	0				
PALISADES	122.43	51.1						30 32 PS
KIRUNA	123.30	345.2	18 51	-3				
MOSCOW	124.07	327.8	18 53	-2				
BULAWAYO	125.37	230.9	18 58A	0				
UMEA	126.38	342.1	19 2	2				
NURMIJARVI	127.24	337.3	18 59K	-2				
SKALSTUGAN	128.73	345.5	18 58	-6				
BROKEN HILL	128.78	236.5	19 4A	0				
SAN JUAN	129.91	78.9	19 6	-1				
LWIRO	134.42	250.9	19 15K	0				
COLLMBERG	138.40	334.9	19 22	0			19 39	22 23 PP
PRUHONICE	138.71	332.4	19 34	11				22 27
BRATISLAVA	138.76	328.7	19 19	-4				22 19 PP
KASPERSKE H.	139.76	332.2	19 24	-1				
LJUBLJANA	141.49	328.1	19 34	6				
STUTTGART	141.87	335.3	19 26	-3				
FOLINIERE	145.12	344.7	19 33	-1				
MESSINA	145.74	316.9	19 34	-1				
BANGUI	146.36	254.2	18 38	-58				
ISOLA	146.45	332.5	19 28	-9				
CLERMONT-FD.	146.71	338.4	19 37	0				19 49 PKP2
BAGNERES	150.10	339.4	19 45	3				19 58 PKP2

MAY 15 20.H 53.M 47.S EPICENTRE -20.32-177.75 DEPTH= 472.KM

A=-0.93781 B=-0.03681 C=-0.34519 D=-0.0392 E= 0.9992
G= 0.3449 H= 0.0135 K=-0.9385 HT= 4.6

DEPTH OF FOCUS= 0.069R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	8.56	42.8	2 0A	-3	3 36	-4		
RAOUL ISLAND	8.89	180.9	2 4	-2				
NOUMEA	14.85	259.6	3 11	2	5 50	7		
ONERAHI	16.88	202.6	3 35	5				6 34 *SS
AUCKLAND	17.73	200.0			5 43	-52		6 37 *SS
KARAPIRO	18.49	196.9	3 46	0				
CHATEAU	19.68	195.6	3 57	0	7 18	9		
WELLINGTON	21.84	195.3	4 15	-2	7 40	-5		
RIVERVIEW	30.65	237.5	5 12	-24	10 28	24		5 36
CANBERRA	32.80	235.9	5 54K	0			6 25	7 13 PP
CHARTERS TS.	33.73	264.0	6 1	-1	10 48	-4		
PORT MORESBY	35.54	282.6	6 17	0				
MOORLANDS	36.79	225.2	6 27	0				
FORT NELSON	36.91	224.4	6 27K	-1				
TARRALEAH	37.22	225.8	6 31	0				
ADELAIDE	40.90	239.7	6 57	-4				
HONOLULU	45.61	26.0	7 38	0				
CAPE HALLETT	52.46	184.6	8 30	1				
SCOTT BASE	58.07	183.8	9 8A	0	16 54	22		
MUNDARING	59.61	244.2	9 17	-2				
BYRD STATION	64.78	170.6	9 51	-1				
MATUSIRO	70.20	323.5	10 24K	-1	18 57	-2		22 30
LEMBANG	73.27	268.8	10 45K	2				18 45
Y.-SAKHLINSK	75.90	333.3	10 58	0				
ZO-SE	77.76	309.8	11 7	-1	20 18	-3		
LICK	77.96	42.6	11 10K	1				
PASADENA	78.39	46.9	11 14	2				
HONG KONG	78.80	298.9	11 15	1	20 34	2		
FRESNO	78.80	43.9	11 14	0				
MINERAL	79.81	40.2	11 18K	-1				
CANTON	79.84	299.2	11 20K	1	20 43	0	13 13	

NANKING	80.00	309.5	11	20K	0	20	46	2	13	14		
RENO	80.43	41.7	11	24	2							
CORVALLIS	81.46	36.0	11	28A	1							
MAWSON	81.81	199.7	11	29	0						11	40 PCP
CHANGCHUN	82.39	322.3	11	32K	0	21	11	3	13	24		
TUCSON	82.62	51.8	11	35	2							
EUREKA	82.83	43.4	11	35	1							
MAGADAN	83.64	344.5				21	11	-9				
VICTORIA	83.92	32.9	11	39	-1							
PEKING	85.92	315.3	11	50K	0	21	45	3	13	43	21	26 SKS
PENTICTON	86.38	33.8	11	52	0							
FLAMING GRGE	87.88	44.8	11	59	0						14	53 PP
COLLEGE	87.98	12.3	11	58	-1	21	59	-2			13	4
HUNGRY HORSE	88.85	36.7	12	3	0							
CHENGTU	90.59	302.5	12	12	1	22	29	4	14	5	21	54 SKS
YAKUTSK	92.01	338.0	12	16	-2							
WICHITA MTS.	92.89	54.1	12	21	-1						29	30 PKKP
RAPID CITY	93.39	44.1	12	22	-2							
RESOLUTE	107.56	16.1	17	30	777							
QUETTA	121.33	293.6	17	59	1							
SCORESBY SD.	127.80	10.0	18	10A	-1							
TROMSOE	129.65	352.5	17	34	-40							
SODANKYLA	130.47	347.9	18	15	-1						20	54 SKP
KIRUNA	131.13	351.0	18	15	-2						20	47 PP
BULAWAYO	132.22	214.3	18	20K	1						21	0 PP
KAJAANI	133.04	345.0	18	20	-1							
SHIRAZ	133.79	292.0	18	9	-13						21	5 PP
UMEA	134.86	348.9	18	19	-5						21	13 PP
WINDHOEK	134.97	199.6									21	10
PULKOVO	135.79	340.0									20	41
MOSCOW	135.85	331.9	18	25	-1							
SKALSTUGAN	136.23	353.5	18	13	-14						21	13 PP
NURMIJARVI	136.83	344.0	18	17	-11						21	13 SKP
BROKEN HILL	136.89	218.8	18	18	-10						21	16 PP
UPPSALA	139.01	348.2	18	23	-9							
GOTEBORG	141.99	351.5	18	37	-1							
COPENHAGEN	143.87	350.2	18	39K	-2							
SIMFEROPOL	144.00	320.4	18	40K	-1							
WARSAW	144.96	339.8	18	42	-1							
DURHAM	145.48	3.9	18	44	1							
LWIRO	145.63	232.3	18	43	-1						20	42
KISHINEV	145.69	327.1	18	45	1							
LWOW	145.84	334.7	18	46K	2						20	43
IASI	146.20	328.4	18	47	3							
KRAKOW	147.18	338.8	18	45	-1				19	3		
KSARA	147.33	301.3	18	48	2							
WITTEVEEN	147.38	355.0	18	50K	4							
RACIBORZ	147.71	340.6	18	41	-6				19	15		
SKALNATE PL.	147.80	337.6	18	44	-3				19	15		
COLLMBERG	147.95	347.2	18	47K	0						22	12 PP
HALLE	147.96	348.5	18	47	0						23	46
MUNSTER	148.13	353.7	18	47	0							
JERUSALEM	148.37	297.9	18	53K	6						20	57
JENA	148.58	348.6	18	47	-1						21	22
PRUHONICE	148.83	344.6	18	48	0							
BUCHAREST	148.86	325.9	18	48	0							
BENSBERG	149.18	353.9	18	53K	4						20	51
ISTANBUL UN.	149.29	318.2	18	54A	5							
BRATISLAVA	149.74	340.1	18	50	0				19	20		
KASPERSKE H.	149.85	345.1	18	50K	0							
VIENNA-H.	149.89	341.0	18	51K	1						20	56
HEIDELBERG	150.53	351.4	18	51	0							
STUTTGART	151.06	350.4	18	52	0						20	56
TUBINGEN	151.32	350.5	18	59	7							
STRASBOURG	151.46	352.3	18	54	2						19	20
SOFIA	151.50	326.2									19	57
FOLINIERE	151.53	3.8	18	53	1							
PARIS	151.57	359.7	19	1	9						20	59 PP
EBINGEN	151.68	350.5	18	52	-1							
HELWAN	152.06	295.7	19	2K	9						20	58
LJUBLJANA	152.43	341.3	18	54	0						20	59 PP
ATHENS	154.39	318.0	18	56	0							
BAGNERES	157.25	4.0	18	59	-1							
BANGUI	157.53	227.3	19	0	0						23	15

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MAY 16 17.H 27.M 38.S EPICENTRE -27.92-176.06 DEPTH= 72.KM

A=-0.88284 B=-0.06074 C=-0.46573 D=-0.0686 E= 0.9976
G= 0.4646 H= 0.0320 K=-0.8849 HT= 2.5

DEPTH OF FOCUS= 0.006R

SE= 4.10

	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	
RAOUL ISLAND	2.10	230.4	0	24	-10	0	43	-16					
SUVA	10.96	331.3	2	38	2								
ONERAHI	11.28	223.7	2	40	0								
KARAPIRO	12.22	213.1	2	41	-11						3	23	
CHATEAU	13.24	209.7	2	56	-10						3	19	
AFIAMALU	14.50	16.8	3	17	-5	4	59	-63					
WELLINGTON	15.30	207.1	3	26	-7	5	56	-24			6	22	
NOUMEA	16.79	285.6	3	53K	2	7	16	22					
PORT VILA	17.59	301.9	4	2K	1								
BRISBANE	27.57	263.7	5	37	-5	10	30	14					
RIVERVIEW	28.67	250.0	5	37	-15						11	15	
CANBERRA	30.54	247.2	6	5	-3				6	18			
CHARTERS TS.	35.18	274.4											
ADELAIDE	38.95	248.0	7	16	-4								
PORT MORESBY	39.20	290.8									9	17	
CAPE HALLETT	45.07	185.9	8	15	5	14	54	11			18	29	SCS
SCOTT BASE	50.64	184.6	7	52	-61								
BYRD STATION	57.06	170.0	9	38	-3								
WILKES	58.13	207.1				17	46	4			14	3	
MIRNY	65.10	206.2	10	31	-4								
LEMBANG	74.76	270.3	11	34A	1								
MAWSON	75.21	199.9	11	36	0	21	14	6	11	52			
MATUSIRO	77.21	323.7	11	47A	0	21	42	12			22	18	SCS
LICK	82.59	40.8	12	16	0								
BERKELEY	82.59	40.1	12	20	4								
WOODY	83.13	43.6	12	20	1								
KERGUELEN I.	83.21	217.0				22	45	13					
FRESNO	83.28	42.3	12	21	1								
Y.-SAKHLINSK	83.35	333.0	12	22	2								
PETROPAVLOVK	83.56	344.9	11	24	-57								
ZO-SE	83.79	309.9	12	24	2	22	45	7					
HONG KONG	83.82	299.1	12	24	2	22	47	9					
SHASTA	84.49	38.0	12	30	4								
MINERAL	84.68	38.7	12	28K	1								
CANTON	84.89	299.3	12	29A	1	22	56	7					
RENO	85.13	40.2	12	35	6								
UGLEGORSK	85.27	333.9	12	31K	1								
VLADIVOSTOK	85.33	324.6	12	31	1								
BOULDER CITY	85.81	45.5	12	35	3								
NANKING	86.00	309.4	12	35	2								
TUCSON	86.17	50.5	12	42	8								
TUCSON TELE.	86.30	50.4	12	38	3								
EUREKA	87.33	42.2	12	41	1								
CHANGCHUN	89.31	321.8	12	51	2								
FLAMING GRGE	92.20	44.1	13	3	0								
PEKING	92.36	314.7	13	4	1								
HUNGRY HORSE	94.02	36.2	13	13	2								
KUNMING	94.23	296.1	13	14	2	24	23	9			23	51	SKS
COLLEGE	95.06	11.7	13	16	0				13	29			
CHENGTU	95.91	301.5	13	19	0	23	57	9			24	47	S
WICHITA MTS.	96.08	54.0	13	22	2	24	2	13					
RAPID CITY	97.76	44.0	13	32	4								
YAKUTSK	99.59	337.2									17	39	PP
BOMBAY	116.86	278.1									21	27	
KHEYS	122.99	350.9	18	50	2								
QUETTA	125.50	288.6	18	55	2								
SHIRAZ	137.63	284.4	19	19	4						22	52	PKS
SODANKYLA	138.19	347.1	19	19	3								
KIRUNA	138.84	350.6	19	33	15								
UMEA	142.58	348.2	19	23	-1								
MOSCOW	143.18	328.4	19	23	-2								
PULKOVO	143.40	337.8	19	25	-1								
SKALSTUGAN	143.92	353.7	19	26K	-1								
TIFLIS	144.07	303.4	19	28	1								
NURMIJARVI	144.51	342.4	19	28	0								
UPPSALA	146.73	347.4	19	33K	1								
GOTEBORG	149.70	351.4	19	44	8								
SIMFEROPOL	150.59	313.4	19	39	1								
COPENHAGEN	151.59	349.8	19	31K	-8								

KSARA	152.03	290.1	19 44	4		23 28	PP
JERUSALEM	152.64	285.8	19 50	9			
BANGUI	152.73	213.5	19 42	1			
COLLMBERG	155.66	346.1	19 52	7		20 25	PKP2
PRUHONICE	156.52	342.6	20 18	32		24 5	PP
KASPERSKE H.	157.55	343.3	20 33	46			
STUTTGART	158.77	350.2	19 51	2		24 9	PP

MAY 16 21.H 45.M 25.S EPICENTRE 30.37 132.02 DEPTH= 14.KM

A=-0.57849 B= 0.64206 C= 0.50310 D= 0.7429 E= 0.6694
G=-0.3368 H= 0.3738 K=-0.8642 HT= 1.7

SE= 2.36

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
YAKUSIMA	1.31	273.7	0 25A	1	0 43	1		
MIYAZAKI	1.62	341.7	0 30A	1	0 50	0		
KAGOSIMA	1.74	313.8	0 29A	-1	0 51	-1		
SIMIDU	2.53	18.5	0 40A	-2	1 7	-6		
ASOSAN	2.65	342.4	0 44	1	1 14	-2		
KUMAMOTO	2.69	335.6	0 44A	0				
UNZENDAKE	2.79	327.7	0 47	2	1 14	-5		
OOITA	2.87	353.3	0 47A	1	1 16	-5		
UWAZIMA	2.88	8.9	0 47	0	1 16	-6		
NAGASAKI	2.97	322.7	0 48A	0	1 22	-2		
SAGA	3.22	333.4	0 51A	0	1 19	-11		
MUROTO	3.41	32.1	0 56A	2	1 32	-3		
KOTI	3.42	21.7	0 53	-1	1 26	-9		
HUKUOKA	3.49	336.9	0 55A	0	1 33	-4		
MATUYAMA	3.52	10.4	0 57	1	1 33	-5		
TOMIE	3.57	309.7	0 56A	0	1 31	-8		
SIMONOSEKI	3.68	345.8	0 58K	0	1 39	-3		
HIROSIMA	4.00	4.9	1 3K	1	1 45	-5		
TOKUSIMA	4.28	29.8	1 7	1				
TAKAMATU	4.29	23.1	1 6	-1	1 48	-9		
SIOMISAKI	4.43	45.2	1 7	-1	1 56	-5		
ITUHARA	4.46	329.4	1 8A	-1	1 54	-8		
HAMADA	4.51	0.5	1 10	0	1 59	-4		
OKAYAMA	4.58	20.0	1 11	0	1 59	-6		
SUMOTO	4.65	31.0	1 10A	-2	2 0	-6	8 36	PCP
WAKAYAMA	4.68	33.9	1 12	0	2 3	-4		
KOBE	5.06	31.0	1 17	0	2 14	-3		
OWASE	5.11	42.8	1 17	-1	3 11	53		
MATSUE	5.14	9.6	1 21	2	2 24	5		
OSAKA	5.19	33.9	1 17	-2	1 57	-23		
NARA	5.37	35.9	1 22	0	2 45	21		
ABUYAMA	5.39	32.8	1 20A	-2				
TOTTORI	5.43	19.0	1 25	2	2 23	-3		
KYOTO	5.59	33.1	1 24	-1	2 23	-7		
TOYOOKA	5.66	23.9	1 25	-1	2 36	4		
TU	5.75	40.2	1 31	4				
MAIZURU	5.82	28.3	1 28	0	2 31	-5		
KAMEYAMA	5.83	38.9	1 29	1	2 31	-5		
SAIGO	5.91	10.4	1 33	4	2 46	8		
HIKONE	6.04	35.0	1 31	0	2 35	-6		
TSURUGA	6.27	31.8	1 27	-7	2 37	-10		
NAGOYA	6.34	39.8	1 34A	-2	2 46	-3		
GIHU	6.41	37.3	1 36	0				
HUKUI	6.67	30.8	1 40	0				
OMAESAKI	6.72	49.6	1 41	0	2 29	-29		
IIDA	7.08	42.1	1 46	0	4 16	69		
TAKAYAMA	7.24	35.9	1 46	-2				
MISIMA	7.45	49.3	1 49A	-3	3 16	-1		
AJIRO	7.57	50.1	1 52K	-1	3 16	-3		
OSIMA	7.60	52.9	1 51A	-2				
KOHU	7.62	44.4	1 52	-1			4 56	
HUNATU	7.64	46.2	1 53	-1			5 44	
TOYAMA	7.65	33.1	1 49	-5	3 32	11		
MATUMOTO	7.69	38.8	1 55	1				
MERA	7.99	53.4	1 58	-1				
MATUSIRO	8.03	38.4	1 57A	-2	3 39	8	4 17	
OIWAKE	8.07	40.9	1 59	-1	3 42	10		
NAGANO	8.13	37.8	2 0	0			4 27	
TITIBU	8.14	44.8	2 1	0				

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YOKOHAMA	8.16	49.8	2	2A	1	4	50	76				
TOKYO C.M.O.	8.37	48.8	2	4A	0							
HONGO	8.40	48.7	2	5	1						4	6
MAEBASI	8.42	42.6	2	4	0	3	50	9				
KUMAGAYA	8.43	45.0	2	6	1							
TUKUBASAN	8.93	47.1	2	10A	-2						4	0
KAKIOKA	8.98	47.3	2	11	-1							
UTUNOMIYA	8.99	44.7	2	14	1	4	14	19				
AIKAWA	9.21	32.4	2	15	0							
NITO	9.26	47.5	2	15	-1							
ZO-SE	9.36	277.2	2	17A	-1							
NIIGATA	9.52	35.9	2	19	-1	4	2	-6				
SHIRAKAWA	9.58	43.2	2	21	0							
ONAHAMA	9.89	46.1	2	25K	0	4	21	4				
HUKUSIMA	10.16	41.3	2	28	-1							
YAMAGATA	10.44	39.0	2	32A	0							
SAKATA	10.66	35.0	2	36	1							
TAIPEI	10.72	242.7	1	53	-43	5	43	66				
SENDAI	10.76	40.6	2	37	0	4	41	3				
ISINOMAKI	11.11	41.2	2	40	-2							
HWALIEN	11.24	237.9	2	47	4							
AKITA	11.43	33.2	2	35	-11							
NANKING	11.46	281.8	2	45A	-1	5	1	6				
MIZUSAWA	11.50	38.1	2	48	1							
TAICHUNG	11.83	241.1	1	38	-73							
MORIOKA	11.94	36.4	2	52A	-1	5	6	-1				
MIYAKO	12.33	38.7	2	57	-1							
AOMORI	12.62	31.9	3	6	4							
VLADIVOSTOK	12.72	359.6	3	4	1						7	35 SCP
HATINOHE	12.75	34.8	2	58	-6							
TAWU	12.77	233.9	3	8	4							
HAKODATE	13.41	29.3	2	47K	-25						3	29
MORI	13.57	28.1	3	19	4							
SUTTSU	14.04	25.7	3	26	5							
TOMAKOMAI	14.43	29.5	3	26	0							
CHANGCHUN	14.45	340.2	3	26A	0	6	16	9				
URAKAWA	14.59	33.4	3	32	4							
SAPPORO	14.70	27.9	3	31	2	6	11	-2			7	42
OBIHIRO	15.39	32.5	3	36	-2							
KUSIRO	16.01	34.8	3	42	-4	6	49	5				
PEKING	16.12	311.0	3	47A	-1	6	53	6				
WAKKANAI	16.82	24.1	4	15	18	7	14	11				
NEMURO	16.85	36.2	3	57	0							
HONG KONG	17.89	247.5	4	8	-2	7	14	-13				
CANTON	18.18	250.9	4	11A	-3	7	36	2				
Y.-SAKHLINSK	18.50	23.6	4	17	-2						8	5 SS
SIAN	19.89	287.2	4	32A	-2	8	15	3				
UGLEGORSK	20.19	19.4	4	34	-3						8	29 SS
GUAM	20.53	142.3	4	39	-1	8	31	6				
CHENGTU	24.11	277.8	5	15A	-1	9	32	2				
LANCHOW	24.21	291.0	5	16A	-1	9	37	5				
ULAN-BATOR	26.02	319.4	5	33	-1	10	6	3				
KUNMING	26.39	265.7	5	36A	-2	10	16	7				
NHATRANG	27.79	234.4	5	50	-1	10	33	2				
IRKUTSK	29.87	325.0	6	7	-2	11	1	-4				
YAKUTSK	31.69	357.9	6	23	-2	11	32	-1			7	36 PP
MAGADAN	31.82	18.1	6	25	-1	11	33	-2			7	47 PPP
LHASA	35.36	279.4	6	57	0							
SHILLONG	35.65	272.3	6	56	-4	12	29	-6			8	14 PP
CHITTAGONG	36.74	267.2	7	5	-4	12	46	-6	7	13	8	40 PP
CHATRA	39.34	276.3	7	26	-5	13	30	-1			9	6 PP
CALCUTTA	39.66	269.3	7	39	6	13	44	8			9	24
MEDAN	41.25	236.3	7	48	2	14	6	6				
TIKSI	41.34	358.5	7	46	-1	14	0	-1			9	22 PP
BOKARO	41.43	272.5	7	48	0	13	38	-24			9	53
PORT MORESBY	42.13	157.4	7	55	2	14	25	12				
SEMIPALATNSK	43.21	312.8	8	1	-1						9	49 PP
LEMBANG	43.77	216.4	8	9K	2							
DEHRA DUN	46.19	284.3	8	27	1	15	7	-4			17	50
FRUNSE	46.90	301.9	8	32	0	15	21	0			10	27 PP
HONIARA	47.82	141.4	8	40	1							
HYDERABAD	50.23	267.9									16	9
WARSAK DAM	50.66	290.8	9	2	1							
MADRAS	50.73	261.8	9	1	0						14	15
TASHKENT	51.02	300.5	9	4	0	16	20	1			9	40
CHARTERS TS.	52.01	162.9	9	11	0						9	44
COLOMBO	54.09	255.5	9	38	12	16	54	-7			26	57
BOMBAY	54.48	272.4	9	30	1	17	5	-1			19	18

SVERDLOVSK	55.12	320.6	9	33	-1	17	14	-1				
QUETTA	55.45	287.6	9	36	0	17	14	-5	9	45	11	42 PP
KARACHI	57.16	281.5	9	48	-1							
KHEYS	57.63	349.2	9	50	-2							
COLLEGE	58.80	29.5	9	59	-1						12	36 PP
ASHKABAD	59.99	298.8									18	25 PS
BRISBANE	60.77	158.8	10	15	1	18	37	8				
NOUMEA	61.94	143.6	10	21K	-1							
ADELAIDE	65.30	173.9	10	48K	4							
TEHERAN	65.98	298.5	10	49	1	19	38	4				
RIVERVIEW	66.37	162.7	10	47	-4						19	49
NORD	67.10	355.2	10	53K	-2							
CANBERRA	67.27	165.0	10	57	1						11	25 PCP
SHIRAZ	67.37	292.0	10	56A	-1	19	51	0			21	12 SKS
MOSCOW	67.82	322.5	10	58	-2	19	51	-5				
SODANKYLA	67.97	336.3	10	58K	-3	19	56	-2				
GORIS	68.35	303.9	11	4	1	20	3	1			13	40 PP
TIFLIS	68.60	306.6	11	6	1	20	8	3			11	25 PCP
KAJAANI	69.02	332.9	11	6K	-1	20	8	-2			20	58 SCS
TROMSOE	69.35	339.9	11	11	2							
AFIAMALU	69.72	120.7	11	12	1							
PULKOVO	69.80	328.1	11	11	-1	20	18	-2			15	26 PPP
KIRUNA	69.83	337.9	11	10	-2	20	18	-2				
RESOLUTE	70.85	11.9	11	17K	-1	20	31	-1			21	23 SCS
NURMIJARVI	71.96	330.2	11	23K	-2	20	42	-3			14	4 PP
UMEA	72.02	334.3	11	25	0							
THULE	72.70	4.9	11	28	-1				11	41	14	9 PP
SIMFEROPOL	74.34	313.1	11	38K	-1	21	11	-1			11	56 PCP
SKALSTUGAN	75.04	336.3	11	41	-2							
UPPSALA	75.28	331.6	11	43K	-1	21	17	-5				
IASI	77.24	317.4	11	56	1	21	58	15				
SCORESBY SD.	77.71	351.3	11	58K	0	21	49	0			22	22 PS
LWOW	77.85	320.9	11	59	0	21	50	0			15	2 PP
BACAU	77.95	317.1									12	17
WARSAW	78.10	324.1	12	1	1	21	51	-2			12	13 PCP
KSARA	78.36	302.3	12	1K	-1	21	58	3			14	53 PP
CORVALLIS	78.73	44.8	12	4K	0							
GOTEBORG	78.92	331.7	12	4	-1							
KARAPIRO	79.19	146.3	12	6	0							
ISTANBUL KA.	79.46	311.5	12	7K	-1	22	8	1				
ISTANBUL UN.	79.53	311.5	12	7	-1	22	10	2				
BUCHAREST	79.57	315.5	12	9K	1	22	10	2				
BERGEN	79.62	336.1	12	6	-2							
JERUSALEM	79.83	300.8	12	10K	0	22	20	9				
KRAKOW	79.92	322.6	12	10	0	22	3	-9			12	29 PCP
COPENHAGEN	80.03	330.0	12	10K	-1	22	13	0			22	41 PS
CHATEAU	80.20	147.1	12	11	-1							
SKALNATE PL.	80.25	321.8	12	12A	0	22	15	0				
CHORZOW	80.26	323.2	12	9	-3				12	15	12	22 PCP
RACIBORZ	80.80	323.3	12	15	0						12	25 PCP
SHASTA	81.36	47.8	12	17K	-1							
HUNGRY HORSE	81.91	38.0	12	21	1	22	33	0			15	17 PP
BUDAPEST	81.92	320.9	12	28	7	22	38	5			16	8 PP
MINERAL	82.06	47.8	12	21A	0							
HURBANOVO	82.13	321.6	12	25	3	22	39	4				
SOFIA	82.20	315.2	12	22	0						14	23
BRATISLAVA	82.53	322.2	12	26A	2	22	41	2			15	28 PP
COLLMBERG	82.62	326.4	12	24K	0	22	41	1			12	30 PCP
BELGRADE	82.69	318.1	12	25	0	22	41	1			12	54
PRUHONICE	82.71	324.7	12	25K	0	22	42	1			15	49 PP
PRAGUE	82.71	324.8	12	26	1	22	44	3				
VIENNA-H.	82.87	322.6	12	26K	1	22	43	1			15	34 PP
BERKELEY	82.98	50.1	12	26K	0							
SIDA	83.22	347.1	12	29A	2							
JENA	83.54	326.7	12	29	0	22	47	-2			16	2 PP
REYKJAVIK	83.59	348.8	12	31	2							
RENO	83.65	47.7	12	31A	2							
HELWAN	83.68	300.8	12	30K	0	22	47	-3				
LICK	83.68	50.3	12	29A	-1						12	51
CHEB	83.72	325.7	12	27	-3	22	49	-2				
KASPERSKE H.	83.74	324.5	12	30K	0						15	50 PP
BUTTE	84.12	39.3	12	31	-1							
VINEYARD	84.18	50.7	12	32	0							
WITTEVEEN	84.47	330.2	12	35K	1							
ABERDEEN	84.60	336.9				22	57	-3				
ATHENS	84.62	311.1	12	34K	0							
MUNSTER	84.65	329.2	12	33	-1							
BOZEMAN	85.17	38.9	12	37	0							

FRESNO	85.22	50.0	13 37	60							
LJUBLJANA	85.23	321.7	12 35	-2						15 59	PP
BENSBERG	85.56	328.6	12 39K	0	23 9	0	12 45			12 49	*SP
DE BILT	85.62	330.3	12 41	2	23 7	-3					
TRIESTE	85.90	321.7	12 42A	1	23 14	2				28 53	SS
HEIDELBERG	85.93	326.8	12 41	0							
STUTTGART	86.10	326.1	12 41	-1	23 16	2				16 2	PP
EUREKA	86.11	46.0	12 42	0							
DURHAM	86.29	335.1	12 42A	-1	23 13	-3				23 3	SKS
KARLSRUHE	86.35	326.7	12 43	0	23 11	-6					
TUBINGEN	86.36	326.0	12 43	0							
RAVENSBURG	86.61	325.2	12 44	0							
EBINGEN	86.65	325.8	12 44	0							
STRASBOURG	86.95	326.7	12 47	1	23 25	3				23 14	SKS
PADOVA	87.06	322.4			23 27	4				24 25	PS
TARANTO	87.19	316.1								14 5	
BASLE	87.78	326.0	12 48	-2	23 32	2				17 7	
PASADENA	87.81	51.3	12 50	0	23 21	-9				29 35	SS
SALT LAKE C.	87.81	43.0	12 51	1							
KEW	88.37	332.4	12 53K	0	23 33	-3				23 19	SKS
PAVIA	88.62	323.5								14 26	
BESANCON	88.75	326.6	12 54	0							
BOULDER CITY	88.93	48.2	12 56	1							
ROME	89.05	319.5	12 56A	0	23 46	4	13 6			16 20	PP
FLAMING GRGE	89.14	41.7	13 26	30						16 1	
PARIS	89.21	329.3	12 57	0	23 43	0				23 28	SKS
MESSINA	89.64	315.1	12 53	-6						13 13	
GARCHY	90.08	328.0	12 50	-11						13 11	
RAPID CITY	90.37	36.3	13 1	-1							
ISOLA	90.40	323.9	12 52	-10						16 31	PP
FOLINIERE	90.52	330.8	13 3	0							
CLERMONT-FD.	91.18	327.0	13 6	0							
TUCSON	93.84	49.1	13 19	1						17 5	PP
TUCSON TELE.	93.86	49.0	13 10	-8							
TANANARIVE	94.78	251.0	13 22	0						14 49	
ALICANTE	98.52	324.1	13 42	3	25 10	54				26 40	PS
TOLEDO	99.07	327.3	13 36	-6	24 24	5				17 43	PP
WICHITA MTS.	99.59	40.2	13 43	-1						17 46	PP
FAYETTEVILLE	100.92	36.5	13 50	0							
LWIRO	102.54	274.8	14 3	6							
PALISADES	105.03	20.0			24 59	12				18 43	PP
CAPE HALLETT	105.75	168.7								18 34	PP
BROKEN HILL	108.72	263.9								18 45	
BYRD STATION	122.90	168.6	18 56	0			19 22				
CHINCHINA	136.01	41.7	19 24A	3						23 3	SKP
FUQUENE	136.66	39.1	19 25A	3							
BOGOTA	137.18	40.2	19 29	6						23 1	SKP
HUANCAYO	148.79	60.2	19 51	8							

MAY 17 19.H 29.M 19.S EPICENTRE 52.33 174.00 DEPTH= 0.KM

A=-0.61038 B= 0.06411 C= 0.78951 D= 0.1045 E= 0.9945
G=-0.7852 H= 0.0825 K=-0.6137 HT= -6.3

SE= 2.78

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KLYUCHI	8.65	302.7	2 9	0	3 53	4			
PETROPAVLOVK	9.36	280.3	2 7	-12	3 57	-9			
MAGADAN	14.82	308.3	3 33	1	6 29	11			
KURILSK	18.56	257.9	4 19K	-1					
UGLEGORSK	20.39	273.6	4 41	0				8 32	
Y.-SAKHLINSK	20.83	267.7	4 45	0				8 42	
NEMURO	20.98	255.9	4 45	-2	8 37	0			
KUSIRO	21.89	256.5	4 54A	-2	8 56	2			
WAKKANAI	22.22	264.8	4 51	-8	9 6	6			
OBIHIRO	22.64	257.7	5 4	0					
COLLEGE	23.08	42.3	5 10	2	9 15	-1			
URAKAWA	23.34	256.6	5 12	1					
SAPPORO	23.67	260.0	5 14A	0	9 27	1			
TOMAKOMAI	23.78	258.9	5 15	0					
SUTTSU	24.50	260.6	5 23	1					
MORI	24.70	258.9	5 24	0					
HAKODATE	24.76	258.1	5 24	0					
HATINOHE	25.08	254.9	5 28	1	9 49	-1			
MIYAKO	25.38	252.8	5 31	1	9 58	3			

YAKUTSK	25.39	309.8	5	29	-1	9	52	-3			
MORIOKA	25.82	253.8	5	35K	1	10	12	10			
MIZUSAWA	26.21	252.9	5	39	1	10	12	3			
AKITA	26.44	255.1	5	41	1						
ISINOMAKI	26.57	251.5	5	42	1	10	30	15			
SENDAI	26.92	251.7	5	36	-8	10	52	31			
SAKATA	27.13	254.0	5	50	4						
YAMAGATA	27.25	252.3	5	49	1						
HUKUSIMA	27.52	251.4	5	51	1						
TIKSI	27.62	331.0	5	50	-1	10	28	-4			
ONAHAMA	27.82	249.6	5	53	0	11	10	35			
NIIGATA	28.24	253.3	5	57	1	11	24	42			
MITO	28.47	249.3	5	58	-1						
UTUNOMIYA	28.69	250.2	6	1	0						
TUKUBASAN	28.79	249.5	6	0K	-1	10	47	-4	6	9	6 52 PP
SITKA	29.10	60.4	6	6	2	10	53	-3			
KUMAGAYA	29.26	250.2	6	5	-1						
MAEBASI	29.26	250.9	6	6	0						7 6
HONGO	29.34	249.1	6	11	5						11 19
TOKYO C.M.O.	29.37	249.1	6	1	-6	11	0	0			
VLADIVOSTOK	29.41	268.7	6	6	-1	10	48	-13			9 47
NAGANO	29.58	252.3	6	9	0						
YOKOHAMA	29.61	248.9	6	20	11						
OIWAKE	29.61	251.4	6	11	2	10	46	-18			
MATUSIRO	29.66	252.1	6	8A	-1	11	3	-2			9 37
WAZIMA	29.87	254.8	6	12	1	11	5	-3			
HUNATU	30.06	250.0	6	16	3						7 26
KOHU	30.07	250.5	6	13	0						
TOYAMA	30.15	253.5	6	22	8						
MISIMA	30.23	249.3	6	12	-2						
OSIMA	30.23	248.3	6	13	-1						
SHIZUOKA	30.65	249.7	6	15	-3	11	19	-1			
OMAESAKI	31.02	249.4	6	19	-2						
NAGOYA	31.34	251.6	6	34	10						
KAMEYAMA	31.86	251.7									6 51
ABUYAMA	32.37	252.7	6	33	0						
OSAKA	32.55	252.4	6	38	3	11	49	-1			
CHANGCHUN	33.07	274.9	6	36A	-3						
HAMADA	34.42	256.4	6	50A	-1	12	17	-2			
KOTI	34.49	253.2	6	49	-3	12	15	-5			
HIROSIMA	34.57	255.3									12 20
MATUYAMA	34.73	254.3	6	54	0	12	22	-2			
SIMIDU	35.37	252.8	6	20	-39	12	19	-15			
OOITA	35.85	254.7	7	3	0	11	53	-48			
HUKUOKA	36.34	256.4	7	7	0	12	51	2			
KUMAMOTO	36.68	255.2	6	56	-14						
MIYAZAKI	36.90	253.4	7	16	4	13	0	3			
HONOLULU	37.73	134.5	7	20	1	13	21	11			
TOMIE	37.97	256.9	7	21	0	13	14	0			
VICTORIA	38.95	69.8	7	30	1						
RESOLUTE	40.71	24.0	7	44	0	13	54	-1			9 26
PEKING	40.83	276.2	7	44A	-1	13	58	1			
IRKUTSK	41.08	298.7	7	46	-1	14	0	0			9 25 PP
BANFF	42.04	62.4	7	56	1						
KHEYS	42.71	347.4	8	1	1	14	22	-3			
ZO-SE	43.62	262.2	8	8A	0	14	37	-1			9 48 PP
SHASTA	43.92	79.0	8	11	1						
HUNGRY HORSE	44.36	65.1	8	14	0	14	45	-3			12 19
UKIAH	44.39	81.4	7	56	-18						
NANKING	44.42	265.2	8	13A	-1	14	47	-2			
MINERAL	44.61	78.9	8	16K	0						
THULE	45.59	17.0	8	23	0	15	6	0			9 37 PP
BERKELEY	45.77	82.1	8	26	1	15	16	7			18 14 SCS
NORD	46.19	2.2	8	26	-2	15	11	-4			10 21 PP
RENO	46.19	78.6	8	28	0						
LICK	46.49	82.2	8	31K	1						
BUTTE	46.51	67.0	8	30	-1	15	17	-2			
BOZEMAN	47.57	66.5	8	38	-1						18 30 SCS
FRESNO	47.97	81.5	8	43	1						
EUREKA	48.53	76.1	8	46	0						9 43 PCP
SIAN	48.97	275.2	8	50A	0	15	53	-1			
SALT LAKE C.	50.14	72.1	9	0	1						
PASADENA	50.71	82.9	9	4	1	16	19	1			14 17 SCP
LANCHOW	50.86	280.6	9	4A	0						
FLAMING GRGE	51.47	70.4	9	7	-2						14 21 SCP
BOULDER CITY	51.50	78.8	9	10	1						
GLEN CANYON	52.78	75.6	9	16	-3						19 8 SCS
RAPID CITY	52.93	63.7	9	20	0						11 10 PP

CANTON	54.21	261.7	9	30A	1	17	5	-1				
HONG KONG	54.30	260.4	9	29	-1	17	9	2				
CHENGTU	54.44	275.5	9	31A	0	17	7	-2				
SEMIPALATNSK	54.48	308.3	9	29	-2	17	3	-7				
TUCSON	56.47	79.3	9	46	0						19 35	SCS
TUCSON TELE.	56.47	79.2	9	46	0							
SCORESBY SD.	56.96	6.3	9	49A	0	17	45	2			17 59	PS
TROMSOE	57.00	349.9	9	49	-1						10 52	
SODANKYLA	58.13	345.8	9	57A	-1						39 47	PKPPKP
SVERDLOVSK	58.29	323.6	9	58	-1	18	0	0			12 8	PP
KIRUNA	58.54	348.6	9	59A	-1	17	59	-5			39 35	PKPPKP
KUNMING	59.20	271.9	10	4A	-1	18	8	-4				
KAJAANI	61.00	343.8	10	18K	1						20 6	SCS
ALMATA	61.04	304.1	10	17	-1							
CHIHUAHUA	61.91	78.8				18	53	6				
WICHITA MTS.	61.93	68.8	10	24A	0	18	47	0			12 52	PP
UMEA	62.39	347.2	10	24A	-3						39 21	PKPPKP
FRUNSE	62.54	305.1	10	27	-1						12 47	PP
TOCKLAI	62.87	279.2	10	38	8							
LHASA	63.00	284.1	10	32A	1	19	1	0				
REYKJAVIK	63.22	7.7	10	33A	1							
FAYETTEVILLE	63.43	64.9	10	33	-1	19	22	16			11 12	
SKALSTUGAN	63.55	351.0	10	33A	-1						39 23	PKPPKP
SIDA	63.85	5.9	10	38	2							
PULKOVO	64.49	340.6	10	40	0	19	18	-1			17 42	PS
NURMIJARVI	64.86	343.8	10	42A	-1	19	20	-4			12 54	PP
SHILLONG	65.50	280.5	10	44A	-3	19	31	0			13 10	PP
PORT MORESBY	65.66	209.3	10	48	0	19	32	-1				
OTTAWA	65.77	46.4	10	48	-1							
CLEVELAND	66.06	52.8				19	38	0				
SHAWINIGAN	66.15	43.9	10	50	-1							
TASHKENT	66.31	307.3	10	52	0	19	39	-2			11 16	PCP
MOSCOW	66.44	334.8	10	51	-2						13 19	PP
UPPSALA	66.57	347.3	10	53A	-1	19	40	-4			11 13	
BREBEUF	66.61	45.1	10	53	-1							
AFIAMALU	67.10	165.0	10	53	-4	19	47	-4			27 11	SSS
BERGEN	67.26	353.9	10	59	1						20 23	
CHATRA	67.37	284.8	10	58	-1	20	4	10				
CHITTAGONG	67.92	278.2	11	2	0	20	1	0			13 26	PP
MORGANTOWN	68.25	53.0	11	10	6							
PENNSYLVANIA	68.35	50.9	11	5	0	20	4	-2			13 42	PP
DUZHANBE	68.67	305.7	11	7	0						20 4	
GOTEBORG	69.35	349.8	11	9A	-2	20	16	-2			39 15	PKPPKP
DEHRA DUN	70.03	293.8	11	14	-1	20	15	-11			13 50	PP
PALISADES	70.04	48.3	11	13A	-2	20	21	-5			13 59	PP
WESTON	70.10	45.7	11	15K	-1	20	34	7			30 25	SS
WASHINGTON	70.22	51.7	11	15	-2	20	21	-7			24 5	SS
SUVA	70.28	175.5				19	31	-58			24 41	SS
BOKARO	70.44	283.7	11	17A	-1	20	39	8			15 46	PPP
WARSAK DAM	70.76	300.8	11	17	-3							
ABERDEEN	70.82	357.8	11	19K	-1	20	35	0			16 0	PPP
LAHORE	71.15	297.2	11	21A	-1							
COPENHAGEN	71.28	349.1	11	24K	1	20	38	-2			14 4	PP
HALIFAX	71.47	39.5	11	24K	0							
COLUMBIA	72.08	57.5	11	28	0	20	45	-4				
TACUBAYA	72.96	80.3	11	26	-7	20	58	-2				
DURHAM	73.21	357.3	11	36A	2	21	5	3			14 30	PP
WARSAW	73.37	343.0	11	36	1	20	59	-5			14 25	PP
ASHKABAD	74.13	312.2	11	40	0						14 24	PP
MAKHACH-KALA	74.44	322.2	11	43A	1	21	19	3				
NOUMEA	74.60	187.3	11	45	3	21	21	3				
WITTEVEEN	74.69	352.1	11	44	1							
VERA CRUZ	74.96	78.1	12	1	16	21	43	21			14 45	PP
HALLE	75.45	348.5	11	47	0	21	26	-1				
MUNSTER	75.45	351.3	11	47	0							
COLLMBERG	75.51	347.8	11	47A	-1	21	27	-1			14 46	PP
DE BILT	75.52	352.9	11	49A	1	21	31	3			26 41	SS
PORT BLAIR	75.54	270.4	11	47	-1	21	24	-4				
CHORZOW	75.59	343.8	11	40K	-8						11 59	PCP
KRAKOW	75.66	343.1	11	49	0	21	27	-3			12 5	PCP
RACIBORZ	75.93	344.2	11	51	1						12 8	PCP
JENA	76.05	348.6	11	50	-1	21	31	-3			15 0	PP
CHARTERS TS.	76.06	206.8	11	48	-3						15 21	
QUETTA	76.17	301.5	11	51A	0	21	32	-3	12	0	14 41	PP
SKALNATE PL.	76.44	342.6	11	54K	1	22	1	23				
KEW	76.47	356.4	11	53A	0	21	27	-12			26 38	SS
BENSBERG	76.49	351.5	11	53A	0	21	37	-2	12	2	22 9	PS
PRAGUE	76.52	346.6	11	55	2	21	45	6				

TIFLIS	76.53	323.4	11	55A	2	21	41	2	14	43 PP
PRUHONICE	76.59	346.5	11	54A	0	21	39	-1	14	43 PP
KISHINEV	76.64	336.3	11	54	0	21	40	0		
SOTCHI	76.65	327.7	11	54	0					
IASI	76.78	337.2	11	56	1	21	45	3		
CHEB	76.79	348.0	11	51	-4	21	41	-1	14	43 PP
SIMFEROPOL	77.14	332.0	11	57A	0	21	47	1	14	51 PP
MERIDA	77.47	72.1	11	59	0	21	51	2		
BACAU	77.53	337.4	12	8	9	22	6	16		
KASPERSKE H.	77.56	347.0	12	0A	1				14	49 PP
GORIS	77.88	321.2	12	2	1	21	55	1	15	0 PP
HEIDELBERG	77.88	350.2	12	1	0					
BRATISLAVA	77.96	344.4	12	1K	0	22	6	11	15	11 PP
VIENNA-H.	78.00	344.9	12	2A	0	21	56	1		
HURBANOVO	78.06	343.6	12	6	4	22	7	11		
FOCSANI	78.27	336.9	12	9	6	21	59	1		
KARLSRUHE	78.30	350.4	12	4	1					
STUTTGART	78.44	349.8	12	4A	0	22	0	0	15	6 PP
TUBINGEN	78.70	349.9	12	5	0					
STRASBOURG	78.79	350.7	12	6A	0	22	5	1	27	11 SS
PARIS	78.98	354.3	12	2	-5	22	7	1	15	1 PP
TEHERAN	79.05	315.7	12	8	1	22	7	1		
EBINGEN	79.06	349.9	12	7	0					
FOLINIERE	79.17	356.3	12	8	0					
CAMPULUNG	79.19	338.2	12	12	4	22	15	7		
RAVENSBURG	79.38	349.4	12	9	0					
TIMISOARA	79.54	341.0	12	11	1	22	32	20		
COMITAN	79.64	77.0				22	13	0	21	17
HYDERABAD	79.73	285.1	12	13	2	22	14	1	15	12 PP
BUCHAREST	79.74	337.2	12	15A	4	22	18	4		
BASLE	79.85	350.7	12	12	0				22	28
BESANCON	80.27	351.8	12	14A	0					
KARACHI	80.39	298.2	12	15	0					
ZAGREB	80.43	344.6	12	16A	1					
LJUBLJANA	80.43	345.7	12	15A	0				15	19 PP
NEUCHATEL	80.43	351.1	12	15	0					
GARCHY	80.47	353.8	12	5	-10				12	35
BELGRADE	80.59	341.3	12	18	2	22	26	4	23	19 PS
TRIESTE	80.94	346.1	12	18	1	22	25	-1	27	56 SS
LEMBANG	81.32	247.0	12	16A	-3				14	6
PADOVA	81.44	347.4	12	23	3	22	36	5	23	18 PS
BRISBANE	81.52	199.0	12	22	1	22	32	0		
BOMBAY	81.87	290.2	12	22	0	22	40	4	15	27 PP
CLERMONT-FD.	81.97	353.6	12	24	1	22	54	17		
PAVIA	82.00	349.2	13	27	64				15	38 PP
SOFIA	82.01	338.6	12	23	0	22	53	16		
ISTANBUL KA.	82.13	334.0	12	24	0	22	39	1	15	34 PP
MADRAS	82.15	281.0	12	22	-2	22	42	3	15	30 PP
ISTANBUL UN.	82.18	334.0	12	25	1	22	41	2		
BOLOGNA	82.40	347.6	12	35	10				18	41
PRATO	83.04	347.6	12	29	1	23	41	53		
FLORENCE X.	83.12	347.5	12	29	0	22	52	4		
ISOLA	83.22	350.6	12	20	-9					
MONACO	83.62	350.2	12	32A	1					
SHIRAZ	83.71	311.7	12	32K	0	22	50	-4	15	44 PP
ROME	84.79	346.3	12	38A	1	23	14	9	15	55 PP
BAGNERES	84.83	355.5	12	39	2					
ATHENS	86.42	336.9	12	44K	-1					
KSARA	86.74	326.2	12	48A	1				16	13 PP
SERRA PILAR	86.89	2.0	12	45K	-3				16	11 PP
TORTOSA	87.06	355.1	12	50	2	23	27	0		
COLOMBO	87.12	277.5							23	14
MESSINA	87.91	343.2	12	52	-1					
RIVERVIEW	88.09	198.9	12	55	2	23	39	2	23	23 SKS
TOLEDO	88.15	358.5	12	54A	0	23	38	1	16	21 PP
JERUSALEM	88.82	325.9	12	57K	0	23	26	-17		
AUCKLAND	88.83	179.4				23	11	-32		
ALICANTE	89.57	355.7	13	0	0	23	49	-1	23	29 SKS
KARAPIRO	89.89	178.8	13	2	0					
CANBERRA	89.97	200.2	13	3K	1	24	1	7	16	53 PP
GRANADA	90.84	358.1				24	7	5	30	14 SS
ALMERIA	91.14	357.2	12	56K	-12				17	9
CHATEAU	91.16	178.8	13	9	1					
HELWAN	91.87	328.2	13	11K	0				16	53 PP
ADELAIDE	92.24	208.3	13	13	0					
SAN JUAN	92.46	55.5	13	13	-1					
ROXBURGH	97.51	183.3				24	11	-3	31	57 SS
CHINCHINA	98.33	70.7	13	25	-16					
CARACAS	98.64	60.4	13	44	2	25	20	60		

FUQUENE	99.02	68.9	13	44	0				17	57 PP
BOGOTA	99.51	69.6				24	26	2	17	59 PP
HUANCAYO	112.05	81.0	18	31	-6				19	26 PP
BANGUI	119.77	331.4	18	54	2				20	4 PP
LA PAZ	119.87	78.0	18	14	-38				20	25 PP
LWIRO	122.30	317.6	18	59	2					
CAPE HALLETT	124.37	181.4	19	1	0				37	59 SS
WILKES	127.72	207.2							38	45 SSP
SCOTT BASE	129.99	182.0	19	10	-2				22	31 PKS
SANTA LUCIA	130.75	94.1							22	35 PKS
MIRNY	133.24	212.9	19	16	-2					
BROKEN HILL	133.31	311.1	19	22	4					
BYRD STATION	137.28	166.4	19	17	-8				22	58 SKP
BULAWAYO	138.15	306.9	19	29	2					
SOUTH POLE	142.14	180.0	19	30	-4				19	58
MAWSON	144.49	218.0	19	34	-4					
WINDHOEK	145.40	320.3	19	41K	1					
KIMBERLEY	147.22	303.9	19	45	2					
ARGENTINE I.	148.43	136.8	19	51	6					
PORT STANLEY	148.63	109.9	19	50	5					
GRAHAMSTOWN	149.85	296.2							20	23 PKP2
HERMANUS	154.58	304.8							34	26 SKKS

MAY 18 20.H 38.M 10.S EPICENTRE 4.47 125.81 DEPTH= 216.KM

A=-0.58336 B= 0.80852 C= 0.07741 D= 0.8109 E= 0.5851
G=-0.0453 H= 0.0628 K=-0.9970 HT= 7.1

DEPTH OF FOCUS= 0.029R

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	11.16	335.6	2	36	1	4	53	17				
DARWIN	17.47	163.5	3	49	-2	6	54	-3				
GUAM	20.70	63.2	4	26	1						9	49
LEMBANG	21.35	238.4	4	33A	2	8	23	13				
DJAKARTA	21.70	241.0	4	33	-1	8	30	14				
PORT MORESBY	25.34	123.0	5	9	0	9	21	4	5	29	6	9
ZO-SE	26.85	351.2	5	25	2							
MEDAN	27.08	269.1	5	24K	-1				8	14		
NANKING	28.23	347.3	5	34	-1							
CHARTERS TS.	31.61	141.2	6	5	0	11	2	5				
CHENGTU	33.18	324.2	6	15	-3							
MATUSIRO	33.89	18.1	6	22K	-2	11	31	-1				
PEKING	36.46	347.5	6	46	0	12	13	2				
HONIARA	36.72	112.2	6	48	0							
MUNDARING	37.37	193.5	6	53	-1							
LANCHOW	37.38	330.0	6	55	1							
CHITTAGONG	37.39	301.5				12	29	4				
SHILLONG	38.71	306.3	7	3A	-2							
VLADIVOSTOK	38.87	7.1	7	6	0							
CHANGCHUN	39.20	359.4	7	7	-2	12	55	3				
BRISBANE	41.00	142.1	7	27	3	13	26	7				
ADELAIDE	41.07	163.8	7	26A	2	13	24	4			8	33
LHASA	41.32	311.2	7	28	2	13	28	4				
Y.-SAKHLINSK	44.84	16.4	7	53K	-1							
RIVERVIEW	44.99	149.7	7	47A	-9							
CANBERRA	45.18	153.0	7	58A	1				8	38	9	59 PCP
ULAN-BATOR	46.23	342.4	8	5	0							
IRKUTSK	50.87	343.1	9	46	65							
YAKUTSK	57.49	2.2	9	28	-1							
MAGADAN	58.21	14.7	9	33	-1							
WARSAK DAM	58.21	307.5	9	34K	0				10	14		
ANDIJAN	59.90	315.1	10	25	40							
QUETTA	60.98	302.0	9	52K	-1	17	53	1	10	31	10	49 *SP
STALINABAD	61.75	311.7	10	37	39							
TIKSI	67.10	1.1	10	40A	8							
SVERDLOVSK	72.86	328.5	11	42	35							
SHIRAZ	73.28	299.5	11	8A	-2	20	23	4	11	47	12	17 PCP
TIFLIS	80.33	311.4	12	37	49							
KHEYS	82.05	351.2	11	58	1							
COLLEGE	84.44	25.4	12	7	-2				12	50	16	9 PP
SCOTT BASE	85.19	172.0	12	15	2							
MOSCOW	85.31	325.4	12	12	-2							

JERUSALEM	88.18	301.6	13	10	42							
SODANKYLA	89.44	337.5	12	32	-1					13	11	
KAJAANI	89.55	334.2	12	34A	0							
NURMIJARVI	91.61	330.9	12	44A	0					13	42	
KIRUNA	91.65	338.5	12	43K	-1			13	18			
TROMSOE	91.65	340.4	12	42	-2							
NORD	92.28	354.9	12	46K	-1							
UMEA	92.83	334.7	12	49	0							
SOUTH POLE	94.44	180.0	12	59	2			13	19			
KRAKOW	96.70	321.4								16	9	
CHORZOW	97.22	321.8								15	55	
RESOLUTE	97.26	10.1	13	9	0							
RACIBORZ	97.77	321.7								16	23	
BYRD STATION	98.56	170.8	13	17	2							
PRUHONICE	100.04	322.3	14	2	40					14	22	
COLLMBERG	100.51	323.9	14	2	38					18	19	
HUNGRY HORSE	106.05	36.9	17	13	777							
WOODY	107.59	50.5	17	16	777							
WICHITA MTS.	122.88	43.3	18	33	3					21	8	
SAN JUAN	154.43	27.1	19	52	26							
LA PAZ	161.83	132.2	19	38	3					20	0	

MAY 19 16.H 37.M 26.S EPICENTRE 23.83 123.60 DEPTH= 38.KM

A=-0.50678 B= 0.76275 C= 0.40172 D= 0.8329 E= 0.5534
G=-0.2223 H= 0.3346 K=-0.9158 HT= 3.7

DEPTH OF FOCUS= 0.001R

SE= 3.17

	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
HWALIEN	1.82	274.8	0	29K	-1	0	52	0				
ILAN	1.93	299.4	0	34	3	0	58	3				
HSINKONG	2.17	250.9	0	30	-5	0	53	-8				
TAIPEI	2.24	302.7	0	41	5	1	9	6				
YUSHAN	2.45	262.4	0	38	-1	1	2	-6				
TAITUNG	2.50	245.0	0	35	-4	1	0	-9				
ALISHAN	2.59	263.7	0	40K	-1							
HSINCHU	2.59	292.5	0	47	6	1	9	-2				
TAICHUNG	2.69	277.4	0	43K	1	1	15	1				
TAWU	2.89	239.9	0	46	1	1	17	-2				
HENGCHUN	3.20	235.9	0	46K	-3	1	19	-8				
TAINAN	3.21	255.8	0	51	1	1	25	-2				
KAOHSIUNG	3.29	249.2	0	51	0	1	14	-15				
ZO-SE	7.56	344.0	1	52A	1							
HONG KONG	8.82	261.9	2	4K	-4	3	48	1				
NANKING	9.24	333.6	2	14A	0						4	6
MANILA	9.42	195.1	2	14	-3	4	11	9				
CANTON	9.45	267.6	2	14K	-3							
ABUYAMA	15.15	40.7	3	37A	4							
SIAN	16.49	312.3	3	55A	5	7	5	14				
PEKING	17.33	340.5	4	3A	2	7	20	9				
MATUSIRO	17.86	41.5	4	6A	-1	7	19	-4			8	4
CHENGTU	18.69	295.6	4	17K	-1	7	42	1				
TUKUBASAN	18.85	45.3	4	16K	-4	7	46	1			5	9
KUNMING	19.03	278.2	4	23K	1	8	2	13				
CHANGCHUN	20.00	3.6	4	31A	-1	8	13	3				
VLADIVOSTOK	20.43	17.6	4	34	-3							
LANCHOW	20.97	310.0	4	44A	1	8	37	8				
MIZUSAWA	21.30	40.2	4	51	5	8	43	8				
GUAM	22.50	113.5	4	55	-3							
ULAN-BATOR	27.47	335.2	5	43	-2	10	21	0				
Y.-SAKHLINSK	27.75	28.8	5	45A	-2							
SHILLONG	28.85	280.1	5	54K	-3							
LHASA	29.59	288.4	6	6	2							
IRKUTSK	31.99	337.5	6	22A	-3	11	33	0				
CALCUTTA	32.36	274.9									13	52
CHATRA	32.99	283.0	6	43	9							
LEMBANG	34.23	209.1	6	46A	1	12	1	-7				
YAKUTSK	38.40	4.6	7	19	-1	13	12	0				
PETROPAVLOVK	39.37	33.2	7	27A	-1							
PORT MORESBY	40.25	142.4	7	38	3	13	38	-2				
DEHRA DUN	40.86	289.3	7	41	1	13	50	1			9	18 PP
SEMIPALATNSK	42.71	319.6	7	55A	0	14	13	-3				
LAHORE	44.00	291.4	8	6	0	14	34	-1				

FRUNSE	44.42	307.5	8	10A	1						
ANDIJAN	45.82	304.3	8	22	2	15	6	5			
WARSAK DAM	46.25	294.9	8	25	1						
POONA	46.50	273.4	8	24K	-2						
BOMBAY	47.35	274.2								8	30
TIKSI	47.92	2.2	8	34K	-3	15	28	-3			
TASHKENT	48.20	304.8	8	40	1	15	38	3			
STALINABAD	48.48	301.1	8	53	12						
CHARTERS TS.	48.92	151.3	8	47	2						
QUETTA	50.44	290.2	8	56K	0	16	9	3	9	10	19 47 SS
SVERDLOVSK	55.64	323.6	9	34	-1	17	16	0			
ADELAIDE	60.21	165.7	10	11	4						
KHEYS	62.71	350.3	10	23	-1	18	48	0			
SHIRAZ	62.86	292.3	10	23K	-2	18	55	5	10	38	11 1 *SP
CANBERRA	63.56	156.9	10	37	8						
TIFLIS	66.45	306.8	10	49	1	19	41	7			
COLLEGE	68.10	27.4	10	57	-1						13 30 PP
MOSCOW	68.43	322.6	10	59	-1	19	57	-1			
SODANKYLA	70.89	336.0	11	15A	0						
PULKOVO	71.34	327.8	11	16	-2	20	31	-1			
KAJAANI	71.36	332.5	11	18A	0	20	32	0			
TROMSOE	72.84	339.2	11	25	-2						
NORD	72.91	354.4	11	26A	-1						
KIRUNA	72.99	337.3	11	27A	-1	20	51	0			
SIMFEROPOL	73.22	312.1	11	29	0	20	54	1			
NURMIJARVI	73.82	329.4	11	32A	-1	21	0	0			
UMEA	74.56	333.4	11	36	-1						
KSARA	75.35	300.7	11	41	-1	21	33	16	12	13	14 16 PP
KISHINEV	76.06	315.4	11	54A	8						
JERUSALEM	76.55	298.9	11	49A	1						
IASI	76.81	315.9	11	57	7						
UPPSALA	77.31	330.2	11	51	-2						
SKALSTUGAN	77.86	334.8	11	54A	-2						
LWOW	78.03	319.2	11	56	-1	21	45	-1			
ISTANBUL UN.	78.05	309.6	11	56	-1				12	19	
RESOLUTE	78.65	9.7	11	59A	-1						
BUCHAREST	78.78	313.6	12	0A	-1	21	56	2			
THULE	79.71	2.8	12	4	-2						15 3 PP
KRAKOW	80.35	320.6	12	8	-1	22	11	0			12 50
HELWAN	80.35	298.3	12	10A	1	22	13	2			
GOTEBORG	80.92	329.6	12	10	-2						
SOFIA	81.31	312.8									22 16
COPENHAGEN	81.73	327.7				22	27	2			
SCORESBY SD.	82.85	349.0	12	22	0						
BRATISLAVA	82.86	319.7	12	22	0						
VIENNA-H.	83.25	320.0	12	24	0						
PRUHONICE	83.46	322.1	12	17	-8						15 4
COLLMBERG	83.66	323.8	12	26A	0						15 39 PP
HALLE	84.12	324.3	12	29	0				12	39	
KASPERSKE H.	84.44	321.7	12	31A	1						
JENA	84.62	323.9	12	30	-1						13 18
TANANARIVE	85.44	247.2	12	43	8						13 29
WITTEVEEN	86.13	327.2	12	37	-2						
MUNSTER	86.13	326.1	12	29	-10						
BENSBERG	86.94	325.4	12	43	0						
HEIDELBERG	86.99	323.6	12	42	-1						
STUTTGART	87.04	322.9	12	42	-1						
STRASBOURG	87.97	323.3	12	47	-1						
CORVALLIS	88.61	41.1	12	52	1						
BASLE	88.67	322.5	12	51A	0						
DURHAM	88.76	331.7	13	34	43	23	39	5			
ROME	88.80	315.8				23	34	0			
SHASTA	91.28	44.0	13	4	1						
GARCHY	91.29	324.1	13	3	0						
HUNGRY HORSE	91.59	34.3	13	6	1				13	17	
EUREKA	96.00	42.1	13	25	0						
WOODY	96.39	46.6	13	25	-1						
SCOTT BASE	104.54	171.4	18	22	259						
WICHITA MTS.	109.34	35.9	18	43	777						19 30
SOUTH POLE	113.69	180.0	18	53	18						
BYRD STATION	117.89	169.9	18	37	-6						
CARACAS	144.36	18.0	19	22	-10						
CHINCHINA	145.79	35.7	19	35A	0						
FUQUENE	146.33	32.3	19	35A	-1						
LA PAZ	166.80	58.6	20	5	3						

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MAY 19 21.H 30.M 26.S EPICENTRE 37.95 72.65 DEPTH= 121.KM

A= 0.23572 B= 0.75454 C= 0.61246 D= 0.9545 E=-0.2982
G= 0.1826 H= 0.5846 K=-0.7905 HT= -0.9

DEPTH OF FOCUS= 0.014R

SE= 1.64

	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	
MURGAB	1.09	67.2	0	26	2	0	45	3					
DZERGETAL	1.68	319.0	0	31	0	0	54	0					
GARM	2.12	300.2	0	36	0	1	1	-2					
KULYAB	2.29	269.5	0	39	1	1	8	1					
OBI-GARM	2.44	288.7	0	41	1	1	9	-1					
FERGANA	2.51	344.6	0	42	1	1	11	-1					
ANDIJAN	2.80	355.6	0	45	0	1	17	-2			1	5	
NAMANGAN	3.12	346.2	0	49	0						1	14	
DUZHANBE	3.12	282.6	0	49	0	1	25	-1					
WARSAK DAM	4.05	193.1	1	3	1	1	47	-2					
TASHKENT	4.25	323.3	1	3	-1						1	54	
NARYN	4.33	35.6	1	5	0	1	51	-4					
SAMARKAND	4.75	292.9	1	9	-2								
TCHIMKENT	4.93	332.6	1	12	-2	2	5	-5					
FRUNSE	5.10	16.5	1	16	0	2	18	4			2	4	
RYBACHE	5.24	29.9	1	18	0						2	34	
FABRICHNAYA	5.92	27.9	1	27	0								
ALMATA	6.24	30.3	1	32	1						3	4	
PRZHEVALSK	6.31	42.4	1	33	1	2	44	1					
LAHORE	6.54	167.3	1	34	-1	2	36	-13					
KURMENTY	6.62	38.6	1	36	0						3	11	
DEHRA DUN	8.83	148.0	2	6	0	3	39	-6			2	21	PPP
QUETTA	9.08	213.0	2	10A	0	3	48	-3					
ASHKABAD	11.29	274.4	2	38	-1	4	47	4			5	28	
KIZYL-ARVAT	12.88	280.6	2	57	-3						5	13	
SEMIPALATNSK	13.57	21.1	3	6	-3						5	40	
KARACHI	13.93	201.7	3	10	-3								
CHATRA	16.51	128.0	3	41	-5	6	37	-7			3	54	PP
TEHERAN	17.16	269.1	3	55	1	7	9	10					
BOKARO	18.01	137.7	4	4	0	7	13	-5					
SHIRAZ	18.64	249.6	4	12A	1	7	38	7			12	10	PCS
BOMBAY	18.99	179.5				7	44	-14			5	6	
POONA	19.38	176.6	4	19A	0								
MAKHACH-KALA	19.75	292.6	4	22	-1						8	0	
SHILLONG	20.43	121.6	4	29A	-1								
SVERDLOVSK	20.51	340.9	4	29	-1						8	14	
GROZNY	21.06	293.2	4	28	-8						5	11	PPP
TIFLIS	21.67	288.7	4	45	3								
BAKURIANA	22.63	288.8	4	55	4								
PIATIGORSK	23.06	294.6	4	55	-1						9	11	
MADRAS	25.74	162.9									9	56	
ULAN-BATOR	26.78	57.2	6	15	44								
MOSCOW	29.40	318.6	5	54	0								
SIMFEROPOL	29.50	296.1	5	55	0						16	29	SCS
KSARA	29.95	273.4	6	2	3								
JERUSALEM	31.17	270.0	6	12	2								
KISHINEV	33.19	300.1	6	29	2								
PULKOVO	34.52	323.0	6	38	-1								
LWOW	36.38	305.0	6	55	1						8	20	PP
KAJAANI	37.25	329.1	7	2K	0						8	25	PP
NURMIJARVI	37.44	322.8	7	3K	0						8	24	PP
SODANKYLA	39.00	333.7	7	16	0								
KRAKOW	39.03	305.4	7	17	1						8	47	
RACIBORZ	40.14	305.6									9	43	
UMEA	40.29	327.1	7	28	1						9	0	PP
UPPSALA	40.76	320.7	7	31	0						9	4	PP
BRATISLAVA	41.03	302.8	7	32	-1								
KIRUNA	41.37	333.0	7	35	-1						9	7	PP
VIENNA-H.	41.51	303.0									9	15	PP
YAKUTSK	42.03	36.2									8	11	
TROMSOE	42.48	335.3	7	45	0						9	25	PP
PRUHONICE	42.49	305.8	7	46	1						9	26	PCP
LJUBLJANA	43.10	300.0	7	51	1								
KHEYS	43.14	356.5	7	51	1								
KASPERSKE H.	43.22	304.6	7	51K	0						9	34	PCP
COLLMBERG	43.33	307.9	7	52K	0						9	30	PP
GOTEBORG	43.57	317.2	7	54	0						9	37	PP
SKALSTUGAN	43.73	325.8	7	55	0						9	37	PP

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TIKSI	43.93	22.3	7 57	0				
HALLE	43.96	308.2	7 58	1			9 36	PP
JENA	44.26	307.5	7 58	-1			9 43	PP
STUTTGART	46.08	304.8	8 14	0			10 7	
BENSBERG	47.01	308.1	8 22	1				
STRASBOURG	47.10	304.8	8 23	1			8 55	
GARCHY	50.48	304.2	8 47	-1			9 18	
FOLINIERE	52.34	306.9	9 1	-1				
NORD	52.61	349.3	9 2K	-2				
BANGUI	59.37	249.7	9 51	-1			11 42	
BULAWAYO	71.08	223.7	11 7	0				
COLLEGE	72.72	16.9	11 16	-1			11 48	
SCOTT BASE	127.63	164.5	18 53	2				
SOUTH POLE	127.77	180.0	18 53	1				
BYRD STATION	137.55	176.9	18 58	-12				

MAY 20 17.H 51.M 57.S EPICENTRE -6.62 31.19 DEPTH= 0.KM
A= 0.84980 B= 0.51453 C=-0.11447 D= 0.5179 E=-0.8554
G=-0.0979 H=-0.0593 K=-0.9934 HT= 6.9

SE= 3.94

	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	
LWIRO	4.95	331.1	1	10	-8						2	11	
BROKEN HILL	8.23	198.8	2	2K	-2						3	31	
BULAWAYO	13.67	190.3	3	13K	-5						5	37	
BANGUI	16.64	310.7	3	46	-11	6	46	-16					
PRETORIA	19.24	188.3	4	28	-1								
TANANARIVE	20.07	129.0	4	42A	4						4	53	PP
WINDHOEK	20.89	219.1	4	47	0								
KIMBERLEY	22.83	194.6	5	6	0								
PIETERMZBURG	22.89	181.8	5	9	2								
GRAHAMSTOWN	26.91	188.6	5	59	14								
HERMANUS	29.79	200.2				11	46	39			7	9	PP
HELWAN	36.28	0.2	7	8	1						14	19	
JERUSALEM	38.37	5.5	7	25	0						20	13	
KSARA	40.46	6.0	7	45K	3	13	54	2			9	18	PP
SHIRAZ	41.48	28.6	7	49A	-2	14	15	8	7	55	9	51	PP
ISTANBUL KA.	47.49	357.8				15	37	3			10	21	
TIFLIS	49.69	13.4	8	58	2								
QUETTA	50.21	41.3	9	0	0	16	11	0					
BUCHAREST	51.01	355.3	9	7K	1								
ROME	51.22	342.1	9	8	0						11	6	PP
SIMFEROPOL	51.40	2.7	9	10	1								
KISHINEV	53.44	358.0	9	20	-4								
ALICANTE	53.56	329.1	9	35	10	17	9	11					
IASI	53.68	356.9	9	28	2								
TRIESTE	54.32	345.0	9	34	3								
GRANADA	54.36	325.9	9	38K	7	17	53	44					
LJUBLJANA	54.50	345.8	9	33A	1						11	29	
ISOLA	55.06	339.0	9	38	2								
VIENNA-H.	56.17	348.1	9	43	-1								
TOLEDO	56.55	327.8	9	47	0	16	45	-53					
STALINABAD	56.90	34.8									14	6	
KASPERSKE H.	57.61	346.4	9	51	-3						11	30	
BASLE	57.81	341.3	9	51	-5								
CLERMONT-FD.	57.87	337.1	9	56	0								
PRUHONICE	58.19	347.4	9	57	-2						10	38	
STUTTGART	58.40	343.1	9	56	-4								
STRASBOURG	58.68	342.0	10	4	2								
TASHKENT	59.09	32.8	10	3	-2								
GARCHY	59.16	339.0	10	4	-1						10	59	
JENA	59.76	345.8	10	5	-4						11	15	
COLLMBERG	59.77	346.9	10	10	0						12	24	PP
HALLE	60.20	346.3	10	13	1								
ANDIJAN	60.42	35.1	10	17	3								
PARIS	60.65	338.6	10	16	0								
BENSBERG	60.98	342.9	10	18	0						11	9	
FOLINIERE	61.74	336.8	10	23	0								
MUNSTER	61.75	343.7	10	14	-9								
MOSCOW	62.35	4.1	10	24	-3								
KEW	63.87	338.6	10	39	2								
MAWSON	64.55	167.1	10	42	1								
GOTEBORG	65.98	348.8	10	47	-4								

SHILLONG	67.03	58.8	10	23A	-34							
NURMIJARVI	67.12	356.5	10	54	-4							
UPPSALA	67.13	352.6	10	59	1							
MEDAN	68.13	83.5	11	16K	12							
KAJAANI	70.55	358.4	11	24	5							
UMEA	70.73	354.9	11	16	-4							
SKALSTUGAN	71.46	351.2	11	23	-2							
SODANKYLA	73.88	358.2	11	36	-3							
KIRUNA	74.66	355.8	11	45	2							
LEMBANG	75.82	95.4	11	45	-5							
SOUTH POLE	83.43	180.0	12	33	2							
BYRD STATION	92.20	184.9	13	16	3							
PALISADES	105.71	310.6									21	47 PKS
COLLEGE	121.85	359.5	19	0	3						20	27 PP
WICHITA MTS.	126.05	308.5	19	4	-1						20	55 PP
HUNGRY HORSE	129.02	330.7	19	5	-6							
EUREKA	135.93	322.9	19	20	-3							
TUCSON	136.41	310.9	19	31	7							
WOODY	140.10	320.7	19	37	6							

MAY 21 21.H 40.M 2.S EPICENTRE -34.47 150.20 DEPTH= 0.KM

A=-0.71699 B= 0.41060 C=-0.56333 D= 0.4970 E= 0.8678
G= 0.4888 H=-0.2799 K=-0.8262 HT= 0.3

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
RIVERVIEW	1.01	51.4	0	17K	-4	0	29	-7				
CANBERRA	1.30	228.9	0	28A	3							
MELBOURNE	5.40	230.1	1	25	1	2	37	10				
BRISBANE	7.39	18.1	1	52	0	3	26	9				
MOORLANDS	8.30	195.6	2	3	-1	3	46	6				
TARRALEAH	8.35	199.5	2	5	0	3	49	8				
FORT NELSON	8.74	193.9	2	8	-2	3	56	5				
ADELAIDE	9.47	263.7	2	20	-1	4	5	-4			2	33 PP
CHARTERS TS.	14.74	345.3	3	31	-1							
KARAPIRO	20.72	107.0	4	47	3							
TONGARIRO	20.79	110.5	4	47	2							
CHATEAU	20.80	110.5	4	48	3							
PORT MORESBY	25.11	352.9	5	29	1	10	10	19	5	42		
HONIARA	26.47	22.0	5	39	-1							
MUNDARING	28.47	265.4	5	59	0				6	2		
CAPE HALLETT	39.31	170.5	7	33	1	13	42	8				
AFIAMALU	39.95	68.7	7	50	12							
SCOTT BASE	44.08	175.0	8	11K	0	14	40	-5			9	56 PCP
LEMBANG	47.88	295.1	8	44A	2						12	44
SOUTH POLE	55.71	180.0	9	38	-2						11	36 PP
BYRD STATION	56.36	167.9	9	43	-2							
MAWSON	57.65	206.9	9	53A	-1							
MATUSIRO	71.52	349.8	11	23K	-2							
SHILLONG	81.37	309.0	12	20A	0							
EUREKA	113.54	57.4	18	40	0							
HUNGRY HORSE	118.36	49.0	18	52	3							
RAPID CITY	124.10	56.5	19	0	-1							
WICHITA MTS.	124.44	68.6	19	1	0							
FAYETTEVILLE	128.29	68.5	19	8	-1							
RESOLUTE	129.46	18.2	19	9	-2							
ISTANBUL UN.	133.81	296.3	19	26	7							
KIRUNA	136.20	335.1	19	24	1							
UMEA	137.75	329.6	19	26	0							
VIENNA-H.	143.27	306.3	19	34	-2							
OTTAWA	143.58	58.5	19	33	-4							
GOTEBORG	143.71	322.8	19	37	0							
SAN JUAN	143.97	107.0	19	32	-5							
PRUHONICE	144.26	309.4	19	37A	-1						20	12
LJUBLJANA	144.68	302.7	19	38A	-1							
PALISADES	144.80	66.0	19	36	-3							
KASPERSKE H.	145.01	308.1	19	39A	0						20	19
TRIESTE	145.24	302.0	19	40K	0							
SHAWINIGAN	145.58	56.3	19	39	-1							
HALLE	145.59	312.6	19	41	1							
DOMINICA	145.77	116.0	19	40	0							
JENA	145.95	311.7	19	40	-1						20	28
ST. KITTS	146.02	111.7	19	41	0							

ANTIGUA	146.58	112.9	19 43	1	
STUTTGART	147.86	308.4	19 47	3	
TUBINGEN	148.05	308.0	19 47	3	
HEIDELBERG	148.08	309.7	19 47	3	
EBINGEN	148.18	307.4	19 48	4	
BENSBERG	148.63	313.1	19 50	5	
ISOLA	150.11	300.0	19 54	7	
BESANCON	150.35	306.4	19 54	6	
PARIS	152.18	310.8	20 3	12	
HALIFAX	152.21	58.4	20 3A	12	
GARCHY	152.26	307.4	20 2	11	20 12 PKP2

MAY 22 13.H 44.M 28.S EPICENTRE -21.03-174.22 DEPTH= 0.KM

A=-0.92944 B=-0.09414 C=-0.35675 D=-0.1008 E= 0.9949
G= 0.3549 H= 0.0359 K=-0.9342 HT= 4.4

SE= 3.09

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
APIA	7.56	18.3	1 51	-4	3 13	-9			
RAOUL ISLAND	8.84	201.5	2 3	-9	3 38	-16			
PORT VILA	16.80	278.3	4 1	2					
ONERAHI	17.77	211.8	4 9	-2					
NOUMEA	18.02	262.4	4 14	0					
KARAPIRO	19.03	205.5	4 21	-5					
TUAI	19.21	200.9			7 44	-16			
CHATEAU	20.13	203.7	4 31	-8	8 21	1			
TONGARIRO	20.14	203.7	4 30	-9	8 20	0			
WELLINGTON	22.24	202.4	4 58	-2	8 20	-41			
COBB RIVER	22.85	206.1	5 8	2					
KAIMATA	24.59	206.1	5 31	8					
GEBBIES PASS	25.12	202.8	5 38	10					
HONIARA	27.41	291.0	5 50	0					
BRISBANE	30.70	251.6	6 3	-16				7 27	
RIVERVIEW	33.12	240.0	6 36A	-4				15 7	
CANBERRA	35.20	238.2	6 54	-4	12 32	0		8 16	PP
CHARTERS TS.	36.95	264.2	7 9	-4	12 45	-14			
MOORLANDS	38.71	227.6	7 34A	6					
FORT NELSON	38.78	226.8	7 27	-1	13 24	-2			
PORT MORESBY	38.92	281.3	7 27	-3	13 31	2	7 36	13 5	
MELBOURNE	38.95	235.4	7 26	-4					
TARRALEAH	39.16	228.1	7 29	-3					
ADELAIDE	43.43	241.0	8 3A	-4					
KIPAPA	45.06	21.5	8 23	3					
CAPE HALLETT	52.06	186.0	9 12A	-2	16 41	4		11 22	PP
GUAM	52.92	306.8	9 20	-1				12 30	
SCOTT BASE	57.61	184.7	9 52A	-2	17 58	6		10 30	PCP
MUNDARING	62.28	244.1	10 23	-4					
BYRD STATION	63.55	170.9	10 10	-25			10 34		
WILKES	65.02	205.5	10 42A	-3	19 17	-9	11 5	23 33	SS
SOUTH POLE	69.10	180.0	11 6	-4			11 34	11 47	*SP
TUKUBASAN	71.46	322.4	11 24A	-1	20 46	3	11 30	11 36	SP
MANILA	72.75	293.6	11 35	3					
MATUSIRO	72.78	321.5	11 31	-2	20 58	0		25 57	SS
ABUYAMA	73.23	318.7	11 35A	0					
VINEYARD	76.07	41.3	11 52	0					
SAN FRANCSCO	76.08	39.9	11 51	-1					
BERKELEY	76.26	39.9	11 52A	-1	21 43	6		22 35	SCS
LICK	76.29	40.7	11 54K	1					
CONCORD	76.44	39.9	11 56A	2					
PASADENA	76.50	45.0	11 55	1	21 42	2		15 11	PP
UKIAH	76.52	38.4	11 58	4					
LEMBANG	76.56	267.8	11 55K	1	21 37	-3			
FRESNO	77.06	42.1	11 58	1					
PETROPAVLOVK	77.41	343.6	11 53	-6	21 47	-2		14 55	PP
DJAKARTA	77.52	268.1	11 56	-4	21 41	-10			
SHASTA	78.04	37.7	12 3	1					
Y.-SAKHLINSK	78.06	331.5	12 2	-1	22 0	4			
MINERAL	78.26	38.3	12 4K	0					
RENO	78.80	39.9	12 7K	0					
BOULDER CITY	79.79	45.2	12 13	1					
KLYUCHI	79.87	346.2	12 13	1	22 19	3			
UGLEGORSK	79.91	332.5	12 13	0	22 20	4		15 20	PP
CORVALLIS	80.13	34.3	12 15	1					

TUCSON	80.49	50.2	12	17	1	22	28	6		15	19 PP
TUCSON TELE.	80.62	50.2	12	17	1				12 37	13	0
ZO-SE	80.77	308.3	12	17A	0	22	29	4	12 31		
VLADIVOSTOK	80.78	323.2	12	13	1	22	32	7			
EUREKA	81.11	41.8	12	13	-1						
HONG KONG	82.05	297.5	12	24	0	22	45	7			
MAWSON	82.25	198.9	12	21	-3	22	33	-16		12	29 PCP
GLEN CANYON	82.51	45.8	11	31	-55						
ALBERNI	82.61	30.1	12	26	-1						
VICTORIA	82.76	31.3	12	26	-2						
NANKING	83.02	308.1	12	30A	1	23	0	12	12 42	22	51 SKS
CANTON	83.09	297.8	12	31A	2				12 42		
SALT LAKE C.	84.43	42.5	12	36	0						
CHANGCHUN	85.01	320.8	12	40A	1	23	15	7	12 51		
PENTICTON	85.16	32.4	12	39	-1						
MAGADAN	85.25	343.0	12	39	-1					23	9 SCS
FLAMING GRGE	86.09	43.4	12	44	0	23	13	-5		16	5 PP
BUTTE	86.95	37.9	12	48	-1	23	27	0			
HUNGRY HORSE	87.47	35.4	12	50	-1	23	4	-28	13 10		
BOZEMAN	87.63	38.8	12	52	0						
COLLEGE	88.01	11.0	12	52	-2	23	38	1		16	1 PP
BANFF	88.36	32.5	12	54	-1						
PEKING	88.78	314.0	12	58A	1	23	53	9	13 10	23	26 SKS
SANTA LUCIA	89.30	125.6	12	58A	-2	23	20	-28		29	44 SS
WICHITA MTS.	90.64	52.9	13	6	0	24	1	0	13 26	16	32 PP
RAPID CITY	91.62	43.0	13	10	-1						
KUNMING	92.75	295.7	13	18	2	24	32	13	13 29	23	53 SKS
CHENGTU	93.77	301.3	13	22A	1	24	38	10	13 33	23	55 SKS
FAYETTEVILLE	94.48	53.1	13	25A	1	24	39	5		17	17 PP
LANCHOW	95.91	306.2	13	32A	2	24	2	1		24	59 S
ULAN-BATOR	98.21	318.2	13	41	0						
LA PAZ	98.49	111.3	13	48	6	24	24	4			
TIKSI	100.17	344.3	13	47	-3					17	52 PP
BOGOTA	101.10	89.3				24	35	2		18	5 PP
FUQUENE	101.72	88.6								18	18 PP
SHILLONG	102.16	292.8	13	59K	0						
LHASA	104.05	296.6	14	10	3						
RESOLUTE	107.33	15.9	18	35	777	26	25	84			
PENNSYLVANIA	108.10	52.5				26	33	88			
WASHINGTON	108.29	54.6	19	8	777						
PALISADES	111.08	52.9				25	14	-3		19	16 PP
KHEYS	116.47	351.7	18	36	-10					22	11 PPP
FRUNSE	119.33	308.1	18	53	1	25	53	5		20	13 PP
TASHKENT	123.28	306.3	18	59	0	26	3	2		20	37 PP
QUETTA	124.65	292.8	19	3A	1					20	42 PP
SVERDLOVSK	126.42	326.0	19	6	0					21	0 PP
KIMBERLEY	127.22	201.0	19	7A	0						
SCORESBY SD.	127.88	11.4	19	10A	2						
SODANKYLA	131.82	349.4	19	16	0						
ASHKABAD	131.87	302.5	19	13	-3					22	44 PKS
KIRUNA	132.31	352.5	19	29	12					21	51 PP
BULAWAYO	133.39	210.1	19	18A	-1						
KAJAANI	134.53	346.7	19	22	1					22	49 PKS
UMEA	136.14	350.8	19	25	1						
SHIRAZ	137.13	291.3	19	24K	-2					22	10 PP
SKALSTUGAN	137.25	355.7	19	17	-9					22	3
PULKOVO	137.54	341.9								23	0 PKS
TEHERAN	137.66	300.3	19	25	-2						
MOSCOW	138.00	333.5	19	29	2					22	15 PP
BROKEN HILL	138.29	214.2	19	28	0						
NURMIJARVI	138.37	346.1	19	21	-7					23	3 PKS
UPPSALA	140.31	350.7	19	22	-10					23	7 PKS
GORIS	140.83	307.2	19	31	-1	26	35	-6		22	31 PP
TIFLIS	141.25	311.1	19	29	-4					23	13 PKS
GOTEBORG	143.10	354.5	19	34	-2						
COPENHAGEN	145.04	353.4	19	40A	0					23	5 PP
DURHAM	145.85	7.6	19	42A	1					20	34
SIMFEROPOL	146.62	322.2	19	44	2					30	2 SKKS
WARSAW	146.69	342.9	19	43	0					29	53
LWIRO	147.70	227.0	19	46A	2						
LWOW	147.83	337.6	19	45	1					20	0 PKP2
WITTEVEEN	148.26	359.0	19	50	5						
IASI	148.48	331.0	19	52	7						
KRAKOW	148.95	342.2	19	51	5					22	59
DE BILT	148.98	0.7	19	48	2					42	32 SS
CHORZOW	148.99	343.5	19	49	3					20	54
MUNSTER	149.09	357.8	19	47	1						
HALLE	149.21	352.5	19	52	5					23	32 PP
KEW	149.25	7.5	19	47	0					42	25 SS

BACAU	149.26	330.9	20	2	15						
COLLMBERG	149.26	351.1	19	48K	1			20	17	23	26 PP
RACIBORZ	149.39	344.2	19	53	6					22	2
FOCSANI	149.77	329.5	20	5	18						
JENA	149.81	352.7	19	47	-1					23	32
BENSBERG	150.11	358.2	19	48	0						
PRAGUE	150.22	348.8	20	12	24					23	36 PKS
PRUHONICE	150.29	348.5	19	55	7					30	27 SKKS
KSARA	150.52	302.0	19	50	1					23	30 PP
CHEB	150.54	351.3	19	52	3						
CAMPULUNG	151.09	331.2	19	58	9						
BUCHAREST	151.24	328.9	19	49A	-1	26	56 0			20	33 PKP2
KASPERSKE H.	151.28	349.3	19	44A	-6					23	41 PKS
BRATISLAVA	151.43	344.1	19	51	1					23	35 PKS
VIENNA-H.	151.54	345.1	19	51	1					23	44 PP
HEIDELBERG	151.60	356.0	19	50	0						
JERUSALEM	151.63	298.3	19	51A	1					24	10 PP
FOLINIERE	151.87	8.8	19	52	1						
ISTANBUL KA.	151.92	320.6	20	11	20					23	44 PP
ISTANBUL UN.	151.99	320.6	19	57	6					20	36
KARLSRUHE	152.00	356.3	19	52	1						
PARIS	152.16	4.7	20	2	11					23	48 PP
STUTTGART	152.18	355.0	19	52	1			20	24	20	50
STRASBOURG	152.47	357.1	19	53	1					23	54 PP
BELGRADE	153.36	336.3	19	54K	1					20	44 PKP2
BASLE	153.52	357.3	19	50	-3					24	2
GARCHY	153.72	4.2	19	59	6					23	41 PP
BESANCON	153.84	359.7	19	55	2						
SOFIA	153.86	329.7	19	54	1					23	52 PP
LJUBLJANA	154.04	346.0	19	54	0					24	7 PP
TRIESTE	154.59	346.9	19	56	2					24	9 PP
PADOVA	155.17	349.8	20	21	26					21	53
CLERMONT-FD.	155.23	4.5	19	57	2						
HELWAN	155.35	296.1	19	56K	1			20	23		
PAVIA	155.75	354.2								20	33 PKP2
FLORENCE X.	156.86	349.9	19	56	-1	27	3 1				
ISOLA	156.89	357.7	20	1	4					20	32 PKP2
ATHENS	157.08	321.3	19	49K	-9						
MONACO	157.32	356.9	19	55	-3						
COIMBRA	157.37	29.3	19	59	1						
BAGNERES	157.52	10.8	20	0	2					24	11
ROME	158.44	346.3	19	57	-2	26	35 -29			24	38 PP
BANGUI	159.28	218.8	19	59	-1						
TOLEDO	159.41	21.9	20	2	1			20	17	20	40 PKP2
ALICANTE	161.91	16.0	19	52	-11	26	36 -31			20	42 PKP2
GRANADA	161.96	24.9	20	20	17	26	7 -60			33	19 PPP
ALMERIA	162.67	22.7	20	5K	1					21	3 PKP2

MAY 22 17.H 32.M 25.S EPICENTRE -23.03-176.00 DEPTH= 60.KM

A=-0.91901 B=-0.06431 C=-0.38896 D=-0.0698 E= 0.9976
G= 0.3880 H= 0.0272 K=-0.9213 HT= 3.9

DEPTH OF FOCUS= 0.004R

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
RAOUL ISLAND	6.43	195.2	1	34	0							
SUVA	7.13	311.9	1	48	4	3	13	9				
APIA	10.01	24.3	2	12	-11	3	59	-16				
ONERAHI	15.21	211.2	3	40	8							
PORT VILA	15.62	286.9	3	42K	4							
NOUMEA	16.22	269.2	3	49	4							
KARAPIRO	16.53	204.1	3	48	-1							
TUAI	16.77	198.8	3	53	1	6	46	-9				
CHATEAU	17.66	202.1	4	0	-3	7	13	-2				
TONGARIRO	17.66	202.2	3	59	-4	7	12	-3				
WELLINGTON	19.78	200.9	4	25	-3	7	49	-13				
COBB RIVER	20.34	205.2	4	35	1	8	2	-11				
KAIMATA	22.08	205.4	4	54	3	8	52	6				
GEBBIES PASS	22.65	201.8	4	59	2	8	48	-8				
HONIARA	26.70	296.5	5	34	-1							
BRISBANE	29.54	254.7	5	51K	-1	10	10	-24				
RIVERVIEW	30.71	242.2	6	11A	0	10	54	-14	6	30	7	24 PP

CANBERRA	32.76	240.1	6	29	0	11	40	0	6 49	9 3 PCP
CHARTERS TS.	35.16	267.5	6	50K	0	12	15	-3		18 50
MOORLANDS	36.15	228.8	6	58K	0					
FORT NELSON	36.21	227.9	6	59	0	12	41	7		
MELBOURNE	36.47	237.0	6	51	-10	12	40	2		
MACQUARIE I.	36.61	204.5	7	5	3					
TARRALEAH	36.61	229.3	7	3A	1					9 26 PCP
PORT MORESBY	37.77	284.9	7	11	-1	12	49	-9	7 33	7 43 *SP
ADELAIDE	41.04	242.7	7	38A	-1					17 44 SCS
HAWAII V.OB.	46.80	27.3	8	28	3	15	47	37		
HONOLULU	47.39	22.9	8	31	1	15	23	5		
KIPAPA	47.53	22.9	8	32	1					
CAPE HALLETT	49.92	185.5	8	52	3	16	3	9		14 18 PCS
DARWIN	51.51	272.3	9	1	-1	16	11	-5		
GUAM	52.84	309.4	9	11	-1	16	35	1		
SCOTT BASE	55.49	184.4	9	33	2	17	16	6		11 42 PP
MUNDARING	59.94	245.4	10	0	-2					
BYRD STATION	61.85	170.5	10	16	1					12 44 PP
WILKES	62.51	205.9	10	21	2	18	39	-2		22 53 SS
SOUTH POLE	67.11	180.0	10	51	2					13 51 PP
MIRNY	69.51	205.3	11	4	0	20	14	8		
MANILA	72.06	295.1	11	26	7	20	26	-9		
TUKUBASAN	72.06	323.9	11	19A	0	20	33	-2	11 28	25 51 SS
MATUSIRO	73.34	322.9	11	26	-1	20	45	-5		24 41 SS
BAGUIO CITY	73.36	296.4	11	28	1	20	46	-4		
ABUYAMA	73.67	320.1	11	34A	5					
LEMBANG	74.85	268.9	11	35	-1	21	5	-2		
DJAKARTA	75.82	269.3	11	47	6	21	47	30		
ARGENTINE I.	77.92	156.4	11	57	4					
BRANNER	78.60	41.0	11	58A	1					
VINEYARD	78.65	41.9	11	58	1					
SAN FRANCSCO	78.66	40.5	11	58	1					
BERKELEY	78.84	40.6	12	0A	2	21	57	7		
LICK	78.87	41.3	12	1A	3					
CONCORD	79.02	40.6	12	1A	2					
Y.-SAKHLINSK	79.05	332.6	11	59	0	21	54	2		
PASADENA	79.08	45.6	12	1A	2	22	31	39		15 1 PP
UKIAH	79.11	39.1	12	5	6					
FRESNO	79.65	42.7	12	4A	2					
MAWSON	79.82	199.5	12	4K	1	22	6	6		14 8
SHASTA	80.62	38.3	12	9A	1					
ZO-SE	80.73	309.4	12	12	4	22	11	1		
MINERAL	80.85	39.0	12	10A	1					
RENO	81.38	40.5	12	13A	1					
VLADIVOSTOK	81.41	324.2	12	13	1	22	23	6		
HONG KONG	81.52	298.5	12	14	2	22	19	1		
BOULDER CITY	82.37	45.8	12	19	2					
CANTON	82.57	298.8	12	19	1	22	34	5		
CORVALLIS	82.71	35.0	12	21%	3					
NANKING	82.97	309.0	12	21	1	22	36	3		
TUCSON	83.03	50.8	12	22	2					
GUADALAJARA	83.09	64.2							12 40	
TUCSON TELE.	83.16	50.8	12	23	2					
EUREKA	83.69	42.4	12	20	-3					14 53 PP
ALBERNI	85.16	30.8	12	32	1					
VICTORIA	85.32	32.0	12	33A	1					
CHANGCHUN	85.52	321.7	12	33A	0	23	2	4		22 53 SKS
TACUBAYA	85.98	67.1	12	45	10	23	15	13		14 19
SALT LAKE C.	87.01	43.2	12	41	1					
KERGUELEN I.	87.14	216.8	12	51	11	23	27	14		
PENTICTON	87.73	33.0	12	35	-8					
PORT STANLEY	88.04	146.7	12	47	2					
FLAMING GRGE	88.66	44.1	12	49	1	23	17	-11		30 27 PKKP
PEKING	88.98	314.7	12	49	0	23	35	5		23 12 SKS
SANTA LUCIA	89.47	126.3	12	54K	2	23	45	10	12 57	30 11 SS
BUTTE	89.53	38.6	12	51	-1	23	20	-15		
HUNGRY HORSE	90.05	36.1	12	55	1	23	35	55		16 51 PP
BOZEMAN	90.22	39.4	12	57	2	23	28	-14		16 32 PP
LUBBOCK	90.23	53.4	12	58	3					
COLLEGE	90.28	11.6	12	54	-1	23	23	-19		16 42 PP
COMITAN	90.78	72.8				24	5	18		22 13
BANFF	90.93	33.2	12	58	0					
SIAN	91.23	306.8	13	2	2					
LARAMIE	91.33	45.2	13	2	2					16 40
KUNMING	92.14	296.3	13	7	3	24	7	8		23 35 SKS
WICHITA MTS.	93.16	53.6	13	9A	0	24	15	7		16 46 PP
CHENGTU	93.41	301.8	13	11	1	24	16	6		23 39 SKS
DALLAS	93.72	56.0	13	13	2					

RAPID CITY	94.20	43.7	13	14	1				16	55 PP
HUANCAYO	94.94	105.2	13	24	7	24	32	9		
PORT BLAIR	95.65	280.2							23	56
LANCHOW	95.77	306.6	13	22A	2	23	52	2	24	38 S
AREQUIPA	96.43	110.8	13	29	6					
FAYETTEVILLE	96.99	53.9	13	28A	2	24	4	7	17	22 PP
LA PAZ	99.29	112.3	13	43	7	25	55	107		
ST. LOUIS	100.87	52.7							17	54
CHINCHINA	101.47	89.4				24	28	9	24	57
TIKSI	101.65	344.6	13	47	0	24	20	0	24	58 SKKS
BOGOTA	102.76	90.4				24	25	0	18	8 PP
FUQUENE	103.40	89.7							18	9 PP
COLOMBO	105.65	270.9							24	46
CHATRA	105.82	292.8	17	23	777					
CLEVELAND	108.09	52.0				26	58	129	28	8 PS
MORGANTOWN	108.79	54.2	18	30	777				19	48 PP
KODAIKANAL	109.07	273.3							25	0
RESOLUTE	109.70	16.2	14	25	777				18	25
PENNSYLVANIA	110.61	53.4				25	5	6	19	5 PP
WASHINGTON	110.78	55.5	19	7	41	28	54	234	40	28 PKPPKP
CARACAS	111.49	87.4				25	6	3	19	25 PP
PALISADES	113.59	53.9	14	43	-228	25	17	6	19	29 PP
SAN JUAN	114.79	79.6	18	37	3					
SHAWINIGAN	115.27	48.0	18	37	2					
NESTON	115.73	52.7	15	5	-211	25	59	40	19	40 PP
SEMIPALATNSK	116.04	316.2	18	37	1					
BOMBAY	116.13	280.5	18	35	-1				25	33
LAHORE	117.86	294.6	18	42	2					
KHEYS	118.19	351.3	18	45	5					
FRUNSE	119.23	307.3	18	46	4	29	28	236	29	54 SKKS
GRAHAMSTOWN	119.98	201.8	18	44	0					
TANANARIVE	120.45	229.2	18	50	5				20	36 PP
NORD	120.76	3.5	18	45	0					
KHOROG	121.05	300.9	18	56	10					
HALIFAX	121.53	50.8	18	49	2				28	51
TASHKENT	123.10	305.2	18	51	1	25	53	8	30	23 PS
QUETTA	123.87	291.7	18	54	3	26	1	14	20	44 PP
KIMBERLEY	124.77	202.3							22	58
SVERDLOVSK	127.12	324.8	19	2	5	26	2	5	21	8 PP
SCORESBY SD.	130.15	11.1	19	7	4				22	25 PKS
BULAWAYO	130.83	211.1	19	7K	2				22	31 PP
ASHKABAD	131.51	300.9	19	8	2					
TROMSOE	132.53	353.0	19	1	-7				21	21 PP
SODANKYLA	133.45	348.2	19	20	10				22	35 SKP
KIRUNA	134.05	351.4	19	1	-10				22	39 PKS
BROKEN HILL	135.72	215.1	19	8	-6				22	52 PP
KAJAANI	136.06	345.2	19	13	-1				22	54 SKP
SHIRAZ	136.27	289.4	19	17K	2				21	22 PP
TEHERAN	137.19	293.2	19	20	4					
UMEA	137.81	349.4	19	10	-8				23	25
PULKOVO	138.88	340.1							22	55 PKS
MOSCOW	139.00	331.5	19	24	4				22	14 PP
SKALSTUGAN	139.09	354.4	19	15	-5				22	13 PP
NURMIJARVI	139.87	344.3	19	14	-7				22	55 SKP
GORIS	140.66	304.7	19	26	3				22	57 PKS
TIFLIS	141.26	308.6	19	21	-3					
UPPSALA	141.97	348.9	19	20	-5				22	31 PP
SOTCHI	144.17	313.6	19	29	0					
GOTEBORG	144.89	352.6	19	31	1					
LWIRO	145.14	227.2	19	34K	3					
ABERDEEN	145.61	5.9	19	35A	4				23	5 SKP
COPENHAGEN	146.79	351.3	19	36A	3				23	4 PP
SIMFEROPOL	147.11	319.0	19	37	3				33	51 PS
DURHAM	148.03	6.1	19	40	5				42	10 SS
WARSAW	148.05	340.1	19	37	2				23	4 PKS
LWOW	148.98	334.5							30	4 SKKS
IASI	149.35	327.7	19	46	9					
KSARA	150.09	298.2	19	48K	9				23	21 PP
BACAU	150.12	327.4	19	59	20					
WITTEVEEN	150.19	356.7	19	43	4					
KRAKOW	150.28	339.1	19	48	9				24	51
CHORZOW	150.37	340.4	19	41	2				19	58 PKP2
FOCSANI	150.56	325.8	19	59	20					
RACIBORZ	150.80	341.1	19	45	5				19	59 PKP2
HALLE	150.92	349.8	19	43	3				19	49 PKP2
COLLMBERG	150.93	348.3	19	43	3				23	32 PP
DE BILT	150.96	358.5	19	45	5				23	17 PP
MUNSTER	150.97	355.4	19	43	3					
JERUSALEM	151.03	294.3	19	45	5				23	56 PP

KEW	151.41	5.7	19	44	3				42	24	SS
JENA	151.53	349.9	19	43	2				23	40	PP
PRUHONICE	151.85	345.5	19	43A	2				23	49	PP
CAMPULUNG	151.96	327.4	20	1	20						
BUCHAREST	152.00	325.0	19	43A	2						
BENSBERG	152.01	355.7	19	44	3				20	41	
CHEB	152.21	348.4	19	45	3				30	25	SKKS
ISTANBUL KA.	152.31	316.4	20	3	21				23	46	PP
ISTANBUL UN.	152.38	316.4	19	44	2						
HURBANOVO	152.74	338.9	19	56	14						
BRATISLAVA	152.82	340.6	19	45	2				45	50	SS
KASPERSKE H.	152.87	346.1	19	45A	2				22	52	
VIENNA-H.	152.97	341.6	19	46A	3				24	4	PP
HEIDELBERG	153.42	353.1	19	45	2				19	55	PKP2
JERSEY	153.46	9.0							20	43	
KARLSRUHE	153.84	353.4	19	48	4				23	42	PP
STUTTGART	153.97	352.0	19	47	3				23	40	PP
FOLINIERE	154.07	6.8	19	49	5						
PARIS	154.24	2.3	19	50	5				23	44	PP
STRASBOURG	154.33	354.2	19	49	4				23	39	PP
BELGRADE	154.43	232.2	19	48A	3				23	46	PP
HELWAN	154.64	291.4	19	49	4				30	35	
SOFIA	154.65	325.3	19	48	3			20	16		
BASLE	155.38	354.2	19	51	5				20	16	
LJUBLJANA	155.50	342.1	19	49A	3				23	47	PP
BESANCON	155.78	356.7	19	51	4						
GARCHY	155.79	1.5	20	0	13				23	49	PP
TRIESTE	156.08	343.0	19	50	3				23	52	PP
BANGUI	156.69	219.5	19	48	0						
PADOVA	156.77	345.9	20	21	33				24	45	PP
CLERMONT-FD.	157.30	1.6	19	53	4				19	48	PKS
ATHENS	157.48	315.9	20	2	13						
PAVIA	157.50	350.4	20	21	32						
MBOUR	158.37	109.8	20	32	42				24	18	PP
PRATO	158.39	346.0	20	25	35				26	15	PP
FLORENCE X.	158.46	345.6	19	52	2	26	47	-1			
ISOLA	158.75	353.9	19	59	9				20	33	PKP2
SERRA PILAR	159.07	27.5	19	51	0	26	52	4	20	2	24 12 PP
BAGNERES	159.76	8.2	19	55	3				24	17	PP
ROME	159.89	341.3	19	54	2	26	53	4	24	38	PP
COIMBRA	159.91	28.7	19	47K	-5				24	18	PP
LISBON	160.75	32.7	20	1	8				20	38	PKP2
TOLEDO	161.87	20.3	19	59	5				24	27	PP
TORTOSA	162.02	8.6	19	51	-3				25	1	PP
ALICANTE	164.25	13.1	20	1	5	27	4	11	24	43	PP
GRANADA	164.45	23.2	20	14A	18	26	41	-12	24	44	PP
ALMERIA	165.13	20.6	20	1K	4				24	53	PP

MAY 23 2.H 45.M 20.S EPICENTRE 36.71 28.46 DEPTH= 65.KM

A= 0.70643 B= 0.38297 C= 0.59523 D= 0.4766 E=-0.8791
G= 0.5233 H= 0.2837 K=-0.8036 HT= -0.5

DEPTH OF FOCUS= 0.005R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.93	289.8	1	1K	1	1	48	2					
ISTANBUL UN.	4.34	5.3	1	3A	-2						2	19	SG
ISTANBUL KA.	4.38	6.0	1	8	2						1	33	PG
KSARA	6.72	113.3	1	35K	-3	2	51	-3			2	1	*SP
SOFIA	7.17	328.1	1	44	0	3	16	11					
HELWAN	7.23	159.8	1	42K	-3	2	58	-9					
JERUSALEM	7.45	129.4	1	45K	-3								
SKOPJE	7.56	316.1	1	51	1								
BUCHAREST	7.90	347.6	1	53K	-2	3	24	1			4	8	SG
CAMPULUNG	8.93	344.2	2	8	-1								
FOCSANI	9.03	354.3	2	14	4								
TITOGRAD	9.11	311.6	2	14	3	4	1	8			2	46	
SIMFEROPOL	9.27	25.7	2	12K	-1	3	50	-7					
TARANTO	9.54	296.5	2	20	3	4	2	-2			6	45	
THEODOSIA	9.81	30.1	2	21	0								
BACAU	9.92	353.7	2	23	1								
BELGRADE	10.12	325.6	2	24K	-1	4	26	8			2	54	

REGGIO CALA.	10.29	281.6	2	6	-21					4	9	
MESSINA	10.37	282.1	2	25A	-3	4	12	-12		2	38	PP
IASI	10.50	356.7	2	26	-4							
TIMISOARA	10.54	331.1	2	29	-2	4	31	3		5	45	SG
BUDAPEST	12.83	329.9	3	1	0					3	28	PP
ZAGREB	13.06	318.0	3	4K	0							
ROME	13.41	297.6	3	9A	0	5	45	8				
HURBANOVO	13.47	329.0	3	15	5	5	59	21				
LWOW	13.49	347.6	3	10	0	5	40	1		6	51	
SKALNATE PL.	13.82	336.9	3	16	2	6	0	13				
LJUBLJANA	14.00	316.1	3	17	0	5	46	-5		3	22	
BRATISLAVA	14.17	327.4	3	19	0	6	4	9				
TRIESTE	14.21	313.5	3	19	0	5	57	1				
GORIS	14.34	73.4	3	23	2					6	27	
VIENNA-H.	14.56	326.1	3	25K	1	6	3	-1		3	36	PP
KRAKOW	14.69	337.8	3	25	0	6	14	7				
FLORENCE X.	14.91	303.6	3	19A	-9	5	50	-22				
PRATO	15.04	303.8	3	34	4	6	21	6				
BOLOGNA	15.14	306.2	3	33	2	6	34	16				
CHORZOW	15.19	336.2	3	32	0	6	29	10		3	51	PP
PADOVA	15.21	310.0	2	47	-45	5	56	-23		2	57	PP
RACIBORZ	15.28	334.2	3	34K	1					4	3	PPP
CUGLIERI	15.96	288.6								5	10	
WARSAW	16.38	343.6	3	47K	0	6	48	2		4	1	PP
KASPERSKE H.	16.48	323.5	3	48K	0	6	58	10		5	56	
PRUHONICE	16.64	327.2	3	51K	1	7	2	10		4	37	
PRAGUE	16.76	327.2	3	54	2	7	6	11		4	12	PP
PAVIA	16.82	306.2	3	54A	1					4	41	
CHUR	17.34	311.6	4	1A	2	7	17	9				
MONACO	17.50	300.1	4	1	0	7	28	17				
CHEB	17.70	324.0	4	1	-2	7	23	7				
RAVENSBURG	17.75	314.4	4	4	0							
ISOLA	17.89	301.2	4	9A	3	7	37	17				
COLLMBERG	18.28	327.8	4	11A	1	7	37	8	4 24	4	29	PP
EBINGEN	18.33	314.8	4	11A	0					4	30	PP
TUBINGEN	18.46	315.8	4	12A	-1	7	38	5		4	31	PP
STUTTGART	18.48	316.7	4	13	0	7	42	9		4	35	PP
TEHERAN	18.52	96.2	4	12	-1	7	41	7				
JENA	18.65	324.9	4	16	1	7	46	9		4	34	PP
BASLE	18.83	311.5	4	6A	-11					7	50	
HALLE	18.88	326.7	4	15	-3	7	50	8				
NEUCHATEL	18.98	309.5	4	18	-1					8	0	
KARLSRUHE	19.09	316.3	4	19	-1							
HEIDELBERG	19.13	317.7	4	20A	0					4	40	PP
STRASBOURG	19.23	314.6	4	22A	1	7	58	8	4 38	4	50	*SP
BESANCON	19.69	309.3	4	26A	0							
MOSCOW	20.02	15.3	4	30	0	8	5	-1		4	48	PP
BENSBERG	20.84	319.3	4	38A	0	8	33	11	4 48	4	58	PP
CLERMONT-FD.	21.02	303.4	4	39	-1	8	42	16				
HAMBURG	21.15	328.2	4	41A	-1	8	37	9				
MUNSTER	21.21	322.5	4	42	0					5	11	
SHIRAZ	21.30	102.3	4	43K	0	8	33	2		5	10	PP
GARCHY	21.53	307.3	4	45A	0	8	42	7		9	8	*SS
DOURBES	21.73	315.4	4	52	4	8	54	14				
COPENHAGEN	21.87	335.2	4	48A	-1	8	50	9	5 7	9	17	*SS
TORTOSA	22.14	289.2	4	51	0	9	15	29				
WITTEVEEN	22.20	323.4	4	53	1							
UCCLE	22.26	316.8	4	47	-6	8	43	-5				
PARIS	22.46	310.7	4	54	0	8	56	4		7	10	
DE BILT	22.51	320.4	4	55A	0	8	51	-2				
BAGNERES	22.57	295.1	4	52	-4					9	25	
ALICANTE	22.97	282.9	4	59	-1	9	1	0		5	26	PP
PULKOVO	23.10	2.4	4	32	-29	3	53	-5		8	41	PCP
GOTEBORG	23.67	337.7	5	9A	3	9	37	24		12	28	PCS
ASHKABAD	23.75	77.9	5	7	0	9	21	6				
MURMIJARVI	23.94	355.4	5	9A	0	9	17	-1				
UPPSALA	24.18	346.6	5	11A	0	9	24	2				
FOLINIERE	24.28	308.9	5	11	-1					8	50	PCP
ALMERIA	24.73	279.7	5	16A	0	9	20	-11		5	58	PP
KEW	25.19	314.9	5	19A	-2	9	25	-14				
JERSEY	25.42	309.0	5	19A	-4	9	53	15				
GRANADA	25.57	290.8	5	27A	3	10	16	31		6	2	PP
TOLEDO	25.64	297.1	5	25A	0	9	49	3		6	4	PP
DURHAM	27.35	320.8	5	39A	-2	10	40	26	6 2	8	59	PCP
KAJAANI	27.40	359.3	5	41A	0							
UMEA	27.59	352.1	5	45A	2							
BERGEN	27.94	335.4	5	45	-1	10	13	-6		6	15	
SKALSTUGAN	28.65	344.9	5	51A	-2							

ABERDEEN	28.83	324.9	5	55A	1	10	58	20			6	55	PPP
COIMBRA	28.97	288.3	5	54A	-1	10	50	10			6	48	PP
SERRA PILAR	29.03	290.2	5	55K	-1	10	43	2			6	49	PP
SVERDLOVSK	29.41	36.6	5	59	0	10	50	3			6	58	PP
LISBON	29.69	285.4	6	2A	0	11	6	14			7	4	PP
SODANKYLA	30.72	358.6	6	12A	1	11	1	-7					
KIRUNA	31.50	354.2	6	18A	0	11	21	1			12	24	
TASHKENT	31.83	69.0	6	20	-1	11	28	3			7	24	PP
QUETTA	32.61	90.2	6	27A	0	11	40	3	6	40	7	37	PP
TROMSOE	33.38	353.9	6	33	-1	10	39	-70			7	37	PP
BANGUI	33.43	198.0	6	18	-17	11	52	2					
KHOROG	34.14	75.5	6	43	2	12	3	2			8	14	PPP
FRUNSE	35.64	65.6	6	54	0	12	29	5			8	18	PP
LAHORE	38.04	84.0	7	12A	-2	13	2	1					
LWIRO	38.77	179.5	7	22	2								
SIDA	38.84	329.1	7	20A	0								
SEMIPALATNSK	39.15	52.8	7	23	0								
LOME	39.34	225.9	7	26	2	13	25	4					
REYKJAVIK	40.56	328.7	7	35A	1						9	14	
DEHRA DUN	41.46	83.9	7	43	1	13	53	1			9	43	PPP
PONTA DELGDA	42.62	288.4	7	52K	1				7	59	9	3	
BOMBAY	42.64	102.3	7	55	3	14	13	3			9	51	PPP
SCORESBY SD.	42.89	337.6	7	53A	-1	14	19	6			9	34	PP
POONA	43.66	101.9	8	1A	1	14	29	5			14	51	PPS
SEHORE	43.80	94.0	8	2	1	14	30	4			9	46	PP
KHEYS	45.43	6.5	8	15	1	14	51	1			10	3	PP
MBOUR	46.10	253.4	8	21	2	15	2	2					
NORD	47.77	351.9	8	32A	0	15	26	3					
HYDERABAD	47.90	99.8	8	35	1	15	24	-1			10	17	PP
CHATRA	50.20	83.7	8	51	0	15	57	0			16	13	PPS
BOKARO	50.49	87.9	8	53	0	16	5	4			10	40	PP
BROKEN HILL	50.89	180.0	8	58A	2								
KODAIKANAL	51.40	108.1	9	10K	10	16	28	14			12	7	PPP
MADRAS	51.81	103.2	9	6K	3	16	23	4			10	56	PP
LHASA	52.04	78.5	9	7A	2	16	24	2			11	7	PP
CALCUTTA	53.18	87.8	9	11	-3	16	39	1					
IRKUTSK	53.83	47.6	9	17A	-1	16	47	0			14	21	PCS
SHILLONG	54.52	82.6	9	23A	0	16	58	2			11	19	PP
TOCKLAI	56.28	79.9	8	35	-61								
BULAWAYO	56.54	179.8	9	40A	2								
ULAN-BATOR	56.72	52.0	9	40	1	18	30	65					
TANANARIVE	58.20	158.6	9	52	2	17	56	11			12	0	PP
TIKSI	58.77	21.4	9	54	0	17	55	3			12	12	PP
LANCHOW	59.12	66.0	9	57A	1								
WINDHOEK	59.93	192.1	10	3K	1								
CHENGTU	61.65	71.5	10	13A	0	18	32	3	10	25			
PRETORIA	62.13	180.3	10	10	-7								
PORT BLAIR	62.51	95.9									18	55	
RESOLUTE	62.85	345.5	10	19	-2	18	43	-1					
YAKUTSK	63.20	31.2	10	23	-1	18	50	2			12	54	PP
KUNMING	63.34	77.5	10	24A	-1	18	54	4	10	36	12	40	PP
SIAN	63.65	65.7	10	28A	1	18	58	4	10	39			
KIMBERLEY	65.21	183.6	10	38K	1								
PIETERMZBURG	66.01	178.2	10	35	-7								
PEKING	66.05	57.1	10	42A	0	19	27	4	10	53			
HALIFAX	66.67	309.0	10	44	-2								
GRAHAMSTOWN	69.69	181.7	11	10A	5								
CHANGCHUN	70.04	49.9	11	6A	-1	20	12	1	11	18			
SHAWINIGAN	71.17	314.3	11	12A	-2								
HERMANUS	71.29	188.1	11	19	5	20	33	7			24	53	SS
NANKING	71.90	63.3	11	18A	0	20	36	3	11	29			
MEDAN	72.04	99.1	11	17K	-2	20	35	1					
BREBEUF	72.25	313.8	11	19	-1								
WESTON	72.63	310.1	11	22A	0	20	45	4			26	10	SS
CANTON	72.65	73.9	11	24A	2	20	47	6	11	36			
MAGADAN	72.94	26.8	11	24	0	20	46	2					
OTTAWA	73.52	314.6	11	27	-1								
HONG KONG	73.72	74.2				20	58	5					
ZO-SE	74.14	63.0	11	32A	1	21	0	2	11	44			
VLADIVOSTOK	74.41	47.7	11	33	0	21	3	2			14	24	PP
PALISADES	75.00	310.1	11	35	-1	21	8	1	11	47	14	0	PP
FORDHAM	75.08	309.9	11	35	-2	21	9	1					
PENNSYLVANIA	77.53	311.7	11	49	-1	21	37	2					
Y.-SAKHLINSK	77.98	39.6	11	54	1	21	44	4			12	7	PCP
WASHINGTON	78.21	309.8	11	53	-1	21	39	-3			31	25	
COLLEGE	78.71	358.4	11	56	-1	21	50	2			38	36	PKPPKP
CLEVELAND	79.26	314.1	12	0	0	21	56	3					
MORGANTOWN	79.51	311.8	12	1A	0						22	25	SS
ANTIGUA	80.20	284.0	12	6	1								

PETROPAVLOVK	80.73	27.9	12	7	-1	22	2	-7			15	9 PP
ST. KITTS	80.77	284.7	12	8	0							
DOMINICA	80.91	282.2	12	9	0							
FORT FRANCE	81.05	281.6	12	10	1							
CHAPEL HILL	81.29	308.5	12	11	0							
ABUYAMA	81.70	52.6	12	13A	0							
ST. VINCENT	82.04	280.4	12	12	-3							
MATUSIRO	82.29	49.9	12	17A	1	22	28	3			27	5 SS
MIZUSAWA	82.34	46.4	12	16	0	22	26	1				
SAN JUAN	82.79	287.4	12	19	1				12	33		
GRENADA	83.06	279.8	12	21	1							
MANILA	83.44	76.7	12	23	1	22	26	-10				
TRINIDAD	83.62	278.5	12	26	3							
TUKUBASAN	83.65	49.1	12	23K	0	22	38	0	12	33	15	41 PP
COLUMBIA	83.77	308.0	12	23A	0	22	40	0				
TERRE HAUTE	84.00	315.4	13	10	45	23	50	68				
DJAKARTA	84.41	101.9	11	58	-29	22	40	-6				
LEMBANG	85.42	101.9	12	32A	0	22	53	-3				
BANFF	86.95	338.3	12	38A	-1							
CARACAS	88.08	281.6	12	45A	1	23	26	5				
RAPID CITY	88.42	327.4	12	45	-1						16	11 PP
HUNGRY HORSE	88.96	336.0	12	49	0	24	36	67	12	57	16	55 PP
FAYETTEVILLE	90.12	317.0	12	53A	-1	23	39	-1	13	4	13	31 *SP
BOZEMAN	90.24	332.9	12	55	0						16	53 PP
BUTTE	90.48	334.0	12	56	0						20	15
VICTORIA	91.52	341.7	12	59	-2							
WICHITA MTS.	93.52	318.8	13	9A	-1	24	5	-5			16	55 PP
FLAMING GRGE	93.61	329.4	13	10	0	23	36	-35			17	3 PP
SALT LAKE C.	94.73	330.9	13	15	0							
CORVALLIS	95.14	340.2	13	19A	2							
FUQUENE	96.46	281.7	13	26	3							
BOGOTA	97.25	281.2	13	31	4	24	2	5			17	20 PP
EUREKA	97.41	333.0	13	28	1						20	12 PPP
CHINCHINA	98.26	282.5	13	33	2	24	8	6			24	30 SKKS
SHASTA	98.45	338.0	13	30	-2							
MINERAL	98.53	337.3	13	32A	-1						17	33
RENO	98.69	335.7	13	36A	3							
BOULDER CITY	100.04	330.5	13	41	2							
UKIAH	100.14	338.0	13	46	6						17	46 PP
BERKELEY	101.00	336.8	13	46	2						17	53 PP
FRESNO	101.19	334.5	13	46	1							
LICK	101.29	336.1	13	45A	0						17	47
TUCSON TELE.	101.41	325.6	13	47	1						29	55 PKKP
TUCSON	101.54	325.7	13	47	1	24	18	0			17	58 PP
CHIHUAHUA	102.23	320.1									33	8 PS
PASADENA	102.94	332.1	13	55	3	24	4	-21			18	8 PP
LA PAZ	104.86	260.4	14	9	8	25	32	58				
TACUBAYA	105.48	309.2									18	33 PP
MAWSON	107.20	166.9	18	21	777						18	42 PP
AREQUIPA	107.51	262.3	16	23	777							
HUANCAYO	108.11	268.3	18	27	777							
MIRNY	114.03	156.7	18	17	-15							
SANTA LUCIA	115.64	246.3	18	38	3	25	24	6			19	52 PP
PORT MORESBY	118.50	80.1	18	44	4	25	52	24			28	2
WILKES	119.99	152.5									31	46
KIPAPA	121.86	7.1	18	51	4							
CHARTERS TS.	123.74	90.9	18	53	2							
ADELAIDE	124.62	110.6	18	55K	3							
SOUTH POLE	126.53	180.0	16	13	-163				16	36	20	55
HONIARA	128.47	70.7	19	2	2							
MELBOURNE	130.35	111.6	19	6	3							
BRISBANE	132.47	95.4	19	11	4							
CANBERRA	132.57	107.0	19	3	-4	25	51	-19	19	11	21	33 PP
TARRALEAH	132.76	116.8	19	12	4							
MOORLANDS	133.32	116.8	19	13	4							
RIVERVIEW	133.72	104.2	19	11A	1						21	38 PP
BYRD STATION	134.83	187.5	19	3	-9				19	31	22	38 SKP
SCOTT BASE	135.14	168.5	19	3	-9						21	51 PP
KOUMAC	138.40	79.6	19	24	6							
CAPE HALLETT	139.44	163.1	19	13	-7						22	16 PP
NOUMEA	141.03	80.3	19	21	-2							
SUVA	147.76	63.1	19	40	5							
KAIMATA	151.04	113.1									19	53 PKP2
GEBBIES PASS	151.93	115.6	19	51	10						20	5 PKP2
COBB RIVER	151.98	110.0	19	50	9							
ONERAHI	152.57	98.3	19	49	7						20	1 PKP2
WELLINGTON	153.52	110.3	19	55	12							
KARAPIRO	153.86	102.7	19	46	2						20	9 PKP2

CHATEAU	154.00	105.6	19	54	10					20	9	PKP2

MAY 23 3.H 40.M 26.S EPICENTRE 9.80 -84.06 DEPTH= 103.KM

A= 0.10203 B=-0.98031 C= 0.16908 D=-0.9946 E=-0.1035
G= 0.0175 H=-0.1682 K=-0.9856 HT= 6.6

DEPTH OF FOCUS= 0.011R

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	
SANTIAGO MA.	5.67	310.7	1	22	-1	2	26	-2					
SAN SALVADOR	6.34	307.9	1	30	-2	2	41	-3					
GALERAZAMBA	8.70	82.8	2	4	-1	3	51	9					
CHINCHINA	9.64	119.2	2	16K	-1	4	9	5					
COMITAN	10.15	310.0	2	22	-2						4	34	
FUQUENE	11.10	112.0	2	35	-2	4	39	0					
BOGOTA	11.16	116.7	2	38	0	4	45	4					
MERIDA	12.31	334.9	2	55	2	5	18	10					
OAXACA	14.29	301.5	3	23	4	6	2	7					
VERA CRUZ	14.96	310.0	3	36	9	6	34	24					
CARACAS	16.88	86.1	3	49A	-2	6	33	-21					
TACUBAYA	17.47	304.8	3	59	1						6	54	
SAN JUAN	19.39	61.8	4	19	-1						4	52	
GUADALAJARA	21.48	302.5									7	26	
ST. KITTS	22.03	67.8	4	47	0								
GRENADA	22.04	82.1	4	48	1								
TRINIDAD	22.31	85.8	4	49	-1								
ST. VINCENT	22.58	79.3	4	55	3								
DOMINICA	22.77	73.8	4	55	1								
ANTIGUA	22.79	69.0	4	55	1								
FORT FRANCE	22.91	75.4	4	58	3	7	56	-58					
HUANCAYO	23.37	158.0	5	1	1						5	48	PP
BARBADOS	24.19	79.8	5	9	1								
COLUMBIA	24.25	6.1	5	9	1	9	18	1			9	42	
CHAPEL HILL	26.40	9.2	5	30	1								
FAYETTEVILLE	27.75	342.2	5	40	-1	8	39	-95	5	57	6	40	PP
CHIHUAHUA	27.89	315.2									6	34	PP
WICHITA MTS.	28.14	334.0	5	42	-2						13	6	
AREQUIPA	28.90	154.4	5	52	1								
ST. LOUIS 1	29.25	350.1	5	53	-1								
TERRE HAUTE	29.58	354.8	4	54	-63	11	34	51					
WASHINGTON	29.65	11.1	5	59	1								
MORGANTOWN	29.93	6.4	6	1A	1						8	43	PCP
LA PAZ	30.51	148.8	6	5	-1	11	24	26					
PENNSYLVANIA	31.36	9.0	6	32K	19						7	48	PP
CLEVELAND	31.63	3.6	6	36	21								
PALISADES	32.36	14.4	6	22	0				6	36			
TUCSON TELE.	33.32	316.2	6	30	0								
WESTON	34.32	16.8	6	57K	18						8	16	PP
OTTAWA	36.19	10.0	6	54	0								
BREBEUF	36.69	12.3	6	58	-1								
SHAWINIGAN	37.87	12.7	7	8	0								
RAPID CITY	37.98	337.4	7	9	0						8	22	PP
FLAMING GRGE	38.25	328.4	7	10	-2						11	36	
HALIFAX	38.94	23.4	7	34	17						10	3	
SALT LAKE C.	39.45	326.1	7	21	0								
PASADENA	39.54	313.1	7	23	1						10	25	
EUREKA	41.01	321.4	7	35	1								
FRESNO	42.00	315.5	7	42	0								
VINEYARD	43.09	314.5	8	5	14								
RENO	43.47	318.9	8	30	36								
BUTTE	43.55	331.1	7	51	-4								
LICK	43.56	315.1	7	56A	1						9	24	
BERKELEY	44.25	315.5	8	2K	1								
SANTA LUCIA	44.85	164.0	8	4	-2								
MINERAL	45.07	318.9	8	25K	18								
SHASTA	45.76	318.8	8	38	25								
HUNGRY HORSE	45.93	332.4	8	13	-1								
BANFF	48.66	334.0	8	32	-3								
VICTORIA	50.73	327.0	8	49	-2								
RESOLUTE	65.14	356.8	10	28	-4						13	12	
HAWAII V.OB.	69.18	287.1	11	0	3						13	42	
COLLEGE	70.19	336.0	11	2	-2								
SERRA PILAR	72.68	50.0	11	17A	-1	20	30	-4	11	55	14	3	PP

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COIMBRA	72.78	51.0	11	21A	2				11	40	14	5 PP	
TOLEDO	76.14	51.3	11	39K	1	21	21	9	12	9	14	31 PP	
GRANADA	76.57	54.1	11	42K	1	21	20	3			14	30 PP	
NORD	77.12	8.0	11	43	-1						14	26 PP	
ALMERIA	77.49	54.4	11	45A	-1	21	23	-4	12	16			
DURHAM	77.73	36.0	11	47	0	21	56	27			14	31 PP	
FOLINIERE	78.48	42.1	12	21	30						15	4	71
KEW	78.51	39.4	11	51	0						14	33 PP	
BAGNERES	79.17	47.9	11	54	-1						14	39	
PARIS	80.44	42.0	12	2	0				12	42	14	45 PP	
GARCHY	80.94	43.5	12	3	-1				12	42	14	48 PP	
CLERMONT-FD.	81.10	45.0	12	6	1								
DE BILT	81.88	38.5	12	14	5								
WITTEVEEN	82.72	37.7									14	58	
BENSBERG	83.25	39.5	12	16	0								
MUNSTER	83.40	38.5	12	18	1								
STRASBOURG	83.94	41.9	12	19	-1						15	22	
ISOLA	84.05	46.3	12	23	3								
SKALSTUGAN	84.11	26.6	12	20	-1								
KARLSRUHE	84.30	41.4	12	22	0				12	44			
MONACO	84.38	46.7	12	23	1								
HEIDELBERG	84.44	41.0	12	22	0								
EBINGEN	84.79	42.2	12	23	-1								
TUBINGEN	84.80	41.8	12	23	-1								
STUTTGART	84.90	41.5	12	24	-1				12	45	15	32	
GOTEBORG	85.01	32.4	12	28	3								
TROMSOE	85.36	20.0	12	27	0						15	10	
COPENHAGEN	85.64	34.4	12	28	0	22	58	8					
JENA	86.01	39.1	12	30	0						15	58	
HALLE	86.13	38.5	12	30	-1						17	16	
KIRUNA	86.40	21.6	12	32	0	22	57	0					
COLLMBERG	86.81	38.6	12	34K	0						14	11	
FLORENCE X.	87.10	46.2	12	33	-2								
UPPSALA	87.41	29.7	12	36	-1								
UMEA	87.50	25.5	12	40	3								
KASPERSKE H.	87.63	40.7	12	38K	0						15	22 *SP	
XHEYS	87.75	5.8	12	38	0								
PRUHONICE	88.06	39.7	12	40K	0	23	22	9			13	3	
ROME	88.35	47.9	12	40	-1						15	34	
SODANKYLA	88.79	21.2	12	42	-1								
LJUBLJANA	88.91	43.5	12	45A	1								
VIENNA-H.	89.63	41.1	12	48	1								
BRATISLAVA	90.12	41.1	12	49	-1								
RACIBORZ	90.32	39.0	12	52	1						13	8 PCP	
NURMIJARVI	90.55	27.9	12	50	-2								
BYRD STATION	91.52	185.8	12	56	0						13	4 PCP	
BELGRADE	93.26	43.6	12	51K	-13						16	42 PP	
PULKOVO	93.44	27.5	13	4	-1								
TIKSI	95.85	350.0	13	16	0								
MOSCOW	98.83	29.2	13	19	-10								
SOUTH POLE	99.73	180.0	13	34	0								
TIFLIS	110.54	38.5									19	5	
SHIRAZ	122.68	45.3	18	44	0						20	24 PP	
CANBERRA	125.57	233.5	18	53A	4								
CHARTERS TS.	130.48	252.0	19	2	3								
QUETTA	131.45	34.1	19	3	2						21	38 PP	
CHATRA	142.61	13.0	19	18	-3								

MAY 23 16.H 45.M 0.S EPICENTRE 12.66 -87.31 DEPTH= 119.KM

A= 0.04588 B=-0.97493 C= 0.21774 D=-0.9989 E=-0.0470
G= 0.0102 H=-0.2175 K=-0.9760 HT= 6.2

DEPTH OF FOCUS= 0.014R

SE= 2.40

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTIAGO MA.	1.40	306.2	0	23	-4	0	42	-6				
SAN SALVADOR	2.11	299.0	0	32K	-4	0	58	-4				
COMITAN	5.88	308.0	1	12	-14	2	20	-13				
BALBOA HTS.	8.45	115.0	2	57	56							
MERIDA	8.54	345.3	2	0	-2	3	42	5			2	24
OAXACA	10.12	296.5	2	28	4	4	20	4				
VERA CRUZ	10.69	308.6	2	30	-1	4	40	11				

GALERAZAMBA	11.93	97.7	2	55	8	5	24	25				
PUEBLA	12.24	302.5	2	48	-4	5	14	8				
TACUBAYA	13.25	301.9	3	5K	0	5	55	26				
CHINCHINA	13.84	122.5	3	10K	-2	5	46	3	3	22		
FUQUENE	15.18	116.8	3	28K	-1				3	47	6 39	*SS
BOGOTA	15.32	120.3	3	35	4	6	27	9	3	49	6 52	*SS
GUADALAJARA	17.28	299.6	3	56	1	7	12	10			6 40	
MANZANILLO	17.56	293.4	3	59	0	7	20	12				
CARACAS	20.08	94.0	4	25A	-1	8	0	0				
SAN JUAN	21.18	71.8	4	38	1				4	55	8 35	PCP
COLUMBIA	22.00	14.0	4	50	5	8	54	18			9 24	SCS
CHIHUAHUA	23.63	315.1	5	5	4	9	20	16				
FAYETTEVILLE	24.14	346.3	5	7A	1	9	16	4	5	28	5 40	*SP
ST. KITTS	24.18	75.9	5	6	-1							
WICHITA MTS.	24.23	336.9	5	8A	1						16 2	SCS
CHAPEL HILL	24.33	16.4	5	12	4						9 28	
LUBBOCK	24.69	329.9	5	12	1							
GRENADA	24.99	88.6	5	15	1							
ANTIGUA	25.00	76.6	5	17	3							
DOMINICA	25.27	81.0	5	17	0							
ST. VINCENT	25.38	85.9	5	18	0						5 39	
TRINIDAD	25.45	91.8	5	16	-3	9	37	3			14 0	
FORT FRANCE	25.49	82.3	5	19	0							
ST. LOUIS 1	26.01	354.8	5	24	0							
BARBADOS	27.01	85.9	5	34	1							
HUANCAYO	27.27	153.7	5	37	2	10	12	8				
MORGANTOWN	27.64	12.3	5	40A	1							
WASHINGTON	27.67	17.4	5	41	2	9	54	-17			6 24	
TUCSON TELE.	29.06	316.2	5	52	1	10	30	-3	6	18	9 22	
TUCSON	29.03	315.9	5	50	-2	10	28	-5	6	16	6 54	PP
CLEVELAND	29.15	8.9	5	48A	-4							
PENNSYLVANIA	29.23	14.8	5	54	1	10	41	6			6 46	*SP
FORDHAM	30.45	20.3	6	6	2	11	4	9				
PALISADES	30.59	20.2	6	6	1	11	6	9	6	14	7 0	PP
GLEN CANYON	32.55	322.3	5	24	-58							
WESTON	32.71	22.2	6	25A	2	11	39	9			7 32	PP
AREQUIPA	32.89	151.2	6	25	0							
BOULDER CITY	33.96	317.9	6	34	0							
OTTAWA	34.09	14.6	6	35A	0							
RAPID CITY	34.16	339.4	6	36	0						8 19	
FLAMING GRGE	34.17	329.5	6	37	1	11	55	2			10 37	
LA PAZ	34.62	146.3	6	40K	0	12	56	56				
PASADENA	35.27	312.5	6	46A	1	12	16	7			9 14	PCP
SALT LAKE C.	35.32	326.9	6	46	0						7 9	
SHAWINIGAN	35.94	17.2	6	52	1							
EUREKA	36.80	321.7	7	0	2						12 59	SCP
FRESNO	37.74	315.2	7	16	10							
HALIFAX	37.76	28.0	7	8A	2							
BOZEMAN	38.58	333.1	7	14	1	13	3	3				
VINEYARD	38.83	314.1	7	16	1							
RENO	39.23	319.9	7	20A	2						7 40	
LICK	39.30	314.3	7	20A	1						9 28	
BUTTE	39.54	332.1	7	21	0							
BRANNER	39.71	314.6	7	24	2							
ANTOFAGASTA	39.73	155.4	7	23	0	13	28	11				
CONCORD	39.91	315.4	7	26	2							
BERKELEY	39.99	315.1	7	26A	1	13	11	-10			9 29	PCP
SAN FRANCSCO	40.07	314.9	7	27	2							
MINERAL	40.33	313.8	7	32A	0							
UKIAH	41.26	316.2	7	40	5							
SHASTA	41.52	318.8	7	35	-2							
HUNGRY HORSE	41.95	333.3	7	42	1	13	18	-32				
CORVALLIS	44.22	323.0	7	59A	0							
BANFF	44.72	335.0	8	3	0							
VICTORIA	46.62	327.4	8	17A	-1						8 47	
SANTA LUCIA	48.52	161.3	8	32	-1	15	27	3	3	52		
RESOLUTE	62.15	357.7	10	9A	-2	13	24	-1				
THULE	64.56	4.9	10	25	-2				10	48	12 49	PP
HAWAII V.OB.	65.32	205.7	10	33	1	20	0	56				
COLLEGE	66.29	336.0	10	36	-2							
KIPAPA	67.70	288.1	10	48	1							
HONOLULU	67.79	288.0	10	49	2							
MBOUR	68.16	79.5				19	48	9			26 30	SS
SCORESBY SD.	70.01	19.0	11	8K	7				11	23	15 23	PPP
COIMBRA	73.49	51.6	11	21K	-1				11	43		
NORD	74.75	8.3	11	28A	-1				11	59		
TOLEDO	76.86	51.7	11	39	-2	21	21	4			14 33	PP
DURHAM	77.31	36.3	11	43A	0	21	20	-2			14 42	PP

JERSEY	77.42	42.1	11 46	2						
GRANADA	77.50	54.4	11 50A	6	22	17	53		12	23 PP
KEW	78.35	39.6	11 46	-3					14	53 PP
FOLLINIERE	78.52	42.4	11 47	-3						
ARGENTINE I.	79.59	170.4	11 55	-1						
BAGNERES	79.64	48.1	11 55	-1						
PARIS	80.46	52.1	11 58	-2					15	3 PP
BARCIY	81.03	43.6	12 2	-2					15	8 PP
CLERMONT-FD.	81.35	45.1	12 4	-1						
DE BILT	81.65	38.5	12 6	-1					15	20 PP
WITTEVEEN	82.42	37.6	12 10	0						
SKALSTUGAN	82.99	26.4	12 11A	-2				12 38	15	27 PP
BESANCON	83.03	43.3	12 11	-3						
BERNSBERG	83.08	39.4	12 12A	-2					15	32 PP
MUNSTER	83.15	38.4	12 13	-1						
TROMSOE	83.78	19.8	12 17	0					15	31 PP
STRASBOURG	83.95	41.7	12 16	-2					15	40
GOTEBORG	84.31	32.2	12 16	-4						
ISOLA	84.38	46.1	12 22	2						
MONACO	84.75	46.5	12 21	-1						
STUTTGART	84.88	41.3	12 20	-3					15	48 PP
KIRUNA	84.92	21.3	12 22	-1	22	36	-4		15	41 PP
COPENHAGEN	85.08	34.1	12 25	1	22	47	5		15	44 PP
KHEYS	85.24	5.4	12 25	0						
JENA	85.80	38.8	12 24	-3	22	25	-24		15	43 PP
UMEA	86.29	25.1	12 27	-3				12 55	15	49 PP
UPPSALA	86.50	29.3	12 29	-2	22	59	4		15	52 PP
COLLMBERG	86.57	38.2	12 30A	-1				13 2	15	59 PP
SODANKYLA	87.28	20.7	12 34	-1					15	59 PP
FLORENCE X.	87.42	45.8	12 39	4						
KASPERSKE H.	87.53	40.2	12 34A	-2					16	5 PP
PRUHONICE	87.89	39.2	12 36A	-1	23	13	5		16	4 PP
TRIESTE	88.63	43.5	12 40	-1	23	21	6	13 13	24	15 SP
ROME	88.80	47.4	12 40	-2	23	28	11		16	18 PP
LJUBLJANA	89.03	43.0	12 41A	-2				13 15	16	18 PP
KAJAANI	89.19	23.5	12 45	1					16	15 PP
NURMIJARVI	89.51	27.3	12 44K	-1				13 16	16	18 PP
VIENNA-H.	89.56	40.5	12 40	-5						
BRATISLAVA	90.05	40.4	12 46	-2						
WARSAW	90.98	35.7							16	31
KRAKOW	91.14	38.0							16	31
TIKSI	92.48	349.2	12 56K	-3						
BELGRADE	93.38	42.8	13 6	3					16	54 PP
LWOW	93.68	37.2	13 4	0					25	36
BYRD STATION	94.03	185.3	13 7	1				13 30	13	45 *SP
KISHINEV	97.78	38.3							16	3
MOSCOW	97.85	27.9	13 22	-1					17	16 PP
YAKUTSK	100.11	343.2							16	20
ISTANBUL UN.	100.64	43.6							17	44
ISTANBUL KA.	100.68	43.6							17	43 PP
SIMFEROPOL	102.01	38.3							17	48
SOUTH POLE	102.58	180.0	13 47	2				14 34	18	26 PPP
SVERDLOVSK	105.83	17.7							18	19 PP
HELWAN	107.36	53.0							18	36
KSARA	108.91	47.4							18	28 PP
TIFLIS	110.22	36.3							18	53 PP
MAKHACH-KALA	110.91	33.9							18	57
MATUSIRO	114.94	320.7	18 14	-13					35	25 SS
BROKEN HILL	117.72	99.8	18 34	2						
ULAN-BATOR	118.38	349.2	18 35	1						
BULAWAYO	118.38	106.1	18 35	1						
RABAUL	120.68	272.6	18 40	2						
MAWSON	121.71	167.1	18 41A	1					19	3
TASHKENT	122.10	20.7							20	9
BRISBANE	122.17	245.6	18 44	3					36	59
SHIRAZ	122.82	41.9	18 42	0	25	37	6		20	7 PP
RIVERVIEW	123.07	237.8	18 45	2					30	24 PS
STALINABAD	124.34	22.6							20	32
MOORLANDS	124.47	227.0	18 49K	4						
CANBERRA	124.62	235.8	18 49	3						
CHARTERS TS.	128.25	254.4	18 56	3					22	9
QUETTA	130.72	29.8	18 53	-4					22	15 PKS
LAHORE	132.65	21.4	19 2	1						
ADELAIDE	132.90	233.8	19 5K	3						
MUNDARING	151.09	224.5	19 35	2						

MAY 25 9.H 18.M 46.S EPICENTRE 31.60 140.53 DEPTH= 118.KM

A=-0.65868 B= 0.54246 C= 0.52142 D= 0.6357 E= 0.7719
G=-0.4025 H= 0.3315 K=-0.8533 HT= 1.3

DEPTH OF FOCUS= 0.013R

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
TORISIMA	1.13	189.9	0	23	-1	0	39	-3				
HATIDYOZIMA	1.62	337.6	0	28	-2	0	50	-2				
OSIMA	3.30	343.4	0	52	1	1	30	0				
MERA	3.36	350.2	0	52	0	1	31	-1				
OMAESAKI	3.56	327.7	0	56K	1							
AJIRO	3.64	341.2	0	56	0	1	37	-2				
MISIMA	3.75	339.8	1	11	14							
SHIZUOKA	3.80	332.6	0	57	-1	1	42	0				
YOKOHAMA	3.89	349.4	0	57	-2	1	49	4				
TYOSI	4.12	3.7	1	2A	0	1	48	-2				
TOKYO C.M.O.	4.12	351.2	1	4	2	1	48	-2				
HUNATU	4.16	339.8	1	4	1	2	5	14				
KOHU	4.38	338.5	1	6	0	1	59	3				
OWASE	4.40	305.2	1	5	-1	1	53	-4				
SIOMISAKI	4.42	295.9	1	4	-2	1	53	-4				
IIDA	4.51	330.8	1	9	1	2	0	0				
TITIBU	4.53	345.0	1	8	0							
TU	4.57	313.7	1	10	2							
KAKIOKA	4.63	356.5	1	9	0	2	5	3				
KUMAGAYA	4.64	348.4	1	9	0	2	7	4				
NAGOYA	4.64	321.1	1	10K	1	2	3	0				
KAMEYAMA	4.70	314.7	1	10	0	2	3	-1				
MITO	4.77	359.4	1	10A	-1	2	3	-3				
GIHU	4.92	321.4	1	13K	0							
MAEBASI	4.94	346.2	1	12	-1	2	15	5				
UTUNOMIYA	4.97	353.9	1	12	-2	2	5	-6				
NARA	5.00	309.2	1	16	2	2	10	-1				
OIWAKE	5.00	341.3	1	17	3							
MATUMOTO	5.10	336.1	1	17	1							
HIKONE	5.12	316.8	1	17K	1	2	14	0				
OSAKA	5.18	307.3	2	18	61	3	11	55				
KYOTO	5.27	311.6	1	18	0	2	16	-2				
ABUYAMA	5.28	309.5	1	18K	0							
MATUSIRO	5.29	339.3	1	17K	-1	2	17	-1				
ONAHAMA	5.35	3.2	1	17	-2	3	12	52				
NAGANO	5.41	339.8	1	24	4							
SUMOTO	5.45	301.6	1	21	1	2	20	-2				
TSURUGA	5.49	318.6	1	20	-1							
SHIRAKAWA	5.51	357.4	1	19	-2	2	18	-6				
HUKUI	5.70	322.3	1	16	-8							
TAKAMATU	6.08	298.2	1	29	0	2	35	-3				
HUKUSIMA	6.14	359.6	1	27	-3	2	35	-4				
KOTI	6.22	290.1				2	38	-4				
YAMAGATA	6.64	358.8	1	35A	-1	2	45	-6				
SENDAI	6.66	2.5	1	49	12	2	44	-8				
ISINOMAKI	6.85	5.2	1	37K	-2	2	49	-7				
MATSUE	7.31	303.7	1	47	1							
HAMADA	7.81	297.2	1	52	0	3	23	3				
KUMAMOTO	8.42	280.9	2	5	4							
KUSIRO	11.77	14.1									4	37
NEMURO	12.37	17.5									4	59
Y.-SAKHLINSK	15.49	5.6	3	31	-2							
TIKSI	40.58	354.3	7	29	0							
SHILLONG	42.87	274.7	7	21	-27							
COLLEGE	54.11	30.0	9	17	2				10	3	10	25 *SP
KHEYS	57.81	348.9	9	42	1							
BRISBANE	59.81	167.4	9	55	0							
QUETTA	61.98	289.8	10	6	-4							
RIVERVIEW	65.85	170.3	10	30	-5							
CANBERRA	67.04	172.5	10	43	0							
RESOLUTE	68.04	13.7	10	49	0							
SODANKYLA	69.69	337.8	10	59K	0							
VICTORIA	70.75	44.5	11	8	3							
KAJAANI	71.16	334.7	11	7K	-1							
KIRUNA	71.34	339.7	11	9	0							
UMEA	73.95	336.5	11	23	-1							
NURMIJARVI	74.40	332.5	11	26K	-1							
SHASTA	75.01	51.4	11	33	3							

HUNGRY HORSE	76.30	41.4	11 40	2		
KARAPIRO	76.50	152.2	11 40	1	12 9	
SKALSTUGAN	76.70	338.8	11 38	-2		
UPPSALA	77.52	334.3	11 43	-1		
CHATEAU	77.60	152.8	11 46	1	12 17	
GOTEBORG	81.12	334.8	12 0	-4		
FLAMING GRGE	83.21	45.8	12 17	3		
COLLMBERG	85.44	330.0	12 25K	-1	13 8	
PRUHONICE	85.72	328.4	12 27A	0		12 56
STUTTGART	88.92	330.2	12 42	0		
GARCHY	92.65	332.6	13 0	0		
FOLINIERE	92.74	335.4	13 0	0		
WICHITA MTS.	93.74	45.1	13 7	2		13 36
SOUTH POLE	121.43	180.0	18 41	1		
BYRD STATION	122.63	168.2	18 43	1		

MAY 26 5.H 6.M 43.S EPICENTRE 15.65 -91.45 DEPTH= 240.KM
A=-0.02440 B=-0.96310 C= 0.26803 D=-0.9997 E= 0.0253
G=-0.0068 H=-0.2679 K=-0.9634 HT= 5.6

DEPTH OF FOCUS= 0.033R

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
COMITAN	0.89	312.6	0 25	-9	0 49	-11		
SAN SALVADOR	2.93	131.6	0 51	-1	1 29	-3		
SANTIAGO MA.	3.60	126.2	1 5	6	1 52	7		
OAXACA	5.29	285.7	1 7	-13	1 59	-23		
MERIDA	5.55	18.0	1 40	17	2 52	24		
VERA CRUZ	5.69	309.0	1 25	0	2 21	-10		
TACUBAYA	8.28	297.9	1 52	-6	3 16	-14		
CHINCHINA	18.83	122.6	4 2	-2				
WICHITA MTS.	20.05	342.6	4 13	-3				5 17
BOGOTA	20.30	120.9	4 22	3				
FAYETTEVILLE	20.51	353.7	4 20A	-1	8 31	40	4 43	5 4 PP
COLUMBIA	20.55	25.3	4 23	2				
CHAPEL HILL	23.03	26.5	4 47	2				
TUCSON TELE.	24.14	316.9	4 55	-1				
TUCSON	24.16	316.6	5 33	37				
SAN JUAN	24.37	80.0	4 58	0				
CARACAS	24.42	99.1	4 58	0				
MORGANTOWN	25.93	20.6	5 13K	1				
ST. KITTS	27.58	82.4	5 28	1				
ANTIGUA	28.43	82.8	5 35	0				
DOMINICA	29.95	86.6	5 39	0				
GRENADA	29.06	93.3	5 39	-1				
ST. VINCENT	29.32	90.9	5 40	-2				
FLAMING GRGE	29.61	331.9	5 43	-2				6 26
TRINIDAD	29.66	95.9	5 43	-2				
RAPID CITY	30.05	343.0	6 32	43				
PASADENA	30.30	312.3	6 33	42				
HUANCAYO	31.81	149.0	6 5	1				8 50 PCP
OTTAWA	32.48	20.8	6 9A	-1				
LICK	34.35	314.7	7 6K	40				8 56
RENO	34.36	319.4	7 2	36				
SHAWINIGAN	34.53	23.0	6 27A	0				
MINERAL	35.95	319.2	7 28	49				
AREQUIPA	37.49	147.4	6 53	1				
HUNGRY HORSE	37.52	335.1	7 34	42				
LA PAZ	39.37	143.2	7 11	3				
CORVALLIS	39.44	323.6	7 7	-1				
SANTA LUCIA	52.70	158.1	8 50	-2				
RESOLUTE	59.07	358.9	9 34	-3				10 23
COLLEGE	61.95	336.2	9 53	-3			10 30	11 28
NORD	72.40	8.6	10 59A	-3				
FOLINIERE	79.04	42.4	11 38	-1				
PARIS	80.95	41.9	11 51	2				12 47
SKALSTUGAN	82.10	26.0	11 54	-1				12 49
KIRUNA	83.59	20.8	12 2	0				
SODANKYLA	85.99	20.0	12 12	-2				
COLLMBERG	86.69	37.5	13 11	53				16 51
KAJAANI	88.03	22.6	12 21	-3				
PRUHONICE	88.10	38.4						15 7
MARHACH-KALA	10.56	31.0						14 43

SEMIPALATNSK 113.84 5.8 14 17

MAY 26 22.H 49.M 55.S EPICENTRE 38.79 142.86 DEPTH= 80.KM

A=-0.62299 B= 0.47192 C= 0.62384 D= 0.6038 E= 0.7971
G=-0.4973 H= 0.3767 K=-0.7816 HT= -1.2

DEPTH OF FOCUS= 0.007R

SE= 4.01

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MIYAKO	1.10	321.7	0 16A	-6	0 31	-6		
ISINOMAKI	1.25	254.0	0 18K	-5	0 37	-4		
MIZUSAWA	1.39	284.9	0 23	-2	0 42	-2		
MORIOKA	1.60	305.4	0 24A	-4	0 48	0		
SENDAI	1.62	252.1	0 24A	-4	0 45	-4		
HATINOHE	2.02	330.0	0 28	-5	1 0	2		
YAMAGATA	2.04	255.6	0 28	-6	0 55	-3		
HUKUSIMA	2.14	241.9	0 30A	-5				
AKITA	2.33	294.4	0 42	4	1 6	0		
SAKATA	2.37	273.7	0 36	-2	1 10	4		
ONAHAMA	2.40	220.8	0 44	5				
AOMORI	2.59	322.4	0 41	0	1 16	4		
SHIRAKAWA	2.67	232.2	0 38	-4	1 8	-6		
MITO	3.06	219.0	0 41	-7	1 14	-10		
NIIGATA	3.11	255.1	0 45	-4	1 35	10		
UTUNOMIYA	3.25	227.6	0 46	-5	0 58	-31		
KAKIOKA	3.32	220.7	0 45	-7	1 3	-27		
TYOSI	3.45	208.2	0 48	-5	1 46	13		
HIROO	3.51	5.6	0 52	-2	1 27	-8		
AIKAWA	3.70	259.5	1 3	6	1 50	10		
MORI	3.74	332.9	0 58	1				
MURORAN	3.81	338.6						1 35
KUMAGAYA	3.82	227.5	0 59	1	1 56	14		
MAEBASI	3.84	232.8	0 55K	-4	1 41	-2		
HONGO	3.94	219.7						1 49
TOMAKOMAI	3.96	346.2						1 20
TOKYO C.M.O.	3.97	219.6	1 1	1	2 11	25		
TAKADA	4.01	246.6	1 3	2				
TITIBU	4.11	228.2	0 57	-5	1 46	-4		
OIWAKE	4.21	235.7	1 7	3	2 11	19		
YOKOHAMA	4.22	218.4	1 9	5	1 59	7		
NAGANO	4.25	241.7	1 3	-1	2 19	26		
MATUSIRO	4.31	240.1	1 1A	-4	1 52	-3		2 16
KUSIRO	4.35	15.1	1 21	15	1 45	-11		
SAPPORO	4.43	345.6	1 16	9	2 10	12		
SUTTSU	4.48	334.4	1 24	16	2 27	28		
MERA	4.56	213.1	1 27	18				
HUNATU	4.63	226.1	1 18	8	2 6	3		
KOHU	4.63	229.1	1 7	-3	2 9	6		
MATUMOTO	4.64	238.4	1 8	-2				
AJIRO	4.79	220.1	1 7	-5	1 56	-11		
MISIMA	4.81	221.7	1 13	1				
OSIMA	4.88	215.9	1 18	5				
WAZIMA	4.90	255.2	1 12	-1				
NEMURO	4.98	23.5	1 5	-10	1 59	-12		
ASAHIGAWA	5.00	356.0	1 21	6				
IIDA	5.17	232.5	1 13	-4	2 24	8		
SHIZUOKA	5.22	224.5	1 23	5	2 24	7		
ABASHIRI	5.34	11.1	1 31	12	2 10	-10		
OMAESAKI	5.60	223.1	1 38	15				
GIHU	5.92	237.1	1 25	-2				
NAGOYA	5.93	234.4	1 33	5	3 1	26		
TSURUGA	6.25	242.1	1 28	-4				
KAMEYAMA	6.45	234.5	1 44	9	2 49	1		
KYOTO	6.83	238.8	1 41	1				3 12
NARA	6.97	236.2	1 56	14				
TOYOOKA	7.19	245.6	1 46	1				
VLADIVOSTOK	9.35	301.1	2 12	-2	4 15	16		
CHANGCHUN	14.11	296.5	3 16	-2	6 29	36		
ZO-SE	19.33	253.2	4 20	-2				
PEKING	20.64	281.9	4 32	-4	8 51	34		
NANKING	20.70	258.5	4 35	-1				
YAKUTSK	24.62	345.1	5 17	2	9 39	12		

CHENGTU	32.75	267.7	6 27	-1		
KUNMING	36.37	260.0	6 58	-1		
SHILLONG	44.59	268.4	8 6A	0		
SEMIPALATNSK	44.81	306.3	8 8	0		
COLLEGE	47.00	33.1	8 24	-1		
CHATRA	47.64	272.8	8 31	1		
FRUNSE	50.52	297.7	8 53A	0		
KHEYS	51.17	347.9	8 57	-1		
NORD	59.38	356.6	9 54A	-3		
RESOLUTE	60.62	15.0	10 3A	-2		
QUETTA	61.52	287.2	10 11	0	10 24	
SODANKYLA	63.80	337.2	10 26K	0		
TROMSOE	64.43	341.2	10 30	-1		
KIRUNA	65.29	339.3	10 35	-1		
KAJAANI	65.52	334.1	10 36	-2		
BRISBANE	66.48	170.4				12 10
MOSCOW	66.53	323.5	10 46	2		
UMEA	68.15	336.3	10 53	-1		
NURMIJARVI	68.94	332.1	10 58K	-1		
HUNGRY HORSE	69.73	43.8	11 4	0		
UPPSALA	71.88	334.3	11 16	-1		
SHIRAZ	72.36	294.0	11 19	-1		
CHINA LAKE	75.04	56.1	11 35	0		
LWOW	76.63	324.3	11 44	0		
FLAMING GRGE	76.91	47.8	11 1	-45		11 40
NIEDZIKA	78.58	325.8	11 56	1		
COLLMBERG	80.15	330.7	12 3A	0		12 44
PRUHONICE	80.58	329.1	12 6A	0		12 35
JENA	80.98	331.2	12 8	0		12 38
KASPERSKE H.	81.64	329.1	12 12A	1		
KARAPIRO	82.05	154.5	12 11	-2		
STUTTGART	83.61	331.2	12 21	0		
PARIS	85.98	335.0	12 45	12		
GARCHY	87.10	333.9	12 39	0		
WICHITA MTS.	87.36	46.4	12 40	0		
FAYETTEVILLE	88.77	42.8	12 46	0		
PALISADES	93.79	27.0				21 18 PKS
PRETORIA	124.32	262.8				17 19
SOUTH POLE	128.60	180.0	19 15	16		
BYRD STATION	129.22	167.1	19 1	1		

MAY 27 7.H 18.M 6.S EPICENTRE 41.32 142.21 DEPTH= 65.KM

A=-0.59525 B= 0.46162 C= 0.65771 D= 0.6128 E= 0.7902
G=-0.5197 H= 0.4031 K=-0.7533 HT= -2.2

DEPTH OF FOCUS= 0.005R

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
URAKAWA	0.94	27.1	0 19K	0	0 34	2		
HATINOHE	0.94	213.3	0 15K	-4	0 27	-5		
AOMORI	1.19	245.7	0 19	-3	0 36	-2		
HAKODATE	1.19	294.9	0 21K	-1	0 37	-1		
HIROO	1.27	40.5	0 22	-1	0 41	1		
MURORAN	1.36	318.0	0 24K	0	0 42	0		
TOMAKOMAI	1.39	340.6	0 27	3	0 46	3		
MORI	1.45	303.1	0 26K	1	0 47	3		
MIYAKO	1.67	186.3	0 24A	-4	0 41	-8		
OBIHIRO	1.76	24.4	0 32	3	0 54	3		
MORIOKA	1.80	206.4	0 29K	-1	0 50	-2		
SAPPORO	1.86	340.3	0 32K	1	0 56	2		
SUTTSU	2.09	315.9	0 34	0	1 2	3		
AKITA	2.26	225.9	0 36	0	1 4	1		
KUSIRO	2.33	43.7	0 36	-1	1 2	-3		
MIZUSAWA	2.33	201.0	0 36	-1	1 2	-3		
ASAHIGAWA	2.46	2.8	0 40	1	1 13	5		
RUMOE	2.67	350.9	0 44	2	1 15	2		
ISINOMAKI	2.96	193.6	0 43A	-3	1 17	-4		
SAKATA	3.02	217.8	0 47	0	1 24	2		
ABASHIRI	3.10	28.8	0 48	0	1 29	5		
SENDAI	3.21	198.7	0 48	-2	1 28	1		
NEMURO	3.21	50.1	0 50	0	1 19	-8		
YAMAGATA	3.38	205.6	0 50	-2	1 29	-2		
HUKUSIMA	3.81	201.2	0 56	-2				

WAKKANAI	4.12	354.8								1	19
NIIGATA	4.18	216.7	1	1	-2	2	49	58			
SHIRAKAWA	4.47	200.8	1	5	-2	2	1	3			
ONAHAMA	4.48	193.5	1	15	8	1	55	-4			
AIKAWA	4.49	224.1	1	5	-2	1	50	-9			
UTUNOMIYA	5.10	201.7	1	13	-3	2	10	-4			
MITO	5.11	195.9	1	12	-4	2	23	8			
TAKADA	5.21	217.4	1	17	0	2	27	10			
KAKIOKA	5.32	198.0	1	14	-5						
TUKUBASAN	5.35	198.6	1	14A	-5						
MAEBASI	5.49	207.5	2	16	55	3	23	59			
NAGANO	5.59	215.2	1	23	0	2	38	12			
KUMAGAYA	5.61	204.1	1	26	3	2	31	4			
TYOSI	5.69	191.2	1	20	-4	2	30	1			
WAZIMA	5.69	228.0	1	23	-1						
KURILSK	5.69	44.7	1	22	-2	2	27	-2			
MATUSIRO	5.70	214.4	1	22	-2	2	31	2			
Y.-SAKHLINSK	5.71	3.5	1	24	0	2	24	-5			
OIWAKE	5.74	211.0	1	27	2	2	38	8			
TITIBU	5.86	205.7	1	34	8	2	44	11			
HONGO	5.91	199.6								12	48
TOKYO C.M.O.	5.95	199.7	1	25	-3	2	35	0			
MATUMOTO	6.04	214.5	1	29	0						
YOKOHAMA	6.21	199.7				2	39	-3		1	55
KOHU	6.32	208.1	1	32	-1	2	57	12			
HUNATU	6.40	206.0	1	48	14	2	49	2			
MERA	6.66	197.1	2	25	47						
MISIMA	6.70	203.5	1	38	0						
AJIRO	6.72	202.3	1	34	-4	2	49	-5			
IIDA	6.73	212.1	1	40	1	3	4	9			
OSIMA	6.91	199.7	1	38	-3	2	52	-7			
SHIZUOKA	7.01	206.5	1	54	12	3	2	0			
HUKUI	7.03	223.5	1	47	4						
NAGOYA	7.39	215.5	1	47	-1	3	22	11			
OMAESAKI	7.41	206.4	1	44	-4						
TSURUGA	7.43	222.3	1	51	3						
HIKONE	7.64	219.7	1	52	1	3	18	1			
VLADIVOSTOK	7.86	286.7	1	54	0						
KAMEYAMA	7.88	216.8	1	58	4	3	31	8			
KYOTO	8.09	221.1	2	1	4	3	36	8			
TOYOOKA	8.18	227.5	1	57	-2	3	33	3			
ABUYAMA	8.29	221.2	1	57K	-3						
NARA	8.32	219.2	2	9	9						
OSAKA	8.49	220.5								2	28
OWASE	8.66	215.2				3	51	9		2	24
TAKAMATU	9.50	225.3	2	19	2						
HAMADA	10.23	234.5	2	31	4	4	27	6			
MATUYAMA	10.56	228.1	2	40	9	4	32	3			
KUMAMOTO	12.49	230.9								2	58
CHANGCHUN	12.71	287.0	3	1	1	5	27	7			
PETROPAVLOVK	16.14	38.0	3	32	-12						
MAGADAN	19.03	13.5	4	17	-2						
ZO-SE	19.75	245.6	4	24	-3						
PEKING	19.77	274.9	4	24	-3	8	0	-1			
NANKING	20.88	251.3	4	36	-3						
YAKUTSK	22.05	344.2	4	48	-3	8	41	-4			
ULAN-BATOR	25.82	296.8	5	24	-3						
IRKUTSK	27.85	306.1	5	45	-1	10	25	3			
CANTON	30.24	242.0	6	10	3						
LANCHOW	30.24	272.7	6	5	-2						
HONG KONG	30.25	239.8	6	6	-1						
TIKSI	31.11	351.9	6	10	-5						
CHENGTU	32.45	263.2	6	24	-2						
KUNMING	36.41	256.1	6	59A	-1	12	36	0			
LHASA	42.71	271.0	7	54	2						
SHILLONG	44.23	265.4	8	3A	-2						
COLLEGE	45.18	34.4	8	13	1					9	20
CHATRA	47.08	270.1	8	26	-1						
KHEYS	48.59	347.4	8	38	-1	15	34	-1			
FRUNSE	48.94	295.6	8	41A	-1						
ANDIJAN	51.32	294.0	9	0A	0	16	21	8			
TASHKENT	53.19	295.9	9	13	-1						
NORD	56.82	356.4	9	39A	-1						
LEMBANG	57.45	222.0	9	41A	-4						
RESOLUTE	58.31	15.2	9	49A	-2						
QUETTA	60.33	285.5	10	4A	-1				10	42	
CHARTERS TS.	61.21	175.7	11	8	58						
SODANKYLA	61.27	336.5	10	10	-1						

TROMSOE	61.88	340.6	10	14	-1						
KIRUNA	62.75	338.7	10	19A	-2						
KAJAANI	63.03	333.3	10	22A	-1						
VICTORIA	63.06	48.0	10	22	-1						
MOSCOW	64.21	322.6	10	30	0						
PENTICTON	64.71	45.8	10	31	-3						
CORVALLIS	65.30	51.6	10	56	19						
UMEA	65.63	335.6	10	39A	-1						
BANFF	65.77	42.4	10	41	1						
MAKHACH-KALA	66.34	307.0	10	44	0						
NURMIJARVI	66.47	331.4	10	44A	-1					13	6 PP
SCORESBY SD.	67.92	354.3	11	11	17						
TEHERAN	68.05	298.7	10	55	0						
SHASTA	68.08	54.7	10	55	0						
SKALSTUGAN	68.16	338.3	11	2	7					13	18 PP
HUNGRY HORSE	68.26	44.2	10	56	0				11	14	
TIFLIS	68.69	307.2	10	59	0						
MINERAL	68.77	54.6	10	59A	0						
AFIAMALU	69.46	131.7	11	15	12						
BERKELEY	69.84	57.0	11	23A	17						
RENO	70.36	54.4	11	10K	1						
BUTTE	70.49	45.5	11	8	-2						
SOTCHI	70.52	311.2	11	8	-2						
LICK	70.56	57.2	11	27A	17						
SHIRAZ	70.89	292.9	11	11K	-1					14	26 PKS
BOZEMAN	71.53	45.1	11	16	0						
FRESNO	72.07	56.7	11	36	17						
SIMFEROPOL	72.72	315.0	11	23	0						
GOTEBORG	72.92	334.6	11	31A	7						
KISHINEV	74.03	319.2	11	30	-1						
LWOW	74.29	323.6	11	33A	1						
COPENHAGEN	74.38	333.1	11	33K	0						
PASADENA	74.75	57.9	11	50	15	21	6	1			
FLAMING GRGE	75.58	47.9	11	40	0						
BOULDER CITY	75.66	54.7	11	41	1						
KRAKOW	75.91	325.8	11	42	1					11	58 PCP
ADELAIDE	75.98	183.0	11	41	-1						
CANBERRA	76.52	174.3	11	45	0						
RAPID CITY	76.70	42.3	11	44	-2						
LARAMIE	77.41	45.6	11	51	1					12	6
COLLMBERG	77.70	330.1	11	53A	2				12	30	14 45 PP
PRUHONICE	78.16	328.5	11	55	1						14 48 PP
JENA	78.53	330.7	12	6	10						12 41
BRATISLAVA	78.54	326.0	11	55	-1						
MUNSTER	79.07	333.3	11	58	-1						
KASPERSKE H.	79.22	328.5	12	0A	0						13 34
BENSBERG	80.07	333.0	12	4	0						
TUCSON	80.62	55.2	12	8	1				12	26	
TUCSON TELE.	80.62	55.1	12	8	1						
STUTTGART	81.15	330.6	12	10	0				12	49	
LJUBLJANA	81.30	326.1	12	11	0						
BASLE	82.82	330.9	12	20A	1						
ATHENS	83.16	315.6	12	13	-2						
KARAPIRO	84.54	154.1	12	31	4						
HELWAN	84.68	305.4	12	30A	2						
ISOLA	85.84	329.4	12	35	1						
WICHITA MTS.	85.98	46.1	12	35	1	23	6	5			
SHAWINIGAN	87.14	23.3	12	40	0						
FAYETTEVILLE	87.25	42.5	12	40A	-1				12	58	
PALISADES	91.75	26.5				24	27	32			23 53 SXS
SOUTH POLE	131.13	180.0	19	5	0						22 24 *SPP
BYRD STATION	131.80	166.6	19	6	0						
LA PAZ	144.03	55.6	19	48	20						

MAY 27 16.H 52.M 35.S EPICENTRE 0.73 98.01 DEPTH= 165.KM

A=-0.13942 B= 0.99015 C= 0.01258 D= 0.9902 E= 0.1394
G=-0.0018 H= 0.0125 K=-0.9999 HT= 7.2

DEPTH OF FOCUS= 0.021R

SE= 2.23

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
DJAKARTA	11.16	128.1									11	39

LEMBANG	12.17	128.2	2	28K	-21	4	48	-14				
COLOMBO	19.11	289.2	4	13	0							
MADRAS	21.47	305.4									8	40
CALCUTTA	23.62	337.3									10	11
KUNMING	24.68	10.3	5	9A	2							
SHILLONG	25.40	347.0	5	13A	-1	9	40	14			5	48 PP
BOKARO	25.84	333.6	5	18	0	9	54	20				
HONG KONG	26.59	35.1	5	25	0	10	22	36				
MANILA	26.68	57.6	5	27	1							
CANTON	26.76	32.7	5	27	0							
BAGUIO CITY	27.16	53.8	5	28	-2						14	25
CHATRA	27.97	339.0	5	36	-2							
LHASA	29.51	347.6	5	51	0	10	48	16				
CHENGTU	30.31	10.3	5	58A	0							
BOMBAY	30.61	307.7									11	5
DEHRA DUN	35.02	329.0	6	38	-1	12	11	13				
DARWIN	35.08	112.9	6	54	15							
LANCHOW	35.56	8.1	6	45A	2	12	22	16				
MUNDARING	36.80	153.7	6	53	-1							
NANKING	36.82	30.2	6	55A	1							
ZO-SE	37.34	33.8	6	59A	1							
QUETTA	41.59	317.7	7	33	0	13	41	4	7	41	9	9 PP
PEKING	42.47	20.8	7	43A	2	14	7	17				
ANDIJAN	46.13	332.9	8	11A	1	14	58	16				
ALMATA	46.36	338.7	8	12	0							
NAMANGAN	46.63	332.5	8	15A	1							
FRUNSE	46.87	336.4	8	17A	1	15	10	17				
ULAN-BATOR	47.64	8.1	8	22	0							
TASHKENT	48.03	330.9	8	25	0	15	24	15				
CHANGCHUN	49.32	26.0	8	35A	0	15	39	12				
PORT MORESBY	49.95	102.9	8	35	-4	15	43	7				
MATUSIRO	51.50	41.6	8	49	-2	16	29	32			10	14 PCP
CHARTERS TS.	51.57	116.5	9	47	55							
IRKUTSK	51.63	4.9	8	53A	1							
SEMIPALATNSK	51.75	345.6	8	53A	0							
VLADIVOSTOK	51.95	31.2	8	54	0							
SHIRAZ	51.95	308.0	8	53K	-1	16	14	11			10	3 PCP
ADELAIDE	52.02	137.2	8	50	-5							
TEHERAN	55.53	314.2	9	18	-3							
MELBOURNE	57.81	136.9	9	33	-4							
CANBERRA	59.50	132.5	9	45A	-3				9	55		
BRISBANE	59.52	122.6	9	47	-2	17	48	5				
Y.-SAKHLINSK	60.30	33.6	9	54	0							
TIFLIS	62.83	317.6	10	9	-2							
SVERDLOVSK	63.43	338.1	10	14	-1							
YAKUTSK	65.65	15.8	10	28	-1							
HELWAN	69.51	301.6	10	52	-1						12	1
BROKEN HILL	70.40	254.5	10	56	-2							
BULAWAYO	70.96	248.5	10	58	-4							
SIMFEROPOL	71.26	317.7	11	3A	-1							
MAGADAN	71.41	25.3	11	4	0							
PETROPAVLOVK	72.17	33.6	11	7	-2							
MAWSON	72.43	193.4	11	14	4							
MOSCOW	73.15	329.1	11	14	-1							
TIKSI	73.49	9.8	11	13K	-4							
KISHINEV	75.39	318.6	11	23	-4	21	2	10				
SOFIA	78.28	313.4	11	43	-1							
LWOW	79.15	320.7	11	49	1	21	46	14				
BANGUI	79.37	274.3	11	47	-2							
KARAPIRO	80.61	128.5	11	56	0							
CHATEAU	80.80	129.8	11	55	-2							
KAJAANI	80.83	335.2	11	56	-1							
NURMIJARVI	81.22	331.3	11	59	0							
KHEYS	82.06	353.9	12	4	0							
SODANKYLA	82.23	338.3	12	5A	0							
RACIBORZ	82.90	320.3	12	9	1							
BRATISLAVA	83.39	318.3	12	11	1	22	47	31				
VIENNA-H.	83.89	318.3	12	13	0							
UMEA	83.96	334.2	12	12	-1							
UPPSALA	84.54	330.0	12	16	0	22	42	15				
KIRUNA	84.65	338.1	12	17	0	22	44	16			22	56 SCS
PRUHONICE	85.23	319.9	12	20A	0						23	55
CAPE HALLETT	85.33	163.0	12	26	6	22	44	9				
TROMSOE	85.52	339.8	12	21	0							
KASPERSKE H.	85.80	319.0	12	23A	1						12	43
SCOTT BASE	86.30	168.6	12	31K	6							
COLLMBERG	86.31	321.2	12	25	0						13	48
COPENHAGEN	86.90	325.6				23	7	17				
HALLE	86.98	321.4	12	28	0						13	47

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JENA	87.19	320.8	12 29	0			12 57
GOTEBORG	87.26	327.6	12 38	9			
SKALSTUGAN	87.45	333.5	12 31	1			
STUTTGART	88.62	318.6	12 37	1			
BENSBERG	89.98	320.8	12 43	1			
ISOLA	90.19	314.0	12 45	2		12 53	
SOUTH POLE	90.72	180.0	12 51	5			
BYRD STATION	98.67	173.8	13 28	6			
HUNGRY HORSE	123.78	25.2	18 40	1			
EUREKA	129.33	34.0	18 53	4			22 12 PP
PALISADES	137.82	350.9					40 18 SS
WICHITA MTS.	141.46	22.2	19 9	-3			22 16 PP

MAY 27 17.H 26.M 46.S EPICENTRE 0.95 97.83 DEPTH= 136.KM

A=-0.13623 B= 0.99054 C= 0.01650 D= 0.9907 E= 0.1362
G=-0.0022 H= 0.0164 K=-0.9999 HT= 7.2

DEPTH OF FOCUS= 0.016R

SE= 3.17

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DJAKARTA	11.44	128.4	2 34	-7				
LEMBANG	12.46	128.5	2 33	-21	4 53	-17		
KUNMING	24.49	10.8	5 10A	2				
SHILLONG	25.14	347.2	5 13A	-1				
TOCKLAI	25.82	353.7	5 22	1				
HONG KONG	26.52	35.7	5 26	-1				
CANTON	26.67	33.3	5 28	0				
CHATRA	27.69	339.2	5 38	0				
CHENGTU	30.12	10.7	6 0	1				
NANKING	36.72	30.5	6 56	0				
QUETTA	41.30	317.7	7 33	-1				
PEKING	42.33	21.0	7 44A	2	14 22	30		
NAMANGAN	46.35	332.5	8 16	2	15 7	17		
ULAN-BATOR	47.44	8.3	8 23	0				
TASHKENT	47.75	330.9	8 24	-1	15 24	14		
CHANGCHUN	49.20	26.2	8 37	0				
PORT MORESBY	50.18	103.0	8 37	-7				
MATUSIRO	51.45	41.8	8 51	-3			10 5	PCP
SHIRAZ	51.67	307.9	8 53K	-2			10 5	PCP
CHARTERS TS.	51.83	116.6	9 49	53			11 56	
VLADIVOSTOK	51.85	31.4	8 55	-2				
ADELAIDE	52.31	137.2	8 52	-8				
MELBOURNE	58.10	136.9	9 43	1				
CANBERRA	59.79	132.5	9 46A	-7				
BRISBANE	59.80	122.6	9 48	-5			10 38	
Y.-SAKHLINSK	60.22	33.8	9 55	-1				
TIFLIS	62.54	317.6	10 11	-1				
SVERDLOVSK	63.15	338.1	10 14	-2				
HELWAN	69.24	301.6	11 0	6				
BROKEN HILL	70.29	254.4	10 56	-5				
BULAWAYO	70.87	248.4	10 59	-5				
SIMFEROPOL	70.97	317.7	11 4A	-1				
PETROPAVLOVK	72.08	33.7	11 10A	-2				
MAWSON	72.61	193.3	10 15	-60				
MOSCOW	72.86	329.1	11 14	-2				
BANGUI	79.17	274.2	11 49	-3				
KARAPIRO	80.90	128.5	10 56	-65				
NURMIJARVI	80.93	331.3	12 0K	-1				
CHATEAU	81.08	129.8	11 56	-6				
NIEDZIKA	81.16	319.8	12 2	0				
KHEYS	81.82	353.9	12 6	0				
SODANKYLA	81.96	338.3	12 7	1				
BRATISLAVA	83.10	318.3	12 12	0	22 31	12		
UMEA	83.68	334.2	12 13	-2				
UPPSALA	84.25	330.0	12 17	-1				
KIRUNA	84.37	338.1	12 18	0				
LJUBLJANA	84.67	316.0	12 20A	0				
PRUHONICE	84.94	319.9	12 22	1				
TROMSOE	85.25	339.8	12 21	-2				
KASPERSKE H.	85.51	319.0	12 24	0				12 52
COLLMBERG	86.02	321.2	12 28	1				13 7
SCOTT BASE	86.56	168.6	12 31	2				

SKALSTUGAN	87.17	333.5	12	35	3					
STUTTGART	88.33	318.6	12	34	-4					
BENSBERG	89.69	320.8	12	52	8					
SOUTH POLE	90.95	180.0	12	52	2					
BYRD STATION	98.91	173.9	13	15	-11					
HUNGRY HORSE	123.66	25.0	18	42	0					
EUREKA	129.24	33.8	18	52	-1					
FLAMING GRGE	131.52	27.6	18	57	0					22 19 PP
WICHITA MTS.	141.32	21.9	19	9	-6					22 16 PP
FAYETTEVILLE	141.48	15.7	19	11	-4					

MAY 28 3.H 59.M 50.S EPICENTRE -5.34 102.72 DEPTH= 19.KM

A=-0.21923 B= 0.97128 C=-0.09253 D= 0.9755 E= 0.2202
G= 0.0204 H=-0.0903 K=-0.9957 HT= 7.0

SE= 2.02

	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
DJAKARTA	4.17	101.7	1	4A	0	2	6	13				
LEMBANG	5.09	107.1	1	19	2	2	29	13				
MEDAN	9.74	335.4	2	22	0							
MANILA	26.96	42.3	5	43	1						10	3
DARWIN	28.62	106.0	5	56	-1							
HONG KONG	29.67	21.8									15	52
KUNMING	30.28	0.0	6	14	2							
SHILLONG	32.49	341.5	6	29	-2							
CHATRA	35.35	335.5	6	55	-1							
CHENGTU	35.82	1.9	7	1	1	12	35	-1				
LHASA	36.55	342.8	7	9	3							
LANCHOW	41.19	1.4				14	7	10				
DEHRA DUN	42.61	327.8	7	57	1						14	20
PORT MORESBY	44.22	97.9	8	11	2	14	41	-1				
ADELAIDE	44.41	136.4	8	11K	0							
CHARTERS TS.	44.77	113.2	8	14	0	14	52	3				
PEKING	46.82	14.2	8	32	2	15	25	6				
QUETTA	49.21	318.0	8	48	-1	15	51	-1			10	40 PP
MELBOURNE	50.20	136.1	8	57	1							
CANBERRA	51.97	131.4	9	10K	0							
BRISBANE	52.36	120.6	9	15	2						16	19
CHANGCHUN	53.02	20.4	9	18	0							
RIVERVIEW	53.04	128.8	9	17	-1							
ULAN-BATOR	53.16	3.5	9	19	0							
MATUSIRO	53.27	35.7	9	18A	-1	17	32	44			9	42
ANDIJAN	53.65	331.5	9	21	-1							
SHIRAZ	59.38	309.0	10	2	-1						10	55
Y.-SAKHLINSK	62.97	29.6	10	27	0							
MAWSON	67.76	195.4	10	56	-2							
YAKUTSK	70.32	13.1	11	16	2							
TIFLIS	70.45	317.7	11	16	1							
SVERDLOVSK	70.80	337.0	11	18	1							
KARAPIRO	73.19	127.9	11	46	15							
BULAWAYO	73.27	250.7	11	30	-2							
BROKEN HILL	73.45	256.6	11	39	6							
PETROPAVLOVK	74.74	31.2	11	40	0							
TIKSI	78.72	8.2	11	56	-6							
SCOTT BASE	79.47	168.8	12	9	3							
MOSCOW	80.74	328.7	12	15	2							
KISHINEV	83.02	318.5	12	25	0	22	40	-2				
AFIAMALU	84.38	103.4	12	35	3							
SOUTH POLE	84.69	180.0	12	32	-2							
PULKOVO	85.84	331.1	12	41	2	23	0	-10				
KHEYS	88.57	353.4	12	52	0							
NURMIJARVI	88.77	331.0	12	54K	1							
SODANKYLA	89.58	337.9	12	57	0							
UMEA	91.44	333.9	13	10	4							
KIRUNA	92.00	337.9	13	9	1							
UPPSALA	92.11	329.8	13	10	1							
BYRD STATION	92.15	173.3	13	8	-1							
LJUBLJANA	92.56	315.8	13	15	4							
PRUHONICE	92.87	319.8	13	14	1						16	56 PP
COLLMBERG	93.95	321.0	13	19	2							
SKALSTUGAN	94.94	333.3	13	23	1							
COLLEGE	103.02	24.4	18	13	255							
HUNGRY HORSE	126.95	30.0	19	4	1							

EUREKA	131.31	40.1	19 13	2		23 55
CHINA LAKE	132.14	45.2	19 14	1		
FLAMING GRGE	134.38	34.3	19 13	-4		22 36 PP
TUCSON	138.79	45.3	19 31	6		
WICHITA MTS.	144.74	31.2	19 35	0		20 38
ST. LOUIS 1	144.83	17.7	19 36	1		
FAYETTEVILLE	145.68	24.7	19 39K	2		
MORGANTOWN	145.78	3.7	19 40K	3		
CHAPEL HILL	149.53	2.8	19 51	8		
COLUMBIA	151.28	6.5	19 54	8		

MAY 28 19.H 28.M 26.S EPICENTRE -26.02 179.82 DEPTH= 228.KM

A=-0.89978 B= 0.00290 C=-0.43633 D= 0.0032 E= 1.0000
G= 0.4363 H=-0.0014 K=-0.8998 HT= 3.1

DEPTH OF FOCUS= 0.031R

SE= 3.66

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RAOUL ISLAND	3.79	148.5	0 58	-3				
SUVA	7.94	350.4	2 14	21	3 56	34		
ONERAHI	10.78	204.4	2 42	12				
NOUMEA	12.74	283.6	3 27A	33	6 11	60		
TUAI	12.94	189.3			5 11	-6		
PORT VILA	13.48	305.4	3 32A	28				6 23
TONGARIRO	13.62	194.3	3 5	0	5 33	1		
APIA	14.49	34.6	3 15	-1	5 38	-13		
KOUMAC	15.27	287.6	3 51A	25				7 0
WELLINGTON	15.78	194.1	3 28	-4	6 10	-10		
COBB RIVER	16.13	199.6			6 25	-3		
KAIMATA	17.84	200.6			7 2	-1		
GEBBIES PASS	18.58	196.5	4 6	4	7 12	-5		
BRISBANE	24.18	260.7	4 54	-3				7 26
HONIARA	25.04	307.6	5 23	18				
CANBERRA	27.99	243.2	5 47	15				
CHARTERS TS.	31.38	273.8	6 20	18				
DARWIN	47.94	276.8	7 34	-44				8 34
SCOTT BASE	52.26	183.5	8 50	0			9 50	
BYRD STATION	59.57	169.8	9 38	-4				10 37 *SP
SOUTH POLE	64.13	180.0	10 11	-1				11 14 *SP
MATUSIRO	73.55	326.1	11 20K	10				
CHINA LAKE	85.27	46.4	12 9	-3				
SHASTA	85.34	40.2	12 14	1				
EUREKA	88.47	44.2	12 28	0				
COLLEGE	94.01	13.2	12 56	3			13 47	
WICHITA MTS.	97.99	55.4	13 11	-1				15 30
SODANKYLA	135.49	345.6	18 50	-3				
KIRUNA	136.33	348.8	18 54	-1				
KAJAANI	137.85	342.2	18 54	-4				
UMEA	139.92	346.1	19 1	0				
NURMIJARVI	141.55	340.5	19 4	-1				
SKALSTUGAN	141.56	351.1	19 4	-1				
UPPSALA	144.01	344.8	19 12K	3				
GOTEBORG	147.18	348.0	19 24	10				
KSARA	147.91	292.7	19 26	11				
JERUSALEM	148.57	288.9	19 29	13				
COPENHAGEN	148.97	346.1	19 26	9				
NIEDZIKA	151.74	331.1	19 27	6				
PRUHONICE	153.51	338.4	19 54A	31				23 29
STUTTGART	156.12	344.4	20 4	37				
LJUBLJANA	156.82	333.3	20 7A	39				
GARCHY	158.63	353.9	20 13	43				

MAY 29 0.H 22.M 43.S EPICENTRE 51.52-167.86 DEPTH= 0.KM

A=-0.61079 B=-0.13136 C= 0.78082 D=-0.2103 E= 0.9776
G=-0.7634 H=-0.1642 K=-0.6248 HT= -6.0

SE= 2.77

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

COLLEGE	16.93	30.2	3	52	-7					5	18
PETROPAVLOVK	20.45	287.4	4	45	4	8	34	8			
MAGADAN	24.37	305.4	5	24	4	9	49	11			
VICTORIA	28.38	78.3	5	57	-1						
CORVALLIS	30.20	85.5	6	16	2						
SHASTA	32.83	91.1	6	38	1						
MINERAL	33.52	91.0	6	44A	1						
TIKSI	33.94	329.5	6	49	2						
HUNGRY HORSE	34.14	73.6	6	46	-2					8	37
YAKUTSK	34.42	312.3	6	57	6						
RENO	35.11	90.7	6	58	1						
LICK	35.31	95.3	7	2A	4						
VINEYARD	35.84	95.8	6	57	-6						
BUTTE	36.11	76.4	7	3	-2						
RESOLUTE	36.74	25.1	7	8	-2						
FRESNO	36.81	94.5	7	13	2						
BOZEMAN	37.20	76.1	7	15	1						
EUREKA	37.55	87.9	7	17	0						
SALT LAKE C.	39.36	83.2	7	32	0						
PASADENA	39.51	96.3	7	35	1	13	43	6			
BOULDER CITY	40.41	91.4	7	42	1						
MATUSIRO	40.61	270.0	7	32	-11						
FLAMING GRGE	40.79	81.3	7	44	0						
RAPID CITY	42.78	73.6	8	0	0						
LARAMIE	42.91	78.4	8	0	-2						
TUCSON	45.35	92.3	8	22	1				8	34	
TUCSON TELE.	45.36	92.1	8	22	1						
KHEYS	45.66	350.5	8	23	-1						
WICHITA MTS.	51.33	80.7	9	7	-1						
FAYETTEVILLE	53.12	76.4	9	19A	-2					9	38
SCORESBY SD.	55.84	13.2	9	40A	-1						
TROMSOE	59.06	357.2	10	3	-1						
KIRUNA	60.81	356.4	10	15	-1					10	31
SODANKYLA	60.93	353.6	10	16	-1						
PALISADES	61.46	59.3				18	50	9		23	36 SS
WESTON	61.86	56.6	10	21K	-2						
SEMIPALATNSK	63.20	318.3								12	26
KAJAANI	64.10	352.5	10	38	0						
UMEA	64.82	356.0	10	46	4						
SVERDLOVSK	64.87	333.0	10	43	0						
SKALSTUGAN	65.24	359.9	10	45	0						
NURMIJARVI	67.87	353.3	11	1	-1						
PULKOVO	68.09	350.2	11	3	0	20	3	0			
UPPSALA	68.89	357.0	11	8	0						
MOSCOW	71.04	345.1	11	3	-18	20	3	-34			
GOTEBORG	71.14	0.1	11	27	5					11	59
FRUNSE	71.55	316.5	11	27A	3						
ANDIJAN	74.21	316.7	11	27A	-13						
SHILLONG	76.43	293.9	11	48	-5						
HALLE	77.35	0.1	11	56	-2					12	2 PCP
BENSBERG	77.81	3.2	12	1	1						
JENA	77.92	0.4	12	2	1					12	49
LWOW	78.53	352.2	12	8	4						
PRUHONICE	78.85	358.4	12	7	1					16	2
NIEDZICA	79.19	354.6	12	10	2					13	35
PARIS	79.71	6.5	12	16	5						
STUTTGART	80.06	1.9	12	13	0						
KISHINEV	80.79	348.5								11	1
GARCHY	81.27	6.2	12	20	1					13	6
SAN JUAN	82.88	69.5	12	28	1						
ISOLA	84.58	3.7	12	38	2						
QUETTA	85.48	314.8	12	44	4	23	16	4		13	13 *SP
ROME	86.96	359.7								23	37
SHIRAZ	91.72	325.7	13	11	1						
SOUTH POLE	141.34	180.0	19	32	0						
BULAWAYO	146.12	331.5	19	45	4						

MAY 29 7.H 28.M 14.S EPICENTRE -39.16 -72.66 DEPTH= 0.KM

A= 0.23169 B=-0.74212 C=-0.62895 D=-0.9546 E=-0.2980
G=-0.1874 H= 0.6004 K=-0.7774 HT= -1.4

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

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CONCEPCION	2.33	11.9	0	39	-2	1	0	-11				
SANTA LUCIA	5.94	16.6	1	29	-2						2	34
ANTOFAGASTA	15.53	7.7	3	38	-4						7	33
PORT STANLEY	16.24	145.4	3	55	4							
AREQUIPA	22.64	2.9	5	4	1							
LA PAZ	22.92	11.2	5	8	2	9	24	11				
HUANCAYO	27.11	354.3	5	44	-2						6	53 PCP
BOGOTA	43.58	358.0	8	15	8	14	39	2			17	55 SS
CHINCHINA	43.99	355.8	8	13	3	14	46	3			17	58 SS
FUQUENE	44.42	358.5	8	17	3							
CARACAS	49.69	7.4	8	50	-5	15	56	-8				
SOUTH POLE	51.03	180.0	9	5	0	16	38	16			9	26
SAN JUAN	57.56	7.4	9	53	0							
SCOTT BASE	57.94	192.4	9	54K	-2	17	50	-5	10	4	21	54 SS
CAPE HALLETT	60.63	198.2	10	9	-6	18	23	-2				
MAWSON	63.39	163.2	11	3A	-2				11	9		
COLUMBIA	73.21	352.7	11	39	5							
MBOUR	74.37	56.2	11	42	1	21	28	13				
WILKES	74.80	181.3									21	26
CHAPEL HILL	74.94	354.6	11	48	4							
WICHITA MTS.	77.33	338.3	11	52	-6	21	40	-8			26	56 SS
FAYETTEVILLE	77.47	342.3	11	55	-3							
MORGANTOWN	78.70	354.3	12	2	-3							
ST. LOUIS 1	79.09	346.1	12	3	-4							
TUCSON	79.40	327.8	11	52	-17							
TUCSON TELE.	79.43	327.9	12	6	-3							
PALISADES	79.80	359.0	12	9	-2	22	9	-5			14	17 PP
KARAPIRO	80.98	228.0	12	13	-5							
WESTON	81.17	1.0	12	16	-2							
PASADENA	84.24	323.5	12	39	5	22	58	-1			23	4 SS
BOULDER CITY	84.29	326.8	11	39	-56							
SHAMINIGAN	85.33	359.9	12	37	-3							
CHINA LAKE	85.36	324.8	13	35	55							
LARAMIE	85.52	335.8	12	37	-4							
BULAWAYO	85.84	112.5	12	43A	1							
FLAMING GRGE	86.46	333.0	12	42	-3							
FRESNO	87.15	323.9	12	53	4							
SALT LAKE C.	87.22	331.3	12	53	4							
RAPID CITY	87.33	338.5	12	52	2							
EUREKA	87.73	327.9	12	48	-4							
VINEYARD	87.86	322.8	13	5	13							
LICK	88.46	323.0	13	0A	5							
CONCORD	89.17	323.1	13	4A	6							
BERKELEY	89.18	322.9	13	3A	5							
BROKEN HILL	89.40	108.1	13	1A	2							
RENO	89.42	325.5	13	4	4							
MINERAL	90.88	324.8	13	10	4							
SHASTA	91.52	324.5	13	4	-5							
BUTTE	92.04	333.4	13	13	1							
HUNGRY HORSE	94.55	333.8	13	18	-5							
ALICANTE	101.63	49.8	15	15	80						27	59
COLLEGE	118.93	331.9	18	46	-4							
UMEA	125.53	33.0	19	10	7							
TURMIJARVI	126.55	37.7	19	2	-3							
TROMSOE	126.63	25.9	19	3	-2							
KIRUNA	126.71	28.2	19	18	13						38	9 SS
SODANKYLA	128.94	29.4	19	8	-2							
MOSCOW	132.16	45.7	19	23	7							
SHIRAZ	134.39	84.6	20	19	59						22	1 PP
PETROPAVLOVK	142.64	309.0	19	31	-4							
POONA	144.47	115.7	19	36A	-2							
SVERDLOVSK	144.93	44.1									18	52
TIKSI	145.67	348.1	19	35K	-5							
QUETTA	145.83	92.6	19	41	1						19	52 PKP2
MAGADAN	145.96	321.3	19	37	-3						20	10
WARSAK DAM	150.93	89.0									20	5 PKP2
TASHKENT	151.02	73.4	19	54	5							
YAKUTSK	153.34	336.4	20	1	9							
SHILLONG	161.21	131.6	20	2A	0							

MAY 29 10.H 52.M 14.S EPICENTRE 10.28 39.91 DEPTH= 121.KM

A= 0.75493 B= 0.63136 C= 0.17738 D= 0.6415 E=-0.7671
G= 0.1361 H= 0.1138 K=-0.9841 HT= 6.5

DEPTH OF FOCUS= 0.014R

SE= 1.91

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
LWIRO	16.65	222.2	3 47	0	7 16	29		
HELWAN	21.07	338.9	4 32A	-4				10 46
JERUSALEM	21.83	349.2	4 42A	-1	8 54	22		
BANGUI	21.90	256.0	4 43	-1	8 51	18		
SHIRAZ	22.58	29.7	4 48K	-3	9 4	19		9 58 SS
KSARA	23.71	351.6	5 1A	0	9 34	30		5 44 PP
BROKEN HILL	27.06	205.0	5 31	-2				
TEHERAN	27.41	20.6	5 35	-1				
TANANARIVE	29.98	165.4	5 59	0				
TIFLIS	31.61	7.0	6 13	0				
QUETTA	32.03	47.9	6 18	1				
ISTANBUL UN.	32.11	344.4	6 15	-3				
ISTANBUL KA.	32.12	344.5	6 16	-2				11 31
BULAWAYO	32.21	200.2	6 16	-2				
SOTCHI	33.17	359.8	7 23	56				
MAKHACH-KALA	33.23	10.2	6 26	-1				
SIMFEROPOL	34.90	352.8	6 39	-2	12 15	12		
MESSINA	35.35	325.8						16 28
BUCHAREST	36.04	343.1	6 53	2				
KISHINEV	37.80	347.6	7 4	-2				
HYDERABAD	38.03	74.9						14 2
IASI	38.25	346.4	7 13	3				
MADRAS	39.51	82.1	7 24	4	13 30	18		
ROME	39.63	327.4			12 54	-21		25 46
TASHKENT	40.30	34.8	7 28	1	13 42	17		
DEHRA DUN	40.68	55.0						13 44
NAMANGAN	41.46	37.0	7 36	0				
KIMBERLEY	41.47	200.2	7 37	1				
LWOW	41.56	344.5	7 36	-1				
ANDIJAN	41.74	37.8	7 39A	1				
NIEDZIKA	42.28	341.0	7 42	-1				
BRATISLAVA	42.35	337.3	7 40	-3				10 7
VIENNA-H.	42.69	336.8	7 46	0				
FRUNSE	44.33	36.8	7 59	0				
PRUHONICE	44.80	336.9	8 1A	-2				9 45 PP
MOSCOW	45.37	358.2	8 6	-2				
ALICANTE	45.65	314.6	8 6	-4	14 45	2		10 32 PPP
STUTTGART	46.11	332.1	8 13	-1	14 51	2		18 31
ALMERIA	46.44	311.8	8 16	0				10 38 PPP
COLLMBERG	46.45	336.9	8 14	-2				10 3 PP
BESANCON	46.67	328.5	8 16	-2				
STRASBOURG	46.68	331.0	8 17	-1				18 40 SS
GRANADA	47.40	311.7	8 21K	-3	14 29	-38		10 33 PP
BAGNERES	47.54	320.6	8 24	-1				
HERMANUS	48.60	202.9						17 46
BENSBERG	48.63	332.9	8 33	0				
TOLEDO	48.82	314.8	8 34	-1				
SVERDLOVSK	49.14	14.9	8 36	-1				
MUNSTER	49.15	334.1	8 36	-1				
PULKOVO	49.91	353.7	8 42	-1				
COPENHAGEN	50.15	340.1			15 56	10		19 38 SS
WITTEVEEN	50.17	334.3	8 44	-1				
FOLINIERE	51.03	326.5	8 48	-3				
NURMIJARVI	51.39	350.4	8 50	-4				
GOTEBORG	51.94	341.4	8 56	-2				
SEMIPALATNSK	51.95	31.7	8 58	0				
UPPSALA	52.21	346.0	8 58	-2	16 27	13		
UMEA	55.25	349.5	9 20	-3				
SKALSTUGAN	56.72	345.6	9 30A	-3				
SODANKYLA	57.71	354.0	9 39	-1				
KIRUNA	58.92	351.5	9 46	-2	17 46	3		
KHEYS	70.83	3.1	11 4	-1	20 26	17		
MAWSON	79.43	171.2	9 55	-119				
PALISADES	100.65	315.2						26 49 PS
COLLEGE	104.84	3.4	17 17	203				18 12
WICHITA MTS.	120.43	320.7	18 39	2				19 8
EUREKA	125.65	337.1	18 48	1				

MAY 29 19.H 24.M 13.5 EPICENTRE 10.12 40.11 DEPTH= 100.KM

A= 0.75305 B= 0.63439 C= 0.17455 D= 0.6443 E=-0.7648

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G= 0.1335 H= 0.1125 K=-0.9846 HT= 6.5

DEPTH OF FOCUS= 0.011R

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LWIRO	16.67	223.1	3	50	2	6	47	-2					
HELWAN	21.29	338.6	4	35A	-4	8	37	12					
JERUSALEM	22.03	348.8	4	45	-2	8	42	4					
BANGUI	22.06	256.6	4	46	-1	8	52	13					
SHIRAZ	22.63	29.1	4	49K	-4	9	5	16	4	58	8	42	PCP
KSARA	23.91	351.3	5	2	-3	9	37	26			5	50	PP
BROKEN HILL	27.00	205.5									9	47	
TANANARIVE	29.77	165.7	5	54	-5								
TIFLIS	31.75	6.7	6	16	0	11	29	12					
QUETTA	32.00	47.5	6	20	2								
BULAWAYO	32.13	200.6									13	32	
ISTANBUL UN.	32.33	344.2	6	13	-8								
ISTANBUL KA.	32.33	344.3	6	20	-1	11	36	9					
SOTCHI	33.34	359.5	6	27	-3								
MAKHACH-KALA	33.36	9.9	6	26	-4								
SOFIA	35.62	338.6	6	47	-2								
BUCHAREST	36.26	342.9	6	56	1								
KISHINEV	38.00	347.4	7	5	-4								
ROME	39.88	327.3									21	47	
TASHKENT	40.32	34.6	7	30	1								
KIMBERLEY	41.38	200.6									7	40	
NAMANGAN	41.47	36.8	7	40	2	14	1	15					
ANDIJAN	41.75	37.5	7	42A	2								
NIEDZIKA	42.50	340.9	7	52	6								
FRUNSE	44.35	36.6	8	2A	1								
KASPERSKE H.	44.74	335.4	8	1A	-4						9	45	
PRUHONICE	45.03	336.8	8	4A	-3				9	51			
MOSCOW	45.54	358.0	8	9	-2	14	56	11					
ALICANTE	45.91	314.6	8	11	-3	14	50	0					
STUTTGART	46.35	332.1									10	4	
COLLMBERG	46.68	336.8	8	16	-4						10	9	
BESANCON	46.92	328.4	8	17	-5								
STRASBOURG	46.93	330.9	8	20	-2						10	9	
GRANADA	47.66	311.7									12	59	
BAGNERES	47.79	320.5	8	25	-4								
GARCHY	48.47	326.8	8	31	-3								
HERMANUS	48.52	203.2									25	19	
BENSBERG	48.87	332.8	8	33	-4						9	0	
TOLEDO	49.08	314.8	8	36	-2								
SVERDLOVSK	49.25	14.7	8	37	-3	15	51	14					
MUNSTER	49.39	334.0	8	36	-5								
PULKOVO	50.09	353.6	8	44	-2	15	57	9					
FOLINIERE	51.28	326.5	8	51	-4								
SHILLONG	51.29	65.4	8	54	-1								
NURMIJARVI	51.59	350.3	8	54	-4								
SEMIPALATNSK	51.98	31.6	8	59	-2								
GOTEBORG	52.16	341.3	8	58	-4								
UPPSALA	52.41	345.9	9	0	-4								
KAJAANI	54.59	353.3	9	20	0								
UMEA	55.44	349.5	9	21	-5								
SKALSTUGAN	56.93	345.6	9	33A	-4								
SODANKYLA	57.89	353.9	9	40A	-3								
KIRUNA	59.11	351.4	9	49A	-3	18	1	12					
TROMSOE	60.99	351.7	10	0	-5						10	32	
IRKUTSK	66.36	37.2	10	39	-1	19	36	16					
LEMBANG	69.30	101.3	11	3K	5								
KHEYS	70.98	3.1	11	7	-1	20	31	16					
PALISADES	100.91	315.3				26	58	171			33	20	SS
COLLEGE	104.99	3.5									15	51	

MAY 31 14.H 17.M 43.S EPICENTRE 29.99-113.81 DEPTH= 22.KM

A=-0.35026 B=-0.79370 C= 0.49735 D=-0.9149 E= 0.4037
G=-0.2008 H=-0.4550 K=-0.8675 HT= 1.8

SE= 3.32

	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

TUCSON	3.41	47.9	0	50	-3	1	25	-9			
TUCSON TELE.	3.54	47.8	0	51	-4						
BARRETT	3.63	318.3	0	51	-5	1	51	12			
HAYFIELD	4.02	337.8	1	1	-1						
PALOMAR	4.24	323.0	1	1	-4						
RIVERSIDE	5.01	323.7	1	15	-1	2	25	11			
PASADENA	5.56	319.4	1	20	-4						
BOULDER CITY	6.03	352.1	1	28	-2						
CHIHUAHUA	6.89	99.5	1	55	13	3	22	21			
GLEN CANYON	7.20	14.3	1	46	-1						
FRESNO	8.41	325.1	2	15	11				4	21	
VINEYARD	9.24	318.8	2	18	3				5	3	
EUREKA	9.63	350.0	2	19	-1						
LICK	9.81	320.4	2	25A	2				4	23	
BERKELEY	10.53	320.5	2	28	-5	4	32	1			
RENO	10.72	334.3	2	37A	2						
SALT LAKE C.	10.87	7.9	2	39	2						
MINERAL	12.13	330.5	2	49A	-6				6	36	
SHASTA	12.76	329.1	3	4	1						
LARAMIE	13.12	28.4	3	10	2				7	4	
WICHITA MTS.	13.70	65.9	3	12	-3	5	52	4	4	27	
MANZANILLO	13.89	139.5	2	25	-53						
BOZEMAN	15.80	7.1	3	46	3				6	35	
BUTTE	16.03	3.1	3	45	-1	7	1	18			
CORVALLIS	16.38	335.3	3	55	5						
RAPID CITY	16.39	28.0	3	51	1	6	48	-3	13	29	
TACUBAYA	16.94	125.2	4	15	18	7	20	16	9	38	
FAYETTEVILLE	17.53	64.6	4	1A	-4	7	25	8	9	25	
LAWRENCE	17.71	54.7	4	5	-2						
HUNGRY HORSE	18.33	359.5	4	15	0	7	58	22			
VERA CRUZ	19.31	119.8	4	31	5	8	17	19	4	53	PP
PENTICTON	19.80	348.7	4	33	1						
VICTORIA	19.91	341.0	4	30	-3						
ALBERNI	21.00	339.6	4	43	-1						
BANFF	21.20	357.0	4	46	0						
ST. LOUIS 1	21.26	59.8	4	46	-1						
TERRE HAUTE	23.60	59.6	5	7	-3	9	37	17			
COLUMBIA	28.02	73.2	5	50	-2						
CLEVELAND	28.44	57.4				10	44	4			
MORGANTOWN	29.27	61.7	6	3	0						
CHAPEL HILL	29.66	69.3	6	6	0						
PENNSYLVANIA	31.02	59.3				11	23	2			
WASHINGTON	31.40	63.6	6	25	3	12	5	38			
OTTAWA	33.49	52.0	6	37	-3						
PALISADES	34.03	60.2	6	46	2	12	10	2	7	49	PP
FORDHAM	34.03	60.5	6	49	4	12	5	-3			
SHAWINIGAN	35.76	50.9	6	58	-1						
WESTON	36.10	58.2	7	3A	1	12	45	5	8	27	PP
KIPAPA	40.54	268.5	7	39	0						
COLLEGE	40.81	338.6	7	41	-1				8	14	
SAN JUAN	44.73	93.7	8	11	-2						
FUQUENE	44.94	114.8	8	17	2						
BOGOTA	45.19	116.1	8	20	3	15	4	9			
RESOLUTE	45.76	6.9	8	15	-7	15	5	2			
CARACAS	47.68	103.9	8	32	-5	15	31	0			
SCORESBY SD.	62.68	22.2	10	21	-4				23	11	SS
ABERDEEN	75.98	31.4				21	35	7	22	5	PS
KIRUNA	76.68	16.2	11	47	-4	21	40	5			
DURHAM	77.53	33.3				21	15	-30	21	30	SKS
SODANKYLA	78.48	14.6	11	59	-2						
UPPSALA	81.98	22.5				22	34	3			
COPENHAGEN	83.15	27.4	12	32	6	22	52	9	34	38	
NURMIJARVI	83.64	19.3	12	28	0						
MATUSIRO	85.46	309.8	12	35	-2	23	7	1			
STRASBOURG	85.98	34.5							27	47	
JENA	86.15	31.1				23	17	4	27	47	
COLLMBERG	86.52	30.2	12	40	-2						
BROKEN HILL	142.01	74.4	19	28	-2						
MAWSON	142.31	177.9	19	34	3						
BULAWAYO	144.71	32.7	19	32	-3						

MAY 31 14.H 39.M 23.S EPICENTRE 48.87 154.80 DEPTH= 57.KM

A=-0.59748 B= 0.28113 C= 0.75099 D= 0.4258 E= 0.9048
G=-0.6795 H= 0.3197 K=-0.6603 HT= -5.0

DEPTH OF FOCUS= 0.004R

SE= 1.40

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	5.97	235.1	1	30	2							
MAGADAN	10.95	349.2	2	39	3							
TUKUBASAN	16.61	225.9	3	47K	-3							
VLADIVOSTOK	16.89	258.7	3	55	1							
MATUSIRO	17.29	230.7	3	56	-3	7	27	20			4	10 PP
YAKUTSK	19.22	322.6	4	22	0	8	0	10				
ABUYAMA	19.94	232.6	4	30A	0							
CHANGCHUN	20.90	267.2	4	37	-3	8	32	8				
TIKSI	25.77	341.4	5	25A	-2							
PEKING	28.70	266.7	5	53	-1							
ZO-SE	30.95	247.5	6	14	0							
NANKING	31.77	251.5	6	21	0							
COLLEGE	33.79	40.3	6	38	0							
LANCHOW	39.02	270.3	7	24	2							
CHENGTU	42.21	263.7	7	49	0							
KHEYS	43.27	346.3	7	57	0							
KUNMING	46.76	258.9	8	26	1							
RESOLUTE	48.47	19.5	8	38A	-1							
ALBERNI	50.23	57.2	8	52	0							
VICTORIA	51.41	57.3	9	0	-1							
THULE	51.99	11.8	9	2	-3							
PENTICTON	53.04	54.7	9	14	1							
SHILLONG	53.58	268.2	9	17K	0							
BANFF	54.13	51.0	9	21	0							
CHATRA	55.83	272.8	9	34	0							
ANDIJAN	56.33	295.2	9	37	0							
HUNGRY HORSE	56.60	53.0	9	39	0							
TROMSOE	57.49	343.2	9	43	-2						11	37 PP
SODANKYLA	57.69	338.9	9	45	-2							
KIRUNA	58.70	341.5	9	51	-3							
BOZEMAN	59.87	54.0	10	3	1							
KAJAANI	60.03	336.1	10	4	1							
SCORESBY SD.	60.94	358.8	10	10	1							
UMEA	62.13	339.1	10	17	0							
CHINA LAKE	62.61	66.1	10	20	0							
MOSCOW	63.34	325.7	10	25	0							
NURMIJARVI	63.77	335.1	10	30	2						11	6 PCP
SKALSTUGAN	64.07	342.4	10	28	-2							
RAPID CITY	65.06	51.0	10	37	1							
LARAMIE	65.75	54.6	10	41	0							
UPPSALA	66.18	338.0	10	43	-1							
QUETTA	66.60	289.5	10	47	1						11	16 *SP
CHARTERS TS.	69.06	188.6	11	1	-1							
TIFLIS	70.80	311.8	11	14	2							
WICHITA MTS.	74.32	55.1	11	33	0							
COLLMBERG	75.00	336.3	11	37K	0						14	25 PP
JENA	75.71	337.0	11	41	0						13	59
PRUHONICE	75.77	334.8	11	42K	1						12	23
OTTAWA	76.28	34.0	11	43	-1							
SHAWINIGAN	76.35	31.6	11	45A	0							
BENSBERG	76.76	339.6	11	47	0							
KASPERSKE H.	76.81	335.0	11	48	1							
BREBEUF	76.96	32.7	11	48	0							
HEIDELBERG	77.84	338.1	11	53	0							
STUTTGART	78.29	337.5	11	55	0							
STRASBOURG	78.84	338.4	11	59	1						12	25
SOFIA	79.34	325.8	12	1	0							
MORGANTOWN	79.47	39.9	12	3K	1							
PARIS	79.81	341.8	11	6	-58							
HALIFAX	81.02	26.7	12	11K	1							
ISOLA	83.12	337.3	12	22K	1						13	6
TARANTO	83.46	328.8									3	17
ROME	83.71	332.7									2	55
CANBERRA	83.97	184.8	12	27	2							
ADELAIDE	84.69	193.2	12	25K	-4							
MELBOURNE	86.76	187.8	12	40	1							
HELWAN	86.80	313.5	12	42	3						13	1
KARAPIRO	88.36	163.7	12	47	0	13	1					
TARRALEAH	91.08	186.2	13	1	2						13	19
MOORLANDS	91.17	185.6	13	1	1							
CAPE HALLETT	121.36	174.5									14	14 SS
BROKEN HILL	124.42	288.9	18	55	2							
SCOTT BASE	126.66	176.9	18	56	-1							

BULAWAYO	128.56	284.1	19 2A 1		
BYRD STATION	136.95	165.2	19 3 -13	19 22	19 38 *SP
KIMBERLEY	137.07	279.1	19 16 -1		
SOUTH POLE	138.60	180.0	19 8 -12	19 26	

MAY 31 19.H 15.M 57.S EPICENTRE -5.37 151.74 DEPTH= 45.KM

A=-0.87700 B= 0.47141 C=-0.09300 D= 0.4735 E= 0.8808
G= 0.0819 H=-0.0440 K=-0.9957 HT= 7.0

DEPTH OF FOCUS= 0.002R

SE= 3.29

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	1.24	20.2	0 22	1				
HONIARA	9.08	116.8	2 9	-2				4 3
CHARTERS TS.	15.57	199.5	3 35	-3	6 34	5		
GUAM	19.96	339.7	4 32	1	8 22	14		4 45 PP
PORT VILA	20.34	128.5	4 36	1				
DARWIN	21.79	250.0	4 52	2	8 22	-21		
BRISBANE	21.92	177.5	4 52	1	8 22	-23		
NOUMEA	22.03	141.2	5 3	11	8 53	6		
RIVERVIEW	28.32	131.0	5 52	1	10 37	4		7 27
SUVA	28.99	118.2						12 3
CANBERRA	29.91	184.5	6 7	1	11 2	4		12 49 SS
ADELAIDE	31.82	200.5	6 20	-2	11 27	-1		
MELBOURNE	32.89	189.9	6 31	-1				
MANILA	36.34	303.6	7 6	5				15 34
AFIAMALU	36.91	106.0	7 5	-1				
TARRALEAH	37.07	186.5	7 8	1				
MOORLANDS	37.13	185.6	7 11	3			7 24	
FORT NELSON	37.60	185.3			13 5	7		
BAGUIO CITY	37.67	305.6	7 13	1	13 19	20		
KARAPIRO	38.98	149.5	7 22	-1				
WELLINGTON	41.26	153.4	7 55	13	13 52	-1		
MUNDARING	42.47	227.0	7 51	-1				
ROXBURGH	42.79	161.8			14 7	-8		
TUKUBASAN	42.79	346.1	7 51A	-4	14 33	18		18 3
MATUSIRO	43.57	344.1	7 59	-2	14 38	11	9 19	9 40 PP
LEMBANG	43.88	265.8	8 6	2				
HONG KONG	45.91	308.2	8 22	2	15 1	1		
ZO-SE	46.56	323.1	8 25	0	15 22	13		
CANTON	46.98	308.5	8 31	3	15 34	19		
NANKING	48.68	322.0	8 40	-1	15 48	9		
VLADIVOSTOK	51.51	341.5	9 3	0	16 36	17		
CHANGCHUN	54.47	336.7	9 23	-2	17 5	6		
PEKING	55.79	327.3	9 34	-1	17 28	11		
KIPAPA	55.97	59.8	9 36	0				
KUNMING	56.44	304.8	9 40A	1	17 39	14		
CHENGTU	58.00	311.2	9 49	-1				
LANCHOW	60.90	316.5	10 6	-4				
MAGADAN	64.72	359.5			19 18	7		
SHILLONG	65.70	301.0	10 42A	0				
ULAN-BATOR	66.04	328.7	10 43	-1				
CAPE HALLETT	67.84	174.0	10 55	0	19 46	-3		24 21 SS
YAKUTSK	69.31	349.1	11 2	-2	20 11	5		
IRKUTSK	70.09	331.2	11 8	-1				
CHATRA	70.11	300.9	11 10	1				
SCOTT BASE	72.87	176.7	11 25	-1	20 51	4		13 54 PP
TIKSI	78.31	352.8	11 55	-2				
KERGUELEN I.	80.52	221.0			22 18	7		
LAHORE	82.13	302.7	12 8	-9				
SEMIPALATNSK	82.48	322.3						22 48 SCS
COLLEGE	82.78	22.0	12 19	-1				
FRUNSE	84.25	313.9	12 28	0				
BYRD STATION	84.53	169.9	12 18	-11				
MAWSON	84.64	202.6	12 29A	-1	22 52	0		12 38 PCP
ANDIJAN	85.47	311.5	12 35A	1				
NAMANGAN	86.03	311.6						22 29
TASHKENT	87.87	311.6			23 9	-14		14 3
QUETTA	88.18	300.4	12 47	0	23 43	17		24 43 PS
BERKELEY	90.11	52.1	12 59	3				
CORVALLIS	90.15	45.4	12 58	2				
SHASTA	90.34	49.3	12 58	1				

LICK	90.54	52.7	13	1A	3						
VICTORIA	90.57	41.5	12	59	1						
MINERAL	90.90	49.7	13	2A	2						
FRESNO	91.94	53.4	13	6	1						
RENO	92.19	50.7	13	7	1						
PASADENA	93.05	56.2	13	11	1	24	31	21			
PENTICTON	93.14	40.9	13	9	-1						
EUREKA	95.14	50.9	13	21	2						
BANFF	95.85	39.2	13	24	1						
KHEYS	95.87	350.5	13	23	0						
BOULDER CITY	95.89	54.5	13	24	1						
HUNGRY HORSE	96.79	42.1	13	27	0						
BOZEMAN	98.95	44.8	13	37	1						
FLAMING GRGE	100.20	49.5	13	42	0						
SHIRAZ	100.64	299.0	18	19	274	24	36	18			
RESOLUTE	101.22	14.4	13	47	0						
MAKHACH-KALA	104.06	312.8							24	57	SKKS
TIFLIS	106.19	311.8	18	35	777						
MOSCOW	107.36	327.1	18	34	777				28	6	PS
WICHITA MTS.	109.20	55.2	14	27	777				19	17	
KIRUNA	109.60	342.4							28	18	PS
PULKOVO	110.05	332.6							19	3	PP
SIMFEROPOL	113.16	316.8							19	43	PP
KSARA	114.90	304.7							19	35	PP
KISHINEV	115.97	320.3							19	43	PP
ISTANBUL KA.	117.86	314.0							27	10	
BULAWAYO	118.65	243.7	18	45	2						
COPENHAGEN	120.27	334.7							30	24	PS
BROKEN HILL	120.40	249.9	18	43	-3						
OTTAWA	122.70	28.1	18	51	0						
COLLMBERG	122.84	330.5	18	51	0				19	35	
PRUHONICE	122.86	328.5	18	52	1						
JENA	123.77	330.8							30	30	
SHAMINIGAN	123.87	35.6	19	54	1						
KASPERSKE H.	123.97	328.1	19	55	2						
LJUBLJANA	125.15	324.7	19	56	0				19	47	
PALISADES	125.93	42.0							32	36	PPS
DURHAM	126.25	341.2	18	33	-20						
STUTTGART	126.30	330.0	19	50	0				32	23	PPS
STRASBOURG	127.13	330.6							33	33	
BANGUI	133.29	271.0	19	13	2				22	54	SKP
BOGOTA	134.36	83.8							21	35	PP
FUNUENE	134.74	37.6	19	15	1						
LA PAZ	134.93	119.6	19	19	5						
CARACAS	141.23	90.0	19	9	-17				22	33	PP
ANTIGUA	145.12	67.6	19	33	1						
ST. VINCENT	146.54	74.3	19	36	1						
TRINIDAD	146.73	73.8	19	39	4						

JUNE 1 10.H 2.M 40.S EPICENTRE 19.51 -69.32 DEPTH= 0.KM

A= 0.33313 B=-0.88253 C= 0.33190 D=-0.9356 E=-0.3531
G= 0.1172 H=-0.3105 K=-0.9433 HT= 4.8

SE= 1.54

	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
SAN JUAN	3.23	109.8	0	53	1	1	30	-2				
ST. KITTS	6.62	107.9	1	40	0							
DOMINICA	8.64	117.7	2	7	-2							
ST. VINCENT	9.97	123.0	2	27	0							
GRENADA	10.40	134.3	2	33	0							
TRINIDAD	11.66	137.9	2	52	2	4	54	-9				
FUNUENE	14.60	197.7	3	32	3	6	33	20				
BOGOTA	15.50	198.0	3	42	1	6	44	10				
CHINCHINA	15.70	203.3	3	2	-42	6	11	-23				
COLUMBIA	17.90	326.5	3	49	-21						5	18
CHAPEL HILL	18.46	334.3	4	17	-1							
WASHINGTON	20.46	342.5	4	27	-14							
PALISADES	21.79	350.6	4	54	-1	8	55	3	4	59	9	26 *SS
MORGANTOWN	22.05	337.7	4	59A	1	9	3	11				
PENNSYLVANIA	22.45	342.9	5	0	-1	9	12	8				
WESTON	22.87	356.2	5	8	2	9	7	-4				
HALIFAX	25.49	9.5	5	33	2							
BREBEUF	26.17	353.1	5	39	2							
OTTAWA	26.36	349.8	5	39	0							

SHAWINIGAN	27.12	354.8	5 47	1							
FAYETTEVILLE	27.40	312.2	5 49K	0				6 10	13 33		
WICHITA MTS.	30.00	306.3	6 11	-1	11 10	0			16 30	SCS	
HUANCAYO	31.91	191.2	6 28	-1							
RAPID CITY	37.39	318.6	7 16	0							
LARAMIE	37.69	313.2	7 20	2							
TUCSON TELE.	39.13	297.5	7 31	1							
TUCSON	39.21	297.3	7 31	0							
FLAMING GRGE	40.22	310.9	7 42	3							
SALT LAKE C.	41.94	309.8	7 55	1							
BUTTE	44.21	316.8	8 12	0							
PASADENA	45.55	299.0	8 24	1	15 14	9					
FRESNO	47.17	302.4	8 36	0							
RENO	47.58	306.1	8 33	-6							
VINEYARD	48.43	302.1	8 47A	2							
LICK	48.70	302.9	8 48A	1					9 12		
MINERAL	49.07	306.9	8 50A	0							
BERKELEY	49.25	303.5	8 52A	0							
SHASTA	49.72	307.2	8 54A	-1							
CORVALLIS	51.05	312.0	9 6A	0							
VICTORIA	52.00	316.9	9 11	-2							
RESOLUTE	56.90	352.1	9 47	-2							
NORD	65.64	7.4	10 45	-3							
BENSBERG	66.64	42.1	11 50	56							
COLLEGE	67.64	333.1	10 58	-2					11 32		
STUTTGART	68.15	44.3	11 3	-1							
SKALSTUGAN	68.99	28.3	11 9	0							
KASPERSKE H.	70.92	43.6	11 21	0					13 18		
TROMSOE	71.28	21.7	11 23	0							
PRUHONICE	71.43	12.6	11 24	0							
TRIESTE	71.56	47.2	11 26	2							
LJUBLJANA	72.02	46.7	11 28A	1							
KIRUNA	72.02	23.5	11 28	1							
UMEA	72.50	27.7	11 33	3							
SODANKYLA	74.44	23.5	11 42	1							
NURMIJARVI	75.17	30.7	11 46	1							
BANGUI	86.62	86.6	12 46	0							
BYRD STATION	102.80	187.9	13 58	-2							
MAWSON	123.33	160.1	18 57	-2							
CHARTERS TS.	146.56	262.9	19 43	2							
ADELAIDE	150.83	232.4	19 47	-1							

JUNE 1 23.H 29.M 18.S EPICENTRE 10.54 39.89 DEPTH= 0.KM

A= 0.75444 B= 0.63070 C= 0.18176 D= 0.6414 E=-0.7672
G= 0.1394 H= 0.1166 K=-0.9833 HT= 6.5

SE= 3.09

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
LWIRO	16.83	221.6	3 54	-5	7 30	24			
HELWAN	20.82	338.7	4 46	0	8 52	18			
JERUSALEM	21.57	349.1	4 54	1	8 15	-33			
BANGUI	21.96	255.4	4 57	0	9 19	24			
SHIRAZ	22.37	30.0	5 0A	-1	9 22	19	5 15	8 32	PCP
KSARA	23.46	351.6	5 14	2	9 42	19		6 17	PPP
TEHERAN	27.17	20.8	5 48	1	10 57	32			
BROKEN HILL	27.29	204.7	5 46	-2					
GORIS	29.40	10.2	6 6	-1				7 20	PPP
KARACHI	29.43	57.5	6 9	2					
TANANARIVE	30.23	165.5	6 13	-2	11 24	10		7 32	PPP
ATHENS	30.93	334.6	6 20A	-1	11 15	-10			
TIFLIS	31.35	7.1	6 25	0				7 37	PP
ISTANBUL UN.	31.87	344.3	6 27	-2					
QUETTA	31.87	48.2	6 29	0	11 48	8		7 37	PP
ISTANBUL KA.	31.87	344.4	6 31	2	11 46	6	6 39	7 34	PP
ASHKABAD	31.93	28.2	6 30	0					
BULAWAYO	32.45	200.0	6 31	-3					
LUANDA	32.79	235.0	6 39	2				10 16	
BOMBAY	32.86	71.5	6 41	3	12 13	18		7 48	PP
POONA	33.77	72.5	6 47A	1	12 26	17		8 30	PPP
SIMFEROPOL	34.64	352.8	6 52	-1	12 14	-9		8 31	PPP
REGGIO CALA.	35.01	325.6	6 59	3					
MESSINA	35.14	325.6	6 57	0			7 21	8 21	PP
SOFIA	35.15	338.6	6 57	0	12 21	-10			

SKOPJE	35.24	335.9	6 59	1	12 41	9			15 54	SS
BUCHAREST	35.80	343.0	7 6	3	12 51	10			8 29	PP
TITOGRAD	36.53	334.0	7 15	6	13 3	11				
FOCSANI	36.68	345.1	7 30	20						
CAMPULUNG	36.88	342.4	7 19	7						
BACAU	37.57	345.3	7 38	20						
PRETORIA	37.83	197.4	7 20	0						
HYDERABAD	37.98	75.2	7 23K	2	13 24	10			8 51	PP
IASI	38.00	346.3	7 19	-2	13 24	10			16 26	SS
DUZHANBE	38.01	37.9	7 22	0						
BELGRADE	38.04	337.4	7 20	-2	13 18	3			8 51	PP
LAHORE	38.09	51.5	7 21	-1	13 8	-8			8 51	PP
TIMISOARA	38.55	338.9	7 36	10	13 38	15			17 48	SCS
ROME	39.41	327.2	7 32	-1	13 42	6	7 42		9 20	PP
MADRAS	39.49	82.4	7 33A	-1	13 47	10			9 7	PP
TASHKENT	40.10	35.0	7 39	0					17 6	SSS
CUGLIERI	40.50	322.2	8 42	60					15 2	
DEHRA DUN	40.54	55.3	7 45	2	14 9	16			9 29	PP
ZAGREB	40.66	334.2	7 42	-2						
BUDAPEST	40.82	338.3	7 46	1	13 38	-19			9 0	PP
PIETERMZBURG	40.96	192.7	7 46	0						
LWOW	41.31	344.4	7 48	-1					9 32	PP
FLORENCE X.	41.37	328.3	7 54A	5	13 51	-14				
HURBANOVO	41.45	337.9	8 3	13	14 24	18				
LJUBLJANA	41.48	333.2	7 48	-2	14 5	-2			9 26	PP
TRIESTE	41.52	332.2	7 50	-1	14 14	7			9 30	PP
PRATO	41.52	328.3	7 59	8	13 59	-8				
KIMBERLEY	41.70	200.1	7 50	-2						
BOLOGNA	41.84	329.1							9 5	
SKALNATE PL.	41.85	340.7	7 56	3	14 25	13				
BRATISLAVA	42.11	337.2	7 54K	-1	14 26	10			9 48	PP
VIENNA-H.	42.45	336.7	7 58	0	14 38	17			9 47	PP
VISHAKHAPTNM	42.61	75.3	8 2A	2	15 37	74			10 46	PP
KRAKOW	42.71	341.1	8 0	0	14 37	12			9 58	PCP
CHORZOW	43.22	340.5	8 3	-2					9 59	PP
RACIBORZ	43.31	339.7	8 4	-1	14 44	11			9 54	PP
MONACO	43.39	325.5	8 8	2	14 36	1				
PAVIA	43.42	328.3							9 13	
ISOLA	43.89	325.7	8 11	1	15 1	19				
FRUNSE	44.14	37.0	8 12	0					10 10	PP
KASPERSKE H.	44.27	335.3	8 11A	-2					10 0	PP
WARSAW	44.31	343.4	8 14	1	14 39	-9			10 4	PP
CHUR	44.40	330.3	8 23A	9	15 13	24			10 6	PP
PRUHONICE	44.56	336.8	8 14A	-1	15 1	9			10 5	PP
PRAGUE	44.68	336.8	8 18	2	15 8	15			10 12	PP
RAVENSBURG	45.01	331.3	8 17	-2						
MOSCOW	45.11	358.2	8 19	-1					10 15	PP
GRAHAMSTOWN	45.43	195.7	8 25A	3						
ALICANTE	45.47	314.4	8 18	-5	14 54	-11			10 3	PP
CHEB	45.50	335.3	8 22	-1	15 5	0			10 12	PP
BOKARO	45.60	67.0	8 26	2	15 24	17			10 13	PP
EBINGEN	45.60	331.2	8 22	-2						
NEUCHATEL	45.79	328.7	8 26	1						
TUBINGEN	45.80	331.6	8 27	2						
BASLE	45.83	329.7	8 24A	-2	15 21	11				
STUTTGART	45.88	332.0	8 25	-1	15 20	9			10 26	
TORTOSA	45.97	317.9	8 5	-22	14 52	-20				
COLLMBERG	46.21	336.8	8 26A	-3	15 32	17			10 29	PP
ALMERIA	46.26	311.6	8 30	1	15 38	22			11 4	PPP
BESANCON	46.45	328.4	8 30	0						
KARLSRUHE	46.45	331.7	8 31	1	15 32	13				
STRASBOURG	46.45	330.8	8 30	0	15 30	11			10 28	PP
JENA	46.48	335.5	8 27	-4	15 27	8	8 51		10 16	PP
HEIDELBERG	46.59	332.3	8 28	-4						
HALLE	46.77	336.3	8 27	-6					10 4	PP
CLERMONT-FD.	47.07	325.1	8 35	0	15 47	19				
GRANADA	47.22	311.5	8 30	-7	15 34	4			9 58	PP
CHATRA	47.33	63.2	8 36	-1	15 38	7			10 25	PP
CALCUTTA	47.78	69.2	8 44	3	15 53	15			19 29	SS
GARCHY	48.01	326.7	8 41	-2					10 35	PP
BENSBERG	48.40	332.8	8 44	-2	15 46	0	8 56		10 48	PP
TOLEDO	48.63	314.6	8 46A	-2	15 50	0			10 47	PP
HERMANUS	48.83	202.8	8 56	7	16 1	9			10 43	PP
SVERDLOVSK	48.90	15.0	8 47	-3					10 45	PP
MUNSTER	48.92	334.0	8 45	-5						
PARIS	49.25	328.0	8 51	-1	15 40	-18			10 55	PP
PULKOVO	49.65	353.7	8 53	-2					11 2	PP
COPENHAGEN	49.90	340.0	8 55	-2	16 20	13	9 6		11 1	PP

WITTEVEEN	49.93	334.2	8	57	-1						
DE BILT	50.08	332.7	9	1	2	16	24	14		19	54 SS
FOLINIERE	50.81	326.4	9	2	-2						
NURMIJARVI	51.14	350.4	9	4K	-3	16	31	7			
LHASA	51.21	60.4	9	6K	-1						
SHILLONG	51.31	65.7	9	5	-3	16	36	9		16	47 PS
GOTEBORG	51.69	341.3	9	9	-2						
SEMIPALATNSK	51.74	31.9	9	10	-1						
PORT BLAIR	51.79	83.4	9	10	-2	16	39	6			
COIMBRA	51.86	313.3	9	16	4	16	39	5		20	25 SS
LISBON	51.87	311.3	9	14	2	16	48	13		21	0 SS
JERSEY	51.92	326.1	8	53	-20	17	12	37			
UPPSALA	51.95	345.9	9	10K	-3					16	33 PS
KEW	52.30	329.3	9	14	-2	16	51	11		20	23 SS
SERRA PILAR	52.31	314.4	9	13A	-3	16	32	-9	9 21	11	10 PP
TOCKLAI	54.04	64.6	9	26	-2						
KAJAANI	54.15	353.4	9	32	3	17	6	1			
DURHAM	54.90	332.0	9	36	1	17	32	16		11	43 PP
UMEA	54.99	349.5	9	33	-2						
MBOUR	55.55	280.2	9	46	7	17	13	-11			
SKALSTUGAN	56.47	345.6	9	43	-3						
ABERDEEN	56.60	334.1	9	54	7	17	52	14		11	59 PP
SODANKYLA	57.45	354.0	9	51K	-2						
KIRUNA	58.66	351.5	9	58	-4						
TROMSOE	60.54	351.7	10	6	-8						
KUNMING	61.08	67.1	10	15	-3	18	50	13			
CHENGTU	62.47	61.0	10	26A	-2	19	4	10			
LANCHOW	62.83	54.9	10	29K	-1	19	10	11			
PONTA DELGDA	64.33	306.8	10	41K	1				10 52		
IRKUTSK	66.16	37.3	10	49K	-3					19	49 PS
SIDA	66.76	335.8	11	3A	8						
SIAN	66.83	57.3	10	57A	1	20	10	22			
ULAN-BATOR	66.87	42.3	10	56	0	20	0	12			
REYKJAVIK	68.46	335.4	11	15A	9						
DJAKARTA	68.68	100.9	11	9	2	20	25	15			
LEMBANG	69.59	101.4	11	9K	-4	20	26	5			
KHEYS	70.57	3.1	11	17	-2					11	42 PCP
CANTON	70.80	69.2	11	22A	2	20	49	14			
SCORESBY SD.	70.90	341.7	11	19A	-2	21	19	43		13	51 PP
HONG KONG	71.62	69.9	11	34	9	21	0	16		14	4 PP
PEKING	72.81	51.3	11	33	1	21	13	15			
NORD	74.96	352.7	11	42	-3	21	31	9			
NANKING	75.11	59.6	11	47	1	21	36	12			
ZO-SE	77.22	60.4	11	59A	1	21	59	12			
MANILA	78.95	77.0	12	11	4	22	11	5			
CHANGCHUN	79.50	47.2	12	6K	-4						
MAWSON	79.68	171.2	12	9	-2					15	14 PP
TIKSI	79.75	18.8	12	14	3					15	27 PP
MUNDARING	84.15	123.9	12	36	2						
VLADIVOSTOK	84.34	47.3	12	34	-1					16	1 PP
MIRNY	86.00	161.3	12	46	2						
MATUSIRO	90.39	52.8	13	1	-4	23	37	-21		16	45 PP
RESOLUTE	90.52	349.1	13	3	-2	23	56	-3		16	47 PP
Y.-SAKHLINSK	90.96	41.9	13	10	3					16	46 PP
MAGADAN	91.28	28.4	13	8	-1					23	52 SCS
TUKUBASAN	91.95	52.8	13	8K	-4	24	22	10	13 21	16	59 PP
WILKES	91.98	157.6	13	28A	16	23	33	-39		25	30 PS
SHAWINIGAN	97.47	320.0	13	42	5						
PETROPAVLOVK	98.10	32.3	13	46	6					17	39 PP
WESTON	98.14	315.8				25	29	71		17	50 PP
OTTAWA	99.82	319.9	13	50	2						
PALISADES	100.46	315.2	13	55	4	24	49	20		18	7 PP
SOUTH POLE	100.47	180.0	13	56	5					17	57 PP
SAN JUAN	101.58	291.3	13	47	-9						
PENNSYLVANIA	103.27	316.4								18	18 PP
WASHINGTON	103.55	314.3	18	22	258						
CARACAS	104.30	283.7				25	7	20		18	28 PP
COLLEGE	104.58	3.4	14	24	15					17	24 PP
CLEVELAND	105.39	318.3								27	52 PS
SCOTT BASE	107.61	169.8	18	37	777					18	51 PP
COLUMBIA	108.58	311.2	18	58	777						
CHARTERS TS.	108.81	107.7	14	36	777					19	6 PP
BYRD STATION	109.85	183.7	14	27	777					18	30 PP
LA PAZ	110.07	256.2								19	22 PP
CAPE HALLETT	111.57	165.5	18	46	10					19	24 PP
CANBERRA	111.58	123.8								19	24
FUQUENE	112.03	280.3								19	30 PP
BOGOTA	112.56	279.5								19	36 PP

RIVERVIEW	113.42	122.3	19 7A 27			19 58	PP
CHINCHINA	113.98	280.3				19 18	PP
BRISBANE	115.04	115.3				20 28	PP
LAWRENCE	115.44	322.5				19 52	PP
RAPID CITY	116.15	331.2	18 54 9			19 59	
FAYETTEVILLE	116.59	319.4	18 54 8				
HUNGRY HORSE	116.99	340.8	18 51 4				
BUTTE	118.51	338.5	20 14 84				
LARAMIE	119.39	330.7	18 55 3				
WICHITA MTS.	120.23	320.8	18 53 0			20 20	PP
FLAMING GRGE	121.46	333.0	18 54 -2				
ROXBURGH	124.65	138.7				37 42	SS
EUREKA	125.41	337.2	19 12 9				
SHASTA	126.45	343.3	19 17 12				
RENO	126.72	340.4	19 16 10				
TUCSON TELE.	128.94	327.7	19 11 1				
BERKELEY	129.03	341.8	19 21 11			26 12	
TUCSON	129.07	327.7	19 12 2	25 54 -24		21 26	PP
FRESNO	129.21	338.9	19 13 2				
LICK	129.32	341.0	19 3A -8				
PASADENA	130.91	335.8	19 23 9			21 40	PP
KARAPIRO	131.86	132.1	19 23 7				
KIPAPA	143.69	28.9	19 47 10				
HAWAII V.OB.	146.68	26.7				19 49	PP
AFIAMALU	148.88	99.4	19 55 9				

JUNE 2 4.H 51.M 20.S EPICENTRE 10.32 39.82 DEPTH= 77.KM

A= 0.75579 B= 0.63018 C= 0.17791 D= 0.6404 E=-0.7680
G= 0.1366 H= 0.1139 K=-0.9840 HT= 6.5

DEPTH OF FOCUS= 0.007R

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	
LWIRO	16.62	221.9	3 46	-4	7 14 23				
HELWAN	21.01	339.0	4 40	1	8 46 22				
JERUSALEM	21.78	349.4	4 48K	1					
BANGUI	21.83	255.9						4 49	PG
SHIRAZ	22.60	29.9	4 53A	-2	9 7 14		5 1	9 57	SS
KSARA	23.67	351.8	5 8K	3	9 36 25			8 38	PCP
BROKEN HILL	27.06	204.8	5 37K	0					
TEHERAN	27.41	20.8	5 41	1	10 40 27				
KARACHI	29.61	57.3	6 6	6					
GORIS	29.64	10.2	6 2	2	10 59 10			7 1	PP
TANANARIVE	30.03	165.3	6 4	0	11 19 24			7 14	PPP
ATHENS	31.10	334.9	6 13K	0				1 9	PP
TIFLIS	31.59	7.1	6 18K	0				7 19	PP
ISTANBUL UN.	32.06	344.5	6 22A	0					
ISTANBUL KA.	32.07	344.6	6 22	0	11 41 14			14 11	SS
QUETTA	32.08	48.0	6 22	0				7 36	PP
ASHKABAD	32.16	28.2	6 24	1					
BULAWAYO	32.21	200.0	6 11K	-12					
LUANDA	32.60	235.2	6 35K	9	12 12 36			14 47	SS
BOMBAY	33.00	71.2	6 30	0	12 2 20			8 0	PP
POONA	33.90	72.2	6 39	1	12 19 23			7 58	PP
SIMFEROPOL	34.86	352.9	6 45K	-1				8 14	PPP
REGGIO CALA.	35.15	325.9	6 50	2					
MESSINA	35.28	325.9	6 50K	1			7 13	8 12	PP
SOFIA	35.33	338.8	6 50	0	12 30 12				
SKOPJE	35.42	336.1	6 48	-3	12 26 7				
BUCHAREST	35.99	343.2	6 56	1	12 41 13			13 56	
TARANTO	36.07	330.2	6 53	-3					
TITOGRAD	36.70	334.2	7 2	1	12 52 13			8 41	PPP
FOCSANI	36.88	345.2	7 19	16					
CAMPULUNG	37.08	342.6	7 7	2					
WARSAK DAM	37.40	46.0	7 7	0					
PRETORIA	37.60	197.4	7 9	0					
BACAU	37.77	345.4	7 20	10					
HYDERABAD	38.11	74.9	7 15K	2	13 12 12			8 36	PP
IASI	38.20	346.5	7 14	0					
BELGRADE	38.22	337.6	7 14K	0	13 1 -1			8 46	PP
LAHORE	38.28	51.3	7 10	-5					
LOME	38.41	266.9			13 22 17				
TIMISOARA	38.73	339.1	7 21	3				17 43	SCS

KHOROG	39.30	41.3	7	24	1					8	56	PP
WINDHOEK	39.55	214.1	7	26	1							
ROME	39.56	327.4	7	26K	1	13	30	8		9	9	PP
MADRAS	39.59	82.1	7	23K	-2	13	37	15		8	58	PP
TASHKENT	40.32	34.9	7	32	0					9	4	PP
CUGLIERI	40.63	322.4								8	50	
PIETERMZBURG	40.73	192.6	7	36	1							
DEHRA DUN	40.73	55.1	7	37	2	14	2	23		9	19	PP
ZAGREB	40.83	334.4	7	35K	-1							
BUDAPEST	41.00	338.5								7	39	PKS
KIMBERLEY	41.47	200.1	6	40A	-61							
LWOW	41.51	344.6	7	41	0					9	17	PP
FLORENCE X.	41.53	328.5	7	39	-2	14	16	25				
HURBANOVO	41.63	338.1	7	52	10	14	10	17				
LJUBLJANA	41.65	333.4	7	40	-2	13	53	0		9	22	PP
PRATO	41.68	328.5	7	50	7	14	35	42				
TRIESTE	41.68	332.4	7	43	0	14	2	8		17	13	SS
BOLOGNA	42.00	329.3								18	42	
SKALNATE PL.	42.04	340.8	7	50	4	14	14	15				
BRATISLAVA	42.29	337.4	7	47	-1	14	10	8		17	32	SS
VIENNA-H.	42.63	336.9	7	51K	0	14	19	12		9	30	PP
KRAKOW	42.90	341.2	7	53	0	14	17	6	8 8	9	42	PP
CHORZOW	43.41	340.6	7	56A	-1					9	36	PP
RACIBORZ	43.49	339.8	7	47	-11					9	43	PP
MONACO	43.54	325.7	7	58	0	14	28	7				
PAVIA	43.57	328.5	7	58	0					17	53	SS
ISOLA	44.04	325.9	8	19	17							
FRUNSE	44.36	36.9	8	4	-1					9	47	PP
KASPERSKE H.	44.45	335.5	8	4K	-1					9	42	PP
WARSAW	44.50	343.6	8	5	-1	14	47	12		10	4	PP
CHUR	44.55	330.4	8	6	0							
PRUHONICE	44.74	336.9	8	6K	-2	14	48	10		9	54	PP
PRAGUE	44.85	336.9	8	8	0					18	15	SS
RAVENSBURG	45.17	331.4	8	10	-1							
GRAHAMSTOWN	45.19	195.7	8	41	30							
MOSCOW	45.33	358.3	8	13	1	15	0	13		10	2	PP
ALICANTE	45.57	314.6	8	12	-2	14	54	4		9	59	PP
CHEB	45.68	335.5	8	30	15	14	53	2		9	55	
BOKARO	45.76	66.8	8	15K	-1	15	15	22		10	34	PP
EBINGEN	45.76	331.4	8	16	0							
NEUCHATEL	45.94	328.9	8	16	-1							
TUBINGEN	45.97	331.8	8	17K	0							
BASLE	45.98	329.8	8	16K	-1	15	8	12				
STUTTGART	46.04	332.2	8	17	-1	15	5	8		10	1	PP
TORTOSA	46.08	318.1	8	19	1	15	9	12				
ALMERIA	46.36	311.3	8	21	1	15	11	10		11	5	PPP
COLLMBERG	46.38	337.0	8	19K	-2	15	15	13		10	21	PP
BESANCON	46.60	328.5	8	23	1							
STRASBOURG	46.62	331.0	8	22	0					10	12	PP
KARLSRUHE	46.62	331.8	8	21	-1					10	12	PP
JENA	46.66	335.7	8	21	-2	15	16	11		10	12	PP
HEIDELBERG	46.75	332.4	8	23K	0							
CLERMONT-FD.	47.21	325.2	8	27K	0	15	33	20				
GRANADA	47.32	311.7	8	26	-2	15	21	6		11	0	PP
CHATRA	47.50	63.1	8	29	0	15	25	9		10	21	PP
CALCUTTA	47.93	69.0	8	34A	1	15	35	12				
SARCHY	48.15	326.8	8	35	1					10	9	PP
REMSBERG	48.56	332.9	8	37K	-1	15	42	10		10	42	PP
HERMANUS	48.59	202.3	8	47	9	15	50	17		10	13	PP
TOLEDO	48.76	314.3	8	40K	1	15	44	9		10	36	PP
MUNSTER	49.09	334.1	8	39	-3							
SVERDLOVSK	49.14	15.0	8	41	-1					10	38	PP
PARIS	49.40	328.1	8	44	0	15	50	6		10	39	PP
PULKOVO	49.87	353.7	8	46	-2	16	1	11		10	44	PP
COPENHAGEN	50.09	340.2	8	48K	-1	16	4	11		10	48	PP
WITTEVEEN	50.10	334.4	8	50K	1							
DE BILT	50.25	332.9	8	52K	1	16	10	14		19	40	SS
FOLINIERE	50.96	326.6	8	55	-1							
NURMIJARVI	51.35	350.5	8	57K	-2	16	22	11				
LHASA	51.38	60.3	8	59K	0	16	23	12				
SHILLONG	51.47	65.6	8	57K	-3	16	26	14		10	59	PP
GOTEBORG	51.88	341.4	9	4K	1					9	35	
PORT BLAIR	51.88	33.2	9	8	5	16	41	23				
COIMBRA	51.96	313.5	9	6A	3	16	37	13		20	48	SS
LISBON	51.96	311.5	9	4K	0				10 13	11	4	PP
SEMIPALATNSK	51.97	31.3	9	3	-1							
JERSEY	52.07	326.2	9	4	0							
UPPSALA	52.15	346.0	9	4K	-1	16	20	-2		16	29	SP

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SERRA PILAR	52.42	314.5	9	7A	0	16	32	7	9	15	10	56 PP
KEY	52.46	329.4	9	6K	-1	16	34	8			10	17 PCP
KAJAANI	54.36	353.5	9	20K	-1							
DURHAM	55.06	332.1	9	26A	0	17	8	7			11	34 PP
UMEA	55.20	349.6	9	23	1							
ABOUR	55.52	230.4	9	31	1	17	19	12				
SKALSTUGAN	56.67	345.7	9	36K	-2						10	2
ABERDEEN	56.77	334.2	9	38A	-1	17	34	10			11	49 PP
SODANKYLA	57.67	354.0	9	44K	-1							
MEDAN	58.74	92.1									11	41
KIRUNA	58.88	351.5	9	51K	-2	18	1	10			10	35
TROMSOE	60.75	351.8	10	4	-2							
KUNMING	61.23	67.0	10	8K	-1	18	36	14			12	32 PP
CHENGTU	62.65	60.9	10	16	-3	18	52	13			12	43 PP
LANCHOW	63.02	54.8	10	21K	0							
PONTA DELGDA	64.41	306.9	10	32A	2				10	41		
KERGUELEN I.	65.08	158.7	10	45	10	18	53	-17				
IRKUTSK	66.38	37.3	10	42K	-1						13	7 PP
SIDA	66.93	335.9	10	47A	0							
SIAN	67.02	57.2	10	46	-1	19	48	15			13	20 PP
REYKJAVIK	68.63	335.5	10	59K	2							
DJAKARTA	68.71	100.8	10	56	-2	20	4	11				
LEMBANG	69.62	101.3	11	1K	-2						11	24
KHEYS	70.80	3.1	11	11	1	20	32	14			13	58 PP
CANTON	70.95	69.1	11	11K	0	20	38	19			13	55 PP
SCORESBY SD.	71.09	341.8	11	12K	0							
HONG KONG	71.76	69.9	11	16	0	20	44	15			14	1 PP
PEKING	73.00	51.3	11	22K	-1	20	55	12			14	4 PP
NORD	75.18	352.7	11	35K	-1							
NANKING	75.29	59.5	11	36	-1	21	26	18			14	30 PP
ZO-SE	77.39	60.3	11	43K	0	21	52	21			14	42 PP
BAGUIO CITY	78.37	75.3	11	54	0						14	56
MANILA	79.08	77.0	11	59	1	22	43	54				
MAWSON	79.47	171.2	12	1K	1	22	9	16	12	11	15	5 PP
CHANGCHUN	79.70	47.2	11	58K	-3	22	8	12			15	9 PP
TIKSI	79.98	18.8	12	5	2						15	12 PP
MUNDARING	84.08	123.9	12	24	0						13	12
VLADIVOSTOK	84.55	47.3	12	25	-1						15	33 PP
MIRNY	85.81	161.3	12	33	1							
ABUYAMA	88.84	54.9	12	45	-2							
MATUSIRO	90.58	52.8	12	54K	-1	23	58	16			16	31 PP
RESOLUTE	90.72	349.1	12	56	0	23	56	13			16	30 PP
Y.-SAKHLINSK	91.18	41.8	12	57	-1						16	37 PP
MAGADAN	91.51	28.4	13	0	1						16	42 PP
TUKUBASAN	92.14	52.8	13	0K	-2	23	44	-11	13	11	16	47 PP
HALIFAX	92.21	316.0	13	6	3							
SHAWINIGAN	97.59	320.0	13	29A	2							
WESTON	98.25	315.7									13	31 SKKS
PETROPAVLOVK	98.33	32.3	13	27	-3						17	28 PP
OTTAWA	99.94	319.8	13	39	1							
SOUTH POLE	100.25	180.0	13	47	8						17	49 PP
PALISADES	100.57	315.2	13	45	4	24	27	16			17	51 PP
SAN JUAN	101.59	291.2	17	49	244							
PENNSYLVANIA	103.38	316.3				24	42	17			18	8 PP
WASHINGTON	103.65	314.3	13	58	4						18	8 PKP
CARACAS	104.28	283.6	14	12	15	24	42	13				
COLLEGE	104.81	3.4	14	2	3						18	16 PP
SCOTT BASE	107.40	169.8	18	25	777						18	36 PP
MELBOURNE	108.20	126.4	18	2	777							
PORT MORESBY	108.55	96.5	18	48	777	28	14	207			25	16
CHARTERS TS.	108.81	107.8	18	13	777						28	10
BYRD STATION	109.62	183.7	14	23	777						18	49 PP
LA PAZ	109.95	256.1	18	19	777							
CAPE HALLETT	111.37	165.5	18	25	0						19	2 PP
CANBERRA	111.52	123.9	17	33K	-52						28	48 PS
FUQUENE	112.00	280.2									19	18 PP
BOGOTA	112.52	279.4									19	24 PP
SANTA LUCIA	112.66	238.1									19	22 PP
RIVERVIEW	113.36	122.4									19	22 PP
CHINCHINA	113.94	280.1									19	26 PP
LAWRENCE	115.57	322.4	17	28	-65							
RAPID CITY	116.31	331.1	18	36	1							
FAYETTEVILLE	116.71	319.3	18	42	6							
HUNGRY HORSE	117.18	340.7	18	37	0							
BUTTE	118.69	338.4	19	56	77							
LARAMIE	119.55	330.5	18	43	2						19	58
WICHITA MTS.	120.36	320.7	18	45	2	25	47	15			20	7 PP
FLAMING GRGE	121.63	332.9	18	46	1						20	18 PP

SALT LAKE C.	122.83	334.6	18 25	-22		19 2
EUREKA	125.59	337.0	18 55	2		
KOUMAC	125.72	107.9				15 47
SHASTA	126.64	343.2	18 59	4		
RENO	126.91	340.3	19 0A	5		
ARCATA	126.94	344.7	20 8A	73		
UKIAH	128.34	343.2	18 46	-12		
CONCORD	129.07	341.6	19 3	3		
TUCSON TELE.	129.09	327.6	19 4	4		
BERKELEY	129.22	341.7	19 9	9		21 9
TUCSON	129.22	327.6	19 4	4	25 58 -1	21 15 PP
LICK	129.51	340.8	19 4	4		
PASADENA	131.09	335.6	19 8	5	29 40 216	21 26 PP
KARAPIRO	131.76	132.3	18 54	-11		
KIPAPA	143.92	29.0	19 32	5		
HONOLULU	143.99	29.2	19 27	0		22 40
HAWAII V.OB.	146.91	26.7	19 37	5		
AFIAMALU	148.91	99.8	19 42	7		

JUNE 2 5.H 22.M 42.S EPICENTRE 10.21 39.89 DEPTH= 99.KM

A= 0.75530 B= 0.63127 C= 0.17612 D= 0.6413 E=-0.7673
G= 0.1351 H= 0.1129 K=-0.9844 HT= 6.5

DEPTH OF FOCUS= 0.010R

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
HELWAN	21.13	339.0						10 30
JERUSALEM	21.89	349.3	4 45	0				
SHIRAZ	22.66	29.6	4 49	-4	9 5	16	5 0	
BROKEN HILL	26.99	205.0	5 32K	-2				
TANANARIVE	29.92	165.3	5 59	-1				
ATHENS	31.23	334.9	6 10K	-2				
TIFLIS	31.68	7.0	6 15	-1				
QUETTA	32.10	47.9	6 23	4				
BULAWAYO	32.14	200.2	6 17	-3				
ISTANBUL UN.	32.18	344.4	6 19	-1				
BOMBAY	32.97	71.0	6 29	2	11 54	17		7 40 PP
SOTCHI	33.24	359.8	6 31	2				
POONA	33.87	72.0	6 33K	-2				
MESSINA	35.40	325.9	6 46	-2				8 12 PP
SOFIA	35.45	338.8	6 46	-2	12 26	11		
WARSAK DAM	37.43	45.8	7 4	-1				
WINDHOEK	39.50	214.3	7 21	-1				
ROME	39.69	327.4	9 14	111				
PIETERMZBURG	40.64	192.7	7 31	0				
ZAGREB	40.96	334.4	7 32	-2				
NAMANGAN	41.53	37.0	7 40	2				
LWOW	41.62	344.5	7 39	0				
FLORENCE X.	41.65	328.5	7 38	-1				
LJUBLJANA	41.77	333.4	7 39	-1				9 18 PP
BRATISLAVA	42.41	337.4	7 45A	-1				
VIENNA-H.	42.75	336.9	7 46K	-2				
KRAKOW	43.02	341.2	7 49	-2				8 46
CHORZOW	43.53	340.6	7 52	-3				8 49
RACIBORZ	43.62	339.8	7 55	0				8 37
MONACO	43.66	325.7	7 59	3				
ISOLA	44.16	325.9	8 1	1				
KASPERSKE H.	44.57	335.5	8 0K	-3				9 46 PP
CHUR	44.68	330.4	8 7	3				
PRUHONICE	44.86	336.9	8 3K	-2				9 44 PP
MOSCOW	45.44	358.2	8 8	-2	15 3	20		
CHEB	45.80	335.5	8 10	-3	14 39	-9		
NEUCHATEL	46.06	328.9	8 12	-3				
BASLE	46.11	329.8	8 13	-2				
STUTTGART	46.17	332.2	8 13	-3				
COLLMBERG	46.51	337.0	8 15K	-4	15 3	5		10 12 PP
BESANCON	46.73	328.5	8 18	-2				
STRASBOURG	46.74	331.0	8 19	-1				8 42
JENA	46.78	335.7	8 20	-1				10 9 PP
CLERMONT-FD.	47.33	325.3	8 27	2				
GARCHY	48.28	326.9	8 29	-3				
BENSBERG	48.69	332.9	8 34	-1				10 50 PP
TOLEDO	48.86	314.8	8 36K	-1				

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MUNSTER	49.21	334.1	8 35	-5						
SVERDLOVSK	49.22	14.9	8 33	-7						
PULKOVO	49.98	353.7	8 43	-2						
FOLINIERE	51.08	326.6	8 51	-3						
NURMIJARVI	51.46	350.4	8 54	-3	16 15	8				
GOTEBORG	52.00	341.4	8 59K	-2						
UPPSALA	52.27	346.0	8 59K	-4	16 28	10				
SERRA PILAR	52.54	314.5	8 58A	-7			9	8		
KEW	52.58	329.4	9 7K	2						
KAJAANI	54.47	353.5	9 15	-4						
DURHAM	55.18	332.1	9 22A	-2					11	21 PP
UMEA	55.31	349.5	9 24K	-1						
MBOUR	55.60	280.4	9 30	3						
SKALSTUGAN	56.79	345.7	9 32	-4						
SODANKYLA	57.78	354.0	9 40	-3						
MEDAN	58.67	92.0	10 57	68						
KIRUNA	58.99	351.5	9 47K	-4						
TROMSOE	60.87	351.8	10 0	-4						
REYKJAVIK	68.75	335.5	10 59K	4						
LEMBANG	69.54	101.2	10 57	-2						
SCORESBY SD.	71.21	341.8	11 9A	-1						
NORD	75.29	352.7	11 29	-4						
MAWSON	79.36	171.2	11 55	-1					14	54 PP
TIKSI	80.06	18.8							12	0
MUNDARING	83.97	123.9							12	20
MATUSIRO	90.59	52.8	12 51	-1						
RESOLUTE	90.84	349.1	12 51	-2					16	26 PP
SHAWINIGAN	97.72	320.0	13 25	1						
TRINIDAD	99.04	282.6							19	40
SOUTH POLE	100.14	180.0	17 10	215						
SAN JUAN	101.69	291.2	17 48	246						
COLLEGE	104.91	3.4	18 3	247						
SCOTT BASE	107.29	169.8							18	31 PP
BYRD STATION	109.52	183.7	18 15	777						
HUNGRY HORSE	117.30	340.7	18 39	6					19	48 PP
WICHITA MTS.	120.48	320.7	18 41	2					20	4 PP
EUREKA	125.71	337.1	18 51	2						
TUCSON TELE.	129.22	327.6	18 59	3						
TUCSON	129.35	327.6	18 58	2	26 40	46			21	30 PP
PASADENA	131.21	335.7	19 8	8						
HAWAII V.OB.	146.93	26.9	19 35	6						

JUNE 2 5.H 45.M 10.S EPICENTRE 10.58 40.14 DEPTH= 156.KM

A= 0.75160 B= 0.63389 C= 0.18243 D= 0.6447 E=-0.7644
G= 0.1395 H= 0.1176 K=-0.9832 HT= 6.5

DEPTH OF FOCUS= 0.0193

SE= 2.84

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HELWAN	20.83	338.1	4 29	-2				10 20
JERUSALEM	21.53	348.5	4 33K	0				
SHIRAZ	22.21	29.6	4 43A	-1	8 59	26		5 11
KSARA	23.46	351.1	4 59	3				
BROKEN HILL	27.43	205.2	5 28	-5				
TANANARIVE	30.21	166.0	5 55A	-3				
ATHENS	31.00	334.3	6 3K	-2				
TIFLIS	31.29	6.7	6 9	2				
QUETTA	31.66	48.1	6 13	3				
ISTANBUL UN.	31.89	343.9	6 12	0				
BULAWAYO	32.57	200.4	6 12	-6				
BOMBAY	32.62	71.5	6 19	0	11 51	29		7 36 PP
LUANDA	33.01	235.2	6 30K	8				13 45 SS
POONA	33.52	72.4	6 25A	-1				
SIMFEROPOL	34.64	352.5	6 36	0				
SOFIA	35.20	338.3	6 40	-1				7 59 PP
MESSINA	35.24	325.4	6 40	-1			7 1	8 0 PP
TITOGRAD	36.61	333.7	6 59	7	12 42	19		8 4 PP
MARSAM DAM	36.99	46.0	6 55	-1				
PRETORIA	37.94	197.7	6 59	-5				
BELGRADE	39.10	337.1	7 5A	0				8 39 PCP
MADRAS	39.24	92.4	7 14A	0	13 22	19		8 49 PP
ROME	39.51	327.0						9 1
PIETERMZBURG	41.05	193.0	7 35	6				8 2

LWOW	41.34	344.2	7 34	2						
FLORENCE X.	41.47	328.1	7 34	1						
LJUBLJANA	41.55	333.0	7 34	1					9 4	PP
TRIESTE	41.60	332.0	7 33	-1	13 59	21			17 19	SS
KIMBERLEY	41.82	200.4	7 31	-5						
BRATISLAVA	42.17	337.0	7 42A	4						
VIENNA-H.	42.52	336.5	7 41	0						
KRAKOW	42.75	340.8	7 44	1						
CHORZOW	43.27	340.3	7 46	-1					8 30	
RACIBORZ	43.36	339.5	7 54	6					10 16	PPP
MONACO	43.50	325.3	7 50	1						
FRUNSE	43.96	36.9	7 54	1						
ISOLA	44.00	325.6	7 54	1						
KASPERSKE H.	44.34	335.1	7 54K	-2					9 40	
CHUR	44.48	330.1	8 4	7						
PRUHONICE	44.62	336.6	7 57K	-1					9 41	PP
MOSCOW	45.08	358.0	8 3	1						
GRAHAMSTOWN	45.53	196.0	8 33	28						
CHEB	45.57	335.1	8 3	-3					9 36	
ALICANTE	45.61	314.2	7 57	-9	14 33	-3			9 42	PP
EBINGEN	45.69	331.0	8 6	-1						
NEUCHATEL	45.88	328.5	8 8	0						
TUBINGEN	45.89	331.5	8 8	0						
BASLE	45.92	329.5	8 10	2						
STUTTGART	45.96	331.8	8 7	-2						
TORTOSA	46.10	317.8	7 35	-35						
COLLMBERG	46.27	336.6	8 9K	-2					10 2	PP
ALMERIA	46.42	311.4	8 13A	1	15 1	14			10 50	PPP
STRASBOURG	46.54	330.7	8 13	0					8 48	
BESANCON	46.54	328.2	8 11	-2						
JENA	46.55	335.4	8 11	-2					9 59	PP
HEIDELBERG	46.67	332.1	8 13	-1						
HALLE	46.84	336.1	8 13	-3			8 19			
CHATRA	47.09	63.2	8 20K	2	15 16	19				
CLERMONT-FD.	47.18	324.9	8 18	0						
GARCHY	48.11	326.5	8 23	-3					10 22	PP
BENSBERG	48.47	332.6	8 28	0					8 56	
TOLEDO	48.78	314.5	8 31	0						
MUNSTER	48.99	333.8	8 29	-3						
PULKOVO	49.64	353.5	8 36	-1	15 53	21				
WITTEVEEN	50.00	334.1	8 38	-2						
FOLINIERE	50.91	326.3	8 46	-1						
LHASA	50.98	60.4	8 50	3						
SHILLONG	51.07	65.7	8 48K	0						
KURMIJARVI	51.14	350.2	8 48	-1	16 11	18				
SEMIPALATNSK	51.58	31.8							15 13	
GOTEBORG	51.73	341.2	8 53	0						
UPPSALA	51.98	345.8	8 54	-1	16 21	17				
COIMBRA	52.01	313.2	8 48	-7						
LISBON	52.03	311.2	9 1K	6						
KEW	52.39	329.2	8 57K	-1					10 8	PCP
SERRA PILAR	52.46	314.3	9 34A	35	16 18	7	9 44		10 52	PP
KAJAANI	54.14	353.3	9 14	3						
DURHAM	54.98	331.9	9 13K	1						
UMEA	55.00	349.4	9 18	1						
MBOUR	55.78	280.2	9 27	4						
SKALSTUGAN	56.49	345.5	9 26	-2						
SODANKYLA	57.44	353.8	9 35	1						
MEDAN	58.43	92.3	9 46	5						
KIRUNA	58.66	351.4	9 42K	-1						
TROMSOE	60.54	351.6	9 56	0						
KUNMING	60.84	67.2	9 59	1						
CHENGTU	62.24	61.0	10 7	0						
LANCHOW	62.61	54.9	10 12K	2						
KERGUELEN I.	65.21	158.9			19 14	19			23 15	SS
IRKUTSK	65.98	37.3	10 33	2						
SIAN	66.61	57.3	10 36	1						
LEMBANG	69.36	101.4	10 53	1	19 59	14				
KHEYS	70.52	3.1	11 1K	2						
CANTON	70.56	69.2	11 2K	2					13 46	PP
SCORESBY SD.	70.94	341.7	11 3A	1						
PEKING	72.59	51.3	11 14K	2						
NANKING	74.88	59.6	11 27	2						
NORD	74.95	352.7	11 25	0						
ZO-SE	76.99	60.4	11 41	4						
MANILA	78.71	77.1	11 51	5						
CHANGCHUN	79.29	47.2	11 50K	1	22 2	27				
TIKSI	79.63	18.8	11 56	5						

MAWSON	79.69	171.3	11 51 0	14 54 PP
MUNDARING	83.97	124.0	12 15 1	
MIRNY	85.96	161.3		18 43
MATUSIRO	90.17	52.9	12 47 4	
RESOLUTE	90.52	349.2	12 46 1	16 19 PP
DARWIN	92.89	102.0		15 6
SHAWINIGAN	97.60	320.1	13 20 3	
SOUTH POLE	100.51	180.0	17 34 243	
COLLEGE	104.53	3.5	18 7 259	
SCOTT BASE	107.61	169.7		18 29 PP
CHARTERS TS.	108.59	107.7	18 18 777	
BYRD STATION	109.90	183.7	18 34 777	
HUNGRY HORSE	117.03	341.0	19 38 72	
LARAMIE	119.48	330.8	19 7 36	
WICHITA MTS.	120.35	321.0	18 36 3	28 43 PKKP
FLAMING GRGE	121.54	333.2	18 38 3	20 8
BOULDER CITY	128.02	334.2	18 53 6	
TUCSON TELE.	129.04	328.0	18 53 4	
TUCSON	129.17	328.0	18 53 3	
PASADENA	130.98	336.1	18 58 5	
HAWAII V.OB.	146.53	27.1	19 30 9	
AFIAMALU	148.64	99.3	19 38 13	

JUNE 2 7.H 2.M 50.S EPICENTRE 10.13 39.90 DEPTH= 21.KM

A= 0.75540 B= 0.63154 C= 0.17472 D= 0.6414 E=-0.7672
G= 0.1340 H= 0.1121 K=-0.9846 HT= 6.5

SE= 2.41

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HELWAN	21.21	339.0	4 49	2	8 58	21		
BANGUI	21.86	256.4	4 51	-3	9 10	21		
JERUSALEM	21.98	349.3	4 58K	3				
SHIRAZ	22.72	29.5	5 0	-2	9 16	11		10 19 SS
KSARA	23.87	351.7	5 14	1				
BROKEN HILL	26.92	205.1	5 42	0				
TEHERAN	27.56	20.5	5 47	-1	10 51	25		
TANANARIVE	29.83	165.3	6 9	1				
ATHENS	31.30	334.9	6 21A	0				
TIFLIS	31.76	7.0	6 25	0				
BULAWAYO	32.06	200.3	6 26	-2				
QUETTA	32.15	47.7	6 29	0				
ISTANBUL UN.	32.26	344.4	6 31	1				
SOTCHI	33.32	359.8	6 38	-1				
MAKHACH-KALA	33.38	10.2	6 31	-9				
SIMFEROPOL	35.05	352.9	6 52	-2				
BUCHAREST	36.19	343.2						8 42
WARSAK DAM	37.48	45.8	7 14	0				
MADRAS	39.54	81.9	7 29	-3	13 43	10		9 1 PP
ROME	39.76	327.5	7 36	3	13 36	0		16 43 SS
TASHKENT	40.43	34.7	7 39	0				
NAMANGAN	41.59	36.9	7 49	0				
FLORENCE X.	41.72	328.6	7 45	-5				
LJUBLJANA	41.84	333.4	7 48	-3				9 32 PP
ANDIJAN	41.87	37.7	7 51	0				
TRIESTE	41.88	332.4	7 52	1	14 15	7		17 36 SS
BRATISLAVA	42.49	337.4	7 54	-2				
VIENNA-H.	42.83	336.9	7 57	-2				
ISOLA	44.23	326.0	8 11	1				
FRUNSE	44.46	36.7	8 12K	0				
KASPERSKE H.	44.65	335.5	8 9K	-4				9 52 PP
MOSCOW	45.52	358.2	8 19	-1				
ALICANTE	45.76	314.7	8 21	-1	15 0	-4		18 13 SS
STUTTGART	46.24	332.2	8 25	-1				10 3
ALMERIA	46.54	311.9	8 28	0				
COLLMBERG	46.58	337.0	8 26	-3				10 20 PP
BESANCON	46.80	328.6	8 30	0				
STRASBOURG	46.81	331.0	8 15	-16				8 44
CLERMONT-FD.	47.41	325.3	8 38	3				
GRANADA	47.50	311.8	8 37	1	15 12	-7		
GARCHY	48.35	326.9	8 42	-1				
HERMANUS	48.45	202.9						24 13
BENSBERG	48.76	333.0	8 43	-3				
TOLEDO	48.92	314.9	8 49	2				
MUNSTER	49.29	334.2	8 46	-4				

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SVERDLOVSK	49.30	14.9	8	48	-2						
PULKOVO	50.06	353.7	8	53	-3						
COPENHAGEN	50.29	340.2	9	0	2						
FOLINIERE	51.15	326.6	9	2	-2						
LHASA	51.41	60.2	9	7	1	16	33	10			
SHILLONG	51.48	65.4	9	3	-4						
NURMIJARVI	51.55	350.4	9	4	-3	16	28	3			
GOTEBORG	52.08	341.4	9	8	-3						
KAJAANI	54.55	353.5	9	25	-4						
DURHAM	55.26	332.2	9	16	-19						
UMEA	55.40	349.6	9	33	-2						
SKALSTUGAN	56.87	345.7	9	42	-4						
ABERDEEN	56.97	334.2								25	40
SODANKYLA	57.86	354.0	9	50	-3						
MEDAN	58.66	92.0	9	58	-1						
KIRUNA	59.07	351.5	9	58	-4					18	12 SP
TROMSOE	60.95	351.8	10	10	-4						
KUNMING	61.24	66.9	10	17	1	18	44	10			
CHENGTU	62.67	60.8	10	23	-3						
LANCHOW	63.06	54.7	10	28	-1	19	6	9			
IRKUTSK	66.48	37.2	10	51	0						
SIAN	67.05	57.1	10	53	-1						
CANTON	70.94	69.0	11	21	3						
KHEYS	70.98	3.1	11	17	-2						
SCORESBY SD.	71.29	341.8	11	19A	-1						
PEKING	73.06	51.2	11	33	2	21	8	12			
NANKING	75.32	59.5	11	46	2						
MAWSON	79.28	171.2	12	6	0						
TIKSI	80.14	18.8	12	13	2						
MATUSIRO	90.63	52.8	13	1	-2						
RESOLUTE	90.92	349.1	13	3	-1					16	38 PP
COLLEGE	104.99	3.4	18	27	259						
SCOTT BASE	107.21	169.8								18	42 PP
WICHITA MTS.	120.55	320.7	18	51	0						
EUREKA	125.79	337.0	19	2	1						
BOULDER CITY	128.31	333.8	19	8	2						
TUCSON TELE.	129.29	327.5	19	10	2						
TUCSON	129.42	327.6	19	11	3						
AFIAMALU	148.81	100.1	19	12	-31						

JUNE 2 18.H 9.M 32.S EPICENTRE 21.48 145.96 DEPTH= 79.KM

A=-0.77177 B= 0.52141 C= 0.36401 D= 0.5598 E= 0.8286
G=-0.3016 H= 0.2038 K=-0.9314 HT= 4.3

DEPTH OF FOCUS= 0.007R

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
TUKUBASAN	15.55	342.1	3	34	-2						6	24
MATUSIRO	16.46	337.5	3	46	-1	6	49	3			7	25
MIZUSAWA	18.07	347.8	4	12	5	7	35	12				
ZO-SE	24.15	298.5	5	8	-1	9	27	8				
BAGUIO CITY	24.51	262.5	5	16	3							
VLADIVOSTOK	24.57	334.7	5	15A	2							
MANILA	24.58	258.2	5	18	4	9	32	6				
Y.-SAKHLINSK	25.62	354.9									5	58
RABAUL	26.23	165.9	5	26	-3							
NANKING	26.39	299.2	5	31	0	10	4	8				
CHANGCHUN	28.12	327.2	5	46	0	10	31	7				
CANTON	30.19	279.3	6	3	-2							
PORT MORESBY	30.71	177.7	6	12	3						14	52
PEKING	31.36	312.9	6	13	-2	11	21	6				
PETROPAVLOVK	32.96	14.1	6	24	-5							
SIAN	34.94	299.4	6	45	-1							
MAGADAN	38.19	4.0				13	8	7				
CHENGTU	38.59	292.6	7	15	-2	13	12	5				
LANCHOW	39.37	301.0	7	25A	2							
KUNMING	39.74	283.8	7	26	0							
ULAN-BATOR	40.90	319.7	7	36	0						9	14 PP
CHARTERS TS.	41.31	179.6	7	37	-2							
YAKUTSK	42.03	348.6	7	44	-1	14	1	3				
IRKUTSK	44.36	324.3	7	44A	-20	14	1	-31				
LEMBANG	46.96	237.4	8	23A	-2							

SHILLONG	49.48	285.8	8 44	0							
LHASA	49.82	291.2	8 48	1							
TIKSI	51.13	353.1	8 53	-4							
CHATRA	53.51	288.1	9 15A	1							
RIVERVIEW	55.22	174.7	9 33	6	17	15	13			12	5
CANBERRA	56.56	177.0	9 36	0							
SEMIPALATNSK	58.34	316.7	9 48A	-1							
COLLEGE	60.69	26.6	10 5	0							
FRUNSE	62.24	308.0	10 16A	0							
LAHORE	63.88	295.5	10 23	-3							
ANDIJAN	64.11	305.9	10 29	1							
NAMANGAN	64.61	306.2	10 32	1							
KARAPIRO	65.31	154.6	10 35	-1							
NARSAK DAM	65.76	298.6	10 38	0							
TASHKENT	66.35	306.9	10 42	0	19	33	9				
KHEYS	68.61	349.9	10 57	1							
SVERDLOVSK	69.77	324.3	11 3	0	20	11	6				
QUETTA	70.37	295.5	11 8	1							
RESOLUTE	76.68	13.8	11 44	0							
SHASTA	77.52	51.1	11 50	1							
LICK	79.12	54.2	11 58K	1							
RENO	79.77	51.6	12 3	2							
HUNGRY HORSE	80.61	41.7	12 8	3							
FRESNO	80.70	54.2	12 6	0							
SODANKYLA	80.85	340.0	12 6K	-1							
MAKHACH-KALA	81.57	312.8	12 11	1							
TROMSOE	81.69	343.6	12 11	0							
MOSCOW	82.27	327.2	12 14	0							
BUTTE	82.42	43.5	12 16	1							
KIRUNA	82.45	341.8	12 15	0						22	33 SCS
SHIRAZ	82.50	298.8	12 16K	1	22	28	4			15	32 PP
EUREKA	82.57	50.6	12 17	2							
CHINA LAKE	82.70	54.5	12 16	0							
TIFLIS	83.89	312.4	12 24	2							
BOULDER CITY	84.72	53.5	12 25	-1							
UMEA	85.12	338.8	12 27	-1							
NURMIJARVI	85.59	334.9	12 30K	-1							
FLAMING GRGE	86.62	47.3	12 36	0							
SKALSTUGAN	87.83	341.1	12 41	0							
UPPSALA	88.70	336.7	12 45K	-1							
TUCSON TELE.	89.31	55.5	12 51	3							
GOTEBORG	92.30	337.3	12 59	-3							
COPENHAGEN	93.62	335.7								30	28 SS
COLLMBERG	96.61	332.4	13 23	1							
PRUHONICE	96.88	330.8								17	22 PP
WICHITA MTS.	97.09	48.5	13 26	2						17	23 PP

JUNE 3 1.H 13.M 24.S EPICENTRE 56.07 165.01 DEPTH= 0.KM

A=-0.54177 B= 0.14502 C= 0.82792 D= 0.2586 E= 0.9660
G=-0.7998 H= 0.2141 K=-0.5608 HT= -7.6

SE= 3.63

	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	
KLYUCHI	2.33	278.0	0	39	-1	1	8	-2					
PETROPAVLOVK	4.80	233.2	1	14	-1	2	4	-8					
MAGADAN	8.35	300.6	2	6	1						3	54	
UGLEGORSK	15.55	252.9	3	45	3						6	44	
Y.-SAKHLINSK	16.50	246.1	3	52	-2						4	6	SP
YAKUTSK	18.92	302.8	4	22	-2	7	53	0					
TIKSI	21.75	329.7	4	59	4	8	57	6			5	24	PP
MIZUSAWA	23.19	233.1	5	17	8	9	23	6					
COLLEGE	24.29	49.6	5	20	0	9	39	3					
VLADIVOSTOK	24.79	252.5	5	18	-6	9	38	-7					
TUKUBASAN	26.05	230.9	5	34A	-2	10	4	-2	5	46	6	15	PP
MATUSIRO	26.63	234.1	5	41A	-1	10	16	0					
CHANGCHUN	27.92	260.9	5	47	-6								
PEKING	35.53	264.2	6	55	-5								
ULAN-BATOR	35.72	281.9	7	2	0								
KHEYS	37.83	345.2	7	19	-1						8	41	PP
RESOLUTE	39.47	24.3	7	32	-1	13	32	-4					
NANKING	39.94	252.8	7	36	-1								
NORD	42.57	0.4	7	57K	-2								
KIPAPA	44.10	126.4	8	12	1								

HONOLULU	44.17	126.6							22	10
BANFF	44.93	61.2	8	16	-2					
HUNGRY HORSE	47.50	63.3	8	38	0	15	44	11		
SEMIPALATNSK	48.02	301.0	8	40	-2					
UKIAH	48.94	78.4	8	44	-5					
CHENGTU	49.13	265.4	8	55	4	15	59	3		
BUTTE	49.80	64.7	8	56	0	16	6	0		
HONG KONG	50.19	249.2	9	4	5	16	16	5		
BERKELEY	50.36	78.9	9	1A	1	16	26	13	19	59 SS
BOZEMAN	50.81	64.1	9	5	1					
BAGUIO CITY	51.91	238.6	10	21	69					
SVERDLOVSK	52.05	317.5	9	12	-1	16	37	1	20	12 SS
TROMSOE	52.23	345.7	9	12	-3					
EUREKA	52.63	72.9	9	18	0					
SODANKYLA	53.05	341.2	9	19K	-2					
MANILA	53.18	237.0	9	7	-15					
SCORESBY SD.	53.66	2.9				16	59	1		
KIRUNA	53.67	344.2	9	23K	-2	16	58	0		
KUNMING	54.12	262.0	9	28	-1	17	6	1		
FLAMING GRGE	55.04	67.2	9	35	0					
PASADENA	55.34	79.0	9	36	-1	17	23	2	21	12 SS
KAJAANI	55.77	338.9	9	47	6					
BOULDER CITY	55.80	75.1	9	41	0					
RAPID CITY	55.85	60.5	9	42	1					
FRUNSE	56.09	297.6	9	42	-1	17	31	0		
UMEA	57.40	342.3	9	50K	-2					
SKALSTUGAN	58.84	346.1	10	0	-2					
PULKOVO	59.04	335.2	10	1	-3	18	6	-4	13	48 PPP
NURMIJARVI	59.62	338.5	10	5K	-3					
TASHKENT	59.84	299.9	10	6	-3				18	31 PS
SHILLONG	59.85	271.6	10	6A	-3					
MOSCOW	60.65	329.0	10	14	-1	18	30	-1	10	47 PCP
TUCSON TELE.	60.78	74.8	10	16	0					
TUCSON	60.79	75.0	10	15	-1	18	40	8	12	38 PP
RABAUL	60.98	194.7	10	19	2					
CHATRA	61.50	276.3	10	19K	-2					
UPPSALA	61.56	342.0	10	18K	-3	18	40	-2		
KHOROG	61.67	295.6	10	21	-1					
LAWRENCE	63.60	59.1	10	31	-3					
GOTEBORG	64.53	344.4	10	37	-4					
LAHORE	64.83	289.4	10	37	-6					
WICHITA MTS.	65.29	64.3	10	45	-1	19	33	4	24	20
ST. LOUIS I	66.24	55.8	10	52	0	19	39	-1		
FAYETTEVILLE	66.39	60.3	10	51K	-2	19	41	-1		
COPENHAGEN	66.40	343.5	11	2	9	19	43	1	24	11 SS
ABERDEEN	66.64	352.4							16	6
PORT MORESBY	66.90	199.2	10	57	1	19	54	6		
ASHKABAD	67.67	305.0	11	0	-1					
WARSAW	68.05	337.1	11	4	1	20	1	-1		
DURHAM	68.98	351.7	11	39	30	20	11	-2		
LWOW	69.60	334.2	11	13	0	20	21	0	20	55 PS
QUETTA	69.76	294.0	11	12	-2					
PENNSYLVANIA	69.83	46.0				20	28	5	21	15 SCS
KRAKOW	70.34	336.9	11	20	3	20	38	9		
HALLE	70.51	342.5	11	26	8				13	53 PP
COLLMBERG	70.52	341.8	10	47	-31				14	0 PP
RACIBORZ	70.68	338.1	11	19	0				11	38 PCP
WESTON	71.00	40.7	11	29	8					
IASI	71.10	330.8	11	47	25					
JENA	71.12	342.6	11	18	-4	20	36	-2	25	16 SS
SIMFEROPOL	71.20	325.5	11	20	-2	20	36	-3	13	56 PP
PALISADES	71.21	43.2				20	31	-8	25	19 SS
GORIS	71.57	314.3	11	28	3				14	7 PP
BENSBERG	71.77	345.5	11	24	-2				13	7
KEW	72.15	350.4				20	49	-1		
KASPERSKE H.	72.50	340.8	11	29K	-1				12	27
TEHERAN	72.63	308.6	11	9	-22	20	57	1		
BRATISLAVA	72.73	338.1	11	28	-3				11	51 PCP
VIENNA-H.	72.80	338.6	11	45	13					
CHAPEL HILL	73.47	49.6	11	37	1					
STUTTGART	73.59	343.5	11	45	9				14	22
DARWIN	73.92	214 .8	11	38	0					
STRASBOURG	74.01	344.5	11	8	-31	21	12	1	26	0 SS
BUCHAREST	74.06	330.7	12	3	24					
PARIS	74.48	348.1	11	50	8				12	39
FOLINIERE	74.83	350.1	11	42	-2					
BELGRADE	75.14	334.7	11	45	0	21	21	-3	11	57 PCP
LJUBLJANA	75.28	339.2	11	46	0				12	12
BOMBAY	75.75	282.5	12	5	16	21	48	18	13	11

TRIESTE	75.81	339.6	12	11	22					22	14 SP
GARCHY	75.92	347.4	12	0	10				12 7		
ISTANBUL KA.	76.29	327.2				21	46	10			
ISTANBUL UN.	76.34	327.3	11	24	-28						
SOFIA	76.41	332.0	11	54	1						
SHIRAZ	77.25	304.5	11	56A	-1	21	43	-4	12 6	22	13 SKS
CHARTERS TS.	77.50	198.0	11	57	-2					16	36
FLORENCE X.	78.09	340.9	12	3	1	22	13	17			
ISOLA	78.41	344.0	12	14	10					12	37
ROME	79.67	339.5	12	14	3	22	16	3			
KSARA	80.56	319.1	12	24	9						
JERUSALEM	82.63	318.7	12	25	-1						
TOLEDO	83.97	351.6	12	31	-2					28	10 SS
GRANADA	86.61	350.9	13	OK	14	23	27	4		28	48 SS
BANGUI	113.76	322.9								19	31
CAPE HALLETT	128.14	178.0								22	41
SCOTT BASE	133.66	179.5	19	27	8					22	53 SKP
BYRD STATION	142.25	164.0	19	32	-2						
MAWSON	144.08	219.7	19	40	3						
SOUTH POLE	145.89	180.0	19	41	1				19 48		

JUNE 3 15.H 23.M 34.S EPICENTRE 10.50 39.80 DEPTH= 151.KM

A= 0.75555 B= 0.62960 C= 0.18098 D= 0.6402 E=-0.7682
G= 0.1390 H= 0.1159 K=-0.9835 HT= 6.5

DEPTH OF FOCUS= 0.019R

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	
HELWAN	20.83	338.9	4	30	-1						10	26	
JERUSALEM	21.60	349.3	4	38K	0								
BANGUI	21.86	255.4	4	41	0						10	12	
SHIRAZ	22.45	30.1	4	44A	-3	8	59	21			5	25	PP
KSARA	23.49	351.8	4	58	1	9	30	34					
BROKEN HILL	27.21	204.6	5	33	2								
TEHERAN	27.25	20.9	5	32	0	10	31	33					
GORIS	29.46	10.3	5	50	-2								
TANANARIVE	30.21	165.3									5	13	PCP
QUETTA	31.97	48.3	6	12	-2								
BULAWAYO	32.38	199.9	6	15	-2								
LUANDA	32.69	234.9									14	4	
SOTCHI	32.96	359.9	6	20	-2								
SOFIA	35.16	338.7	6	41	0						8	3	PP
BUCHAREST	35.81	343.1	6	46K	0	12	47	35			8	16	PP
FOCSANI	36.70	345.2	7	6	12								
KISHINEV	37.57	347.7	7	0	-1								
IASI	38.02	346.4	7	12K	7								
BELGRADE	38.05	337.5	7	6A	1						8	38	PP
ROME	39.40	327.3	7	19	3	13	25	19			8	45	PP
MADRAS	39.58	82.3									8	49	
TASHKENT	40.19	35.1	7	23	0								
LWOW	41.33	344.5	7	32K	0						9	8	PP
NAMANGAN	41.36	37.2	7	32K	0								
FLORENCE X.	41.37	328.4	7	36	4	13	59	24					
LJUBLJANA	41.48	333.3	7	32	-1						9	10	PP
TRIESTE	41.52	332.3	7	34	0	13	50	13			9	12	PP
ANDIJAN	41.63	38.0	7	37	2								
BRATISLAVA	42.12	337.3	7	39K	0								
VIENNA-H.	42.46	336.8	7	37	-4								
MONACO	43.38	325.6	7	50	1								
ISOLA	43.88	325.8	7	54	1						9	39	
FRUNSE	44.23	37.0	7	56	0								
KASPERSKE H.	44.28	335.4	7	55K	-1						8	40	PP
PRUHONICE	44.56	336.9	7	57K	-1	14	40	18			9	42	PP
MOSCOW	45.16	358.3	8	3	0								
ALICANTE	45.43	314.5	8	1	-4	14	40	6			9	47	PP
EBINGEN	45.60	331.3	8	5	-1								
BASLE	45.82	329.7	8	7	-1								
STUTTGART	45.88	332.1	8	9	0						15	7	SS
TORTOSA	45.94	318.0	8	0	-9								
COLLMBERG	46.21	336.9	8	11K	0						10	3	PP
ALMERIA	46.23	311.6	8	13	2								
BESANCON	46.44	328.4	8	11	-2								
STRASBOURG	46.45	330.9	8	13	0	15	10	21			10	4	PP

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JENA	46.49	335.6	8	12	-1	15	14	25	10	5	PP
HALLE	46.78	336.4	8	15	-1				11	19	
CLERMONT-FD.	47.05	325.2	8	20	2						
GRANADA	47.19	311.6	8	22K	3				10	28	PP
CHATRA	47.43	63.2	8	20A	-1						
GARCHY	47.99	326.8	8	25	0				9	57	PP
BENSBERG	48.40	332.9	8	29	1				8	49	
MUNSTER	48.92	334.1							9	31	
PARIS	49.24	328.1	8	34	-1	15	47	19	10	28	
COPENHAGEN	49.92	340.1	8	40K	0	15	53	16	10	42	PP
FOLINIERE	50.80	326.5	8	46	-1						
NURMIJARVI	51.17	350.4	8	48K	-1						
SHILLONG	51.41	65.7	8	48K	-3						
GOTEBORG	51.71	341.4	8	54K	1						
UPPSALA	51.98	346.0	8	54K	-2	16	20	15			
KEW	52.30	329.4	8	57	-1	16	33	23			
KAJAANI	54.18	353.5	9	11	-1						
DURHAM	54.89	332.1	9	20K	3						
UMEA	55.02	349.6	9	17K	-1						
SKALSTUGAN	56.49	345.6	9	27K	-1						
SODANKYLA	57.49	354.0	9	34K	-1						
KIRUNA	58.70	351.5	9	43K	-1	17	54	19			
TROMSOE	60.57	351.8	10	0	3						
IRKUTSK	66.25	37.3	10	33	-1						
ULAN-BATOR	66.96	42.3	10	39	1						
KHEYS	70.62	3.1	11	3	2						
SCORESBY SD.	70.92	341.7	11	3	1						
HONG KONG	71.72	69.9	11	7	0						
NORD	75.00	352.7	11	27K	1						
MAWSON	79.65	171.2	11	52	0						
TIKSI	79.82	18.8	11	53A	0						
YAKUTSK	80.78	28.5	11	58	0						
VLADIVOSTOK	84.44	47.3	11	56	-21						
MATUSIRO	90.49	52.8	12	46	0	23	54	29	29	56	SS
SOUTH POLE	100.43	180.0							25	7	
PALISADES	100.43	315.2				24	49	55	26	45	PS
COLLEGE	104.63	3.4	18	3	254						
SCOTT BASE	107.58	169.8							18	36	PP
CANBERRA	111.63	123.8							17	31	
HUNGRY HORSE	117.00	340.7							19	19	
WICHITA MTS.	120.21	320.7	18	37	4						
BOULDER CITY	127.95	333.9	18	54	6						
TUCSON TELE.	128.93	327.6	18	56	6						

JUNE 4 7.H 33.M 4.S EPICENTRE 34.18 81.93 DEPTH= 11.KM

A= 0.11632 B= 0.82086 C= 0.55915 D= 0.9901 E=-0.1403
G= 0.0785 H= 0.5536 K=-0.8291 HT= 0.4

SE= 2.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LAHORE	6.91	249.8	1	43	-1						2	0	*SP
CHATRA	8.60	147.0	2	4A	-4	3	42	-4			2	12	PP
WARSAK DAM	8.62	271.7	2	9	1								
LHASA	8.96	117.8	2	14K	1	3	56	1					
KHOROG	9.07	294.3	2	11	-3	3	56	-2			2	53	
FRUNSE	10.36	328.6	2	33	1	4	24	-5			4	47	
BOKARO	10.85	160.9	2	35K	-4	4	30	-11			2	50	PPP
SEHORE	11.76	202.5	2	50	-1	4	59	-5			3	0	PP
SHILLONG	12.15	132.3	2	53K	-3	5	6	-7			3	4	PP
TASHKENT	12.29	309.2	2	54	-4	5	17	1			5	46	
CALCUTTA	12.91	152.4	3	2A	-4	5	27	-4					
QUETTA	13.30	256.7	3	7A	-5	5	37	-4			3	24	*SP
TOCKLAI	13.31	120.4	3	8	-4						6	47	
CHITTAGONG	14.63	141.0	3	20	-9	5	57	-15			3	34	PP
KARACHI	15.95	238.2	3	42	-4								
SEMIPALATNSK	16.26	356.1	3	48	-2								
VISHAKHAPTNM	16.43	175.4	4	49	57	7	34	39			5	6	PP
HYDERABAD	16.97	191.5	3	55K	-4	6	53	-14			7	11	SS
BOMBAY	17.25	210.4	3	58	-5	7	3	-10			4	29	PPP
LANCHOW	18.01	77.8	4	12K	0	7	40	9					
CHENGTU	18.96	94.6	4	23K	-1	7	53	1					
ASHKABAD	19.42	288.0	4	25	-4	7	57	-5					
KUNMING	20.18	111.0	4	37K	-1	8	19	0					

MADRAS	21.14	184.7	4	48A	0	8	29	-9		5	9 PP
ULAN-BATOR	23.17	46.2	5	9	1	9	27	12			
KODAIKANAL	24.18	190.8	5	18	0	9	30	-3		5	54 PP
IRKUTSK	24.19	34.8	5	18K	0	9	37	4			
PORT BLAIR	24.47	153.7	5	23	3	9	34	-4			
SHIRAZ	25.33	267.9	5	28A	-1	9	54	2	5 40	5	57 PP
SVERDLOVSK	26.91	333.8	5	44	1						
PEKING	27.81	67.8	5	51K	0	10	32	-1			
MAKHACH-KALA	28.16	298.4	5	54K	-1						
GORIS	28.86	291.1	6	2	1	10	56	6		6	56 PP
CANTON	29.58	103.6	6	6	-1	11	2	1			
TIFLIS	30.06	295.5	6	12K	0					13	14 SSS
HONG KONG	30.64	104.2	6	16	-1	11	14	-4			
NANKING	30.83	83.5	6	17K	-1	11	25	4			
ZO-SE	33.05	84.2	6	38K	0	11	59	3			
MEDAN	34.20	149.2	6	50	2					8	10
CHANGCHUN	34.71	60.8	6	50K	-2	12	22	1			
TAICHUNG	35.10	96.1								15	44
TAINAN	35.23	98.2	6	55	-2						
TAIPEI	35.42	94.2				12	31	-3		19	27
HWALIEN	35.95	95.7	6	56	-7						
HENGCHUN	36.12	99.3	7	8	4						
MOSCOW	37.18	319.2	7	13	0	13	0	1		8	35 PP
SIMFEROPOL	37.90	301.1	7	19K	0	13	13	3		8	45 PP
KSARA	37.93	282.8	7	20K	1	13	8	-3		8	51 PP
VLADIVOSTOK	39.53	61.7	7	32	-1	13	30	-5		9	5 PP
MANILA	40.27	109.1	7	42	3	13	52	6			
YAKUTSK	40.91	32.2	7	46	2					9	24 PP
ISTANBUL KA.	41.89	295.5	7	52K	0	14	15	5		9	30 PP
ISTANBUL UN.	41.96	295.5	7	52A	-1	14	14	3			
PULKOVO	42.03	323.7	7	52	-1	14	11	-1		9	25 PP
FOCSANI	42.75	302.5	8	6	7	14	32	9		17	26 SS
HELWAN	42.77	278.7	8	0	1	14	17	-6			
BUCHAREST	43.64	300.8	8	6	0	14	40	4		9	49 PP
ABUYAMA	43.75	73.3	8	6K	-1						
CAMPULUNG	44.31	302.1	8	13	1					9	57 PP
KAJAANI	44.33	329.3	8	11K	-1					9	57 PCP
LWOW	44.66	308.7	8	16	1	14	55	5		10	4 PP
TIKSI	44.78	19.2	8	10	-6					11	10 PPP
NURMIJARVI	44.95	323.9	8	15K	-2	14	54	-1		9	59 PCP
MATUSIRO	45.40	70.2	8	19K	-2	15	2	1		9	59 PP
SODANKYLA	45.72	333.6	8	22K	-1					9	59 PCP
SOFIA	45.88	298.8	8	25	1	15	16	8			
WARSAW	46.47	312.1	8	29K	0	14	52	-24		10	19 PP
DJAKARTA	46.53	144.8	8	28	-2	15	18	1			
ATHENS	46.55	292.3	8	28K	-2	15	21	3		19	20 SS
Y.-SAKHLINSK	46.79	55.0	8	31	-1	16	23	62		10	22 PP
TIMISOARA	46.91	303.2	8	33	0	15	26	3			
TUKUBASAN	46.95	70.1	8	30K	-3	15	16	-7	8 35	11	9 PPP
MIZUSAWA	47.03	65.9	8	33	0	15	28	4			
KRAKOW	47.29	309.2	8	35	-1	15	30	2		10	27 PP
SKOPJE	47.39	298.1	8	33	-3						
KHEYS	47.47	354.8	8	36	-1	15	33	2		10	25 PP
LEMBANG	47.48	144.3	8	33	-4	15	23	-8			
UMEA	47.51	328.0	8	35K	-2					10	4 PCP
BELGRADE	47.59	302.1	8	38K	0					10	28 PP
CHORZOW	47.87	309.6	8	39	-1					10	22 PCP
KIRUNA	48.13	333.4	8	41K	-1					10	33 PP
BUDAPEST	48.17	305.9	8	42	0					10	35 PPP
UPPSALA	48.38	322.5	8	42K	-2	15	44	1		10	35 PP
RACIBORZ	48.39	309.4	8	45K	1					10	32 PP
HURBANOVO	48.67	306.5	8	48	2	16	8	21		10	40
TITOGRAD	48.88	299.2	8	47	-1					10	44 PP
TROMSOE	49.04	335.6	8	47	-2						
BRATISLAVA	49.35	307.0	8	51A	-1					10	44 PP
VIENNA-H.	49.82	307.2	8	54K	-1	15	53	-11		10	49 PP
ZAGREB	50.51	304.2	8	56	-4						
MAGADAN	50.70	37.9	9	0	-2	16	15	-1			
PRUHONICE	50.74	309.7	9	2K	0	16	17	1		10	57 PP
PRAGUE	50.80	309.8	9	1	-2	16	17	0		10	56 PP
TARANTO	50.81	297.1	9	6	3					19	12
SKALSTUGAN	51.02	327.3	9	2K	-2						
COPENHAGEN	51.29	317.2	9	6K	0	16	27	3		11	5 PP
GOTEBORG	51.37	319.8	9	4K	-3					10	24 PCP
LJUBLJANA	51.46	304.7	9	7K	-1	16	30	4		11	6 PP
KASPERSKE H.	51.50	308.7	9	7K	-1					11	4 PP
COLLMBERG	51.52	311.5	9	7K	-1	16	32	5		11	5 PP
TRIESTE	52.07	304.4	9	11	-1	16	38	3		11	11 PP

CHEB	52.10	310.1	9	7	-5					10	53 PP
JENA	52.46	311.3	9	15	0	16	41	1		11	11 PP
MESSINA	52.70	294.8	9	14K	-3	16	51	8		11	16 PP
ROME	53.90	300.1	9	24K	-2	16	58	-1		11	28 PP
FLORENCE X.	54.26	302.6	9	25K	-3	17	8	4			
STUTTGART	54.35	309.0	9	29K	0	17	6	0		22	56 SSS
RAVENSBURG	54.36	307.7	9	27	-2						
TUBINGEN	54.54	308.8	9	29K	-2						
CHUR	54.64	306.7	9	29	-2	17	9	0		20	9
EBINGEN	54.69	308.4	9	30K	-2						
MUNSTER	54.69	313.1	9	28	-4					20	8
KARLSRUHE	54.85	309.4	9	33	0	17	21	9			
WITTEVEEN	55.08	314.3	9	33K	-2						
BENSBERG	55.19	312.0	9	34K	-1	17	20	3	9 44	11	38 PP
STRASBOURG	55.37	309.1	9	35K	-2	17	22	3		11	43 PP
BASLE	55.76	307.9	9	37K	-2					17	51
PETROPAVLOVK	55.90	45.2	9	36	-4	17	21	-5		11	45 PP
DE BILT	56.13	313.7	9	43K	1	17	32	3		17	52 PS
NEUCHATEL	56.31	307.4	9	41	-2						
BESANCON	56.88	307.9	9	45K	-2						
MONACO	56.93	303.5	9	46	-2	17	42	2			
ISOLA	57.05	304.1	9	47	-2	18	3	21			
NORD	57.67	350.1	9	51K	-2					13	12 PPP
PARIS	58.67	310.5	9	58	-2					12	12 PP
GARCHY	58.77	308.6	9	58	-3					12	8 PP
CLERMONT-FD.	59.21	306.9	10	3K	-1						
DURHAM	59.34	318.0	10	5A	0	18	33	22		12	23 PP
KEW	59.59	314.1	10	5K	-1	18	14	-1		12	14 PP
FOLINIERE	60.55	311.1	10	11	-2						
JERSEY	61.41	312.0				19	28	50			
LWIRO	61.63	245.3	10	19	-1					29	54
TANANARIVE	62.13	217.2	10	22K	-2						
SCORESBY SD.	62.63	338.4	10	26K	-1	19	20	27		12	45 PP
TORTOSA	62.75	302.4	10	26	-2	18	24	-31			
SIDA	64.09	330.9	10	36K	-1						
ALICANTE	64.43	300.2	10	38	-1	19	13	-3		13	1 PP
REYKJAVIK	65.45	332.1	10	48A	3						
TOLEDO	66.31	303.0	10	50K	-1	19	40	1	11 7	13	2 PP
ALMERIA	66.50	299.5	10	50K	-2	19	44	3	11 9	13	15 PP
GRANADA	67.17	300.2	10	55A	-1	19	54	5		13	30 PP
SERRA PILAR	68.87	305.9	11	5A	-2					13	42 PP
COIMBRA	69.18	305.0	11	8K	-1					13	39 PP
BROKEN HILL	70.15	235.8	11	13K	-2						
RESOLUTE	71.40	359.1	11	20K	-2	20	40	1		14	1 PP
COLLEGE	73.93	19.8	11	35	-2	21	1	-7		12	35
BULAWAYO	74.10	231.6	11	36K	-2						
PORT MORESBY	75.39	112.2	11	45	-1	21	25	1			
RABAUL	76.18	104.9	11	49	-1						
LUANDA	77.75	250.4	11	59A	0					15	1 PP
PRETORIA	78.44	227.9	12	5	2						
LOME	78.92	269.9	12	4	-1						
CHARTERS TS.	81.57	121.1	12	18K	-1	22	23	-7			
KIMBERLEY	82.69	228.1	12	23	-2						
WINDHOEK	83.54	237.3	12	29	-1						
SITKA	83.82	19.4	12	30	-1						
KERGUELEN I.	83.82	187.8	12	38	7	22	59	6			
GRAHAMSTOWN	84.90	223.8	12	37	1						
ADELAIDE	86.91	136.5	12	45K	-1						
BRISBANE	90.80	122.9	13	5	0	23	36	-23			
CANBERRA	93.30	131.0	13	14	-2						
BANFF	93.64	10.9	13	16	-2						
RIVERVIEW	93.72	128.7	13	13	-5					17	0 PP
VICTORIA	94.61	16.6	13	22	0						
HALIFAX	95.55	336.0	13	27A	0						
SHAWINIGAN	96.47	342.7	13	30K	-1						
HUNGRY HORSE	96.61	10.6	13	30	-1	24	12	5		17	24 PP
PORT VILA	96.86	106.7	13	53K	20						
OTTAWA	98.25	344.3	13	38	-1						
CORVALLIS	98.33	17.9	17	39	240						
BUTTE	99.11	10.2	13	42	-1						
BOZEMAN	99.66	9.2	13	44	-1					17	49 PP
WESTON	99.97	340.2	13	46	-1	24	30	6		17	50 PP
PALISADES	101.95	341.5	13	53	-3	24	35	1		18	5 PP
RAPID CITY	101.98	3.8	13	56	0						
SHASTA	102.19	18.7	18	4	247						
MAWSON	102.48	187.4	13	56	-2					18	6 PP
PENNSYLVANIA	103.11	344.4	14	0	-1	25	45	66		18	17 PP
RENO	103.94	17.2	18	6	242						
FLAMING GRGE	104.54	8.8	11	43	-144					11	58

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EUREKA	104.86	14.3	14	9	1				19	15	
BERKELEY	104.87	19.6	18	29	261				27	43	
LICK	105.54	19.3	18	27K	777						
PASADENA	109.46	17.6	14	29	777				19	3	PP
FAYETTEVILLE	110.00	356.7	14	32	-240				19	2	PP
WICHITA MTS.	111.46	0.5	18	33	-1	25	9	-6	19	1	PP
TUCSON	112.84	11.7	18	41	4						
SAN JUAN	119.53	324.7	20	7	77						
CAPE HALLETT	121.65	159.0	18	53	-1						
SCOTT BASE	122.05	165.6	18	54	-1	25	49	-5	20	27	PP
TRINIDAD	123.44	315.3	19	0	2						
SOUTH POLE	124.00	180.0	18	58	-1				20	40	PP
CARACAS	126.63	320.7	19	15	11				21	9	PP
BYRD STATION	133.25	175.0	18	55	-22				21	43	SKP
FUQUENE	134.35	325.0	19	19	0				21	52	PP
BOGOTA	135.26	324.8	19	24	4				22	55	SKP
CHINCHINA	135.67	327.0	19	21	0				21	58	PP
ARGENTINE I.	142.87	202.8	19	30	-4						
LA PAZ	147.89	295.7	19	44	2				20	44	
HUANCAYO	149.77	311.3	19	49	4						

JUNE 4 7.H 43.M 40.S EPICENTRE 34.16 82.13 DEPTH= 0.KM

A= 0.11359 B= 0.82138 C= 0.55895 D= 0.9906 E=-0.1370
G= 0.0766 H= 0.5537 K=-0.8292 HT= 0.4

SE= 2.21

	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	
LAHORE	7.06	250.5	1	47	0								
CHATRA	8.50	147.9	2	11	4	3	48	3					
SHILLONG	12.03	132.8	2	50	-6								
QUETTA	13.45	257.0	3	12	-3								
SHIRAZ	25.49	268.0	4	33	-59								
KSARA	38.09	282.9	7	29	7								
JERUSALEM	39.16	280.0	7	36	5								
ISTANBUL UN.	42.11	295.5	7	56	0								
KAJAANI	44.43	329.3	8	15	1								
NURMIJARVI	45.06	323.9	8	20A	0						10	2	PCP
MATUSIRO	45.25	70.2	8	22K	1								
SODANKYLA	45.80	333.6	8	26	1						10	3	PCP
UMEA	47.60	328.0	8	39	-1								
KIRUNA	48.21	333.4	8	44K	0								
UPPSALA	48.49	322.5	8	46K	-1								
BRATISLAVA	49.49	307.0	8	54	0								
PRUHONICE	50.87	309.7	9	5K	0								
SKALSTUGAN	51.12	327.4	9	6	-1								
COPENHAGEN	51.41	317.2	9	10A	1								
GOTEBORG	51.48	319.8	9	9K	0								
LJUBLJANA	51.60	304.8	9	11K	1								
KASPERSKE H.	51.64	308.8	9	11K	0						11	9	PP
COLLMBERG	51.64	311.6	9	10K	-1						11	12	PP
TRIESTE	52.21	304.4	9	17	2								
HALLE	52.26	312.0	9	15	0								
JENA	52.59	311.3	9	16	-2						9	52	
FLORENCE X.	54.40	302.7	9	26	-5								
STUTTGART	54.48	309.0	9	32	0								
BENSBERG	55.31	312.0	9	38	0				9	47			
STRASBOURG	55.50	309.1	9	39	0								
BESANCON	57.01	307.9	9	46	-4								
ISOLA	57.19	304.2	9	51	0								
NORD	57.71	350.1	9	54K	-1								
GARCHY	58.90	308.7	10	2	-1						10	13	PP
DURHAM	59.45	318.0	10	10K	3								
KEW	59.72	314.1	10	9	0								
FOLINIERE	60.68	311.2	10	14	-1								
TANANARIVE	62.21	217.4	10	26A	0								
SCORESBY SD.	62.70	338.5	10	30K	1								
SIDA	64.17	330.9	10	40A	1								
REYKJAVIK	65.54	332.1	10	48A	0								
BROKEN HILL	70.28	236.0	11	17K	0								
RESOLUTE	71.42	359.2	11	23	-1								
COLLEGE	73.88	19.9	11	39	0								
BULAWAYO	74.22	231.7	11	40K	-1								

CHARTERS TS.	81.42	121.2	12 21	1					12 43	
KIMBERLEY	82.80	228.2	12 26	-2						
WINDHOEK	83.67	237.5	12 38	6						
ADELAIDE	86.79	136.6	12 49A	1					12 53	PCP
MBOUR	89.38	286.9	13 11	11					14 14	
CANBERRA	93.17	131.1	13 19	2						
SHAWINIGAN	96.53	342.9	13 34	1						
EUREKA	104.84	14.4	17 24	194						
BOULDER CITY	108.44	14.4	18 12	777					19 0	
TUCSON TELE.	112.75	11.8	18 54	15						
CAPE HALLETT	121.58	159.0	18 19	-37					19 45	PP
SOUTH POLE	123.98	180.0	19 11	10	26	5	2			
CARACAS	126.74	320.9	19 3	-3					20 36	PP
BYRD STATION	133.22	174.9	19 19	1						
LA PAZ	148.04	295.9	19 48	4						
HUANCAYO	149.90	311.6	19 56	9						

JUNE 4 13.H 51.M 33.S EPICENTRE 34.23 81.88 DEPTH= 40.KM
A= 0.11697 B= 0.82027 C= 0.55989 D= 0.9900 E=-0.1412
G= 0.0790 H= 0.5543 K=-0.8286 HT= 0.4

DEPTH OF FOCUS= 0.001R

SE= 2.82

	DELTA DEG.	AZ. DEG.	P M	P S	D-C S	S M	S S	D-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LAHORE	6.89	249.3	1	42	1								
WARSAK DAM	8.57	271.4	2	5	0								
CHATRA	8.67	146.9	2	3	-3	3	42	-1					
LHASA	9.02	118.0	2	11	0	3	55	3					
ALMATA	9.81	338.4	2	22	0								
FRUNSE	10.30	328.6	2	29	1								
BOKARO	10.91	160.7				4	27	-12			5	45	
SHILLONG	12.22	132.3	2	46	-8								
TASHKENT	12.22	309.1	2	54	0	5	5	-5					
QUETTA	13.27	256.4	3	4	-4								
TOCKLAI	13.37	120.4	3	2	-8								
SEMIPALATNSK	16.21	356.2	3	44	-2								
VISHAKHAPTNM	16.49	175.2									7	48	
BOMBAY	17.27	210.2	4	1	1						7	2	
LANCHOW	18.04	78.0	4	10	1	7	32	6					
CHENGTU	19.00	94.7	4	20	-1	7	55	7					
KUNMING	20.24	111.1	4	32	-3	8	18	4					
MADRAS	21.19	184.6				8	32	-2			5	5	
SIAN	22.33	82.3	4	55	-1								
ULAN-BATOR	23.17	46.3	5	5	1								
IRKUTSK	24.17	34.9	5	14	0								
TEHERAN	24.99	282.2	5	24	2	9	56	16					
SHIRAZ	25.29	267.7	5	24	0				5	46	5	55	*SP
SVERDLOVSK	26.85	333.8	5	52	13								
PEKING	27.83	67.9	5	48	0								
MAKHACH-KALA	28.10	298.3	5	49	-1								
TIFLIS	30.00	295.5	6	10	3								
ZO-SE	33.09	84.3	6	35	1								
MOSCOW	37.12	319.1	7	10	1								
SIMFEROPOL	37.84	301.0	7	15	0								
KSARA	37.88	282.7	7	20	5								
YAKUTSK	40.88	32.3	7	42	2								
PULKOVO	41.97	323.6	7	49	0								
KAJAANI	44.27	329.3	8	11	3								
TIKSI	44.75	19.2	8	12A	1								
NURMIJARVI	44.89	323.9	8	12	-1						9	55	PCP
MATUSIRO	45.42	70.2	8	15K	-2						9	56	
SODANKYLA	45.65	333.6	8	20	1						9	57	PCP
KRAKOW	47.22	309.2	8	31	0								
KHEYS	47.42	354.8	8	32	-1								
UMEA	47.44	328.0	8	34	1						10	5	PCP
KIRUNA	48.07	333.4	8	37	-1								
UPPSALA	48.32	322.5	8	39A	-1						10	7	PCP
TROMSOE	48.98	335.6	8	43	-2								
PRUHONICE	50.68	309.6	8	58K	0						10	15	
SKALSTUGAN	50.96	327.3	8	59	-1								
COPENHAGEN	51.22	317.1	9	1	-1						20	51	
GOTEBORG	51.30	319.8	9	2	0								
LJUBLJANA	51.40	304.7	9	3K	0								

KASPERSKE H.	51.44	308.7	9	4K	1			
						11	1	PP
COLLMBERG	51.45	311.5	9	15	12	11	5	PP
TRIESTE	52.01	304.3	9	7	-1			
HALLE	52.07	311.9	9	8	0	11	14	PP
JENA	52.39	311.2	9	10	-1	20	47	SS
FLORENCE X.	54.20	302.6	9	14	-10			
STUTTGART	54.29	309.0	9	24	-1			
BENSBERG	55.12	312.0	9	31	0			
STRASBOURG	55.30	309.0	9	32	0			
ISOLA	56.99	304.1	9	43	-1			
NORD	57.61	350.1	9	48K	0			
PARIS	58.61	310.4	9	55	0			
GARCHY	58.70	308.6	9	49	-7			
DURHAM	59.27	318.0	10	3K	3			
KEW	59.53	314.0	10	2	0			
FOLINIERE	60.48	311.1	10	9	1			
SCORESBY SD.	62.57	338.4	10	22	0			
BANGUI	65.53	258.1	10	40	-2			
DARWIN	65.64	126.0	10	43	1	14	16	
BROKEN HILL	70.15	235.8	11	11	1			
RESOLUTE	71.35	359.1	11	16	-2			
COLLEGE	73.89	19.8	11	32	-1	14	13	PP
BULAWAYO	74.10	231.5	11	33	-1			
KIMBERLEY	82.69	228.0	12	21	0			
BRISBANE	90.86	122.8	11	25	-96			
EUREKA	104.82	14.2	18	15	251			
CHINA LAKE	107.98	16.6	18	3	777			
TUCSON	112.80	11.7	18	17	-16			
SCOTT BASE	122.11	165.6	19	20	29			
SOUTH POLE	124.05	180.0	18	55	1			
BYRD STATION	133.30	175.0	19	14	2			

JUNE 5 3.H 31.M 0.S EPICENTRE 27.88 54.79 DEPTH= 57.KM

A= 0.51032 B= 0.72329 C= 0.46521 D= 0.8171 E=-0.5765
G= 0.2682 H= 0.3801 K=-0.8852 HT= 2.5

DEPTH OF FOCUS= 0.004R

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SHIRAZ	2.88	307.9	0	37	-8	1	27	9			0	55	PG
TEHERAN	8.35	340.6	2	1	0	4	5	30					
QUETTA	10.88	75.0	2	34	-2	4	34	-3					
TIFLIS	16.04	332.0	3	43	-1								
MAKHACH-KALA	16.17	340.5	4	7	22								
KSARA	17.28	294.7	3	57	-2	7	12	5					
LAHORE	17.36	73.1	3	58	-2	7	10	1					
JERUSALEM	17.42	287.6	4	2	1								
TASHKENT	17.91	37.8	4	7	0								
ANDIJAN	19.33	43.9	4	24	1	7	57	4					
POONA	19.81	114.0	4	29K	0								
SOTCHI	19.83	326.1	4	28	-1								
HELWAN	20.64	281.1	4	33	-4	8	24	4					
FRUNSE	21.92	41.9	4	51	1								
ALMATA	23.57	43.5	5	9	3								
SIMFEROPOL	23.70	321.4	5	4	-4								
ISTANBUL UN.	24.89	308.5	5	20	1	9	57	21					
KISHINEV	27.90	320.2	6	31	44								
CHATRA	28.73	84.5	5	45	-9								
SVERDLOVSK	29.23	6.6	5	57	-2								
LWOW	32.10	321.4									7	49	PP
KRAKOW	34.53	319.4	6	43	-2						7	18	
LJUBLJANA	36.47	310.8	7	0	-2						8	16	
TRIESTE	36.88	309.9	7	4	-1								
ROME	37.04	303.5									16	10	
PRUHONICE	37.68	317.0	7	10	-2						8	36	
FLORENCE X.	38.23	306.3	7	15	-1								
NURMIJARVI	38.46	336.5	7	16	-2	13	6	-3					
COLLMBERG	39.07	318.4	7	22	-1						8	50	PP
HALLE	39.75	318.3	7	32	3						8	43	PP
JENA	39.78	317.4				13	27	-2			16	24	
KAJAANI	40.16	341.9	7	32	0								
STUTTGART	40.60	313.5	7	34	-2								

UPPSALA	40.74	332.1	7 34	-3						
COPENHAGEN	41.06	324.5	7 41A	1	13 50	2				
STRASBOURG	41.54	312.9	7 40	-4						
LANCHOW	42.02	66.1	7 43	-5						
GOTEBORG	42.17	327.1	7 47	-2						
UMEA	42.24	338.0	7 49	0					9 28	PP
MUNSTER	42.46	317.8	7 51	0						
BENSBERG	42.47	316.2	7 52	1					8 17	
KUNMING	42.78	82.3	7 54	0						
SODANKYLA	43.03	344.5	7 55	-1					9 44	PP
GARCHY	44.43	310.2	8 7	0						
ULAN-BATOR	44.77	48.9	8 11	1						
SKALSTUGAN	44.93	334.7	8 11	0						
KIRUNA	44.95	342.3	8 3	-8					18 7	SCS
PARIS	45.02	312.3	8 9	-3						
TROMSOE	46.61	343.6	8 22	-2						
FOLINIERE	46.96	311.9	8 24	-3						
DURHAM	48.46	319.9	8 45	6						
BROKEN HILL	49.21	214.6	8 44	-1						
PEKING	51.42	59.6	9 0	-2						
KHEYS	52.85	0.7	9 14	2						
BULAWAYO	54.05	210.8	9 22	1						
NANKING	54.87	68.9	9 26	-1						
ZO-SE	57.09	69.4	9 42	-1						
TIKSI	58.79	20.9	9 54	-1						
SCORESBY SD.	59.58	337.7	10 0	0						
MATUSIRO	69.05	58.9	11 1	-1					12 6	
RESOLUTE	75.80	352.0	11 41	-1						
COLLEGE	85.89	9.5	12 34	-1						
MAWSON	95.38	176.9	13 19	0						
EUREKA	112.43	352.3	18 59	29						
SOUTH POLE	117.72	180.0	18 44	4						
BYRD STATION	127.72	181.3	19 1	2						

JUNE 7 14.H 15.M 22.S EPICENTRE -5.39 -11.53 DEPTH= 33.KM

A= 0.97553 B=-0.19908 C=-0.09333 D=-0.2000 E=-0.9798
G=-0.0914 H= 0.0187 K=-0.9956 HT= 7.0

DEPTH OF FOCUS= 0.000R

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
MBOUR	20.37	344.7	4 37	0	8 35	17		
BANGUI	31.64	72.7	6 23	0				8 1
LWIRO	40.36	87.1	7 38	1	13 55	13		
BROKEN HILL	40.36	105.9	7 34	-3				
HERMANUS	40.56	139.4			14 4	19		13 57 PCS
KIMBERLEY	41.49	128.3	7 45	-1				
BULAWAYO	41.66	114.3	7 46K	-1				
ALMERIA	42.87	10.7	7 58A	1	14 26	7		9 36 PP
GRANADA	42.99	9.3	8 4K	6	14 45	24		9 43 PP
LISBON	43.94	2.7	8 8A	2	14 46	11	8 14	9 53 PP
ALICANTE	44.71	12.4	8 16	4	14 55	9		10 2 PP
COIMBRA	45.45	3.3	8 20A	2	15 3	6		10 4 PP
TOLEDO	45.57	8.1	8 21A	2	15 12	14		10 6 PP
TORTOSA	47.29	12.4	8 36	3	15 29	6		
CUGLIERI	48.98	20.4						10 58 PP
REGGIO CALA.	50.10	28.0	8 55	1				
MESSINA	50.14	27.9	8 57A	2				13 24
MONACO	51.81	17.4	9 8	1	16 39	13		
ROME	51.91	22.7	9 10A	2	16 28	1		11 6 PP
ISOLA	52.11	16.9	9 12	3				11 5 PP
CLERMONT-FD.	52.59	12.9	9 14A	1	15 46	-50		
ST. VINCENT	52.72	290.9	9 16	2				
TARANTO	52.74	27.5	9 13	-1				18 13
FLORENCE X.	53.09	20.5	9 16	-1	16 54	11		
PRATO	53.13	20.4	9 18	1	16 50	6		
PAVIA	53.65	18.1	9 27	6				16 49
GARCHY	54.01	12.3	9 25	1				11 24 PP
HELWAN	54.01	46.9	9 25A	1	17 2	6		
ATHENS	54.17	34.2	9 26K	1	17 6	8		
ANTIGUA	54.50	295.4	9 27	0				
BESANCON	54.65	14.6	9 29	1				

NEUCHATEL	54.67	15.4	9	29A	1					
PADOVA	54.73	20.0	9	28	-1	17	18	13	13 0	PPP
FOLINIERE	54.79	8.9	9	29	0					
JERSEY	54.96	7.5							11 21	PP
TITOGRAD	55.22	27.5	9	31	-1	17	25	13	11 42	PP
BASLE	55.33	15.7	9	35	2	17	14	1		
PARIS	55.35	11.2	9	34	1	17	11	-3	11 34	PP
TRIESTE	55.60	21.3	9	37A	2	17	25	8	12 49	PP
RAVENSBURG	56.13	17.0	9	40	1					
LJUBLJANA	56.22	21.6	9	41	1				11 49	PP
EBINGEN	56.30	16.4	9	40	0					
STRASBOURG	56.34	15.3	9	40	-1	17	34	7	17 5	PP
LA PAZ	56.48	253.9	9	50	8	17	41	12		
TUBINGEN	56.65	16.3	9	44	1					
KARLSRUHE	56.91	15.6	9	40	-5	17	35	1		
STUTTGART	56.92	16.3	9	44	-1	17	43	8	21 19	SS
HEIDELBERG	57.35	15.6	9	46	-2					
CARACAS	57.37	286.0	9	47	-1	17	46	6		
SOFIA	57.37	30.0	9	49	1	17	49	9		
KEW	57.45	8.3	9	49A	1	17	49	8		
BELGRADE	57.62	26.5	9	52A	2	17	52	8	12 6	PP
JERUSALEM	57.86	47.1	9	54A	3	18	6	19		
BENSBERG	58.39	13.8	9	56A	1					
KASPERSKE H.	58.55	19.1	9	56K	0				12 5	PP
TIMISOARA	58.69	26.3	10	1	4					
VIENNA-H.	58.76	21.5	9	59A	1	17	40	-19	12 4	PP
SAN JUAN	58.76	295.2	9	58	0					
BRATISLAVA	58.96	22.0	9	58	-1	18	7	6	10 34	PCP
DE BILT	59.02	11.9	10	1	2	18	14	12		
HURBANOVO	59.13	22.9	10	2	2					
ISTANBUL UN.	59.24	34.9	10	1K	0					
ISTANBUL KA.	59.31	34.9	10	1A	0	18	13	7	12 14	PP
KSARA	59.39	45.4	10	3A	1	18	11	4	12 18	PP
MUNSTER	59.43	13.6	10	3	1				11 18	
JENA	59.52	16.8	10	2	-1	18	14	5	12 14	PP
PRUHONICE	59.60	19.2	10	4K	1	18	17	7	12 15	PP
AREQUIPA	59.70	254.2	10	5	1					
BUCHAREST	60.01	30.3	10	17A	11	18	22	7	12 34	PP
WITTEVEEN	60.01	12.6	10	6	0					
CAMPULUNG	60.09	29.0	10	8	1					
COLLMBERG	60.26	17.5	10	8A	0	18	20	2	12 20	PP
DURHAM	60.52	6.6	10	9K	-1	18	36	15	12 28	PP
RACIBORZ	60.95	21.4	10	12	-1				12 28	PP
SANTA LUCIA	61.40	234.8	10	16	0	18	44	11		
CHORZOW	61.41	21.8	10	14	-2				11 1	PCP
KRAKOW	61.57	22.5	10	17	0				12 35	PP
IASI	62.70	28.9	10	22	-2				12 50	PP
ABERDEEN	62.82	5.8	10	23	-2	18	57	7	13 43	
LWOW	63.03	25.0	10	27	0	19	0	7	12 43	PP
FUQUENE	63.03	278.9	10	28A	1					
BOGOTA	63.24	277.9	10	31	3	19	6	10		
HUANCAYO	63.29	259.3	10	29	1					
WARSAW	63.73	21.7	10	31	0	19	6	4	12 58	PP
COPENHAGEN	64.00	14.8	10	33A	0	19	13	8	12 53	PP
SIMFEROPOL	64.63	34.2	10	37K	0	19	20	7	19 30	PS
CHINCHINA	64.82	278.0	10	31A	-7	19	18	3		
GOTEBORG	65.70	13.6	10	44	0				39 25	PKPPKP
HALIFAX	68.17	322.6	11	0A	1					
UPPSALA	69.00	15.3	11	4K	-1	20	8	2	39 15	PKPPKP
BALBOA HTS.	69.29	281.6	11	8	2					
TIFLIS	69.43	41.7	11	10	3				20 22	PS
SHIRAZ	70.53	56.1	11	15K	1	20	38	14	15 32	PKS
SKALSTUGAN	71.09	11.0	11	18	1					
NURMIJARVI	71.55	17.9	11	18	-2				14 0	PP
WESTON	72.03	317.7	11	24A	1	20	50	9	11 30	13 58 PP
PULKOVO	72.86	20.7				20	47	-3		14 12 PP
UMEA	73.03	14.1	11	29K	0					
MOSCOW	73.06	26.6	11	31	2	20	57	4		14 7 PP
PALISADES	73.24	315.6	11	31	1	21	2	7		11 42 PCP
WASHINGTON	74.73	312.6	11	37	-2					
SHAWINIGAN	74.74	321.2	11	40	1					
BREBEUF	74.84	319.9	11	40	1					
PENNSYLVANIA	75.96	314.2	11	46	0	21	31	6		
SCORESBY SD.	76.04	356.4	11	48A	2	21	36	10		11 54 PCP
OTTAWA	76.16	319.2	11	47	0					
COLUMBIA	76.24	306.8	11	50	3					
KIRUNA	76.45	11.9	11	50K	1	21	39	9		
SODANKYLA	77.47	14.2	11	54	0					
ASHKABAD	77.67	49.5	12	0	5	21	52	8		15 8 PP

TROMSOE	77.70	10.5	11	56	0							
CLEVELAND	78.79	314.0	12	0A	-2	22	0	4				
MAWSON	79.12	157.9	12	4A	1				12	10	15	7 PP
QUETTA	82.79	58.8	12	25	2	22	48	11			12	47
SOUTH POLE	84.65	180.0	12	32	0						13	51
SVERDLOVSK	84.86	31.7	12	34	1	23	3	5			15	51 PP
BOMBAY	86.41	70.7									23	16
TASHKENT	86.66	48.1	12	44	2	23	25	10			16	12 PP
NORD	86.93	359.2	12	44A	1							
FAYETTEVILLE	87.23	306.5	12	45	0	23	24	4				
MARSAK DAM	87.27	55.7	12	46	1							
POONA	87.33	71.2	12	47A	2							
KHOROG	87.76	52.2	12	48	1							
BYRD STATION	87.81	189.6	12	50	3						16	5 PP
LAHORE	89.27	58.4	12	56	2							
KODAIKANAL	89.97	79.8									23	39
WICHITA MTS.	90.62	304.6	13	1	0						16	36 PP
FRUNSE	90.81	47.2	13	4	2							
MIRNY	90.83	157.2	13	3	1							
DEHRA DUN	92.33	59.9	13	12	3						24	16
MADRAS	92.86	77.3									23	51
RESOLUTE	93.40	344.7	13	15	1							
SEMIPALATNSK	95.25	40.0	13	22	0						17	12 PP
SCOTT BASE	96.87	179.6	13	32	3							
TUCSON	100.71	301.7	17	54	247							
CAPE HALLETT	102.44	180.5									33	0 SS
SHILLONG	104.39	65.1	18	14	251							
EUREKA	104.55	309.3	18	23	259							
PASADENA	106.77	303.9									27	3 PP
ULAN-BATOR	112.83	39.9									18	50 PP
COLLEGE	113.06	341.3	20	18	104							
LANCHOW	113.60	53.0	18	38	3							
KUNMING	114.23	65.0	18	56	19							
YAKUTSK	116.65	19.3	18	52	11							
SIAN	118.05	54.0	18	49	5							
PEKING	121.83	45.6	18	54	3							
HONG KONG	124.98	66.6									20	50 PP
CHANGCHUN	126.16	37.8	19	1	1							
NANKING	126.60	53.8	19	4	3							
ZO-SE	128.85	54.0	19	8	3							
VLADIVOSTOK	130.47	35.0	19	10	2							
PETROPAVLOVK	131.84	7.9	19	13	2						22	41
MANILA	132.52	75.1	19	59	47							
Y.-SAKHLINSK	132.97	24.0									21	28 PP
CANBERRA	135.56	157.1	19	24	7							
RIVERVIEW	137.69	158.4	19	26A	5						20	40
MATUSIRO	138.41	37.7	19	15	-8						22	11 PP
TUKUBASAN	139.76	36.5	19	25K	0						22	26 PP
BRISBANE	144.06	155.8	19	34	1						29	46
CHARTERS TS.	146.57	139.9	19	40	3						23	47
AFIAMALU	152.58	225.4	20	1	15							
PORT MORESBY	154.17	124.6	19	51	2						22	15
RABAUL	161.14	120.0	19	53	-4							

JUNE 8 15.H 44.M 23.S EPICENTRE -8.25 122.18 DEPTH= 201.KM

A=-0.52713 B= 0.83776 C=-0.14248 D= 0.8464 E= 0.5326
G= 0.0759 H=-0.1206 K=-0.9898 HT= 6.7

DEPTH OF FOCUS= 0.027R

SE= 1.98

	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
DARWIN	9.45	116.5	1	59	-14	3	40	-17				
LEMBANG	14.50	274.6	3	4	-13	6	4	11				
DJAKARTA	15.36	276.7	3	31	3						5	38
MANILA	22.79	357.3	4	49	3	8	59	22				
MUNDARING	24.25	192.4	4	55K	-5	9	11	10				
PORT MORESBY	24.70	94.6	5	2	-2	9	35	26	5	16	5	25 *SP
CHARTERS TS.	26.10	119.4	5	15	-2	9	53	21				
ADELAIDE	30.62	152.7	5	55K	-3	10	57	13			12	43 SS
HONG KONG	31.35	345.6	6	0	-4	11	10	15				
CANTON	32.32	344.7	6	13	1							
BRISBANE	34.64	127.2	6	34	2	12	3	17				

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MELBOURNE	35.95	148.5	6	43	0	12	23	17			8	19 PP
CANBERRA	36.45	141.6	6	47K	0	12	29	15			8	19 PP
RIVERVIEW	36.89	137.8	6	51A	0	12	40	20	7	0	8	26
HONIARA	37.33	94.7	6	54	-1							
KUNMING	38.19	330.8	7	3	1	12	56	16				
ZO-SE	39.13	358.6	7	10A	0	13	11	17				
TARRALEAH	40.10	151.7	7	17	-1							
NANKING	40.21	355.5	7	19A	0	13	25	15				
MOORLANDS	40.57	151.2	7	22	1						9	0 PP
FORT NELSON	41.01	151.6	7	29	4							
CHENGTU	42.43	336.5	7	36	-1	13	56	13				
KOUMAC	42.45	111.4	7	36	-1						8	48
SIAN	44.09	344.2	7	50A	0	14	20	13				
SHILLONG	44.71	319.6	7	52K	-3							
NOUMEA	44.76	113.3	7	55	0							
PORT VILA	45.83	106.6	8	4	0							
MATUSIRO	47.02	17.7	8	12A	-1	15	5	17			18	44
LANCHOW	47.32	339.7	8	19A	4	15	12	20				
LHASA	48.13	322.8	8	20A	-2	15	18	14				
KODAIKANAL	48.14	291.6									27	14
PEKING	48.35	353.8	8	22A	-1	15	22	15				
CHATRA	48.66	316.9	8	24	-2							
CHANGCHUN	51.91	2.9	8	48	-2							
MACQUARIE I.	54.68	154.7	9	10	0							
COBB RIVER	55.34	134.8	9	16	1							
GEBBIES PASS	56.29	137.7	9	27	5							
KARAPIRO	56.34	130.3	9	23	1							
WELLINGTON	56.85	134.4	9	25	-1							
DEHRA DUN	57.13	314.2									12	40
ULAN-BATOR	57.53	347.9	9	30	-1						11	41 PP
Y.-SAKHLINSK	57.98	16.4	9	33	-1							
KERGUELEN I.	59.65	216.7				18	17	39				
UGLEGORSK	59.69	15.0	9	46K	0							
MIRNY	61.55	192.8	9	55	-3							
IRKUTSK	62.19	347.7	10	1A	-1							
AFIAMALU	64.89	101.5	10	22	2							
ALMATA	65.68	325.3	10	27	2							
ANDIJAN	66.88	320.9	10	29	-4							
PETROPAVLOVK	68.45	22.7	10	43	1							
SEMIPALATNSK	68.79	332.7	10	42	-2							
TASHKENT	69.14	320.0	10	45	-2							
YAKUTSK	70.28	3.7	10	54	1							
MAWSON	71.02	200.4	10	57A	-1				11	6	11	13 PCP
TANANARIVE	72.89	252.8	11	8A	-1						13	10
SCOTT BASE	73.23	171.1	11	11K	0	20	44	23	11	18	13	50 PP
SOUTH POLE	81.81	180.0	11	59	1						18	22 PP
SVERDLOVSK	81.94	330.8	11	58	-1							
MAKHACH-KALA	84.54	314.7	12	13	1							
TIFLIS	86.13	312.9	12	23	3							
BYRD STATION	86.65	171.1	12	23	1						12	30 PCP
BULAWAYO	90.52	249.7	12	41	1							
KSARA	91.47	303.8	12	48	3						24	48 PS
BROKEN HILL	91.53	255.3	12	45	0							
KIMBERLEY	92.51	240.6	12	50K	0							
LWIRO	93.02	267.3									19	33
MOSCOW	93.69	325.6									16	45 PP
KHEYS	94.00	351.5	12	57	1							
SIMFEROPOL	94.39	314.6									16	44 PP
COLLEGE	97.40	25.5	12	41	-31						13	11
KIRUNA	102.02	337.7				24	6	15			17	38 PP
UMEA	102.62	333.6									17	43 PP
UPPSALA	104.39	329.7									18	4 PP
COPENHAGEN	107.86	325.9									18	37 PP
STUTTGART	111.20	319.2									29	32 PPS
HEIDELBERG	111.43	319.9									15	45
STRASBOURG	112.22	319.2									28	37
HUNGRY HORSE	118.25	39.0	18	27	4							
EUREKA	119.64	49.1	18	30	4							
TUCSON TELE.	125.54	56.1	18	42	5							
RAPID CITY	126.86	39.9	18	43	3							
WICHITA MTS.	134.29	48.7	18	49	-5						21	28 PP
WESTON	143.98	17.1	19	13A	1							
PALISADES	144.38	21.1	19	13	1							
WASHINGTON	144.91	26.6	19	15	2							
CHAPEL HILL	146.32	32.0	19	17	1							
COLUMBIA	146.62	36.5	19	22	6							
CARACAS	170.74	75.3	19	45	2						25	5 PP

JUNE 9 9.H 36.M 52.S EPICENTRE 40.68 50.46 DEPTH= 59.KM

A= 0.48415 B= 0.58648 C= 0.64934 D= 0.7712 E=-0.6366
G= 0.4134 H= 0.5008 K=-0.7605 HT= -1.9

DEPTH OF FOCUS= 0.004R

SE= 1.74

	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	
BAKU	0.52	234.8									0	17	PG
SHEMAKHA	1.39	268.4									0	26	PG
LENKORAN	2.29	213.9				1	7	3					
KIROVOBAD	3.14	270.7	0	48	-1	1	23	-2					
MAKHACH-KALA	3.18	316.9	0	51	2	1	28	2					
NAKHICHEVAN	4.16	250.8	1	5A	2	1	51	0					
GROZNY	4.39	308.4	1	8	2						2	5	S*
TIFLIS	4.39	285.5	1	6	0						2	3	
DUZHETI	4.55	289.7	1	9A	1	1	58	-3					
EREVAN	4.58	265.6	1	10	1						1	52	
STEPANAVAN	4.62	275.9	1	9	0	2	2	-1					
KIZYL-ARVAT	4.71	106.5	1	11	0	2	2	-3			2	45	
GORI	4.95	287.3	1	12A	-2						2	48	
TEHERAN	4.99	171.3	1	16	1	2	11	-1					
LENINAKAN	5.02	273.3	1	16	1								
BOGDANOVKA	5.23	278.7	1	18	0								
AKHALKALAKI	5.33	280.0	1	20A	1								
BAKURIANA	5.34	283.6	1	20	1						1	51	
BORZHOMI	5.46	284.4	1	21	0								
ABASTUMANJ	5.85	283.0	1	26	0								
GEGECHKORI	6.29	288.0	1	36	3								
PIATIGORSK	6.41	303.9	1	33	-1						2	40	
ASHKABAD	6.70	111.5	1	37	-1	2	50	-4			3	49	
SHIRAZ	11.14	170.7	2	40	1								
YALTA	12.59	293.0	2	58	-1						5	46	
KSARA	13.47	244.1	3	13	3	5	45	6			6	23	SSS
TASHKENT	14.23	81.3	3	19	-1								
TCHIMKENT	14.44	77.3	3	21	-2	5	53	-9			6	16	
JERUSALEM	15.15	238.9	3	38	6								
GARM	15.34	89.8	3	34	0								
NAMANGAN	16.06	82.0	3	46	2	6	43	3					
FERGANA	16.21	84.1	3	44	-2						6	50	
ISTANBUL UN.	16.25	278.3	3	46	0								
ANDIJAN	16.61	82.6	3	51	0						7	40	
KHOROG	16.67	94.2	3	53	2	6	52	-1			7	40	
KISHINEV	16.81	299.3	3	51	-2						4	0	PP
QUETTA	17.01	122.9	3	58A	2	7	11	10			4	15	PP
MOSCOW	17.27	335.0	3	58	-1						7	1	
IASI	17.69	299.2	4	2	-2	7	21	4					
WARSAK DAM	18.03	105.0	4	9	1								
FRUNSE	18.14	75.2	4	10	0	7	32	5					
BUCHAREST	18.31	289.8	4	12A	0	7	28	-3					
HELWAN	18.94	241.3	4	18	-1								
NARYN	19.26	79.4	4	26	3								
ALMATA	19.84	73.8	4	30	1						8	48	PCP
SOFIA	20.33	284.6	4	34	0	8	23	9					
LWOW	20.64	305.1	4	35	-2						8	29	
ATHENS	20.84	271.2	4	40K	1								
LAHORE	21.28	107.8	4	39	-5								
UZHGOROD	21.46	301.1	4	46	1	8	45	10					
PULKOVO	22.87	333.4	4	59	0	9	2	1					
SEMIPALATNSK	22.88	54.9	5	0	1								
SKALNATE PL.	22.89	301.9	5	0	0						9	39	SS
WARSAW	23.17	309.8	5	3	1	9	12	6			5	34	PP
KRAKOW	23.26	304.0	5	3	0	9	12	5			5	42	PP
CHORZOW	23.90	304.3	5	10	1						5	49	PP
RACIBORZ	24.36	303.5	5	14	0						6	9	PPP
BRATISLAVA	24.82	298.7	5	22	4	9	46	12			5	34	PP
VIENNA-H.	25.32	298.8	5	23K	0	9	52	10					
NURMIJARVI	25.44	329.9	5	24K	0	9	54	10					
LJUBLJANA	26.52	293.7	5	34K	0						6	18	PP
PRUHONICE	26.68	302.5	5	43	7								
PRAGUE	26.76	302.7									14	50	
KAJAANI	26.94	338.0	5	37	-1	10	20	11					
TRIESTE	27.07	292.9	5	40	1						6	27	PP
KASPERSKE H.	27.23	300.5	5	40	-1						12	11	

COLLMBERG	27.82	305.1	5	46	0	10	9	-14			6	36 PP
UPPSALA	27.98	324.3	5	46A	-1	10	59	33			6	19 PP
HALLE	28.50	305.3	5	52	0	10	39	5				
COPENHAGEN	29.01	314.0	5	58A	1	10	40	-2			12	32 SS
FLORENCE X.	29.01	289.2	5	44	-13							
UMEA	29.14	332.7	5	58K	0						6	37 PP
SODANKYLA	29.78	341.6	6	3	0	11	38	44			6	32
GOTEBORG	29.84	317.8	6	3A	-1						11	41
STUTTGART	30.05	299.5	6	6	0							
STRASBOURG	31.05	299.2	6	7	-8						6	47
MUNSTER	31.22	305.8	6	19	3							
BENSBERG	31.45	303.8	6	19	1				6	26		
KIRUNA	31.72	338.8	6	20K	-1						7	10 PP
MONACO	31.76	290.0	6	22	1							
WITTEVEEN	31.87	307.3	6	18	-4							
ISOLA	31.95	290.9	6	23	0							
SKALSTUGAN	31.99	328.5	6	46A	23							
CHATRA	33.25	103.0	6	34	0							
TROMSOE	33.36	340.6	6	35	0							
GARCHY	34.30	297.2	6	42	-1							
CLERMONT-FD.	34.46	294.6	7	2	18							
PARIS	34.53	300.0	6	45	0							
KEW	36.16	304.8	6	59	0							
FOLINIERE	36.49	300.2	7	1	-1							
DURHAM	36.84	310.4	7	2K	-3	12	40	-4				
BAYANDAI	38.68	52.3	7	20	0							
KHEYS	40.16	1.9	7	33	1						9	43 PCP
ULAN-BATOR	40.25	60.2	7	35	2							
ALMERIA	40.93	282.4	7	40A	2							
TOLEDO	41.02	287.3	7	39	0							
BANGUI	46.10	226.9	8	22	2				8	31		
SCORESBY SD.	46.46	333.8	8	24	1						19	10 SSS
NORD	46.71	349.3	8	24K	-1							
LWIRO	47.08	210.2	8	30	2							
TIKSI	48.37	24.6	8	38	0							
YAKUTSK	50.25	37.1	8	50	-3							
THULE	57.01	345.7	9	41	-1							
NHATRANG	58.52	101.5	9	54	1							
BROKEN HILL	58.52	205.2									10	54 PCP
RESOLUTE	62.64	350.2	10	21	0							
BULAWAYO	63.83	202.9									10	30 PCP
MATUSIRO	65.86	61.9	10	40K	-2							
WINDHOEK	70.16	212.7	11	11A	2							
KIMBERLEY	73.07	203.4	11	28A	2							
COLLEGE	73.81	8.0	11	31	1						12	7
HALIFAX	76.52	317.9	11	46K	0							
SHAWINIGAN	79.50	324.0	12	4	2							
OTTAWA	81.69	324.9	12	15	1							
BANFF	87.71	351.2	12	45	1							
PENTICTON	89.95	353.5	12	56	2							
HUNGRY HORSE	90.29	349.7	12	57	1							
RAPID CITY	92.35	341.3	13	7	2							
BOZEMAN	92.45	347.1	13	9	3							
LARAMIE	95.54	342.1	13	21	1							
FLAMING GRGE	96.73	344.8	13	28	3							
FAYETTEVILLE	96.98	331.8	13	27A	0							
EUREKA	99.26	349.4	13	39	2							
WICHITA MTS.	99.74	334.5	13	40	1						30	0 PKKP
SOUTH POLE	130.49	180.0	19	5	0				19	23		
SCOTT BASE	134.91	164.4	19	14	1						22	1 PP
BYRD STATION	140.36	182.7	19	17	-6							

JUNE 9 15.H 43.M 3.S EPICENTRE 30.35 140.52 DEPTH= 154.KM

A=-0.66722 B= 0.54958 C= 0.50277 D= 0.6358 E= 0.7719
G=-0.3881 H= 0.3197 K=-0.8644 HT= 1.7

DEPTH OF FOCUS= 0.019R

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	0.23	303.7	0	20	-2	0	34	-4				
OSIMA	4.51	348.0	1	7K	-1	2	5	5				
MERA	4.59	352.9	1	11	2							
OMAESAKI	4.66	335.9	1	12	2							

AJIRO	4.84	346.0	1	12K	0	2	5	-3				
MISIMA	4.94	344.8	1	32K	19	2	25	15				
SIOMISAKI	5.09	308.6	1	15K	0	2	11	-3				
OWASE	5.21	316.5	1	16	-1	2	15	-2				
HUNATU	5.34	344.5	1	21	2	2	15	-5				
TOKYO C.M.O.	5.35	353.2	1	19A	0	2	17	-3				
TYOSI	5.36	2.9	1	19	0	2	15	-5				
TU	5.50	323.1	1	23	2							
KOHU	5.55	343.3	1	22	0	2	24	-1				
IIDA	5.63	337.0	1	24	1	1	40	-47				
KAMEYAMA	5.64	323.7	1	24K	1	2	26	-1				
NAGOYA	5.66	329.0	1	24	1							
TITIBU	5.74	348.2	1	24	0							
KUMAGAYA	5.86	350.9	1	25K	-1	2	30	-2				
TUKUBASAN	5.86	356.7	1	23K	-3						2	23
KAKIOKA	5.87	357.3	1	24	-2	2	28	-5				
GIHU	5.94	328.9	1	28K	1							
OSAKA	6.01	316.8	1	28K	0	2	50	14				
MITO	6.01	359.6	1	26A	-2	2	30	-6				
HIKONE	6.08	324.9	1	31K	2	2	41	3				
ABUYAMA	6.14	318.5	1	30K	1							
MAEBASI	6.15	349.0	1	27	-3	2	36	-3				
KYOTO	6.16	320.3	1	30	0	2	40	0				
OIWAKE	6.19	345.1	1	32	2	2	39	-1				
SUMOTO	6.19	311.4	1	30K	0	2	40	0				
MATUMOTO	6.26	340.7	1	32	1							
MATUSIRO	6.47	343.2	1	33K	-1	2	44	-3				
TSURUGA	6.47	325.9	1	34	0							
ONAHAMA	6.59	2.6	2	26	51							
NAGANO	6.59	343.5	1	36	0							
KOTI	6.74	300.0	1	37	-1	2	40	-13				
SHIRAKAWA	6.76	357.9	1	36	-2	2	48	-6				
TAKAMATU	6.76	307.5	1	38	0	2	54	0				
TOYAMA	6.91	337.2	1	42	2							
TOYOOKA	7.04	318.6	1	42	0	3	1	0				
HUKUSIMA	7.38	359.7	1	43	-3	3	3	-6				
TOTTORI	7.41	315.6	1	42	-4							
MATUYAMA	7.43	299.9	1	47	0	3	10	0				
NIIGATA	7.65	351.2	1	46	-4							
AIKAWA	7.88	346.8	1	50	-3							
YAMAGATA	7.88	359.0	1	50K	-3	3	16	-5				
SENDAI	7.90	2.2	1	49	-4	3	14	-7				
ISINOMAKI	8.09	4.5	1	53	-2						2	16
HAMADA	8.45	304.7	2	2K	2	3	33	-1				
KUMAMOTO	8.73	288.9	2	4	0							
MIZUSAWA	8.77	3.1	2	4	-1	3	33	-9				
HUKUOKA	9.20	293.1	2	12	2	3	56	4				
MORIOKA	9.34	3.1	2	9	-3	3	47	-8				
AOMORI	10.45	1.1	2	24	-3							
URAKAWA	11.91	8.2									4	51
HIROO	12.11	9.9									4	14
SAPPORO	12.71	2.8	2	53	-3	5	7	-8				
OBIHIRO	12.73	9.0	3	0	4							
KUSIRO	12.98	12.8	2	57	-3	5	12	-9				
NEMURO	13.57	15.9	3	15	8	5	26	-8				
ZO-SE	16.65	277.5	3	43	-3	6	48	4				
Y.-SAKHLINSK	16.73	5.2	3	45K	-1	6	51	5				
GUAM	17.26	166.0	3	53	0	7	6	8	3	57	7	50 *SS
CHANGCHUN	18.08	322.3	4	6	4							
NANKING	18.68	280.8	4	6K	-3	7	31	3				
UGLEGORSK	18.74	3.2	4	11	2	7	41	12				
PEKING	22.06	302.5	4	41	-2	8	32	1				
MANILA	23.73	233.2	5	1	2						5	31
MAGADAN	30.02	10.5	5	57	1							
LANCHOW	31.10	290.4	6	2	-4							
YAKUTSK	32.46	350.5	6	15	-3							
TIKSI	41.82	354.5	7	37	1							
SHILLONG	42.98	276.0	7	43	-2							
CHARTERS TS.	50.45	173.0	8	42	-2						10	1
COLLEGE	55.19	29.6	9	20	1						9	44
KHEYS	59.03	349.1	9	45	-1							
QUETTA	62.41	290.4	10	7	-2							
ADELAIDE	64.99	181.6	10	25K	-1							
CANBERRA	65.81	172.4	10	31	0							
RESOLUTE	69.25	13.5	10	52	0						11	28
SODANKYLA	70.85	338.0	11	1	-1						13	28
TROMSOE	71.80	341.7	11	7	0							
KAJAANI	72.28	334.8	11	10	0							

KIRUNA	72.50	339.9	11	11K	-1						
SHIRAZ	74.12	295.2	11	18	-3						
UMEA	75.09	336.6	11	26K	-1						
NURMIJARVI	75.50	332.6	11	28K	-1	20	55	0		14	20
HUNGRY HORSE	77.23	41.2	11	41	3						
UPPSALA	78.64	334.4	11	45K	-1						
SCORESBY SD.	78.67	354.1	11	47A	1						
WOODY	80.65	54.2	11	58	1						
EUREKA	80.67	49.7	11	59	2						
FLAMING GRGE	84.08	45.7	12	17	2						
COLLMBERG	86.51	330.1	12	28	2				13	10	15 21
STUTTGART	90.00	330.2	12	43	0						
SOUTH POLE	120.18	180.0	18	33	0						
BYRD STATION	121.41	168.4	18	36	1						

JUNE 10 8.H 52.M 13.S EPICENTRE 8.72-103.22 DEPTH= 98.KM

A=-0.22609 B=-0.96239 C= 0.15064 D=-0.9735 E= 0.2287
G=-0.0345 H=-0.1466 K=-0.9886 HT= 6.7

DEPTH OF FOCUS= 0.010R

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANZANILLO	10.32	354.1				4	45	24					
OAXACA	10.37	36.7									2	53	
TACUBAYA	11.31	19.7	2	41K	1						5	10	
VERA CRUZ	12.48	32.7	2	55	0						3	3	PP
COMITAN	13.16	54.3	3	3	-1	5	19	-10					
MAZATLAN	14.70	348.4									3	55	
MERIDA	17.89	45.7	3	59K	-5						11	53	
CHIHUAHUA	19.99	352.6	4	27	0	8	26	25			10	27	
BALBOA HTS.	23.38	87.6	5	2	1	9	29	26					
TUCSON	24.45	344.3	5	12	1								
TUCSON TELE.	24.51	344.6	5	12	1						5	40	
WICHITA MTS.	26.22	8.7	5	27	-1	10	5	15			6	15	PP
CHINCHINA	27.65	95.9	5	47	6	10	43	29			6	27	PP
FAYETTEVILLE	28.46	15.5	6	47	59	12	3	96					
PASADENA	28.80	333.6	5	51	0	10	47	15					
BOULDER CITY	29.13	340.4	5	54	0								
BOGOTA	29.23	96.1	5	59	4	10	53	14			6	45	PP
FUQUENE	29.44	94.3	5	58A	1	10	54	12					
LAWRENCE	30.96	12.1	6	11	1	11	24	18					
LARAMIE	32.52	356.7	6	23	-1								
FLAMING GRGE	32.54	351.3	6	23	-1						13	53	
EUREKA	32.69	341.6	6	25	0								
SALT LAKE C.	32.82	347.9	6	28	2								
LICK	33.01	332.5	6	29	1								
RENO	34.09	336.8	6	39	2								
HUANCAYO	34.56	126.2									6	39	PCP
CHAPEL HILL	34.91	35.5	6	44	0								
RAPID CITY	35.22	0.0	6	47	0								
CARACAS	35.81	84.2	6	47	-5	12	35	14					
SHASTA	36.12	334.9	6	44	-10								
BOZEMAN	37.43	351.0	7	7	2						13	3	
CLEVELAND	37.85	26.9	7	7A	-2	13	4	12					
BUTTE	38.02	349.4	7	11	1								
WASHINGTON	38.13	33.9	7	9	-2						13	17	
PENNSYLVANIA	39.08	31.0	7	21	2	13	22	11			8	59	PP
AREQUIPA	40.15	128.5	7	27	-1								
HUNGRY HORSE	40.54	348.9	7	31	0								
PALISADES	41.34	34.1	7	35A	-3	13	59	15			9	18	PP
PENTICTON	42.74	344.2	7	51	2								
LA PAZ	42.82	125.8	7	48	-2	14	22	16					
VICTORIA	43.17	340.4	7	53	0								
BANFF	43.52	348.8	7	55	-1								
OTTAWA	43.56	28.2	7	55	-1								
WESTON	43.70	34.5	8	1	4	14	37	18			9	45	PP
SHAWINIGAN	45.80	29.2	8	13	-1								
HAWAII V.OB.	51.42	287.8	8	56	-1	16	22	14					
SANTA LUCIA	52.13	145.2	9	4	2	16	27	10					
COLLEGE	64.10	340.5	10	26	0								
RESOLUTE	66.09	2.4	10	36	-3						19	29	
SCORESBY SD.	78.91	19.8	11	49	-5	21	59	16			27	13	SS

NORD	80.92	8.5	12 5K	0								
MBOUR	84.27	76.4			22 57	19						
KARAPIRO	88.46	231.4	12 40	-3								
BYRD STATION	89.01	182.8	12 43	-2								
KHEYS	90.29	3.0	12 54	3								
TIKSI	92.85	345.5	13 4	1								
COPENHAGEN	96.80	30.9									26 11	PS
STRASBOURG	97.04	38.7									31 11	
CAPE HALLETT	97.20	197.9									31 47	SS
SCOTT BASE	98.47	192.4	13 24	-5								
SOUTH POLE	98.66	180.0	13 29	0							19 40	PPP
PULKOVO	102.40	22.1	17 59	253								
PRETORIA	130.90	116.5									23 29	
LEMBANG	149.39	271.3	19 39	6								
TANANARIVE	149.91	112.8	19 42	8								

JUNE 10 20.H 31.M 47.S EPICENTRE -24.25-112.06 DEPTH= 0.KM

A=-0.34287 B=-0.84596 C=-0.40839 D=-0.9268 E= 0.3756
G= 0.1534 H= 0.3785 K=-0.9128 HT= 3.6

SE= 2.50

	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	
HUANCAYO	36.84	77.4	7	13	2						8	33	PP
SANTA LUCIA	37.22	113.9	7	14	-1								
AREQUIPA	38.71	86.3	7	30	3								
LA PAZ	41.76	87.9	7	55	3	14	20	10					
OAXACA	43.65	21.4				14	57	19			21	33	
COMITAN	44.71	27.7				14	31	-22			13	53	
TACUBAYA	45.16	17.2									16	43	
BALBOA HTS.	45.78	47.8	8	24	-1	15	12	3					
CHINCHINA	45.86	55.6	8	23	-2	15	9	-1					
VERA CRUZ	45.89	21.2				15	17	7			22	53	
BOGOTA	46.81	57.3	8	36K	3	15	30	6			10	19	PP
FUQUENE	47.61	56.7	8	41A	2								
MERIDA	49.95	27.8				16	13	5			16	37	PS
BYRD STATION	55.94	181.6	9	39	-3								
CARACAS	55.99	57.2	9	43	1	17	28	-2					
TUCSON	56.19	1.3	9	42	-2	17	34	2					
TUCSON TELE.	56.28	1.4	9	44	0								
AFIAMALU	57.01	268.8				18	6	23					
LUBBOCK	58.32	10.0	9	59	0								
PASADENA	58.36	354.1	9	58	-1	18	7	6			22	1	SS
BOULDER CITY	59.96	357.4	10	10	0								
WICHITA MTS.	60.02	12.8	10	8	-3	18	27	4			12	11	PP
HAWAII V.OB.	60.47	312.0	10	15	1	18	38	10					
FRESNO	61.13	352.9	10	17	-1								
SAN JUAN	61.66	50.8	10	9	-13								
LICK	61.92	351.4	10	24A	1								
KARAPIRO	62.08	238.5	10	24	-1								
WELLINGTON	62.12	234.7	10	25	0	18	51	2			22	53	SS
FAYETTEVILLE	62.34	16.3	10	24A	-2	18	55	3					
BERKELEY	62.53	350.9	10	28	0	18	59	5					
CAPE HALLETT	63.37	199.5	10	32	-1	19	13	8			23	13	SS
EUREKA	63.50	356.6	10	34	0								
HONOLULU	63.68	311.5	10	38	3	19	21	12					
KIPAPA	63.70	311.7	10	46	11								
RENO	63.87	353.3	10	37A	1								
SCOTT BASE	64.61	193.4	10	40K	-1	19	21	1			12	49	PP
SALT LAKE C.	64.68	0.2	10	33	-9								
FLAMING GRGE	64.89	2.2	10	41	-2								
SHASTA	65.32	351.4	10	45	-1								
ROXBURGH	65.36	229.4				19	33	3			23	41	SS
LARAMIE	65.50	5.4	10	45	-2								
SOUTH POLE	65.90	180.0	10	48	-1						11	16	PCP
CHAPEL HILL	67.49	28.6	10	58	-2								
RAPID CITY	68.48	6.9	11	6	0								
CORVALLIS	69.26	351.4	11	11	0								
BUTTE	69.93	359.6	11	16	1	20	26	1					
WASHINGTON	70.85	28.3	11	20	0								
CLEVELAND	71.26	23.8	11	23A	0	20	42	2					
PENNSYLVANIA	72.10	26.6	11	29	1	20	54	4					
HUNGRY HORSE	72.28	358.6	11	28	-1								
VICTORIA	73.14	352.1	11	33	-1								

PENTICTON	73.54	354.9	11	39	3					
PALISADES	73.96	29.1	11	37	-2	21	11	0	16	8 PPP
WESTON	76.22	29.9							18	29
OTTAWA	76.81	25.4	11	56	1					
SHAWINIGAN	78.93	26.4	12	8	1					
RIVERVIEW	82.15	236.6							12	45
BRISBANE	83.46	243.0	12	34	4	22	53	1		
WILKES	84.12	195.9							23	7 SCS
MAWSON	88.35	178.1	12	54	-1	23	45	6	13	7
COLLEGE	93.04	345.5	13	17	1				13	59
PORT MORESBY	95.87	257.0							24	30
RESOLUTE	99.31	4.6	13	49	4					
PETROPAVLOVK	108.58	320.4							19	0 PP
SCORESBY SD.	112.66	21.4							39	19 SSS
Y.-SAKHLINSK	117.50	311.9							36	13 SS
TUKUBASAN	117.80	299.5							20	29 PP
TOLEDO	118.56	56.4							34	53 SS
MATUSIRO	119.36	299.6				25	55	8	30	8 PS
DURHAM	121.19	39.4				25	13	-41		
TIKSI	121.87	341.0	19	1	5					
KHEYS	123.39	1.9							27	35 SKKS
PARIS	123.86	46.4							20	41 PP
YAKUTSK	124.31	329.8							21	4 PP
STRASBOURG	127.37	46.5							21	31
KIRUNA	127.72	20.7	19	11	4				21	9 PP
STUTTGART	128.34	46.1	19	11	2				21	28 PP
BANGUI	128.63	104.5	19	13	4				21	22
COPENHAGEN	129.01	36.9	19	31	21				20	55 PP
MANILA	129.25	269.5	19	13	3					
JENA	129.51	43.1	19	19	8				21	28 PP
HALLE	129.64	42.3	19	19	8				21	23 PP
SODANKYLA	129.94	19.5	19	12	0					
FLORENCE X.	130.14	52.4							21	28
UPPSALA	130.30	30.6							21	27 PP
PADOVA	130.45	50.2							22	43
KASPERSKE H.	131.10	45.1	19	23	9				22	49 PKS
ROME	131.16	54.8							21	31 PP
PRUHONICE	131.56	43.8	19	25	10				21	49 PP
TRIESTE	131.74	49.7							21	54 PP
TANANARIVE	132.71	153.3	19	25	8					
NURMIJARVI	133.13	27.7	19	20	2					
LWIRO	133.75	119.2	19	30	11					
WARSAW	134.87	39.3							22	9 PP
KRAKOW	134.90	42.6							22	11 PP
PULKOVO	135.90	26.3							21	59 PP
BELGRADE	136.54	49.7	20	2	38				24	2
LWOW	137.49	41.7	19	35	9				22	30 PP
HONG KONG	137.63	277.1							23	59 PKS
BUCHAREST	140.55	48.8	19	52K	21				21	31
ULAN-BATOR	141.23	317.5	19	34	2					
MOSCOW	141.50	27.3	19	32	-1					
ISTANBUL UN.	143.53	53.1	19	36	0					
ISTANBUL KA.	143.58	53.0	19	35	-1					
SIMFEROPOL	145.70	44.5	19	45	5					
HELWAN	147.02	72.1	19	48	6					
SVERDLOVSK	147.02	7.4	19	47	5					
JERUSALEM	150.24	68.0	19	56	9				22	34
KSARA	150.49	63.8	19	57	9				22	38 PP
SEMIPALATNSK	152.20	343.0	19	52	2				19	58 PKP2
TIFLIS	154.05	42.2	19	57	4				23	55 PP
GORIS	156.26	45.0	20	5	9				29	41
SHILLONG	158.26	278.5	20	6	7					
FRUNSE	160.66	345.0	20	14	13				24	29 PP
TEHERAN	161.68	47.5	20	4	2					
CHATRA	162.45	282.5	19	10	-53				19	54
TASHKENT	162.94	356.6	20	14	11				24	52 PP
ASHKABAD	164.08	28.7	20	11	6					
SHIRAZ	165.24	65.3	20	8	2	21	9		25	13
QUETTA	174.03	8.2	20	15	4				25	38 PP

JUNE 11 5.H 10.M 23.S EPICENTRE 27.93 54.51 DEPTH= 0.KM

A= 0.51367 B= 0.72042 C= 0.46598 D= 0.8142 E=-0.5806
G= 0.2705 H= 0.3794 K=-0.8848 HT= 2.5

SE= 3.40

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TEHERAN	8.22	342.0	2	3A	0								
ASHKABAD	10.50	16.9	2	37	3								
QUETTA	11.11	75.4	2	41A	-2	4	43	-6			2	49	PP
KARACHI	11.65	102.5	2	49	1						3	7	PPP
GORIS	13.39	331.6	3	14K	1						8	35	
WARSAK DAM	15.81	63.3	3	43	-2								
TIFLIS	15.88	332.5	3	47	1						6	55	SS
KSARA	17.03	294.7	4	2	1	7	24	14			8	5	SSS
JERUSALEM	17.17	287.6	4	2A	0								
KHOROG	17.18	52.0	4	2	0						7	31	
LAHORE	17.58	73.4	4	4	-4	7	13	-9			4	17	PP
TASHKENT	18.02	38.4	4	12	-1						4	18	PP
BOMBAY	19.04	114.2	4	24	-2	8	8	13			4	39	PP
POONA	20.06	113.7	4	33K	-4	8	29	11					
HELWAN	20.38	281.0	4	40A	-1	8	31	7					
DEHRA DUN	20.70	77.7	4	42	-2	8	36	5			5	7	PP
SEHORE	20.90	98.0	4	48	2	8	57	22			5	22	PP
FRUNSE	22.05	42.4	4	57	-1						9	21	
SIMFEROPOL	23.51	321.7	5	12A	0	9	33	10			5	59	PPP
HYDERABAD	24.39	110.3	5	21	1	9	49	11			5	48	PP
ISTANBUL KA.	24.62	308.8	5	22A	-1	9	55	13			6	7	PP
ISTANBUL UN.	24.66	308.6	5	24	1	10	4	21					
ATHENS	27.60	299.2	5	52A	2	10	52	21			12	32	
KODAIKANAL	27.85	124.7	6	1A	8	10	31	-4			6	43	PP
FOCSANI	27.95	316.7	6	3	9	11	41	64			7	38	
BUCHAREST	28.03	313.5	5	53A	-1	11	15	37			8	31	PCP
MADRAS	28.18	116.6	5	53K	-3	10	44	3			6	44	PP
VISHAKHAPTNM	28.35	104.8	5	57K	0	10	5	-38			6	27	PP
BOKARO	28.40	91.1	5	58A	0	10	23	-21			6	58	
IASI	28.51	319.7	5	58	-1	11	14	28			6	40	PP
BACAU	28.57	318.0	5	59	0	11	25	38			7	15	
CHATRA	28.98	84.5	6	3K	0	11	2	9			7	13	PP
CAMPULUNG	29.09	314.4	6	10	6	11	2	7			7	22	
SOFIA	29.20	308.5	6	8	3	11	10	13					
SVERDLOVSK	29.21	6.9	6	4	-1						6	59	PP
SEMIPALATNSK	29.76	34.1	6	9	-1								
SKOPJE	30.30	306.2	6	10	-5								
MOSCOW	30.32	341.0	6	15	0	11	19	4			10	55	
CALCUTTA	31.03	92.3									8	46	
TIMISOARA	31.73	313.0	6	29	2	11	43	6			7	26	PP
BELGRADE	31.89	311.0	6	28A	-1	11	52	12			14	9	SSS
LWOW	31.91	321.6	6	27	-2	11	45	5			7	54	PPP
LHASA	31.98	78.1	6	29	0								
TITOGRAD	31.98	306.2	6	29	-1	11	34	-7			7	43	PPP
TARANTO	33.02	302.0	6	37	-2	11	57	0					
SHILLONG	33.36	85.3	6	38	-4	11	59	-3			7	54	PP
SKALNATE PL.	33.75	318.3	6	51	6	12	19	11			8	11	PP
BUDAPEST	33.79	314.9	6	43	-2	11	58	-11			8	9	PPP
REGGIO CALA.	33.91	297.5	6	37	-9	12	16	5			21	43	
MESSINA	34.00	297.6	6	48	1						8	5	PP
CHITTAGONG	34.14	90.9	6	50	2						8	18	PPP
KRAKOW	34.33	319.5	6	49	-1	12	17	0			13	18	PCS
HURBANOVO	34.45	315.2	6	57	6	12	1	-18					
WARSAW	34.79	323.5	6	56	2	12	19	-5			7	46	PP
CHORZOW	34.97	319.4	6	53	-2						7	57	PP
ZAGREB	35.20	310.9	6	55	-2								
BRATISLAVA	35.25	315.2	6	52A	-6	12	33	1					
RACIBORZ	35.34	318.7	6	57	-2	12	16	-17			8	1	PP
TOCKLAI	35.67	82.3	6	58	-3	12	40	2					
VIENNA-H.	35.74	315.0	7	1A	-1	12	34	-5			8	21	PP
PULKOVO	35.87	339.3	7	2	-1	12	46	5			8	32	PP
LJUBLJANA	36.24	310.8	7	6A	0	12	50	3			8	22	PP
TRIESTE	36.66	309.9	7	9A	-1	12	56	3			15	34	SS
ROME	36.81	303.5	7	9	-2	12	48	-8	7	18	8	51	PPP
PRUHONICE	37.47	317.0	7	16A	0	13	13	7			8	49	PP
KASPERSKE H.	37.77	315.4	7	18A	-1								
PADOVA	37.89	309.0	7	21	1	13	20	8			9	0	PP
FLORENCE X.	38.00	306.3	7	13A	-8	13	12	-2					
BOLOGNA	38.08	307.4	7	25	3	13	25	10			9	5	PP
PRATO	38.13	306.4	7	25	3	12	54	-22					
NURMIJARVI	38.31	336.6	7	23A	-1	13	21	2					
CHEB	38.82	316.4	7	24	-4	13	24	-2			9	1	PP
COLLMBERG	38.86	318.5	7	32	4	13	34	7			9	9	PP
LWIRO	38.88	223.7	7	29	1								
PORT BLAIR	39.22	106.6	7	36	5	13	46	14					

HALLE	39.55	318.4	7	34	0				9	10 PP
CUGLIERI	39.57	300.2	8	7	33				15	7
JENA	39.58	317.4	7	32	-2	13	34	-4	8	55 PP
PAVIA	39.71	308.1	7	38A	3				9	52 PPP
CHUR	39.78	310.7	7	34	-2	13	41	0		
RAVENSBURG	39.93	312.1	7	35	-2					
KAJAANI	40.03	342.1	7	40	2	13	49	4		
STUTTGART	40.39	313.5	7	39	-2	13	54	4	10	54
EBINGEN	40.45	312.6	7	39	-2					
TUBINGEN	40.47	313.1	7	44	3					
UPPSALA	40.58	332.2	7	41A	-1	13	57	4	9	20 PP
MONACO	40.73	305.6	7	45	1	13	39	-16		
COPENHAGEN	40.88	324.6	7	45A	0	14	0	3	9	27 PP
HEIDELBERG	40.90	314.3	7	45	0					
KARLSRUHE	41.00	313.7	7	46	0	14	7	8		
ISOLA	41.06	306.2	7	42	-4				9	43 PP
BASLE	41.23	311.3	7	47A	-1	13	52	-10		
STRASBOURG	41.32	312.9	7	48	0	14	11	7	9	34 PP
BANGUI	41.40	242.1	7	48	-1	14	3	-2		
GOTEBORG	42.00	327.1	7	43	-11					
UMEA	42.10	338.1	7	52A	-3				9	30 PP
LANCHOW	42.23	66.1	7	55A	-1	14	20	3		
BESANCON	42.24	310.6	7	54	-2					
MUNSTER	42.25	317.8	7	59	3				8	48
BENSBERG	42.26	316.2	7	56	0	14	0	-18	9	51 PP
SODANKYLA	42.92	344.6	8	1A	-1					
CHENGTU	42.98	74.0	8	0	-2	14	34	6		
KUNMING	43.03	82.2	8	2A	0	14	32	3		
WITTEVEEN	43.05	318.8	8	3	0					
DE BILT	43.74	317.4	8	11	3	14	45	6	18	9 SS
CLERMONT-FD.	44.01	308.1	8	9	-1	14	48	5		
IRKUTSK	44.07	42.4	8	9A	-2	14	41	-3	18	7 SS
GARCHY	44.21	310.2	8	11	-1	14	42	-4	10	7 PP
SKALSTUGAN	44.78	334.7	8	16	-1					
PARIS	44.80	312.3	8	17	0	14	55	0	10	8 PP
KIRUNA	44.83	342.4	8	16A	-1	15	0	5	10	9 PP
ULAN-BATOR	44.93	49.0	8	24	6	15	0	4		
BAGNERES	45.98	304.1	8	22	-4					
TROMSOE	46.49	343.7	8	29	-1					
SIAN	46.56	68.1	8	29	-2	15	26	6		
ALICANTE	46.60	297.6	8	34	3	15	10	-10	10	8 PP
FOLINIERE	46.74	311.9	8	31	-1					
KEW	46.97	315.6	8	33	-1	15	27	1	10	31 PP
TANANARIVE	47.06	189.0	8	37A	2	15	36	9	10	36 PP
JERSEY	47.84	312.3	8	43	2	15	35	-3		
DURHAM	48.26	319.9	8	44K	0	15	49	5	10	43 PP
ALMERIA	48.32	295.8	8	45K	0	15	45	0	10	24 PCP
MEDAN	48.52	111.8	8	43	-3				16	31
ABERDEEN	49.00	322.9	8	52	2	15	57	3	20	32 SSS
BROKEN HILL	49.11	214.2	8	50A	-1					
GRANADA	49.18	296.3	9	0	9	16	25	28	11	6 PP
TOLEDO	49.25	299.9	8	51A	-1	16	0	2	10	48 PP
PEKING	51.61	59.6	9	8A	-2	16	36	6		
COIMBRA	52.56	300.8	9	16A	-1	16	44	1	20	37 SS
SERRA PILAR	52.58	302.0	9	13	-4	16	35	-9	9 22	11 12 PP
CANTON	52.89	81.1	9	19	0	16	53	5		
LISBON	53.32	299.1	9	22A	-1	16	59	5	11	21 PP
HONG KONG	53.86	81.8	9	25	-2	17	1	0	16	16
BULAWAYO	53.96	210.5	9	25A	-2					
LUANDA	54.13	233.6	9	36A	7	17	15	10		
LOME	54.88	257.1	9	39	5					
NANKING	55.09	68.9	9	33	-3	17	18	0		
ZO-SE	57.31	69.4	9	49A	-3	17	47	0		
SIDA	57.64	329.9	9	53	-1				10 2	
CHANGCHUN	57.85	53.8	9	52A	-3	17	53	-1		
TIKSI	58.83	20.9	10	0	-2	18	12	5	12	18 PP
YAKUTSK	58.84	32.2	9	59	-3	18	5	-2	12	13 PP
TAINAN	58.91	78.7	9	49	-14					
PRETORIA	59.08	207.8	10	2	-2					
REYKJAVIK	59.34	330.3	10	5A	-1				10 15	12 23 PP
TAIPEI	59.37	76.1	9	21	-45					
SCORESBY SD.	59.44	337.7	10	6	0	18	28	13	11	53 PP
HENGCHUN	59.71	79.6	10	7	-1					
TAWU	59.72	79.2	10	9	1	18	28	9		
HWALIEN	59.80	77.2	10	3	-6					
TAITUNG	59.80	78.7	10	17	8	18	9	-11		
NORD	59.81	350.7	10	6A	-3	18	10	-10		
BAGUIO CITY	61.62	85.6	10	20	-1	18	48	5		
PIETERMZBURG	61.70	203.8	10	24	2					

LEMBANG	61.81	115.7	10	28	5	18	48	3		
WINDHOEK	61.85	219.6	10	21	-2					
MANILA	62.76	87.2	10	32	3	19	32	35		
TOMIE	63.09	65.6	10	46	15	19	15	14		
KIMBERLEY	63.15	209.2	10	28A	-3					
NAGASAKI	63.95	65.2	10	34A	-3	19	10	-2		
HUKUOKA	64.10	64.2	10	42	4	19	21	7		
SAGA	64.13	64.5	10	36	-2				17	13
UNZENDAKE	64.25	65.1	9	46	-53					
SIMONOSEKI	64.42	63.6							11	10
KUMAMOTO	64.58	64.9	10	41	0	19	27	7		
HAMADA	65.03	62.3	10	42	-2	19	32	7		
YAKUSIMA	65.17	67.4							11	28
OOITA	65.19	64.2	10	51	6	19	34	7		
MIYAZAKI	65.44	65.6	10	39	-7	19	28	-3		
HIROSIMA	65.48	62.8							19	34
YONAGO	65.87	61.4	10	42	-7					
MATUYAMA	65.92	63.2	10	51	2	19	37	1		
PONTA DELGDA	66.20	301.4	10	53K	2				11	13
SIMIDU	66.41	64.2	10	52	-1	19	39	-3		
GRAHAMSTOWN	66.44	205.3	10	51	-2					
KOTI	66.61	63.3	10	54	0	19	42	-3		
TOYOOKA	66.98	60.9	10	53	-3	19	53	4		
MBOUR	67.21	274.7	10	58	0	19	49	-3		
MUROTO	67.22	63.4	11	4	6	19	58	6		
TOKUSIMA	67.26	62.4	10	56	-2					
SUMOTO	67.43	62.1	10	40	-19				20	4
ABUYAMA	67.77	61.3	10	59A	-2					
OSAKA	67.82	61.6	11	5	3	21	2	63		
KYOTO	67.85	61.1	11	7	5	19	53	-7		
HUKUI	67.90	59.9	11	6	4					
TSURUGA	67.90	60.4	11	3	1					
HIKONE	68.17	60.7	11	7	3	20	7	4		
SIOMISAKI	68.40	62.7	11	8	3	20	9	3		
TOYAMA	68.42	59.0	11	26	21				19	26
KAMEYAMA	68.48	61.1	11	8	2	20	9	2		
GIHU	68.53	60.4	11	5	-1					
OWASE	68.53	62.0	11	9	3					
TAKAYAMA	68.64	59.6	11	3	-4					
SUTTSU	68.65	52.0	11	27	20	20	11	2		
NAGOYA	68.76	60.6	11	5	-2	20	12	2		
AIKAWA	68.78	57.4	11	8	1					
WAKKANAI	68.80	49.0							20	13
Y.-SAKHLINSK	68.98	47.1	11	6	-3	20	10	-3		
TAKADA	69.08	58.3	11	8	-1					
MORI	69.12	52.6	11	15	5	20	13	-2		
MATUMOTO	69.16	59.2	11	11	1					
NAGANO	69.19	58.7	11	15	5	20	25	9		
RUMOE	69.24	50.5	11	17	7					
MATUSIRO	69.24	58.9	11	7A	-3	20	11	-5	14	7 PP
IIDA	69.30	60.0	11	16	5				11	40
SAPPORO	69.34	51.4	11	10	-1	19	52	-25		
HAKODATE	69.34	52.9	11	11	0					
NIIGATA	69.41	57.2	11	3	-8	20	21	3		
AKITA	69.57	55.1							19	55
OIWAKE	69.57	59.0	11	21	9	20	36	16		
AOMORI	69.69	53.9	11	20K	7	20	22	1		
KOHU	69.81	59.6	11	19	5	20	27	4		
SHIZUOKA	69.93	60.4	11	20	5	20	28	4		
MAEBASI	69.94	58.8	11	17	2	20	35	11		
HUNATU	70.03	59.7	11	13	-2	20	30	5		
THULE	70.15	347.8	11	14	-2	20	38	11	13	50 PP
YAMAGATA	70.26	56.5	11	16	-1	20	31	3		
KUMAGAYA	70.26	58.9	11	16	-1	20	27	-1		
MISIMA	70.30	60.1	11	13	-4	20	30	1		
HATINOHE	70.32	53.9	11	20	3	20	27	-2		
MORIOKA	70.35	54.9	11	17	0	20	29	0		
HERMANUS	70.43	210.4							20	39
UTUNOMIYA	70.49	58.4	11	16	-2	20	38	7		
HUKUSIMA	70.52	57.0	11	25	7	20	37	6		
MIZUSAWA	70.52	55.4	11	23	5	20	33	2		
SHIRAKAWA	70.55	57.7	11	16	-2					
URAKAWA	70.65	52.0	11	19	0	20	34	1		
SENDAI	70.65	56.4	11	25	6	20	39	6		
OBIHIRO	70.67	51.1	11	19	0					
TOKYO C.M.O.	70.71	59.3	11	26	7	20	26	-7		
YOKOHAMA	70.72	59.5	11	21	2	20	39	5		
OSIMA	70.75	60.3							11	43

PORT MORESBY	96.65	97.1	13	38	5					17	34 PKS
TUKUBASAN	70.78	58.6	11	16A	-4	20	29	-5	11 23	13	55 PP
KAKIOKA	70.84	58.6	11	21	1	20	33	-2			
ISINOMAKI	70.91	56.1	11	18	-2	20	43	7			
MIYAKO	70.95	54.7	11	22	1	20	42	6			
HIROO	70.98	51.7	11	20	-1						
MITO	71.00	58.4	11	21K	0	20	43	6			
ABASHIRI	71.02	49.7	11	20	-1						
ONAHAMA	71.12	57.7	11	25	3	20	38	0			
KUSIRO	71.47	50.7	11	12	-12	20	21	-21			
NEMURO	72.15	50.0	11	33	5	20	43	-7			
RESOLUTE	75.72	352.0	11	47	-2	21	34	4		14	45 PP
PETROPAVLOVK	76.07	37.1	11	47	-4	21	31	-3		14	37 PP
KERGUELEN I.	78.18	169.7	12	8	6	22	6	9			
MUNDARING	83.63	131.2	12	31	0						
GUAM	84.01	78.0	12	41	8	23	5	8		17	33 PP
COLLEGE	85.88	9.4	12	41	-1	23	15	0			
HALIFAX	88.37	320.9	12	56K	1						
SHAWINIGAN	91.87	326.7	13	11	0						
WESTON	94.06	323.0	13	26	5	24	33	3		17	5 PP
OTTAWA	94.13	327.4	13	20	-1						
MAWSON	95.44	176.8	13	32	5	24	6	3	13 42	31	15 SS
PALISADES	96.40	323.4	13	16	-16	24	5	-3		17	25 PP
PORT MORESBY	96.65	97.1	13	38	5	21	20	-170		17	34 PKS
PENNSYLVANIA	98.60	325.4	13	46	4	24	27	7		17	48 PP
WASHINGTON	99.60	323.7	13	51	5						
CLEVELAND	99.85	328.0	13	51A	4					17	55 PP
CHARTERS TS.	100.63	107.1	13	50	-1						
BANFF	100.76	353.6	13	52	1						
ADELAIDE	101.10	123.6	13	57	4						
PENTICTON	102.92	356.1	14	6	5						
WILKES	103.10	159.9				24	41	0		27	21 PS
HUNGRY HORSE	103.37	352.2	14	5	2	24	46	3		29	56 PKKP
VICTORIA	103.88	358.6	14	11	6						
COLUMBIA	105.38	322.9	17	46	777						
BUTTE	105.47	350.7	18	23	777					20	50
RAPID CITY	105.49	343.5	14	18	777					18	27 PKP
BOZEMAN	105.58	349.5	14	18	777	25	4	11		18	44 PKP
SAN JUAN	106.38	301.6	18	43	777					19	19
CORVALLIS	107.81	358.4	17	42	777						
HONIARA	107.95	91.3								20	41 PP
CANBERRA	108.96	120.5	18	38	777					19	9 PP
BRISBANE	109.05	111.4	14	51	777	25	32	24			
FAYETTEVILLE	109.82	333.4	14	40	777	26	59	108		18	29 PP
FLAMING GRGE	109.88	347.1	17	53	777					14	42 P
RIVERVIEW	110.08	118.3								19	5 PP
SALT LAKE C.	110.48	349.0	14	36	-238					17	52 PKP
SHASTA	111.66	357.5	17	54	-42						
CARACAS	111.69	295.4	18	49	13					19	35 PP
EUREKA	112.35	352.0	18	11	-26					14	50 P
RENO	112.67	355.2	18	34K	-4					19	23
WICHITA MTS.	112.69	336.2	18	41	3	25	26	3		19	27 PP
BERKELEY	114.47	357.2				29	27	237		19	48 PP
LICK	114.97	356.6	18	46A	3					19	44
FRESNO	115.42	354.9								19	35
VINEYARD	115.55	356.3	18	47	3						
BOULDER CITY	115.64	350.4	18	45	1						
SOUTH POLE	117.77	180.0	18	47	-1	26	21	39		20	8 PP
PASADENA	117.87	353.1								18	44 PP
TUCSON TELE.	118.44	345.8	18	50	1						
TUCSON	118.55	345.9	18	49	0					20	20 PP
FUQUENE	120.07	295.4								20	20 PP
BOGOTA	120.85	294.8	18	58	4					20	27 PP
KIPAPA	121.73	36.1	18	59	3						
SCOTT BASE	121.76	166.7	18	57K	1	26	4	9		20	31 PP
HONOLULU	121.79	36.2								20	41 PP
CHINCHINA	121.87	296.2								19	55
CAPE HALLETT	124.13	160.6	19	2K	2					20	48 PP
LA PAZ	126.11	269.4	19	9	5					21	6 PP
ROXBURGH	126.32	127.6								38	10 SS
ARGENTINE I.	127.01	207.5	19	7	1						
BYRD STATION	127.76	181.3	19	6	-1	27	2	49		21	9 PP
WELLINGTON	129.96	121.9	19	13	2						
KARAPIRO	130.23	117.4	19	14	2					22	39 PKS
ANTOFAGASTA	130.59	261.7	19	16	5					24	42
HUANCAYO	130.63	278.2	19	16	3					22	45 PKS
SANTA LUCIA	132.96	249.1	19	24	7					19	49 PP

JUNE 11 5.H 30.M 15.S EPICENTRE 27.92 54.90 DEPTH= 68.KM

A= 0.50879 B= 0.72403 C= 0.46574 D= 0.8182 E=-0.5750
G= 0.2678 H= 0.3811 K=-0.8849 HT= 2.5

DEPTH OF FOCUS= 0.005R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TEHERAN	8.35	339.9	1	59	-2							
QUETTA	10.78	75.1	2	34	0							
LAHORE	17.25	73.2	3	57	-1							
JERUSALEM	17.50	287.5	4	2A	1							
ISTANBUL UN.	24.95	308.4	5	19	0							
ATHENS	27.91	299.0	5	48	2							
CHATRA	28.63	84.6	5	55	2							
SOFIA	29.49	308.4	6	53	53							
SHILLONG	33.02	85.4	6	29	-2							
VIENNA-H.	35.99	314.9	6	56A	-1							
LJUBLJANA	36.52	310.7	7	0	-1							
TRIESTE	36.94	309.8	7	4	-1							
PRUHONICE	37.72	316.9	7	21	10						9	16
NURMIJARVI	38.46	336.4	7	17	0	13	11	4				
HALLE	39.79	318.3	7	13	-15							
JENA	39.82	317.3	7	27	-2						9	4
KAJAANI	40.16	341.9	7	57	26	13	59	26				
STUTTGART	40.65	313.5	7	34	-1						7	59
UPPSALA	40.75	332.1	7	36A	0							
COPENHAGEN	41.09	324.4	7	40A	1				8	0		
STRASBOURG	41.58	312.8	7	39	-4						8	24
GOTEBORG	42.20	327.0	7	47	-1							
UMEA	42.24	338.0	7	46	-3							
MUNSTER	42.50	317.7	7	54	3							
BENSBERG	42.51	316.2	7	51	0							
SODANKYLA	43.03	344.4	7	56	1							
GARCHY	44.48	310.2	8	6	-1							
SKALSTUGAN	44.94	334.6	8	10	0							
KIRUNA	44.95	342.3	8	10A	0						8	47
PARIS	45.07	312.3	8	11	0							
FOLINIERE	47.01	311.9	8	25	-2							
BROKEN HILL	49.29	214.7	8	45	1							
COIMBRA	52.87	300.8	9	11	0							
BULAWAYO	54.12	210.9	9	19A	-2							
SIDA	57.83	329.9	9	48	1							
PRETORIA	59.23	208.2	9	56	-1							
REYKJAVIK	59.53	330.3	10	0A	1							
SCORESBY SD.	59.58	337.7	10	1A	2							
WINDHOEK	62.06	219.9	10	16	0							
MANILA	62.41	87.4	10	22	3						29	41
GRAHAMSTOWN	66.57	205.7	10	45A	-1							
MATUSIRO	68.95	59.0	11	0A	0						12	17
THULE	70.24	347.9	11	5	-3							
TUKUBASAN	70.49	58.7	11	9A	-1						19	27
RESOLUTE	75.78	352.1	11	37	-4							
MUNDARING	83.36	131.4	12	21	0							
DARWIN	83.62	107.5	11	27	-56							
SHAWINIGAN	92.08	326.9	13	4	1							
OTTAWA	94.33	327.6	13	15	1							
MAWSON	95.41	176.9	13	22	4							
CHARTERS TS.	100.29	107.3	13	51	10							
HUNGRY HORSE	103.44	352.4	13	58	3							
WICHITA MTS.	112.85	336.5	18	31	2						29	25 PKKP
TUCSON	118.64	346.2	18	44	3							
SCOTT BASE	121.66	166.6									19	10
KARAPIRO	129.92	117.5	19	5	3							

JUNE 11 6.H 46.M 48.S EPICENTRE 27.69 54.98 DEPTH= 39.KM

A= 0.50892 B= 0.72620 C= 0.46221 D= 0.8189 E=-0.5739
G= 0.2653 H= 0.3785 K=-0.8868 HT= 2.6

DEPTH OF FOCUS= 0.001R

SE= 1.73

	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	
TEHERAN	8.59	340.1	2	4	-1								
QUETTA	10.78	73.8	2	34	-1								
WARSAK DAM	15.55	62.1	3	39	1								
STALINABAD	15.83	43.2	3	43	1								
TIFLIS	16.29	331.9	3	50	2								
MAKHACH-KALA	16.41	340.2	3	49K	0	6	53	4					
LAHORE	17.26	72.5	3	58	-2								
JERUSALEM	17.63	288.1	4	3	-1						8	44	
TASHKENT	17.96	37.1	4	8	0	7	35	10					
NAMANGAN	19.08	41.7	4	22A	0								
ANDIJAN	19.36	43.2	4	25A	0	8	3	7					
SOTCHI	20.08	326.1	4	30	-3	8	13	2					
DEHRA DUN	20.34	77.1	4	38	2	8	20	3			5	4	PPP
HELWAN	20.84	281.6	4	38K	-3								
ALMATA	23.60	43.1	5	10	2	9	27	11					
SIMFEROPOL	23.95	321.5	5	13	1	9	28	5					
ISTANBUL UN.	25.14	308.7	5	22	-1								
KISHINEV	28.15	320.3	5	50	-1	10	48	16					
CHATRA	28.59	84.2	5	54	-1								
MOSCOW	30.69	340.7	6	14	1	10	52	-20					
VIENNA-H.	36.20	315.1	7	1	0								
LJUBLJANA	36.72	310.9	7	5	0						8	36	PP
TRIESTE	37.13	310.0	7	11	2	12	46	-6					
PRUHONICE	37.93	317.1	7	14	-2						11	55	
KASPERSKE H.	38.24	315.4	7	16K	-2								
NURMIJARVI	38.70	336.5	7	20	-2	13	14	-2					
LWIRO	39.00	224.5	7	26	2						12	7	
KAJAANI	40.39	341.9	7	35	-1								
STUTTGART	40.86	313.6	7	39	-1								
UPPSALA	40.99	332.2	7	39	-2								
COPENHAGEN	41.32	324.6	7	42	-2								
ISOLA	41.54	306.3	7	45	0								
GOTEBORG	42.42	327.1	7	51	-2								
UMEA	42.48	338.0	7	49	-4						9	28	PP
MUNSTER	42.71	317.9	7	58	3								
BENSBERG	42.72	316.3	7	55	0								
SODANKYLA	43.26	344.4	8	0	0						9	41	PP
GARCHY	44.68	310.4	8	11	0						8	33	
ULAN-BATOR	44.77	48.7	8	11	-1								
SKALSTUGAN	45.18	334.7	8	32	17								
KIRUNA	45.18	342.3	8	14	-1								
PARIS	45.27	312.4	8	14	-2								
TROMSOE	46.84	343.6	8	27	-1								
FOLINIERE	47.21	312.1	8	30	-1								
KEW	47.44	315.7	8	31	-2								
BROKEN HILL	49.14	214.9	8	46A	0								
KHEYS	53.04	0.6	9	9	-7								
BULAWAYO	53.96	211.1	9	22	0								
TIKSI	58.91	20.8	9	59	1								
SCORESBY SD.	59.82	337.7	10	5	1								
THULE	70.48	347.9	11	13	0								
RESOLUTE	76.02	352.1	11	45	0								
COLLEGE	86.05	9.5	12	37	-1								
MAWSON	95.18	177.0	13	21	0								
EUREKA	112.65	352.4	18	12	-20								

JUNE 11 12.H 30.M 20.S EPICENTRE 27.67 54.59 DEPTH= 0.KM

A= 0.51388 B= 0.72287 C= 0.46194 D= 0.8150 E=-0.5794
G= 0.2676 H= 0.3765 K=-0.8869 HT= 2.6

SE= 3.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TEHERAN	8.49	342.1	2	3	-4							
QUETTA	11.11	74.1	2	43	0							
WARSAK DAM	15.87	62.4	3	47	1							
STALINABAD	16.08	43.9	3	48	-1							
TIFLIS	16.15	332.8	3	49	-1							
MAKHACH-KALA	16.31	341.2	3	47	-5							
KSARA	17.20	295.4	3	58	-5							

JERUSALEM	17.31	288.3	4 2	-2		
LAHORE	17.59	72.6	4 7	-1		
NAMANGAN	19.32	42.2	4 18K	-11		
SOTCHI	19.90	326.8	4 32	-4		
HELWAN	20.50	281.7	4 39K	-3		
DEHRA DUN	20.70	77.0	4 42	-2	5 37	
SIMFEROPOL	23.76	321.9	5 12	-2		
ALMATA	23.85	43.4	5 17	2		
ISTANBUL KA.	24.84	309.2	5 22A	-3		
ISTANBUL UN.	24.88	309.0	5 23	-2		
ATHENS	27.79	299.6			6 52	PP
SKALNATE PL.	33.99	318.5			7 46	PP
MESSINA	34.19	298.0	6 55	6		
PULKOVO	36.14	339.3	7 2	-4		
LJUBLJANA	36.47	311.0	7 4	-4		
PRUHONICE	37.71	317.2	7 16	-3	7 37	
KASPERSKE H.	38.01	315.6	7 18K	-3		
NURMIJARVI	38.58	336.7	7 23	-3		
LWIRO	38.74	224.0	7 29K	2	11 31	
COLLMBERG	39.10	318.6	7 27K	-3	8 17	
HALLE	39.79	318.6	7 33	-3		
JENA	39.82	317.6	7 34	-2	8 4	
STUTTGART	40.62	313.7	7 39	-4		
UPPSALA	40.84	332.3	7 41K	-4		
COPENHAGEN	41.13	324.7	7 44	-3		
BANGUI	41.34	242.5	7 46	-3	15 22	
GOTEBORG	42.25	327.3	7 52	-4		
UMEA	42.37	338.2	7 55	-2		
BENSBERG	42.50	316.4	7 56	-2		
MUNSTER	42.50	318.0	7 57	-1		
SODANKYLA	43.19	344.6	8 1K	-3		
GARCHY	44.43	310.4	8 10	-4		
PARIS	45.03	312.5	8 9	-10		
SKALSTUGAN	45.05	334.8	8 16	-3	8 38	
KIRUNA	45.10	342.5	8 16K	-3		
TROMSOE	46.76	343.8	8 30	-3		
FOLINIERE	46.97	312.1	8 31	-3		
KEW	47.21	315.8	8 33A	-3		
BROKEN HILL	48.94	214.5	8 50A	0		
BULAWAYO	53.77	210.7	9 25A	-1		
PRETORIA	58.88	207.9	10 3	0		
TIKSI	59.05	20.8	10 3	-1		
SCORESBY SD.	59.71	337.8	10 6	-2		
NORD	60.08	350.8	10 6	-5		
WINDHOEK	61.70	219.7	10 23	1		
KIMBERLEY	62.95	209.4	10 29	-2		
MATUSIRO	69.32	58.8	11 12	1		
THULE	70.42	347.8	11 13	-5		
COLLEGE	86.13	9.4	12 42	-2		
WICHITA MTS.	112.96	336.2	18 42	3		
SOUTH POLE	117.52	180.0	18 48	0		
BYRD STATION	127.50	181.6	19 5	-2		

JUNE 11 12.H 31.M 26.S EPICENTRE 27.89 54.49 DEPTH= 12.KM

A= 0.51407 B= 0.72053 C= 0.46537 D= 0.8141 E=-0.5808
G= 0.2703 H= 0.3788 K=-0.8851 HT= 2.5

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
TEHERAN	8.26	342.1	2 2	0				
QUETTA	11.14	75.2	2 40	-2				
KARACHI	11.66	102.3	2 46	-3				
KIROVOBAD	14.39	334.2	3 25	0				
WARSAK DAM	15.84	63.2	3 41	-3				
GROZNY	16.94	337.6	3 58	0				7 22 SS
KSARA	17.03	294.9	3 59	0	7 22	14		7 44 SS
JERUSALEM	17.16	287.7	4 1A	0				
KHOROG	17.21	52.0	4 4	2	7 19	7		
LAHORE	17.61	73.3	4 4	-3				
BOMBAY	19.04	114.1	4 22	-2	7 50	-3		
HELWAN	20.38	281.1	4 37A	-2	8 22	0		
DEHRA DUN	20.72	77.6	4 54	11	8 33	4		10 7 SS
FRUNSE	22.09	42.3	4 56	0				9 5 PCP
SIMFEROPOL	23.53	321.7	5 10A	-1	9 26	5		

ISTANBUL KA.	24.63	308.9	5	20A	-1	9	50	10		
ISTANBUL UN.	24.68	308.7	5	22K	0	9	55	15		
BUCHAREST	28.05	313.6	5	54	1	10	38	2	7	9
MADRAS	28.18	116.5	5	53	-1	10	44	6	6	41 PP
VISHAKHAPTNM	28.35	104.8				10	50	9	6	28
BOKARO	28.42	91.0	5	57	1	10	43	1	11	10
IASI	28.53	319.7	5	57	0				11	9
CHATRA	29.00	84.4	6	0	-1	11	20	29	7	43
SOFIA	29.22	308.6	6	4	1	11	13	18		
SEMIPALATNSK	29.80	34.0	6	9	0					
MOSCOW	30.35	341.1	6	13	-1					
CALCUTTA	31.05	92.2	6	13	-7				12	34
TIMISOARA	31.74	313.1	6	25	-1					
BELGRADE	31.91	311.1	6	26	-1	11	41	4	7	27 PP
LWOW	31.96	321.6	6	26A	-2	11	36	-1		
TITOGRAD	32.00	306.3	6	39	9	11	36	-2	6	58 PP
LHASA	32.00	78.0	6	29	1					
SHILLONG	33.38	85.2	6	38	-2					
KRAKOW	34.36	319.6	6	47	-2				11	9
CHORZOW	35.00	319.5	6	50	-4				9	7
RACIBORZ	35.35	318.8	6	56	-1				9	59
BRATISLAVA	35.27	315.2	6	55	-1	12	25	-4	8	13 PP
VIENNA-H.	35.75	315.1	6	59	-1					
PULKOVO	35.90	339.3	7	1	-1				8	20 PP
LJUBLJANA	36.26	310.8	7	4A	-1	12	43	-1	8	20 PP
TRIESTE	36.67	310.0	7	7	-1	12	50	0		
ROME	36.82	303.5	7	8A	-1	12	54	1		
PRUHONICE	37.49	317.1	7	14A	-1	13	5	2	8	43 PP
PRAGUE	37.59	317.2	7	16	0	13	7	2		
KASPERSKE H.	37.79	315.4	7	16A	-2	13	20	12	7	44
PADOVA	37.90	309.1	7	16	-3				8	54 PP
FLORENCE X.	38.01	306.3	7	16A	-3	14	13	62		
NURMIJARVI	38.34	336.6	7	21A	-1	13	18	2	8	46 PP
CHEB	38.84	316.5	7	24	-2					
COLLMBERG	38.88	318.5	7	26A	-1	13	24	0	9	0 PP
HALLE	39.57	318.4	7	32	0	13	33	-2		
JENA	39.60	317.5	7	31	-2	13	34	-1	9	14 PPP
PAVIA	39.72	308.1	7	40K	6	13	44	7	10	34
CHUR	39.80	310.7	7	28	-6	13	34	-4		
KAJAANI	40.07	342.1	7	36	-1	13	48	6		
STUTTGART	40.40	313.6	7	37	-2	13	43	-4	16	59 SSS
UPPSALA	40.61	332.3	7	39A	-2	13	48	-2	9	15 PP
COPENHAGEN	40.90	324.6	7	43A	0	13	56	1	8	57 PP
HEIDELBERG	40.92	314.4	7	41	-3					
KARLSRUHE	41.02	313.7	7	42	-2	13	34	-22		
ISOLA	41.07	306.2	7	45	0					
BASLE	41.24	311.3	7	55A	9	14	3	3		
STRASBOURG	41.33	312.9	7	44	-3	13	54	-7	16	50 SS
NEUCHATEL	41.56	310.4	7	47	-2					
GOTEBORG	42.02	327.2	7	51	-2					
UMEA	42.13	338.1	7	53	-1				9	32
BESANCON	42.26	310.6	7	51	-4					
LANCHOW	42.26	66.1	7	55	0	14	16	1		
MUNSTER	42.27	317.8	7	56	1				8	19
BENSBERG	42.27	316.3	7	54A	-1	14	16	1	9	35 PP
SODANKYLA	42.95	344.6	7	59A	-1					
CHENGTU	43.00	73.9	7	59	-2	14	23	-3	9	43 PP
KUNMING	43.05	82.2	8	1A	0	14	23	-3		
WITTEVEEN	43.07	318.8	8	0	-1					
DE BILT	43.76	317.4	8	8	1	14	40	3		
CLERMONT-FD.	44.02	308.1	8	8	-1					
IRKUTSK	44.11	42.4	8	9A	-1				17	58 SS
GARCHY	44.22	310.3	8	9	-2	14	41	-2	10	17 PP
SKALSTUGAN	44.81	334.8	8	14A	-1					
PARIS	44.82	312.3	8	13	-2	14	57	5	11	9
KIRUNA	44.86	342.5	8	15A	-1	14	50	-3	10	5 PP
ULAN-BATOR	44.96	49.0	8	17	0	14	59	5		
TORTOSA	45.75	301.1	8	23	1	15	6	0		
BAGNERES	45.99	304.1	8	22	-3					
TROMSOE	46.53	343.7	8	27	-2					
SIAN	46.59	68.0	8	28A	-1	15	17	0	10	17 PP
ALICANTE	46.61	297.6	8	29	-1	15	17	-1	10	6 PP
FOLINIERE	46.76	312.0	8	29	-2					
KEW	46.99	315.6	8	31A	-2	15	19	-4	10	23 PP
TANANARIVE	47.02	189.0	8	35	2					
JERSEY	47.86	312.4	8	52	13	14	51	-44		
DURHAM	48.28	319.9	8	41A	-2	15	37	-4		
ALMERIA	48.32	295.8	8	39A	-4				10	14 PCP

MEDAN	48.52	111.8	8	52	7					18	34
ABERDEEN	49.03	323.0				15	54	2			
BROKEN HILL	49.07	214.2	8	49A	0						
GRANADA	49.18	296.4	8	51A	1	16	3	9		10	51 PP
TOLEDO	49.26	300.0	8	49	-1	15	56	1		10	38 PP
PEKING	51.64	59.5	9	8A	0	16	27	-1		11	8 PP
COIMBRA	52.57	300.8	9	14A	-1						
SERRA PILAR	52.59	302.0	9	14K	-2	16	37	-4	9 24	11	14 PP
KHEYS	52.84	0.7	9	17	0	16	48	4		11	15 PP
CANTON	52.91	81.1	9	18	0	16	48	3			
LISBON	53.32	299.1	9	20A	-1	16	49	-2			
HONG KONG	53.88	81.7	9	22	-3	17	0	1		18	2
BULAWAYO	53.92	210.5	9	24	-1						
NANKING	55.12	68.8	9	32A	-2	17	10	-5		11	40 PP
ZO-SE	57.34	69.3	9	49A	-1	17	41	-4			
SIDA	57.67	329.9	9	52A	0						
CHANGCHUN	57.88	53.8	9	51A	-3	17	51	-1			
TIKSI	58.87	20.9	9	59	-2	18	1	-4			
YAKUTSK	58.88	32.2	9	59	-2	18	1	-4			
PRETORIA	59.04	207.8	10	1	-1						
REYKJAVIK	59.37	330.3	10	3A	-1						
SCORESBY SD.	59.47	337.7	10	5	0	18	23	11		20	0 SCS
NORD	59.85	350.7	10	5A	-3						
BAGUIO CITY	61.64	85.6	10	18	-2	18	42	2			
PIETERMZBURG	61.66	203.8								9	56 PCP
WINDHOEK	61.81	219.6	10	22	1						
LEMBANG	61.82	115.7	10	16K	-5						
MANILA	62.77	87.2	10	28	1	19	0	6			
KIMBERLEY	63.11	209.2	10	29	0						
GRAHAMSTOWN	66.40	205.3								10	49
MBOUR	67.20	274.7	10	55	-1	19	47	-2			
ABUYAMA	67.81	61.3	10	58A	-2						
Y.-SAKHLINSK	69.01	47.1	11	6	-1	20	8	-3			
MATUSIRO	69.27	58.9	11	7A	-2	20	9	-5		24	53 SS
MAGADAN	69.45	32.7	11	8	-2	20	14	-2			
THULE	70.19	347.8	11	12	-2						
TUKUBASAN	70.82	58.6	11	15A	-3						
RESOLUTE	75.75	352.0	11	46	-1	21	29	1			
PETROPAVLOVK	76.11	37.1	11	46	-3	21	28	-3		14	36 PP
MUNDARING	83.61	131.1	12	27	-2						
DARWIN	83.96	107.3	12	32	1						
COLLEGE	85.92	9.4	12	40	-1					13	36
SHAWINIGAN	91.90	326.7	13	9	0						
OTTAWA	94.15	327.4	13	19	-1						
MAWSON	95.41	176.8	13	26	1					13	41 *SP
PALISADES	96.43	323.4								26	18 PS
CHARTERS TS.	100.63	107.1	13	47	-2						
HUNGRY HORSE	103.41	352.2	14	6	5					18	18 PKP
BUTTE	105.51	350.7	18	18	777						
FLAMING GRGE	109.91	347.1	17	53	777						
SHASTA	111.70	357.5	18	48	14						
EUREKA	112.39	352.0	18	17	-19						
WICHITA MTS.	112.72	336.2	18	38	2					19	16 PP
BOULDER CITY	115.68	350.4	18	36	-6						
SOUTH POLE	117.73	180.0	18	46	0						
TUCSON TELE.	118.47	345.8	18	48	1						
TUCSON	118.58	345.8	18	49	1						
SCOTT BASE	121.72	166.7	18	58	4					20	41 PP
LA PAZ	126.10	269.4	19	6	4						
BYRD STATION	127.72	181.3	17	6	1						
KARAPIRO	130.23	117.5	19	11	1					22	34 PKS
HUANCAYO	130.62	278.2	19	15	4						

JUNE 11 13.H 58.M 1.S EPICENTRE 27.89 54.74 DEPTH= 54.KM

A= 0.51095 B= 0.72276 C= 0.46536 D= 0.8166 E=-0.5773
G= 0.2686 H= 0.3800 K=-0.8851 HT= 2.5

DEPTH OF FOCUS= 0.003R

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
TEHERAN	8.33	340.8	1	59A	-2							
ASHKABAD	10.48	15.9	2	36	5							

QUETTA	10.92	75.1	2 35	-2						
KIZYL-ARVAT	11.35	6.0	2 40	-2	4 53	4			5 35	
GORIS	13.52	331.0	3 11K	0					8 43	
WARSAK DAM	15.65	63.0	3 46	7						
TIFLIS	16.01	332.1	3 45A	1	6 48	9				
KHOROG	17.04	51.6	3 57	1	7 13	10				
KSARA	17.23	294.7	3 57	-2	7 19	12			7 43	SS
JERUSALEM	17.37	287.6	4 1	0	7 25	15				
LAHORE	17.40	73.2	3 57	-4						
TASHKENT	17.93	37.9	4 6	-1	7 33	10			4 53	PPP
BOMBAY	18.83	114.5	4 20	2					8 7	
DEHRA DUN	20.50	77.6	4 36	0					8 27	
HELWAN	20.59	281.1	4 36A	-1	8 26	7				
FRUNSE	21.94	42.0	4 51	0	8 59	14				
SIMFEROPOL	23.66	321.5	5 8A	0	9 25	10				
ISTANBUL KA.	24.81	308.7	5 19A	0	9 42	7				
ISTANBUL UN.	24.85	308.5	5 19	0						
ATHENS	27.80	299.1	5 50K	3						
BUCHAREST	28.21	313.4	5 17	-33	10 38	7			6 16	
IASI	28.68	319.5	5 55	1					6 35	
CHATRA	28.78	84.5	5 55A	0						
SOFIA	29.39	308.5	6 2	1	9 59	-50				
SEMIPALATNSK	29.68	33.8	6 4	1						
MOSCOW	30.43	340.8	6 11	1	11 18	12				
LWOW	32.06	321.5	6 24	0	11 35	4				
BELGRADE	32.08	311.0	6 25	1	11 39	7			7 41	PPP
SHILLONG	33.16	85.3	6 31	-3						
SKALNATE PL.	33.91	318.2	6 40	0					8 6	
KRAKOW	34.49	319.5	6 45	0			6 54		7 39	
WARSAW	34.94	323.4	6 46	-3					8 11	PP
CHORZOW	35.14	319.4	6 50	-1			7 4			
BRATISLAVA	35.42	315.1	6 53	0					8 25	PP
RACIBORZ	35.51	318.7	6 54K	0			7 2		9 30	PCP
VIENNA-H.	35.91	315.0	6 57A	0					8 21	PP
PULKOVO	35.98	339.1	6 59	1	12 37	5			8 21	PP
LJUBLJANA	36.43	310.8	7 1A	-1					8 13	PP
TRIESTE	36.84	309.9	7 6	1	12 48	3			8 34	PP
ROME	37.00	303.5	7 7	0	12 53	5				
PRUHONICE	37.64	317.0	7 12A	0					8 41	PP
KASPERSKE H.	37.95	315.3	7 14A	0					7 57	
PADOVA	38.07	309.0							8 49	PP
FLORENCE X.	38.19	306.3	7 6	-11	12 48	-18				
NURMIJARVI	38.43	336.5	7 18A	0	13 13	4			8 44	PP
LWIRO	39.00	224.0	7 26	3						
COLLMBERG	39.03	318.4	7 23A	0	13 23	5			8 57	PP
HALLE	39.71	318.3	7 29	0	13 36	7				
JENA	39.75	317.4	7 29	0	13 32	3			8 48	PP
PAVIA	39.90	308.1	7 35	4					16 19	SS
CHUR	39.97	310.7	7 30	-1	13 33	0				
KAJAANI	40.14	341.9	7 35	2	13 40	5			9 9	PP
STUTTGART	40.56	313.5	7 35	-1						
UPPSALA	40.71	332.2	7 37A	0					8 3	
COPENHAGEN	41.03	324.5	7 41A	1	13 51	3			16 59	SS
HEIDELBERG	41.08	314.3	7 39	-1						
ISOLA	41.25	306.2	7 43	1					9 24	PP
BASLE	41.41	311.3	7 42A	-1	13 57	3				
STRASBOURG	41.50	312.9	7 43	-1					8 3	
BANGUI	41.56	242.4	7 44	0	14 0	4				
NEUCHATEL	41.73	310.4	7 45	-1						
LANCHOW	42.06	66.1	7 49A	0						
GOTEBORG	42.14	327.1	7 48	-1					12 1	
UMEA	42.21	338.0	7 51	1					9 28	PP
MUNSTER	42.42	317.8	7 53	2						
BESANCON	42.43	310.6	7 51	0						
BENSBERG	42.43	316.2	7 51	0					9 35	PP
CHENGTU	42.79	74.0	7 57	3						
KUNMING	42.83	82.3	7 55	0	14 18	3				
SODANKYLA	43.01	344.5	7 56K	0					9 34	PP
WITTEVEEN	43.21	318.7	8 0	2						
IRKUTSK	43.96	42.4	8 4A	0						
GARCHY	44.39	310.2	8 7	0						
ULAN-BATOR	44.80	48.9	8 13	2	14 53	10				
SKALSTUGAN	44.90	334.7	8 11	-1						
KIRUNA	44.93	342.4	8 12A	0	15 8	23			10 0	PP
PARIS	44.98	312.3	8 11	-1						
TORTOSA	45.93	301.0	8 21	1	15 15	15				
BAGNERES	46.18	304.1	8 20	-2						
SIAN	46.38	68.1	8 23A	0						

TROMSOE	46.59	343.6	8	24	-1					10	14 PP
FOLINIERE	46.92	311.9	8	26	-1						
KEW	47.14	315.6	8	30	1						
DURHAM	48.42	319.9	8	37	-2	15	46	11			
BROKEN HILL	49.19	214.5	8	46A	1						
GRANADA	49.38	296.4	8	50	3						
TOLEDO	49.45	300.0	8	47	0						
PEKING	51.45	59.6	9	3	1						
SERRA PILAR	52.78	302.0	9	13A	1						
KHEYS	52.84	0.7	9	14	1	16	46	10		11	10 PP
BULAWAYO	54.03	210.8	9	21	-1						
NANKING	54.91	68.9	9	27A	-1	17	8	4			
ZO-SE	57.13	69.4	9	44	0	17	36	3			
CHANGCHUN	57.71	53.8	9	47A	-1						
SIDA	57.78	329.9	9	50K	2						
YAKUTSK	58.77	32.2	9	53	-2	17	58	3			
TIKSI	58.80	20.9	9	53	-3						
PRETORIA	59.14	208.0	8	58	-60						
REYKJAVIK	59.48	330.3	10	2K	2						
SCORESBY SD.	59.55	337.7	10	1	0					12	7 PP
NORD	59.88	350.7	10	1A	-2						
WINDHOEK	61.95	219.8	10	18	1						
MANILA	62.55	87.3	10	23	2						
KIMBERLEY	63.21	209.4	10	25	0						
GRAHAMSTOWN	66.49	205.5	10	47	0						
MBOUR	67.42	274.8	10	52	0	19	28	-15			
Y.-SAKHLINSK	68.85	47.2	11	1	0						
MATUSIRO	69.09	58.9	11	2	-1	20	7	4			
THULE	70.24	347.8	11	8	-2						
TUKUBASAN	70.63	58.7	11	11A	-1						
RESOLUTE	75.79	352.0	11	42	0						
COLLEGE	85.89	9.5	12	36	0					15	58 PP
SHAWINIGAN	92.02	326.8	13	7	2						
MAWSON	95.39	176.9	13	24	4						
HUNGRY HORSE	103.44	352.3	13	59	3					18	14 PKP
BUTTE	105.54	350.9	18	10	777						
FLAMING GRGE	109.96	347.3	17	51	777					18	41
EUREKA	112.42	352.2	17	48	-42						
WICHITA MTS.	112.81	336.4	18	31	0					29	31 PKKP
SOUTH POLE	117.73	180.0	18	44	3						
SCOTT BASE	121.67	166.7	18	51	3						
BYRD STATION	127.72	181.3	19	1	1						

JUNE 11 17.H 15.M 30.S EPICENTRE 25.13 98.56 DEPTH= 0.KM

A=-0.13489 B= 0.89638 C= 0.42226 D= 0.9889 E= 0.1488
G=-0.0628 H= 0.4176 K=-0.9065 HT= 3.3

SE= 2.82

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TOCKLAI	3.77	296.2	1	12	11								
KUNMING	3.79	89.2	1	2A	1	1	55	8					
SHILLONG	6.07	275.6	1	31	-2	2	52	8					
CHITTAGONG	6.76	247.3	1	41	-2	2	52	-10					
CHENGTU	7.32	40.0	1	55	4								
LHASA	8.05	305.6	2	3	2	3	45	11					
CHATRA	10.39	281.9	2	31K	-2	4	25	-7					
BOKARO	11.69	266.3									5	40	
LANCHOW	11.79	21.4	2	55	3								
SIAN	12.79	42.3	3	7	1								
CANTON	13.65	95.5	3	12	-5								
PORT BLAIR	14.48	203.5									7	33	
HONG KONG	14.57	97.9	3	28	-1	6	35	22					
DEHRA DUN	18.87	290.5	4	23	-1	7	57	5			8	38	SSS
NANKING	19.04	64.1	4	27A	1								
ZO-SE	20.81	68.3	4	44	-1	8	40	7					
PEKING	20.95	40.5	4	48A	1	8	46	10					
MADRAS	21.11	238.5	4	51	2	8	43	3			10	21	
MEDAN	21.42	179.7	4	53A	1	8	45	0					
LAHORE	22.24	292.2	5	1	1								
BAGUIO CITY	22.31	108.6	5	1	0	9	16	14					
MANILA	23.56	111.9	5	15	2						9	59	
ULAN-BATOR	23.69	14.1	5	16	2	9	32	6					
POONA	23.84	258.9	3	56A	-79								
BOMBAY	24.63	260.6									9	57	

KYAKHTA	25.93	11.6	5 39	3	10 16	12					
KHOROG	26.07	304.7	5 39	2							
FRUNSE	26.43	317.9	5 43	3							
QUETTA	28.39	287.4	5 59A	1	10 48	3	6 9		6 56	PP	
CHANGCHUN	28.69	42.7	6 0	-1	10 57	8					
SEMIPALATNSK	28.93	335.4	6 3	0							
TASHKENT	29.15	310.9	6 5	0	11 2	5					
LEMBANG	32.96	163.3	6 48A	10					17 10		
MATUSIRO	35.67	61.8	7 0	-2	12 30	-9			8 23	PP	
ASHKABAD	36.31	300.5	7 11	4	11 55	-53					
Y.-SAKHLINSK	41.16	46.4	7 48	0							
YAKUTSK	42.42	21.2	8 0	2	14 27	7					
GORIS	45.80	301.5	8 28	3	15 10	1			10 24	PP	
TIFLIS	47.07	304.4	8 37	2	15 32	5			10 4	PCP	
TIKSI	49.56	12.1	8 51	-4							
MAGADAN	49.75	31.8	8 55	-1							
MOSCOW	53.32	321.9	9 24	1	16 59	5					
SIMFEROPOL	54.90	308.5	9 34	-1	17 18	3					
JERUSALEM	55.41	292.4	9 39A	1							
KHEYS	58.02	352.8	9 58	1	17 56	-1			12 5	PP	
ISTANBUL UN.	58.97	304.2	10 14	10							
HELWAN	59.07	291.0	10 3	-1							
RABAUL	59.63	111.5	10 7	-1							
SODANKYLA	60.12	334.9	10 10	-1							
NURMIJARVI	60.57	326.9	10 15	0							
LWOW	61.42	314.7	10 19	-1							
KIRUNA	62.52	335.2	10 26	-2	19 1	6					
UMEA	62.62	330.7	10 28K	0							
UPPSALA	64.11	326.4	10 37	-1	19 18	3					
SKALSTUGAN	66.17	330.8	10 52	1							
TANANARIVE	66.18	233.5	10 51	-1					11 33		
GOTEBORG	67.34	324.5	10 58	-1							
PRUHONICE	67.45	316.0	11 1A	1					20 3		
COPENHAGEN	67.49	322.3	11 1	1	20 6	10			21 6	SCS	
COLLMBERG	68.11	317.6	11 4A	0					13 40	PP	
KASPERSKE H.	68.25	315.2	11 5	0					13 31		
LJUBLJANA	68.37	311.8	11 6	1							
JENA	69.07	317.4	11 9	-1	20 15	0			24 42	SS	
ADELAIDE	70.85	145.9	11 17	-4							
STUTTGART	71.08	315.6	11 21	-1							
LWIRO	72.73	259.1	11 32	0							
PARIS	75.32	317.2	11 48	1							
GARCHY	75.51	315.6	12 8	20							
SCORESBY SD.	75.94	342.6	11 51	1					21 41	PP	
COLLEGE	76.90	23.7	11 54	-2							
THULE	78.36	356.9	12 1	-3							
BROKEN HILL	78.79	248.2	12 6	0							
RESOLUTE	80.06	3.6	12 12	-1							
BULAWAYO	81.52	243.2	12 20	-1							
SOUTH POLE	114.98	180.0	18 56	13							
BYRD STATION	122.70	172.7	18 56	-2							

JUNE 12 9.H 58.M 17.S EPICENTRE 21.60 106.02 DEPTH= 28.KM

A=-0.25675 B= 0.89448 C= 0.36603 D= 0.9612 E= 0.2759
G=-0.1010 H= 0.3518 K=-0.9306 HT= 4.3

SE= 1.82

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	PP S	SUPP. M	SUPP. S
KUNMING	4.62	319.9	1	10A	0	2	6	3				
CANTON	6.94	76.3	1	40K	-3						2	58
HONG KONG	7.60	83.3	1	48	-4	3	20	2			2	21
CHENGTU	9.20	349.1	2	11A	-3	3	54	-4				
SIAN	12.86	10.9	3	1A	-3	5	30	3				
CHITTAGONG	13.19	275.9	3	47	39	6	40	65				
SHILLONG	13.56	289.7	3	12K	-1						6	25
LANCHOW	14.52	352.9	3	27	1							
BAGUIO CITY	14.70	108.0	3	23	-5	6	29	18				
NANKING	15.42	44.9	3	34	-3							
LHASA	15.69	303.7	3	42K	1	6	44	10				
MANILA	15.88	113.2	3	46	3	6	46	7				
CALCUTTA	16.39	276.5	3	52	2	7	5	15			6	37
ZO-SE	16.54	52.0	3	48	-4							
CHATRA	17.95	290.6	4	10K	1	7	36	10				

BOKARO	18.78	280.6	4 18	-2	7 54	9				
MEDAN	19.28	202.7	4 24	-1					9 55	
PEKING	20.31	23.0	4 37A	1	8 25	7				
VISHAKHAPTNM	21.73	263.8	4 50	-1					5 13	PP
MADRAS	26.08	255.1	5 33	0						
ULAN-BATOR	26.27	1.3	5 52	17	10 36	32				
DEHRA DUN	26.55	294.9	5 35	-2					10 34	
CHANGCHUN	27.34	31.4	5 43A	-2	10 24	3				
LAHORE	29.93	296.0	6 6	-2						
IRKUTSK	30.64	358.0	6 14	0						
BOMBAY	31.23	271.1							11 36	
MATUSIRO	31.66	54.8	6 23A	0	11 35	5			9 14	PCP
WARSAK DAM	32.74	299.6	6 33	0						
FRUNSE	33.66	316.3	6 41	0	12 5	4				
KHOROG	33.69	305.7	6 41	0						
ANDIJAN	34.25	311.6	6 47A	1	12 19	9				
QUETTA	36.03	291.9	7 1A	0			7 14		8 26	PP
TASHKENT	36.63	311.0	7 7	1	12 56	9			8 37	PP
Y.-SAKHLINSK	38.97	40.6	7 26	0	13 27	5				
DARWIN	41.64	141.9	7 50	2						
YAKUTSK	43.56	16.0	8 2	-1	14 23	-7				
ASHKABAD	43.98	302.7	8 8	1					14 56	PS
SHIRAZ	48.54	291.0	8 42K	-1						
TEHERAN	49.37	299.1	8 48	-1						
PORT MORESBY	50.79	123.1	9 3	3						
RABAUL	51.95	114.0							9 9	
GORIS	53.46	303.8	9 20	0						
TIFLIS	54.68	306.5	9 29	0						
CHARTERS TS.	57.14	133.7	9 45	-2						
MOSCOW	60.28	322.7	10 8	0						
KSARA	62.22	297.8	10 21	-1					10 41	PP
KHEYS	62.40	352.1	10 22	-1						
SIMFEROPOL	62.41	310.4	10 21	-2					12 42	PP
JERUSALEM	63.09	295.6	10 27A	0						
ADELAIDE	64.26	150.5	10 33A	-2						
KAJAANI	65.69	331.8	10 44	0						
SODANKYLA	66.18	335.4	10 46A	-1						
BRISBANE	66.47	135.0	10 50	1					11 10	
HELWAN	66.74	294.2	10 49	-2						
NURMIJARVI	67.21	328.0	10 52A	-2						
KIRUNA	68.54	336.0	11 1A	-1						
LWOW	68.72	316.5	11 3	0						
TROMSOE	68.93	338.0	11 3	-2						
UMEA	68.99	331.7	11 3A	-2						
MELBOURNE	69.54	147.9	11 8	0						
CANBERRA	69.75	143.5	11 9K	-1						
TANANARIVE	69.95	239.2	11 9A	-2					11 35	
KOUMAC	70.68	122.4	11 15	0						
UPPSALA	70.78	327.7	11 14A	-2						
ATHENS	71.16	304.2	11 17K	-1						
SKALNATE PL.	71.26	316.3	11 19	0						
KRAKOW	71.29	317.2	11 18	-1					13 39	
RACIBORZ	72.37	317.5	11 9	-16						
SKALSTUGAN	72.53	332.1	11 25A	-1						
NORD	73.25	352.6	11 31A	0						
BRATISLAVA	73.52	315.7	11 31	-1					11 49	PCP
VIENNA-H.	73.97	315.9	11 35A	0						
GOTEBORG	74.12	326.2	11 34	-2						
COPENHAGEN	74.40	324.1	11 37A	0					14 33	PP
PRUHONICE	74.68	318.0	11 39A	0					14 26	PP
COLLMBERG	75.28	319.6	11 42A	0					14 29	PP
KASPERSKE H.	75.52	317.3	11 44A	0					14 38	PP
LJUBLJANA	75.77	314.1	11 45A	0					14 27	
HALLE	75.85	320.0	11 45	-1			11 55			
JENA	76.24	319.5	11 48	0					14 40	PP
TRIESTE	76.40	313.9	11 49	0					14 36	
COLLEGE	77.27	24.9	11 53	-1					12 36	
MESSINA	77.32	306.1	11 52	-2						
STUTTGART	78.33	317.9	12 0A	1					14 48	PP
ROME	78.42	310.5	11 49	-11						
HEIDELBERG	78.47	318.6	12 0	0						
WITTEVEEN	78.51	322.3	12 3	3						
TUBINGEN	78.54	317.7	12 1	0						
EBINGEN	78.72	317.4	12 1	-1						
BENSBERG	78.87	320.4	12 3	1						
STRASBOURG	79.34	318.0	12 5	0					21 43	
SCORESBY SD.	81.24	344.4	12 16A	1					15 21	PP
ISOLA	81.38	314.0	12 17	1					15 32	PP

THULE	82.13	358.6	12 18	-2							
DURHAM	82.22	326.1	12 20	0	22 42	10					
PARIS	82.49	319.6	12 23	2							
GARCHY	82.75	318.0	12 24	1							
KEW	83.00	322.8	12 24	0							
RESOLUTE	83.01	5.5	12 24A	0							
CLERMONT-FD.	83.34	316.6	12 28	2							
BROKEN HILL	84.05	252.0	12 29A	0							
FOLINIERE	84.28	320.4	12 32	1							
BANGUI	85.99	273.1	12 40	1						13 15	
BULAWAYO	86.25	246.8	12 40A	0							
KARAPIRO	88.09	132.2	12 50	1							
TONGARIRO	88.70	133.3	12 52	0							
KIMBERLEY	92.90	240.3	13 11A	-1							
MAWSON	94.46	195.2	13 18A	-1			13 33				
HUNGRY HORSE	101.69	26.0	13 57	5							
SCOTT BASE	105.15	169.0								18 52	PP
EUREKA	107.67	32.9	14 23	777							
SOUTH POLE	111.47	180.0	18 32	0							
BYRD STATION	118.30	171.9	18 45	0							
WICHITA MTS.	119.30	23.2	18 47	0						28 59	PKKP
CARACAS	147.35	347.1	19 46	7							

JUNE 13 21.H 37.M 58.S EPICENTRE -21.69-176.18 DEPTH= 148.KM

A=-0.92800 B=-0.06193 C=-0.36740 D=-0.0666 E= 0.9978
G= 0.3666 H= 0.0245 K=-0.9301 HT= 4.3

DEPTH OF FOCUS= 0.018R

SE= 2.24

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SUVA	6.17	303.8	1	36	6	2	45	5					
APIA	8.89	28.8	1	59	-7	3	26	-19					
PORT VILA	15.11	282.4	3	30K	3								
NOUMEA	16.12	264.6	3	43K	4								
KARAPIRO	17.69	202.0	3	58	0								
TUAI	17.99	197.1	4	0	-2	7	7	-8			15	29	SCS
KOUMAC	18.26	270.0	4	6K	1								
CHATEAU	18.84	200.3	4	8	-3	7	32	0					
TONGARIRO	18.84	200.3	4	8	-3	7	32	0					
WELLINGTON	20.98	199.3	4	30	-3	8	9	-4			15	42	SCS
COBB RIVER	21.49	203.4	4	38	0	8	21	-1					
KAIMATA	23.23	203.7	4	57	2	8	52	0					
GEBBIES PASS	23.83	200.3	5	0	0	9	3	1			15	52	SCS
ROXBURGH	26.54	203.2				9	54	7			16	4	SCS
BRISBANE	28.75	252.4	5	43	-3	10	19	-4					
RIVERVIEW	31.20	240.1	6	7A	0	11	2	1			16	30	SCS
CANBERRA	33.29	238.3	6	25K	0	11	33	-1			12	38	PCS
CHARTERS TS.	35.07	265.6	6	40	-1	11	56	-5					
RABAUL	35.28	295.0	6	40	-2						12	42	
MOORLANDS	36.91	227.3	6	57	1						7	38	SP
FORT NELSON	37.00	226.5	6	57	0								
PORT MORESBY	37.28	283.4	6	59	0						16	41	*SS
ADELAIDE	41.51	241.4	7	34K	0	13	34	-4			9	18	PP
HONOLULU	46.23	23.6	8	12	0	14	52	6					
KIPAPA	46.37	23.7	8	12	-1						8	55	
CAPE HALLETT	51.23	185.3	8	53	3	16	4	8	9	29	18	21	SCS
DARWIN	51.30	271.3	8	50	-1								
GUAM	51.87	308.8	8	53	-2				9	35	10	8	PCP
SCOTT BASE	56.81	184.3	9	33K	2	17	12	1	10	9	10	19	PCP
MUNDARING	60.35	244.7	9	54K	-2								
BYRD STATION	63.20	170.6	10	15	0				10	59	11	26	*SP
WILKES	63.64	205.6				18	39	1	10	56			
SOUTH POLE	68.44	180.0	10	49	1				11	34	13	21	PP
MIRNY	70.65	205.1	11	1	0								
TUKUBASAN	70.89	323.7	11	1K	-2						11	43	
MANILA	71.35	294.8	11	7	2	19	57	-13					
MATUSIRO	72.17	322.8	11	8K	-2	20	12	-7			11	52	*SP
MIZUSAWA	72.49	326.4	11	8	-4						11	30	
LEMBANG	74.71	268.6	11	23K	-2	20	45	-2					
PETROPAVLOVK	77.54	344.7	11	39K	-2				12	20			
STA. CRUZ C.	77.55	41.7	11	42A	1				12	22			
SAN FRANCSCO	77.76	40.8	11	43	1						12	21	

VINEYARD	77.78	42.2	11	44A	2				12	22		
BERKELEY	77.94	40.8	11	44K	1	21	29	6	12	21		
LICK	77.99	41.6	11	45K	2						12	20
CONCORD	78.12	40.9	11	48A	4				12	25		
PASADENA	78.27	45.9	11	44	-1	21	31	5	12	21		
FRESNO	78.78	43.0	11	49K	1							
ARGENTINE I.	79.21	156.6	11	52	2	21	41	5				
UGLEGORSK	79.66	333.6	11	51K	-1							
ZO-SE	79.76	309.3	11	52K	-1	21	44	2	12	36		
VLADIVOSTOK	80.22	324.2	11	55K	0				12	36		
RENO	80.48	40.8	11	58A	1						12	38
NHATRANG	80.56	287.2	11	58	1						14	50 PP
MAWSON	81.02	199.4	12	0	0	21	57	2	12	37	12	9 PCP
BOULDER CITY	81.56	46.0	12	3	0				12	43		
CORVALLIS	81.71	35.2	12	4K	1							
CANTON	81.78	298.7	12	5K	1	22	10	7	12	46		
NANKING	82.00	309.0	12	6K	1	22	13	8	12	50	22	7 SKS
TUCSON	82.32	51.0	12	8	2				12	46		
TUCSON TELE.	82.45	51.0	12	9	2				12	47		
EUREKA	82.82	42.6	12	9	0				12	41		
VICTORIA	84.27	32.1	12	6K	-10							
GLEN CANYON	84.28	46.6	12	18	2				12	57		
CHANGCHUN	84.37	321.7	12	15K	-2	22	30	2	12	57	22	21 SKS
MAGADAN	85.35	343.8	12	20	-2							
SALT LAKE C.	86.16	43.3	12	27	1				13	5		
PENTICTON	86.70	33.2	12	29K	1							
FLAMING GRGE	87.83	44.2	12	48	14	23	4	2	13	27		
PEKING	87.92	314.7	12	34K	0	23	7	5	13	18	22	46 SKS
KERGUELEN I.	88.11	216.8				23	11	7			24	20 SS
BUTTE	88.59	38.6	12	37	0	23	13	4	13	17		
COLLEGE	89.01	11.7	12	38	-1	23	12	0	13	19		
HUNGRY HORSE	89.08	36.1	12	40	1							
BOZEMAN	89.29	39.5	12	41	1				13	20		
BANFF	89.91	33.3	12	43	0							
SIAN	90.29	306.9	12	46K	1	22	29	-55	13	29		
KUNMING	91.40	296.4	12	52K	2	23	3	-31	13	36		
WICHITA MTS.	92.50	53.6	12	55	0	23	50	6	13	33	30	8 PKKP
CHENGTU	92.56	301.9	12	56	0	23	49	5	13	40	23	13 SKS
RAPID CITY	93.35	43.7	12	58	-1							
YAKUTSK	93.83	337.5	12	59	-2	23	17	-38				
LANCHOW	94.83	306.8	13	7K	1	24	11	7	13	50	23	27 SKS
FAYETTEVILLE	96.34	53.8	13	13	0	23	19	-15			17	10 PP
AREQUIPA	97.06	110.7	13	19	3							
ULAN-BATOR	97.48	318.6	13	17	-1	23	40	0				
LA PAZ	99.95	112.2	12	52	-37	23	58	6				
TIKSI	100.32	344.7	13	29A	-2							
SHILLONG	100.73	293.3	13	31	-2							
BOGOTA	102.94	90.1				24	8	1			18	20 PP
RESOLUTE	108.46	16.1	18	13	777							
PALISADES	112.94	53.4				24	54	5			19	40 PP
KHEYS	116.85	351.4	18	27K	0	25	7	3				
LAHORE	117.14	295.3	18	27	0							
NORD	119.44	3.4	18	31	-1							
WARSAK DAM	119.82	297.6	18	33	0							
NAMANGAN	120.36	305.6	18	36K	2							
STALINABAD	122.47	302.7	18	41	3	25	21	-2				
QUETTA	123.21	292.6	18	41K	2							
SVERDLOVSK	125.93	325.4	18	44A	0	25	38	4				
KIMBERLEY	125.93	202.8	18	57K	13							
SCORESBY SD.	128.87	10.8	18	51	1				19	33		
TROMSOE	131.19	353.0	18	53	-2						21	10 PP
BULAWAYO	131.88	212.0	18	41	-15							
SODANKYLA	132.11	348.3	18	55	-1				19	38	21	17 PP
KIRUNA	132.70	351.5	18	44	-13						21	19 PP
KAJAANI	134.73	345.5	19	0	-1						22	21 SKP
SHIRAZ	135.66	290.7	19	3	0				19	15	21	43 PP
TEHERAN	136.40	299.5	19	6	2						22	25 PP
UMEA	136.47	349.5	18	53	-11						22	25 PKS
BROKEN HILL	136.70	216.1	18	56	-9							
PULKOVO	137.57	340.4	19	0	-5							
MOSCOW	137.74	332.1	19	9	2						22	30 PKS
SKALSTUGAN	137.74	354.4	18	58	-9						21	49 PP
MAKHACH-KALA	138.01	310.7									21	48 PP
NURMIJARVI	138.53	344.6	18	59	-9				19	50	21	57 PP
TIFLIS	140.28	309.8	19	6	-5						22	36 PKS
UPPSALA	140.63	349.0	19	4	-8						21	56 PP
SOTCHI	143.12	314.8	19	12	-4						22	56 PKS
GOTEBORG	143.54	352.6	19	14	-3						22	44 PKS

COPENHAGEN	145.45	351.4	19	21K	0			20	3		
LWIRO	145.90	228.8	19	25	4					20 5	
SIMFEROPOL	145.99	320.2	19	22	1					22 50	PKS
WARSAW	146.74	340.6	19	22	-1					22 46	
KISHINEV	147.63	327.3	19	28	4						
LWOW	147.70	335.2	19	25	1					24 5	
IASI	148.13	328.7	19	30	5					20 23	
WITTEVEEN	148.84	356.7	19	32K	6						
BACAU	148.90	328.4	19	32	6						
KRAKOW	148.97	339.7	19	27	1					21 44	
CHORZOW	149.05	340.9	19	27	1					20 43	
KSARA	149.29	300.1	19	29	2			20	14	21 0	PP
FOCSANI	149.36	326.9	19	45	18						
NIEDZIKA	149.38	338.6	19	28	1						
RACIBORZ	149.48	341.6	19	31	4					20 14	
HALLE	149.58	349.9	19	28	1					19 34	PKP2
COLLMBERG	149.59	348.6	19	29K	2	26	25 7	20	12	23 3	PP
SKALNATE PL.	149.61	338.5	19	29	2			20	16		
MUNSTER	149.63	355.3	19	29	2						
PONTA DELGDA	149.97	51.3	20	17K	49						
KEW	150.10	5.2	19	30	2			20	11	19 34	PKP2
JENA	150.19	350.1	19	30	2			20	16	23 6	PP
JERUSALEM	150.30	296.4	19	31K	3						
PRUHONICE	150.52	345.9	19	30	2			20	16		
BENSBERG	150.67	355.7	19	30	1					19 36	PKP2
BUCHAREST	150.81	326.2	19	29K	0					21 16	
ISTANBUL KA.	151.22	317.9	19	29K	0						
ISTANBUL UN.	151.29	318.0	19	40	10	26	25 4				
HURBANOVO	151.43	339.5	19	42	12			20	28		
BRATISLAVA	151.51	341.2	19	31A	1					19 46	PKP2
KASPERSKE H.	151.53	346.5	19	38	8			20	19		
VIENNA-H.	151.65	342.2	19	28	-2					19 49	PKP2
HEIDELBERG	152.07	353.2	19	31	0						
KARLSRUHE	152.49	353.4	19	32	1						
STUTTGART	152.63	352.1	19	32	1			20	8		
FOLINIERE	152.76	6.2	19	34	2						
TUBINGEN	152.89	352.3	19	32	0					20 22	
PARIS	152.92	1.9	19	43	11			20	24		
STRASBOURG	152.98	354.2	19	34	2					23 20	
EBINGEN	153.25	352.3	19	32	0					19 54	
SOFIA	153.45	326.6	19	34	1						
RAVENSBURG	153.55	351.2	19	34	1					20 24	
HELWAN	153.97	293.9	19	34	1					23 33	
BASLE	154.04	354.2	19	32	-1					22 10	
LJUBLJANA	154.17	342.7	19	35K	1					19 58	PKP2
BESANCON	154.44	356.6	19	37	3					19 59	
GARCHY	154.46	1.2	19	44	10			20	27	24 38	PP
CHUR	154.47	350.9	19	59A	25						
NEUCHATEL	154.62	355.0	19	37	3						
TRIESTE	154.75	343.5	19	36	2			20	18	20 0	PKP2
PADOVA	155.43	346.3								20 6	
CLERMONT-FD.	155.97	1.2	19	39	3						
ATHENS	156.39	317.8	19	48A	11						
FLORENCE X.	157.12	346.1	19	43	5					20 9	
ISOLA	157.41	353.9	19	40	2					23 55	PP
BANGUI	157.59	221.9	19	40	2					23 53	
MONACO	157.81	353.1	20	14	36						
SERRA PILAR	157.95	25.6	19	40	1					20 14	PKP2
BAGNERES	158.46	7.3	19	40	1					20 23	
ROME	158.57	342.1	19	39	0					23 55	PP
LISBON	159.70	30.4	20	20	39					21 3	
TOLEDO	160.66	18.6	19	44	2			20	24	24 7	PP
MESSINA	160.69	331.0	19	42	0					20 23	
ALICANTE	162.99	11.6	19	35	-9	26	17 -15			20 29	PKP2
GRANADA	163.28	21.0	20	37A	53					24 28	PP
ALMERIA	163.93	18.5	19	47K	2					24 44	PP

JUNE 14 0.H 41.M 17.S EPICENTRE 24.55 94.69 DEPTH= 91.KM

A=-0.07451 B= 0.90761 C= 0.41314 D= 0.9966 E= 0.0818
G=-0.0338 H= 0.4118 K=-0.9107 HT= 3.5

DEPTH OF FOCUS= 0.009R

SE= 2.52

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

	DEG.	DEG.	M S	S	M S	S	M S	M S
TOCKLAI	2.19	1.8	0 35	0				
SHILLONG	2.76	292.3	0 39	-4	1 5	-10		
CHITTAGONG	3.42	231.0	0 48	-4	1 28	-4		
CALCUTTA	6.14	252.2	1 32	3	2 31	-8		
CHATRA	7.16	290.1	1 39K	-5	2 54	-10		1 46 PP
KUNMING	7.33	83.9	1 49A	3	3 14	6		
BOKARO	8.15	266.8	2 6	9	3 34	6		3 46 SS
CHENGTU	10.26	51.6	2 25A	-1	4 19	0		
VISHAKHAPTNM	12.61	239.6	2 56A	-1	5 19	3		3 18 PPP
PORT BLAIR	12.94	188.7	3 3	2	5 17	-7		
LANCHOW	13.91	32.4	3 11	-3				
SIAN	15.71	48.8	3 41	4	6 36	8		
DEHRA DUN	15.85	294.9	3 36	-3	6 20	-11		3 50 PP
HYDERABAD	16.73	248.1			7 0	9		4 9
CANTON	17.13	91.0	3 55A	1				
MADRAS	17.89	232.7	3 57	-7	7 1	-16		4 12 PP
HONG KONG	18.01	93.2	4 4	-1	7 28	8		
NHATRANG	18.42	129.1	4 10	0	7 25	-4		
LAHORE	19.26	295.8	4 17	-2	7 38	-9		
POONA	20.28	256.9	4 19	-11	7 24	-43		
BOMBAY	21.07	258.8	4 56	18	9 9	47		5 25 PP
WARSAK DAM	22.24	300.4	4 52	2	8 48	5		
NANKING	22.46	65.1	4 53	1	8 52	5		
ALMATA	23.69	326.4	5 7	3	9 17	8		
PEKING	23.74	44.3	5 21	17	9 15	5		
ZO-SE	24.28	68.5	5 10	1	9 20	1		
ANDIJAN	24.68	316.3	5 15	2	9 35	9		
QUETTA	25.24	289.0	5 19	0				5 49 PP
NAMANGAN	25.25	316.0	5 19A	0				
ULAN-BATOR	25.25	19.5	5 21	2	9 41	6		
TASHKENT	26.96	314.5	5 35	0				
VLADIVOSTOK	35.66	49.4	6 50	-1	12 16	-4		
SHIRAZ	37.74	287.3	7 7K	-1	12 50	-1		
MATUSIRO	39.04	61.7	7 17	-2	13 9	-2		8 52 PP
SVERDLOVSK	40.55	331.7	7 30	-1	13 35	1		
MAKHACH-KALA	42.71	307.4	8 6	17	14 39	34		
YAKUTSK	44.27	22.8	8 1	-1	14 29	1		
TIFLIS	44.51	305.2	8 5	1				
SOTCHI	48.42	307.3	8 34	-1	15 29	2		
TIKSI	50.90	13.3	8 54	0	16 0	-1		
DARWIN	50.91	132.1	8 52	-2				
KSARA	51.58	294.6	9 1	2			9 19	
MOSCOW	51.63	322.7	9 2	3	16 13	2		
JERUSALEM	52.38	292.1	9 6	1				
SIMFEROPOL	52.51	308.8	9 6	0	16 24	0		
HELWAN	55.99	290.5	9 29	-2				9 50
KISHINEV	56.21	311.3	9 33	0	17 13	0		
PULKOVO	56.24	326.7	9 33	0				
ISTANBUL KA.	56.32	304.1	9 50	17				
ISTANBUL UN.	56.38	304.1	9 29	-5				9 54
KAJAANI	58.16	331.6	9 47	1				
NURMIJARVI	59.14	327.2	9 52	-1	17 50	-2		
SODANKYLA	59.16	335.3	9 52	-1				
LWOW	59.33	314.7	9 56	2	17 54	0		
MUNDARING	59.84	158.9	9 56A	-2				
ATHENS	60.81	301.1	10 3	-2				
UMEA	61.41	330.9	10 10	1			10 31	
KIRUNA	61.58	335.5	10 9	-1	18 25	2	10 29	
NIEDZIKA	61.77	314.5	10 11	0				10 32
TROMSOE	62.26	337.5	10 13	-1				
UPPSALA	62.64	326.4	10 15A	-2	18 35	-1		
TANANARIVE	63.05	231.1	10 40	20				
SKALSTUGAN	64.96	330.7	10 32A	0			10 53	
PRUHONICE	65.41	315.6	10 35	0				12 59 PP
GOTEBORG	65.76	324.3	10 36	-1				
COPENHAGEN	65.79	322.0	10 37	0				
LJUBLJANA	66.13	311.4	10 40A	1				13 1 PP
COLLMBERG	66.16	317.2	10 40	0				13 6 PP
KASPERSKE H.	66.18	314.8	10 41A	1				
TRIESTE	66.73	311.1			19 24	-2		
CHARTERS TS.	66.98	126.9	10 44	-1				11 5
JENA	67.11	317.0	10 47	1				13 38 PP
ROME	68.47	307.3			19 44	-3		24 41 SS
NORD	68.91	351.6	10 55	-2				
STUTTGART	69.02	315.1	10 58	1				11 18
STRASBOURG	70.04	315.1	11 3	-1				13 58
ADELAIDE	72.42	143.2	11 17K	-1				

PARIS	73.33	316.4	11 25	2					12 13
FOLINIERE	75.20	317.0	11 35	1					
BROKEN HILL	75.33	246.4	11 56	21					
SCORESBY SD.	75.41	341.9	11 37A	2	21 15	9	11 58		
BANGUI	75.53	268.2	11 36	0					11 56 SP
BULAWAYO	78.14	241.4	11 50A	0					
CANBERRA	78.65	137.4	11 53A	0					
COLLEGE	78.81	22.7	11 53	-1					
RESOLUTE	80.82	2.6	12 4	-1					
HUNGRY HORSE	103.00	19.2	18 2	253					
EUREKA	110.16	24.9	18 22	1					
PALISADES	113.92	350.6							19 43 PP
SOUTH POLE	114.40	180.0	18 29	0					
TUCSON	118.49	24.5	18 40	3					
WICHITA MTS.	119.73	12.6	19 30	51					19 50
BYRD STATION	122.56	173.3	18 45	0					
SAN JUAN	133.41	334.6	19 8	3					
TRINIDAD	137.95	323.5	19 17	3					

JUNE 14 20.H 32.M 29.S EPICENTRE 10.58 39.73 DEPTH= 92.KM

A= 0.75619 B= 0.62843 C= 0.18234 D= 0.6391 E=-0.7691
G= 0.1402 H= 0.1165 K=-0.9832 HT= 6.5

DEPTH OF FOCUS= 0.009R

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
LWIRO	16.75	221.1	3 51	1				8 43
HELWAN	20.73	339.0	4 31	-3	8 37	21		
JERUSALEM	21.51	349.5	4 46K	4			4 58	
BANGUI	21.81	255.2	4 43	-2	8 56	21		
SHIRAZ	22.42	30.4	4 49	-2	9 2	16	4 59	
KSARA	23.40	351.9	5 5K	4	9 29	26		5 41 PP
TEHERAN	27.20	21.1	5 38K	2	10 31	24		
BROKEN HILL	27.25	204.4	5 34	-3				
ATHENS	30.83	334.8	6 8	-1				
TIFLIS	31.34	7.3	6 15A	2	11 34	22		
ISTANBUL KA.	31.80	344.6	6 18	1	11 34	14	14 1	SSS
QUETTA	31.97	48.4	6 19	0	11 38	16	7 28	PP
LUANDA	32.68	234.8					16 58	
SOTCHI	32.88	360.0	6 27	0	11 51	15		
BOMBAY	33.01	71.6	6 29	1	11 57	19	7 36	
POONA	33.91	72.5	6 31	-5				
SIMFEROPOL	34.59	353.0	6 42K	1	12 18	15		
MESSINA	35.01	325.8	6 45	0			8 11	
SOFIA	35.06	338.8	6 47	2			9 36	PP
BUCHAREST	35.72	343.2	6 51	0	12 44	24	8 18	PP
WARSAK DAM	37.29	46.3	7 4	0				
KISHINEV	37.48	347.7	7 6	0	13 1	14		
PRETORIA	37.82	197.1	7 9	0				
IASI	37.93	346.5	7 11	2				
BELGRADE	37.94	337.5	7 14K	4			9 30	PCP
STALINABAD	38.09	38.1	7 11	0				
LAHORE	38.20	51.6	7 13	1	13 7	9	8 42	PP
ROME	39.30	327.3	7 23A	2	13 31	16	8 54	PP
MADRAS	39.64	82.4	7 23	-1			13 34	
WINDHOEK	39.71	213.8	7 25	1				
TASHKENT	40.16	35.2	7 29	1	13 43	15		
ZAGREB	40.56	334.3	7 31	0			9 9	
DEHRA DUN	40.66	55.4	7 32	0			13 43	
LWOW	41.23	344.6	7 38K	1	14 0	17		
FLORENCE X.	41.26	328.4	7 30	-7	14 0	16		
NAMANGAN	41.34	37.3	7 40	2				
LJUBLJANA	41.37	333.3	7 39	1			9 17	PP
TRIESTE	41.41	332.3	7 39	1	13 58	12	9 15	PP
ANDIJAN	41.62	38.1	7 41K	1				
SKALNATE PL.	41.77	340.8	7 40	-1	14 8	17		
BRATISLAVA	42.01	337.4	7 42	-1				
PADOVA	42.12	330.6					9 11	
VIENNA-H.	42.36	336.8	7 43	-3			8 16	
KRAKOW	42.63	341.2	7 48	0			14 22	*SS
MONACO	43.27	325.6	7 52	-1				
KASPERSKE H.	44.17	335.5	8 1K	0			9 45	PP

WARSAW	44.23	343.6	7	54	-7	13	30	-57	9	46 PP
CHUR	44.28	330.4	8	9	7					
PRUHONICE	44.46	336.9	8	2A	-1	14	43	13	9	47 PP
PRAGUE	44.58	336.9							9	27
MOSCOW	45.07	358.3	7	38	-30	14	54	15		
ALICANTE	45.33	314.5	8	14	4	14	53	10	10	0 PP
NEUCHATEL	45.67	328.8	8	11	-2					
BOKARO	45.74	67.1	8	24	11	15	14	25	10	13 PP
STUTTGART	45.77	332.1	8	14	1	15	10	21	10	5 PP
TORTOSA	45.83	318.0	8	8	-6	15	1	11		
ALMATA	45.86	38.0	7	45	-29					
ALMERIA	46.12	311.6	8	18A	2				10	8 PP
BESANCON	46.33	328.5	8	17	-1					
STRASBOURG	46.35	330.9	8	19	1	15	11	14	10	9 PP
JENA	46.38	335.6	8	17	-1	15	4	6	10	7 PP
CLERMONT-FD.	46.95	325.2	8	25	2					
GRANADA	47.08	311.5	8	27A	3	15	39	31	10	24 PP
BAGNERES	47.20	320.5	8	25	0				10	20 PP
CHATRA	47.46	63.3	8	30	3					
GARCHY	47.89	326.8	8	30	0				10	23
CALCUTTA	47.92	69.2							16	40
BENSBERG	48.29	332.9	8	33	0				10	29 PP
TOLEDO	48.49	314.7	8	36	1	15	38	10	10	34 PP
HERMANUS	48.79	202.6							19	40
MUNSTER	48.81	334.1	8	38	1					
SVERDLOVSK	48.91	15.1	8	37	-1					
PARIS	49.13	328.1	8	40	0	15	55	18	10	34 PP
PULKOVO	49.60	353.8	8	44	1	15	59	16		
COPENHAGEN	49.82	340.1	8	48A	3	16	2	16	10	46 PP
WITTEVEEN	49.83	334.3	9	13	28					
DE BILT	49.98	332.8	8	48	2					
FOLINIERE	50.69	326.5	8	51	-1					
NURMIJARVI	51.08	350.5	8	51A	-4	16	18	14		
LHASA	51.33	60.5	8	54	-2					
SHILLONG	51.44	65.8	8	51	-6					
GOTEBORG	51.61	341.4	8	58	-1					
COIMBRA	51.71	313.4	8	59	0					
LISBON	51.73	311.4	9	1A	2	16	14	2	20	1 SS
UPPSALA	51.88	346.0	9	0K	-1	16	29	14		
SERRA PILAR	52.17	314.4	9	4K	1	16	28	10	11	4 PP
KEW	52.19	329.4	9	2	-1					
KAJAANI	54.09	353.5	9	16	-1					
DURHAM	54.79	332.1	9	22K	0	16	59	5		
UMEA	54.93	349.6	9	23K	0					
MBOUR	55.38	280.2	9	25	-1					
SKALSTUGAN	56.40	345.7	9	32K	-2					
ABERDEEN	56.49	334.2							20	1
SODANKYLA	57.40	354.0	9	40K	-1					
KIRUNA	58.61	351.6	9	48K	-1	17	56	12	25	18 SCP
TROMSOE	60.49	351.8	10	1	-1					
KUNMING	61.22	67.2	10	5K	-2	18	30	12		
CHENGTU	62.60	61.0	10	16	0	18	52	17		
LANCHOW	62.94	54.9	10	19	0	18	55	16		
IRKUTSK	66.23	37.3	10	40A	0					
ULAN-BATOR	66.95	42.4	10	42	-2					
SIAN	66.95	57.3	10	44	0	19	43	14		
NHATRANG	67.96	81.0	10	53	2				13	29 PP
DJAKARTA	68.85	100.9	11	1A	5					
LEMBANG	69.76	101.3	11	1A	-1					
KHEYS	70.55	3.1	11	8	2					
SCORESBY SD.	70.82	341.7	11	9A	1					
CANTON	70.94	69.2	11	11A	2	20	37	21		
HONG KONG	71.76	69.9	11	14	0	20	37	12	15	41 PPP
PEKING	72.91	51.3	11	21K	1	20	54	16		
NORD	74.91	352.7	11	31K	-1					
NANKING	75.23	59.6	11	35	1	21	22	18		
ZO-SE	77.34	60.4	11	47	1	21	47	20		
CHANGCHUN	79.59	47.2	11	58K	0	22	6	15		
TIKSI	79.77	18.8	11	54	-5					
YAKUTSK	80.74	28.5	12	3	-1	22	14	11		
VLADIVOSTOK	84.44	47.3	12	24	1					
RESOLUTE	90.45	349.1	12	53	1					
MATUSIRO	90.50	52.8	12	53	1	23	33	-4	16	34 PP
Y.-SAKHLINSK	91.05	41.8							15	6
PALISADES	100.32	315.2							26	57 PS
COLLEGE	104.56	3.3	18	13	257					
SCOTT BASE	107.67	169.8							18	37 PP
BOGOTA	112.39	279.5							19	19 PP
HUNGRY HORSE	116.90	340.7	18	39	6					

WICHITA MTS.	120.10	320.7	18	43	3
EUREKA	125.32	337.0	18	53	3
TUCSON TELE.	128.83	327.6	19	1	5
TUCSON	128.96	327.6	19	3	6
CHINA LAKE	129.13	336.2	19	1	4

JUNE 15 6.H 21.M 35.S EPICENTRE 27.70 54.81 DEPTH= 37.KM

A= 0.51104 B= 0.72460 C= 0.46237 D= 0.8172 E=-0.5764
G= 0.2665 H= 0.3778 K=-0.8867 HT= 2.5

DEPTH OF FOCUS= 0.001R

SE= 2.18

	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	
SHIRAZ	2.80	314.6	0	44K	0	1	17	1					
TEHERAN	8.53	340.9	2	2	-2								
QUETTA	10.92	74.0	2	38K	1	4	32	-7			3	4	*SP
WARSAK DAM	15.68	62.3	3	39	-1								
STALINABAD	15.93	43.6	3	45	2								
TIFLIS	16.21	332.2	3	47	0								
MAKHACH-KALA	16.35	340.6	3	49	1	6	54	6					
KSARA	17.36	295.2	4	1	0	7	22	11			7	46	SS
LAHORE	17.40	72.6	4	1	-1								
JERUSALEM	17.49	288.2	4	3	0								
TASHKENT	18.05	37.4	4	8	-2								
NAMANGAN	19.18	42.0	4	23	0	8	1	9					
DEHRA DUN	20.49	77.1									8	38	
HELWAN	20.68	281.6	4	37	-2						14	22	
ALMATA	23.70	43.2	5	12	3								
SIMFEROPOL	23.85	321.7	5	11A	0	9	25	4					
ISTANBUL KA.	24.97	308.9	5	23	1	9	50	10					
ISTANBUL UN.	25.01	308.8	5	12	-10	9	57	16					
BUCHAREST	28.38	313.6				10	13	-23					
SVERDLOVSK	29.41	6.5	6	1	-1								
MOSCOW	30.63	340.9	6	13	0								
SHILLONG	33.12	85.0	6	34	-1								
PULKOVO	36.18	339.2	7	1	0								
LJUBLJANA	36.59	310.9	7	5A	1						8	29	PP
PRUHONICE	37.82	317.1	7	13	-2						7	54	
KASPERSKE H.	38.12	315.5	7	17A	0						8	55	
NURMIJARVI	38.63	336.5	7	21A	-1						8	53	PP
LWIRO	38.90	224.2									16	47	
UPPSALA	40.91	332.2	7	40K	0								
GOTEBORG	42.33	327.2	7	56	4								
UMEA	42.41	338.1	7	58	5						9	37	PP
BESANCON	42.59	310.7									9	35	
MUNSTER	42.60	317.9	7	54	0								
BENSBERG	42.61	316.3	7	55	1								
SODANKYLA	43.21	344.5	8	0	1								
GARCHY	44.56	310.4	8	9	-1						8	56	
SKALSTUGAN	45.10	334.7	8	13	-1								
KIRUNA	45.13	342.4	8	14	-1						18	2	SS
TROMSOE	46.79	343.6	8	28	0								
FOLINIERE	47.09	312.1	8	29	-1								
KHEYS	53.03	0.7	9	16	0								
YAKUTSK	58.90	32.1	10	1	3								
TIKSI	58.96	20.8	9	54	-4								
PRETORIA	59.00	208.1	10	0	2								
SCORESBY SD.	59.75	337.7	10	4	0								
VLADIVOSTOK	62.62	53.5	10	22	-1								
MATUSIRO	69.14	58.9	11	4	-1								
THULE	70.44	347.9	11	12	-1								
RESOLUTE	75.99	352.1	11	44	-1								
COLLEGE	86.07	9.5	12	37	-1								
EUREKA	112.62	352.3	18	35	2								
SOUTH POLE	117.54	180.0	18	44	2								
BYRD STATION	127.53	181.2	18	59	-2								

JUNE 15 23.H 24.M 47.S EPICENTRE 45.88 151.32 DEPTH= 60.KM

A=-0.61285 B= 0.33522 C= 0.71557 D= 0.4799 E= 0.8773
G=-0.6278 H= 0.3434 K=-0.6985 HT= -3.9

DEPTH OF FOCUS= 0.004R

SE= 3.20

	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
KURILSK	2.51	256.2	0	37	-2						1	9
NEMURO	4.83	240.1	1	8K	-4	2	1	-6				
ABASHIRI	5.33	252.1	1	18	-1	2	21	1				
KUSIRO	5.74	242.1	1	21	-3	2	25	-5				
SEVERO-KUR.	5.75	31.9	1	22	-3						2	27
Y.-SAKHLINSK	6.05	283.9	1	29	0	2	38	1				
OBIHIRO	6.53	245.9	1	33	-2	2	58	9				
ASAHIGAWA	6.70	254.9	1	38	0							
WAKKANAI	6.77	269.5	1	33	-6							
HIROO	6.79	240.8	1	36	-3	2	48	-8				
UGLEGORSK	7.04	300.4	1	43	1						3	19
RUMOE	7.15	257.8	1	45	1	3	2	-3				
URAKAWA	7.20	241.8	1	41A	-4	3	1	-5				
SAPPORO	7.67	252.0	1	51	0	3	12	-5				
TOMAKOMAI	7.71	248.5	1	53	1							
MURORAN	8.25	248.1	1	56	-3	3	26	-6				
SUTTSU	8.53	252.8	2	6	3	3	47	8				
PETROPAVLOVK	8.59	31.1	1	59	-5	3	35	-5				
MORI	8.62	247.8	2	2	-2	3	36	-5				
HAKODATE	8.65	245.7	2	0	-5	3	33	-9				
HATINOHE	8.93	236.7	2	2	-6	3	36	-13				
AOMORI	9.19	240.3	2	5	-7	3	40	-15				
MIYAKO	9.27	231.1	2	22	9	3	41	-16				
OKHA	9.40	327.8	2	17	2	4	12	12				
MORIOKA	9.68	233.9	2	13	-6	3	53	-14				
MIZUSAWA	10.10	231.7	2	21	-3	4	2	-15				
AKITA	10.29	237.2	2	32	5	4	36	14				
SENDAI	10.85	229.2	2	34	-1	4	20	-15				
SAKATA	10.99	234.6	2	33	-4	4	8	-31				
YAMAGATA	11.16	230.7	2	32	-7	4	28	-15				
HUKUSIMA	11.46	228.7	2	35	-8	4	33	-17				
ONAHAMA	11.86	224.8									3	7
KLYUCHI	12.04	26.3	2	59	8						6	52
SHIRAKAWA	12.07	227.4	2	46	-5	4	51	-14				
NIIGATA	12.11	233.3	3	37	45	4	23	-43				
MITO	12.52	224.5	2	29	-28	5	1	-15				
UTUNOMIYA	12.69	226.7	2	58	-1							
KAKIOKA	12.78	224.9	2	54	-7	5	7	-15				
TUKUBASAN	12.83	225.1	2	54	-7	5	7	-16				
TAKADA	13.14	232.7	3	7	2							
MAEBASI	13.21	228.5	3	2	-4	5	24	-8				
KUMAGAYA	13.25	227.0	3	6	-1	5	22	-11				
TOKYO C.M.O.	13.43	224.7									5	19
NAGANO	13.48	231.5	3	6	-4							
OIWAKE	13.54	229.7	3	13	3							
MATUSIRO	13.57	231.1	3	5A	-6	5	27	-14			15	39 SCS
YOKOHAMA	13.68	224.3									6	12
MAGADAN	13.69	358.9	3	18	6	5	51	7				
WAZIMA	13.71	236.8	3	8	-5							
MATUMOTO	13.91	230.9	3	25	10							
KOHU	14.04	227.9	3	14	-3							
HUNATU	14.06	226.9	3	21	4	5	41	-11				
VLADIVOSTOK	14.13	265.7	3	16	-2						5	51
MISIMA	14.27	225.4				5	42	-15				
IIDA	14.53	229.3	3	16	-7							
GIHU	15.20	231.5	3	29	-3							
NAGOYA	15.26	230.5	3	32	-1	6	15	-5				
TSURUGA	15.40	233.8	3	34	-1							
HIKONE	15.58	232.4	3	35	-2							
KAMEYAMA	15.77	230.9	3	43	4							
KYOTO	16.05	232.9	3	39	-4							
ABUYAMA	16.25	232.9	3	40A	-5							
OSAKA	16.43	232.5	3	49	1							
SIOMISAKI	17.21	229.3	4	1	4	7	15	10				
TOKUSIMA	17.39	233.1									4	59
KOTI	18.36	234.1	4	10	-1	7	38	7				
CHANGCHUN	18.53	273.0	4	10A	-3	7	33	-2				
OOITA	19.69	237.0	4	49	22	8	5	5				
HUKUOKA	20.19	239.8	4	32	0	8	16	6				
YAKUTSK	20.40	330.1	4	32	-2	8	22	8				

SAGA	20.46	239.3	4 39	4							
KUMAMOTO	20.53	237.7	4 24	-11	8	29	12				
NAGASAKI	21.08	238.9	4 40A	-1	8	40	13				
YAKUSIMA	22.38	233.7	4 54	0							
PEKING	26.24	269.8	5 29A	-2	9	59	2				
ZO-SE	27.63	248.3	5 43	-1	10	25	6				
TIKSI	27.95	345.0	5 45	-2						6	58 PPP
NANKING	28.60	252.6	5 51A	-1	10	33	-2				
ULAN-BATOR	30.11	290.2	6 5	-1							
SIAN	34.09	265.3	6 40A	0	12	3	2				
LANCHOW	36.70	271.7	7 3A	0	12	44	3				
COLLEGE	37.60	37.7	7 10	0	12	58	3				
CANTON	38.18	246.5	7 15A	0							
HONG KONG	38.23	244.7	7 15	0	13	5	1				
CHENGTU	39.54	264.3	7 27A	1	13	25	1				
MANILA	40.17	229.1	7 34	2	13	25	-9				
KUNMING	43.86	258.8	8 2A	0	14	30	2				
KHEYS	45.63	346.8								9	54 PP
LHASA	49.19	272.6	8 46A	2	15	51	7				
SHILLONG	51.11	267.9	8 58A	0							
RESOLUTE	52.05	18.0	9 4A	-1	16	26	3			18	50 SCS
NORD	52.60	357.8	9 8K	-2							
FRUNSE	52.92	296.2	9 11	-1							
CHATRA	53.60	272.5	9 17A	0							
SVERDLOVSK	53.62	316.9	9 15	-2						19	1 SCS
VICTORIA	55.05	53.9	9 26	-2							
THULE	55.38	10.6	9 28	-2							
BOKARO	56.46	270.6	9 51	13							
PENTICTON	56.73	51.5	9 39	-1							
TASHKENT	57.08	297.3	9 42	0	17	30	-1				
CORVALLIS	57.26	57.9	9 44K	1							
DEHRA DUN	57.77	281.8	9 47	0	17	40	0				
KHOROG	57.86	292.4	9 47	-1							
LAHORE	59.55	285.2	9 57	-2							
SODANKYLA	59.61	338.4	9 58	-2						10	46 PCP
TROMSOE	59.64	342.6	9 58	-2						10	46 PCP
WARSAK DAM	59.91	289.1	10 1	-1							
SHASTA	60.05	61.1	10 3A	0							
HUNGRY HORSE	60.31	49.9	10 3	-1							
KIRUNA	60.76	340.8	10 6	-2	18	19	1				
KAJAANI	61.78	335.5	10 15	1							
RENO	62.33	60.8	10 19	1							
BUTTE	62.52	51.4	10 18	-1							
LICK	62.55	63.8	10 20K	0							
BOZEMAN	63.57	50.9	10 27	1							
SCORESBY SD.	63.85	357.5	10 27A	-1	19	9	12			19	18 PS
UMEA	64.04	338.2	10 28A	-1						11	3
FRESNO	64.06	63.2	10 29	0							
PULKOVO	64.21	331.2	10 30	0						20	18 SCS
MOSCOW	64.45	325.0	10 30	-2							
EUREKA	64.69	58.8	10 33	-1							
QUETTA	65.34	288.5	10 38A	0	19	18	2	10	47		
LEMBANG	65.36	229.0	10 35A	-3							
NURMIJARVI	65.45	334.1	10 37A	-1						11	8 PCP
CHARTERS TS.	65.82	185.2	10 38	-3						10	59
SKALSTUGAN	66.17	341.3	10 42	-1							
SALT LAKE C.	66.27	55.5	10 44	0							
PASADENA	66.75	64.5	10 54	7	19	25	-8				
FLAMING GRGE	67.57	54.0	10 49	-3							
BOULDER CITY	67.63	61.1	10 52	0							
UPPSALA	68.03	336.8	10 53A	-2				11	3	20	38 PPS
RAPID CITY	68.80	48.2	10 59	0							
GLEN CANYON	68.93	58.4	11 2	2							
LARAMIE	69.43	51.6	11 1	-2						11	39
SIDA	70.36	355.0	11 11A	2							
BERGEN	70.51	342.9	11 22	12							
TIFLIS	70.99	310.6			20	31	8			21	16 SCS
GOTEBORG	71.39	338.3	11 14	-1							
TEHERAN	71.45	302.3	11 17	1	21	18	50				
GORIS	71.73	308.1	11 18A	1	20	40	9			14	4 PP
TUCSON	72.59	61.6	11 21	-1	20	41	0				
TUCSON TELE.	72.60	61.5	11 22	0							
BRISBANE	72.93	178.6	11 13	-11	20	57	12				
COPENHAGEN	73.04	337.1	11 25A	0							
WARSAW	73.36	330.7	10 25	-62							
SIMFEROPOL	73.91	318.9	11 30A	0						21	37 SCS
LWOW	74.27	327.6	11 32	0	21	8	8			21	58 PS
SHIRAZ	74.98	297.0	11 37K	1	21	8	0	11	45	21	28 SKS
IASI	75.00	324.1	11 37	1	22	31	83			12	50

KRAKOW	75.57	330.0	11 39	-1					12 35	
RACIBORZ	76.13	331.0	11 43	0					11 52	PCP
SKALNATE PL.	76.18	329.4	11 44	1	21 23	2				
FOCSANI	76.36	323.3	12 3	19						
COLLMBERG	76.74	334.6	11 47A	1					14 46	PP
HALLE	76.87	335.3	11 47	0					22 13	PS
WITTEVEEN	77.12	338.9	11 56	8						
DURHAM	77.12	344.3	11 39K	-9						
PRUHONICE	77.42	333.1	11 51A	1	21 52	17			14 52	PP
JENA	77.48	335.2	11 50	0	21 37	2			26 49	SS
CAMPULUNG	77.60	324.4	11 57	6						
MUNSTER	77.65	338.0							12 49	
BUCHAREST	77.85	323.2	11 52A	0	22 25	46			12 43	
WICHITA MTS.	77.99	52.3	11 53	0	21 44	3			14 45	PP
CHEB	78.00	334.4	11 48	-5						
BRATISLAVA	78.14	330.6	11 55K	1						
VIENNA-H.	78.32	331.1	11 56A	1						
KASPERSKE H.	78.47	333.2	11 55A	-1					12 14	
BENSBERG	78.68	337.8	11 57A	0			12 9		13 26	
ISTANBUL KA.	79.25	319.4	12 0	0	22 16	22				
ISTANBUL UN.	79.31	319.4	12 0	0						
FAYETTEVILLE	79.33	48.6	12 0A	-1						
RIVERVIEW	79.34	180.1	11 59A	-2						
ST. LOUIS 1	79.37	44.5	13 0	59	21 56	1				
HEIDELBERG	79.68	336.2	12 2A	0						
BELGRADE	79.78	326.8	12 3A	0	22 19	19			12 12	PCP
KEW	79.99	342.4	12 4A	0						
OTTAWA	80.07	31.6	12 3	-2						
STUTTGART	80.08	335.6	12 5	0	22 18	15				
SHAWINIGAN	80.12	29.2	12 5	0						
TUBINGEN	80.36	335.6	12 6A	0						
SOFIA	80.41	323.9	12 7	1					15 13	PP
STRASBOURG	80.69	336.4	12 8	0					12 36	
EBINGEN	80.71	335.5	12 9	1						
CANBERRA	80.85	181.9	12 9	0						
LJUBLJANA	80.86	331.1	12 9A	0			12 20			
RAVENSBURG	80.88	335.0	12 9	0						
TRIESTE	81.47	331.4	12 11	-1			12 22		22 31	SKKS
KSARA	81.57	310.5	12 13A	1						
BASLE	81.69	336.1	12 14	1						
PARIS	81.85	339.8	12 15	1					12 30	PCP
PADOVA	82.30	332.5	12 23	7					14 3	
NEUCHATEL	82.35	336.3	12 17	1						
FOLINIERE	82.57	341.6	12 18	0						
GARCHY	83.13	338.8	12 20	0					12 31	PCP
MORGANTOWN	83.28	37.3	12 22K	1						
FLORENCE X.	83.95	332.1	12 26A	1	23 16	34				
ATHENS	84.17	321.0	12 25A	-1						
WESTON	84.27	30.3	12 26A	0						
CLERMONT-FD.	84.52	338.3	12 30	3						
PALISADES	84.52	32.7	12 37	10	23 10	22			22 47	SKS
HALIFAX	84.73	24.2	12 30K	2						
ISOLA	84.90	335.1	12 30	1	22 55	3				
ROME	85.21	330.5	12 30A	-1	23 0	5			32 13	SSS
KARAPIRO	86.23	161.0	12 35	-1						
HELWAN	87.06	311.1	12 40	0						
MESSINA	87.35	326.6	12 39	-2						
BAGNERES	87.80	339.3	12 43	0						
BROKEN HILL	122.99	284.0	18 51A	2						
SCOTT BASE	123.83	176.1	18 50	-1					22 31	SKP
BULAWAYO	126.84	278.9	18 58A	1						
HUANCAYO	128.13	64.7	19 1	2						
MAWSON	130.82	210.4	19 5	1					22 27	SKP
BYRD STATION	134.65	165.8	18 58	-14					22 24	SKP
SOUTH POLE	135.69	180.0	19 4	-10					22 40	SKP
LA PAZ	136.01	61.4	19 17	3					22 45	PP
WINDHOEK	136.33	286.4	19 5	-10						

JUNE 16 7.H 8.M 16.S EPICENTRE -41.10 -75.18 DEPTH= 0.KM

A= 0.19328 B=-0.73056 C=-0.65492 D=-0.9667 E=-0.2558
G=-0.1675 H= 0.6331 K=-0.7557 HT= -2.1

SE= 2.01

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

	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S	
SANTA LUCIA	8.46	26.7	2	2	-5						3	48	
PORT STANLEY	15.92	137.5	3	54	7								
ANTOFAGASTA	17.81	14.4	4	10	-1								
AREQUIPA	24.76	8.5	5	27	2	9	46	1					
LA PAZ	25.26	16.0	5	32	2	9	53	-1					
HUANCAYO	28.94	359.7	6	5	2								
BYRD STATION	42.34	190.4	7	58	0								
BOGOTA	45.51	1.6	8	26	3	15	12	6			10	12	PP
CHINCHINA	45.85	359.4	8	22K	-4	15	9	-1			10	22	PP
FUQUENE	46.37	2.0	8	31A	1	15	32	14			10	19	PP
SOUTH POLE	49.09	180.0	8	51	0						10	16	PCP
CARACAS	51.91	10.3	10	14	61	17	34	59					
SCOTT BASE	55.62	193.1	9	40	0	17	12	-13			11	33	PP
CAPE HALLETT	58.17	199.1	9	58A	0	18	6	7					
SAN JUAN	59.77	10.0	10	6	-4								
MAWSON	67.08	163.9	10	55A	-3						11	22	PCP
HERMANUS	71.31	119.5									20	48	
MIRNY	72.29	175.1	10	25	-65								
WILKES	72.80	182.4				21	4	6					
MBOUR	77.05	57.7	12	0	3	21	48	3					
CHATEAU	77.39	228.7	11	59	0								
TONGARIRO	77.39	228.7	11	59	0								
KARAPIRO	78.25	229.7	12	6	2								
WICHITA MTS.	78.47	340.5	12	2	-3	22	0	-1			26	59	SS
KIMBERLEY	78.55	118.1	12	5	0								
FAYETTEVILLE	78.78	344.4	12	6K	0								
TUCSON	80.06	329.9	12	13	0								
TUCSON TELE.	80.10	330.0	12	15	1								
MORGANTOWN	80.47	356.3	12	15A	-1								
PENNSYLVANIA	81.56	357.9	12	19	-2								
PALISADES	81.74	1.0	12	22	0	22	34	-1			15	42	PP
WESTON	83.17	2.9	12	30K	0								
PASADENA	84.69	325.4	12	38	1	23	13	8			28	14	SS
BOULDER CITY	84.90	328.7	12	38	0								
HALIFAX	85.97	8.3	12	45A	1								
OTTAWA	86.12	359.6	12	44	0								
LARAMIE	86.54	337.5	12	46	-1								
BULAWAYO	86.85	114.0	12	47A	-1								
SHAWINIGAN	87.30	1.7	12	51	1								
FLAMING GRGE	87.36	334.8	12	50	-1								
SALT LAKE C.	88.03	333.0	12	54	0								
EUREKA	88.39	329.6	12	55	0								
RAPID CITY	88.46	340.2	12	56	0								
BOZEMAN	92.15	335.7	13	14	1								
BUTTE	92.94	334.9	13	16	-1								
HUNGRY HORSE	95.47	335.1	13	29	1								
BANGUI	95.72	89.2	13	34A	5						17	20	PP
LWIRO	99.03	100.9	17	49K	245								
ISOLA	112.42	50.5	19	34	56								
DURHAM	114.21	37.6	18	36A	-6								
ROME	114.38	55.0	18	31	-11						19	42	PP
TARANTO	116.61	58.5									16	42	
KASPERSKE H.	118.89	48.6	18	52	1						20	16	
COLLMBERG	119.65	46.2	18	54	2						19	39	
COLLEGE	119.73	332.0	18	51	-2								
PRUHONICE	119.86	48.1									20	32	
HELWAN	120.73	75.7	20	20	85								
COPENHAGEN	121.47	41.6									23	2	PPP
NIEDZIKA	122.91	50.7	19	0	1						20	40	
BUCHAREST	124.25	58.2									20	46	
JERUSALEM	124.58	75.8	19	0	-2						20	56	PP
LWOW	125.26	51.5	19	3	0								
UPPSALA	125.74	38.4									20	37	PP
KSARA	126.08	74.0	19	8	3						21	4	PP
NURMIJARVI	129.27	39.0	19	11	0								
KIRUNA	129.34	29.2	19	10	-1						22	34	PKS
SIMFEROPOL	129.68	60.6	19	12	0						22	46	PKS
SODANKYLA	131.59	30.4	19	15	0								
SOTCHI	132.93	64.2	19	19	1						22	49	PKS
MOSCOW	134.89	47.4	19	22	0								
TIFLIS	135.80	68.5	19	19	-4								
GORIS	136.10	72.0	19	23	-1						23	2	PKS
SHIRAZ	136.44	88.1	19	17	-7						22	57	PKS
KHEYS	136.97	10.1	19	28	3						23	1	PKS
MAKHACH-KALA	138.10	67.7	19	30	3						23	13	PKS
TEHERAN	138.34	79.4	19	31	3						22	14	PP
TIKSI	147.13	346.2	19	42K	-1								

QUETTA	147.58	97.5	19 47K	3					23 21	PKS
SVERDLOVSK	147.67	45.8	19 45	1						
MANILA	150.10	212.9	19 54	6					24 4	
NHATRANG	150.97	188.9	19 58	9						
STALINABAD	152.32	83.3	19 55	4						
Y.-SAKHLINSK	152.33	295.2	19 59	8						
WARSAK DAM	152.80	94.3	19 57	5						
TASHKENT	153.37	77.7	19 55	2	27 14	16				
MATUSIRO	153.69	271.0	20 1	8					44 6	SS
YAKUTSK	154.26	332.8	19 54	0						
NAMANGAN	155.08	79.3	19 57	2						
ANDIJAN	155.55	80.1	19 58	2						
FRUNSE	157.53	75.5	20 0	2						
ALMATA	159.27	74.7	20 3K	3						
HONG KONG	159.66	205.7							24 19	PP
CANTON	160.66	204.3	20 4	2					24 26	PP
SHILLONG	161.14	141.2	20 0	-2						
KUNMING	163.96	173.2	20 8	3					24 46	PP
LHASA	163.99	131.3	20 8K	3					24 50	PP
CHANGCHUN	164.64	287.0	20 6	0					24 47	PP
NANKING	165.62	235.6	20 8	1					24 55	PP
CHENGTU	169.56	176.2	20 12	3					25 13	PP
PEKING	171.29	266.6	20 11	1					25 19	PP
SIAN	172.43	206.7	20 13	2					25 27	PP
ULAN-BATOR	173.03	348.4	20 12	1					25 30	PP
LANCHOW	174.89	171.0	20 14	2					25 40	PP
PAOTOW	176.01	264.2	20 14	2					25 45	PP

JUNE 16 10.H 31.M 57.S EPICENTRE 8.95 -73.42 DEPTH= 93.KM

A= 0.28191 B=-0.94691 C= 0.15457 D=-0.9584 E=-0.2853
G= 0.0441 H=-0.1481 K=-0.9880 HT= 6.7

DEPTH OF FOCUS= 0.009R

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	
FUQUENE	3.47	185.1	0	56K	3								
BOGOTA	4.35	188.6	1	10K	5	1	43	-12					
CHINCHINA	4.52	209.0	1	7K	-1	1	51	-8					
BALBOA HTS.	6.07	270.6	1	26	-3	2	31	-7					
CARACAS	6.58	75.9	1	39	3						4	30	SG
SAN JUAN	11.75	36.3	2	44	-2	4	48	-8	3	6	3	15	*SP
GRENADA	11.90	74.0	2	48	0						5	0	
TRINIDAD	11.97	80.9	2	48	-1						5	17	
ST. VINCENT	12.64	69.5	2	56	-2								
FORT FRANCE	13.31	63.3	3	4	-2	5	28	-5					
ST. KITTS	13.33	50.2	3	6	-1								
DOMINICA	13.34	60.6	3	4	-3								
BARBADOS	14.18	71.8	3	19	1						6	5	
SANTIAGO MA.	15.43	288.4	3	35	1	6	29	7					
SAN SALVADOR	16.17	288.3	3	44	1	7	1	22					
COMITAN	19.64	293.5	4	21	-3	7	59	4			4	57	PP
MERIDA	19.65	309.2	4	16	-8	7	37	-18	4	35	4	45	PP
HUANCAYO	20.95	185.2	4	38	1	8	24	4					
OAXACA	24.10	291.8	5	5	-3								
AREQUIPA	25.32	175.7	5	18	-2								
LA PAZ	25.82	168.3	5	24K	0	9	40	-5					
COLUMBIA	25.89	345.4	5	26	1	10	17	31					
TACUBAYA	27.03	295.4	5	38K	3	10	20	16	5	56	8	57	
CHAPEL HILL	27.33	350.0	5	40	2								
WASHINGTON	30.00	354.3	6	4	2				6	42	9	32	
MORGANTOWN	31.10	350.2	6	14K	2								
PALISADES	31.93	359.3	6	19K	0	12	5	43	6	31	7	13	PP
PENNSYLVANIA	31.96	353.6	6	21	2	12	13	50					
ANTOFAGASTA	32.58	174.9	6	23	-2								
FAYETTEVILLE	32.98	328.2	6	28K	0	11	38	0	6	48	7	33	PP
CLEVELAND	33.18	348.8	6	31K	1	11	44	2					
WESTON	33.35	2.8	6	33	2	12	32	48	7	13	7	49	PP
WICHITA MTS.	34.49	321.8	6	41K	0	11	51	-11			7	54	PP
OTTAWA	36.37	357.3	6	58K	1								
CHIHUAHUA	36.40	306.9	6	55	-2						11	7	
HALIFAX	36.54	11.8	7	1K	2								
SHAWINIGAN	37.47	0.7	7	8K	2								
TUCSON TELE.	41.62	309.4	7	42	1	14	11	21	8	23			

TUCSON	41.66	309.3	7	42	1	13	55	5			9	32	PP
SANTA LUCIA	42.24	176.5	7	45	-1				8	9	10	19	PCP
RAPID CITY	43.52	328.7	7	58	2								
FLAMING GRGE	45.03	321.0	8	9	1								
BOULDER CITY	46.26	312.0	8	19	1								
SALT LAKE C.	46.50	319.4	8	21	1	15	0	0	9	2	10	19	PP
PASADENA	48.07	308.3	8	32K	0	15	20	-2	10	24	11	1	PP
EUREKA	48.61	315.8	8	37	1								
BOZEMAN	48.79	325.3	8	39	1	15	34	2	9	24	11	6	
BUTTE	49.85	324.9	8	46	0	15	40	-7			10	52	PP
FRESNO	50.25	310.9	8	48K	-1								
RENO	51.32	314.2	8	58K	1						9	26	
PONTA DELGDA	51.61	48.5	8	59	0								
LICK	51.83	310.9	9	1K	0						10	12	
STA. CRUZ C.	51.98	310.4	9	2K	0								
HUNGRY HORSE	52.01	326.6	9	2	0								
BRANNER	52.26	310.8	9	4K	0								
CONCORD	52.37	311.5	9	6A	1								
BERKELEY	52.47	311.3	9	6K	0	16	21	-2	9	45	10	15	SP
SAN FRANCSCO	52.58	311.1	9	6K	0								
MINERAL	52.90	314.4	9	24	15								
SHASTA	53.59	314.6	9	12K	-2								
UKIAH	53.62	312.4	9	14	0								
BANFF	54.45	328.7	9	19	-1								
MBOUR	55.44	78.7	9	54	27	17	2	-1					
PENTICTON	55.64	325.1	9	29K	0								
CORVALLIS	55.73	318.6	9	29K	0						10	12	
VICTORIA	57.47	322.8	9	41K	-1								
ALBERNI	58.63	323.2	9	50	0								
PORT STANLEY	61.88	169.1	10	10	-2								
LISBON	64.42	51.4	10	29K	0	19	0	2	10	57	12	51	PP
COIMBRA	65.21	49.9	10	34A	0	19	7	-1	11	3			
SERRA PILAR	65.24	48.8	10	31K	-3	19	9	1			12	53	PP
REYKJAVIK	65.88	22.1	10	39K	1				11	8			
RESOLUTE	66.83	353.9	10	43K	-1						11	24	
SIDA	67.17	23.4	10	48	2								
SITKA	67.43	328.5	10	47	-1						11	10	
THULE	67.50	1.3	10	47	-1				11	28	39	35	PKPPKP
TOLEDO	68.50	50.7	10	53K	-1	19	49	1	11	21	13	46	PP
GRANADA	68.58	53.6	10	53A	-2	19	57	8			13	1	PP
SCORESBY SD.	69.36	16.3	11	0K	0	19	58	0	11	38	13	33	PP
ALMERIA	69.45	54.1	11	1A	1						11	47	
JERSEY	71.08	41.1	11	11	1	20	17	-1					
ALICANTE	71.13	52.6	10	59	-11	20	17	-1			11	19	PCP
FOLINIERE	72.08	41.7	11	16	0								
DURHAM	72.28	35.3	11	18A	1	20	32	1	11	58	11	36	PCP
ABERDEEN	72.42	32.8				20	33	0			24	58	SS
KEW	72.53	38.9	11	18K	-1	20	32	-2	12	0	21	12	
PARIS	74.04	41.8	11	27	-1	20	49	-2	11	55	21	26	SCS
CLERMONT-FD.	74.26	45.0	11	29K	0	20	57	3					
ARGENTINE I.	74.31	176.0	11	29	0								
COLLEGE	75.33	334.8	11	34	-1								
DE BILT	75.99	38.6	11	41K	2								
BESANCON	76.29	43.6	11	40	0								
NORD	76.55	7.3	11	40K	-2								
NEUCHATEL	76.95	43.8	11	44	0	21	22	-1					
ISOLA	77.00	46.7	11	44	0	21	25	1					
BENSBERG	77.18	39.8	11	45K	0	21	25	-1	12	13	12	27	*SP
BASLE	77.39	43.3	11	47K	0	21	28	0					
MUNSTER	77.49	38.8	11	46	-1								
STRASBOURG	77.52	42.2	11	47K	0	21	25	-4	12	12	14	34	PP
KARLSRUHE	77.95	41.8	11	50	0	21	31	-3					
HEIDELBERG	78.15	41.4	11	50	-1				12	19	12	33	*SP
EBINGEN	78.32	42.6	11	51	-1								
TUBINGEN	78.39	42.3	11	51	-1				12	19	12	34	*SP
PAVIA	78.50	45.7	11	53K	0						21	41	PS
STUTTGART	78.52	42.0	11	53K	0	21	38	-2	12	21	26	38	SS
CHUR	78.72	44.0	11	54	0	21	40	-2					
RAVENSBURG	78.76	43.0	11	54	0								
PRATO	79.92	47.0	12	0	0	21	51	-4					
JENA	79.97	39.8	12	1	0	21	56	1	12	30	12	41	*SP
GOTEBORG	80.04	32.9	12	1K	0				12	30			
SKALSTUGAN	80.13	26.9	12	2K	0				12	31			
HALLE	80.18	39.2	12	3	1	21	58	0					
COPENHAGEN	80.35	35.0	12	3K	0	21	49	-10	12	32	22	22	*PS
PADOVA	80.40	45.4	12	3K	0	22	0	0			23	2	PS
CHEB	80.51	40.7	11	57	-7	21	55	-6	12	45			
COLLMBERG	80.85	39.4	12	5K	0	22	4	0	12	35	15	10	PP

ROME	81.05	48.9	12	7	1	22	9	2	12	39	15	41	PP
KASPERSKE H.	81.34	41.6	12	8K	0				12	37	12	49	*SP
TRIESTE	81.70	45.1	12	10	0	22	15	2			23	7	SP
KIPAPA	81.79	290.4	12	11	1								
PRAGUE	81.83	40.6				22	18	3	12	43	12	56	*SP
HONOLULU	81.88	290.3	12	11	0	22	21	6					
PRUHONICE	81.92	40.7	12	11K	0	22	18	3	12	40	27	33	SS
LJUBLJANA	82.20	44.6	12	13K	1	22	17	-1	12	42	15	24	PP
TROMSOE	82.50	20.7	12	15	1								
UPPSALA	82.86	30.6	12	16K	0	22	23	-2	12	46	23	13	PS
KIRUNA	83.23	22.4	12	18K	0	22	28	-1	12	45	23	18	PS
ZAGREB	83.24	44.8	12	19A	1	22	30	1					
VIENNA-H.	83.26	42.3	12	18K	0	22	32	3			12	22	PCP
UMEA	83.65	26.5	12	21K	1				12	50			
MESSINA	83.73	52.4	12	19	-1								
BRATISLAVA	83.75	42.3	12	21A	1						12	33	PCP
RACIBORZ	84.25	40.3	12	22	-1				13	4	22	41	SCS
HURBANOVO	84.52	42.5	12	26	2						12	44	PCP
CHORZOW	84.73	40.1	12	26	1				12	55	13	33	
TARANTO	84.77	50.0	11	51	-34	21	31	-73					
KRAKOW	85.36	40.2	12	29	1						22	52	SCS
SODANKYLA	85.65	22.5	12	29	-1	22	51	-1	12	59	15	49	PP
SKALNATE PL.	85.69	41.0	12	30A	0	22	46	-7					
WARSAW	85.71	37.9	12	31	1				12	59	22	51	SCS
NURMIJARVI	86.24	29.4	12	33K	1	22	57	-1	13	3	15	53	PP
BELGRADE	86.50	45.3	12	37	3	23	3	2			15	36	
KAJAANI	86.85	25.6	12	37	2				13	7	15	57	PP
TIMISOARA	86.88	44.3	12	34	-2	23	4	0			23	43	*SS
KHEYS	87.41	7.1	12	40	2								
LWOW	88.01	40.0	12	42	1	23	17	2					
SOFIA	88.92	47.1	12	46	1						13	24	SP
PULKOVO	89.17	29.4	12	47	0								
ATHENS	90.14	51.6	12	52A	1								
BUCHAREST	90.53	45.0	12	52K	-1	23	36	-2	13	22	17	17	PP
IASI	90.88	42.0	12	54	-1						13	50	
FOCSANI	90.99	43.5				23	53	11			13	23	
BANGUI	91.34	85.4	12	56	-1	23	15	-30					
KISHINEV	91.76	42.0	12	59	0								
BYRD STATION	91.87	187.2	12	58	-1				13	29	16	59	*PPP
ISTANBUL KA.	93.46	47.7	13	5K	-1	22	41	-83	13	35	16	49	PP
WINDHOEK	93.86	112.1	13	8	0								
MOSCOW	94.20	32.0	13	9	-1								
SIMFEROPOL	95.89	42.9	13	17K	0								
HERMANUS	97.17	123.7				24	7	16			23	21	
HELWAN	98.16	58.1	13	42	14						31	37	
SOUTH POLE	98.89	180.0	13	30	-1	25	4	65	14	0	17	34	*PPP
KSARA	100.73	53.1	13	41	2	24	11	3			17	34	PP
JERUSALEM	100.83	55.2	13	42	2						18	13	PP
LWIRO	102.42	90.3	13	51	4								
MAGADAN	103.16	338.6									17	36	
BROKEN HILL	103.62	102.7	12	53	-59								
BULAWAYO	104.26	108.5									14	33	
TIFLIS	104.32	42.9	18	12	257								
SVERDLOVSK	104.39	24.1	13	55	-1								
SCOTT BASE	104.78	191.0	14	27K	30	24	26	-1			18	18	PP
MAKHACH-KALA	105.53	40.8	18	22	777								
CAPE HALLETT	106.34	196.6				24	36	2			18	39	PP
YAKUTSK	106.99	348.8	14	9	777								
CHATEAU	111.89	231.4									29	28	PKKP
KARAPIRO	112.03	232.8									29	18	PKKP
MAWSON	114.62	163.1	19	1	31	25	3	-5			19	32	PP
ROXBURGH	115.35	223.8									36	3	SS
SHIRAZ	115.39	51.3	18	31	0	26	3	52	19	33			
Y.-SAKHLINSK	115.67	333.4									20	15	PP
TANANARIVE	122.08	106.7	18	46	2						19	17	
VLADIVOSTOK	123.27	338.0	18	49	3								
ULAN-BATOR	123.38	359.7	18	49	2								
CHANGCHUN	124.78	343.6	18	50	1						20	32	PP
QUETTA	125.56	42.8	18	53K	2				19	24	20	44	PP
MATUSIRO	125.86	328.6	18	52K	1				19	23	20	42	PP
WARSAK DAM	125.88	36.1	18	53	2								
LAHORE	129.26	36.0	18	57	-1						22	11	PKS
PEKING	130.47	350.3	19	1	1						21	12	PP
PAOTOW	130.62	356.5	19	2	2						21	16	PP
MOORLANDS	131.23	219.8	19	3A	1				19	35			
RIVERVIEW	132.19	232.0	19	6A	3				19	36	23	14	
DEHRA DUN	132.29	33.9	19	3	-1						22	34	
BRISBANE	132.75	240.9	19	7	3						39	51	
CANBERRA	133.27	229.3	19	7K	2				19	37	22	25	

RABAUL	134.49	272.9	19 9	1	19 40
LANCHOW	135.17	3.2	19 11	2	
SIAN	136.98	357.2	19 12	0	21 56 PP
NANKING	137.59	344.6	19 15	2	21 55 PP
ZO-SE	137.79	341.2	19 14	0	22 0 PP
LHASA	138.82	20.7	19 18	2	
CHATRA	139.75	27.4	19 10	-7	22 54
PORT MORESBY	139.96	266.0	19 12	-6	23 41
CHARTERS TS.	140.12	249.4	19 10	-8	22 15
CHENGTU	140.54	3.5	19 17	-2	22 14 PP
ADELAIDE	140.83	223.8	19 15	-4	
SHILLONG	142.82	22.3	19 19A	-4	
VISHAKHAPTNM	144.91	40.9	19 29	3	
MADRAS	145.90	50.6	19 30	2	
KUNMING	145.93	6.2	19 30	2	22 51 PP
CANTON	147.48	348.4	19 34	3	23 2 PP
HONG KONG	148.06	346.6	19 35	3	23 21 PP
MUNDARING	155.41	200.0	19 44	2	20 58
NHATRANG	158.81	352.9	19 49	2	
LEMBANG	177.65	333.9	20 1K	2	20 32 PKP2

JUNE 17 8.H 5.M 54.S EPICENTRE 27.94 54.86 DEPTH= 46.KM

A= 0.50924 B= 0.72351 C= 0.46606 D= 0.8178 E=-0.5756
G= 0.2682 H= 0.3811 K=-0.8848 HT= 2.5

DEPTH OF FOCUS= 0.002R

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
SHIRAZ	2.67	310.3	0 43	1	1 13	-1		0 56 PG
TEHERAN	8.32	340.1	2 2	1	4 11	36		
QUETTA	10.81	75.2	2 35K	0	4 33	-3		
WARSAK DAM	15.53	63.0	3 38	0				
STALINABAD	15.72	44.1	3 40	0	6 38	5		
TIFLIS	16.02	331.7	3 44	0				
MAKHACH-KALA	16.14	340.2	3 46	0	6 52	9		
LAHORE	17.29	73.3	3 57	-3				
KSARA	17.31	294.5	4 1	1	7 25	16		
JERUSALEM	17.46	287.4	4 2K	0	7 28	15		
TASHKENT	17.83	37.8	4 6	-1	7 33	12		
BOMBAY	18.76	114.8	4 18	0				13 14
NAMANGAN	18.97	42.4						5 26
ANDIJAN	19.25	43.9	4 23A	-1	7 58	5		
SOTCHI	19.81	325.9	4 29	-1	8 12	7		
DEHRA DUN	20.39	77.7	4 29	-7				10 43
HELWAN	20.69	281.0	4 36A	-3	8 31	9		
FRUNSE	21.84	42.0	4 51	0				
ALMATA	23.49	43.6	5 8A	1				
SIMFEROPOL	23.69	321.3	5 10A	1	9 26	9		
ISTANBUL KA.	24.86	308.5	5 19	-1	9 42	5		
ISTANBUL UN.	24.90	308.4	5 19	-1				5 53 SG
CHATRA	28.67	84.6	5 56K	1				
MOSCOW	30.42	340.7	6 11	0				
LHASA	31.68	78.2	6 23	1				
LWOW	32.09	321.3	6 34	2				
SHILLONG	33.05	85.4	6 42	-2				8 4
KRAKOW	34.52	319.4	6 47	1				19 16
BRATISLAVA	35.47	315.0						19 29
PULKOVO	35.98	339.0	7 0	1				
LJUBLJANA	36.48	310.7	7 2A	-1				8 29 PP
TRIESTE	36.89	309.8	7 13	7				9 14
PRUHONICE	37.68	316.9	7 12	-1				9 30
KASPERSKE H.	37.99	315.2	7 14A	-2				7 42
NURMIJARVI	38.43	336.4	7 19	0	13 10	-1		8 51 PP
COLLMBERG	39.06	318.3	7 24	-1				8 43
LWIRO	39.10	224.1						16 48
KAJAANI	40.13	341.9	7 35	2				
STUTTGART	40.61	313.4	7 45	8				
UPPSALA	40.72	332.1	7 37	-1				
COPENHAGEN	41.05	324.4	7 42A	1				
BASLE	41.45	311.2	7 0	-36				11 1
BANGUI	41.68	242.4	7 45	-1				
LANCHOW	41.95	66.1	7 49A	1				

GOTEBORG	42.16	327.0	7	55	5						
UMEA	42.21	338.0	7	48	-2					9	43
MUNSTER	42.46	317.7	7	50	-3						
BENSBERG	42.47	316.2	7	53	0			8	2		
KUNMING	42.72	82.4	7	56	1	14	20 5				
SODANKYLA	43.00	344.4	7	57	0					9	48 PP
ULAN-BATOR	44.69	48.9	8	10	-1						
SKALSTUGAN	44.91	334.6	8	12	0						
KIRUNA	44.91	342.3	8	12	0					17	57 SS
SIAN	46.27	68.1	8	25	2	15	11 5				
TROMSOE	46.57	343.6	8	26	0					10	21 PP
PAOTOW	46.62	59.3	8	27	1						
FOLINIERE	46.97	311.9	8	28	-1					8	50 PCP
KEW	47.19	315.6	8	31	1						
BROKEN HILL	49.29	214.6	8	47	0						
PEKING	51.34	59.6	9	3	1	16	21 4				
CANTON	52.58	81.3	9	12	0						
KHEYS	52.80	0.7	9	15	2						
NHATRANG	52.98	95.7	9	15	0			9	18		
NANKING	54.80	69.0	9	28	0						
ZO-SE	57.02	69.5	9	44	0						
CHANGCHUN	57.60	53.9	9	48A	0						
YAKUTSK	58.67	32.2	9	54	-1	17	56 1				
TIKSI	58.72	20.9	9	53	-3						
NORD	59.85	350.7	9	53	-11						
MANILA	62.45	87.4	10	23	2						
Y.-SAKHLINSK	68.75	47.2								12	1
MATUSIRO	68.97	59.0	11	3	0						
COLLEGE	85.82	9.5	12	37	1					13	10
FLAMING GRGE	109.94	347.4	18	29	777						
EUREKA	112.39	352.3	18	33	2						
WICHITA MTS.	112.81	336.5	18	33	1					29	29 PKKP
SOUTH POLE	117.78	180.0	18	42	0						
BYRD STATION	127.77	181.2	19	1	0						

JUNE 17 10.H 56.M 29.S EPICENTRE -11.79 -75.20 DEPTH= 0.KM

A= 0.25009 B=-0.94671 C=-0.20298 D=-0.9668 E=-0.2554
G=-0.0518 H= 0.1962 K=-0.9792 HT= 6.3

SE= 3.46

	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	
LA PAZ	8.30	125.1	1	59	-5	4	0	20					
BOGOTA	16.34	4.0	3	58	6	7	0	6					
CHINCHINA	16.65	358.5	3	58	2	7	6	5					
FUQUENE	17.21	5.0	4	6	3	7	22	8					
BALBOA HTS.	21.06	347.9	4	53	5	8	37	-1					
SANTA LUCIA	21.95	169.8	4	57	0	9	2	7			6	34	
GALERAZAMBA	22.42	359.8	4	43	-18						8	27	
CARACAS	23.62	20.7	5	2	-11	9	18	-7					
TRINIDAD	26.17	32.1	5	54	16						16	6	
GRENADA	27.20	29.9	5	41	-6								
ST. VINCENT	28.39	29.6	6	10	12								
SAN JUAN	31.29	16.8	6	17	-7						6	34	
ACUBAYA	38.98	322.4	7	43	14								
COLUMBIA	45.87	353.3									8	50	
FAYETTEVILLE	50.88	340.1	9	3A	-1						9	39	
WICHITA MTS.	51.30	335.2	9	7	-1	16	31	5			10	23	PCP
PENNSYLVANIA	52.38	357.4	9	10	-6	16	37	-4					
PALISADES	52.54	1.2	9	18	1	16	37	-6	9	27	20	41	SS
LAWRENCE	53.85	340.7	9	24	-3								
WESTON	54.02	3.6	10	25	57								
TUCSON	55.49	323.2	9	39	0						11	39	PP
TUCSON TELE.	55.49	323.4	9	39	0								
OTTAWA	56.92	359.6	9	46	-3								
BREBEUF	57.04	1.3	9	47	-3								
SHAWINIGAN	58.11	2.0	9	55	-2								
LARAMIE	59.81	333.8	10	7	-2						10	36	
BOULDER CITY	60.46	323.5	10	15	1								
RAPID CITY	61.16	337.3	10	17	-1								
FLAMING GRGE	61.23	330.9	10	19	0	16	40	2			12	13	
PASADENA	61.26	319.9	10	0	-19	18	46	8			23	1	SS
MBOUR	63.29	67.3				18	56	-8					
EUREKA	63.55	325.6	10	35	1								

BOZEMAN	65.68	333.2	10 48	0							
BUTTE	66.63	332.6	10 54	0							
BYRD STATION	71.21	187.4	11 24	1						11 41	PCP
PENTICTON	72.29	331.3	11 29	0							
SOUTH POLE	78.29	180.0	12 4	1							
GRANADA	82.84	49.8	12 31K	4							
TOLEDO	83.47	47.1	12 27	-4							
SCOTT BASE	84.21	190.8	12 36K	2							
CAPE HALLETT	86.06	196.2	12 46	2	23 20	3					
HERMANUS	87.04	124.4			23 23	-4					
RESOLUTE	87.17	354.9	12 49	0						23 24	
BAGNERES	87.52	45.2								12 51	
THULE	88.14	1.6	12 55	1							
FOLINIERE	88.94	39.7	12 53	-4							
ISOLA	92.64	45.5	13 18	3							
KIMBERLEY	92.98	120.0	13 34	18							
COLLEGE	93.36	335.9	13 17	-1						16 50	PP
STUTTGART	95.16	41.4	13 27	1							
MAWSON	95.27	165.1	13 27K	0							
COLLMBERG	97.97	39.3	13 40	1							
KASPERSKE H.	98.01	41.5	13 41	2							
LJUBLJANA	98.18	44.7	13 42	2							
PRUHONICE	98.76	40.8	13 44	2							
HELWAN	110.04	62.4	19 9	36							
JERUSALEM	113.41	60.4	19 31	51							
KSARA	113.93	58.2								19 34	PP
QUETTA	140.45	56.6	19 33	2							
MATUSIRO	141.13	315.0	19 27	-5							
LAHORE	145.71	50.2	19 40	0							
POONA	149.42	73.5								19 52	

JUNE 17 15.H 7.M 34.S EPICENTRE 14.31 -91.95 DEPTH= 73.KM

A=-0.03298 B=-0.96881 C= 0.24562 D=-0.9994 E= 0.0340
G=-0.0084 H=-0.2455 K=-0.9694 HT= 5.9

DEPTH OF FOCUS= 0.006R

SE= 1.86

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COMITAN	1.94	354.9	0	38	7	1	12	17					
SAN SALVADOR	2.74	102.9	0	42A	0	1	17	2					
SANTIAGO MA.	3.48	103.2	0	54	1	1	34	1					
OAXACA	5.37	300.7	1	16	-3						2	14	
VERA CRUZ	6.30	321.1	1	32	0						2	38	
MERIDA	6.97	18.3	1	39	-2	3	2	2			3	47	
PUEBLA	7.61	308.9	1	48	-2	3	18	3	2	6			
TACUBAYA	8.59	307.1	2	0K	-3	3	46	6	2	15			
LEON	11.47	307.6	2	44	2	5	5	16			5	26	*SS
GUADALAJARA	12.56	301.9	2	59	1				3	10	6	11	
BALBOA HTS.	13.25	112.3	3	6	0						5	55	
CHINCHINA	18.57	118.4	4	14K	1	7	52	18	4	32			
CHIHUAHUA	19.36	319.7	4	20	-2	7	54	3					
FUQUENE	19.97	114.3	4	29A	1	8	20	16	4	50	8	59	*SS
BOGOTA	20.08	116.9	4	31K	2	8	23	17	4	51	9	6	*SS
WICHITA MTS.	21.19	344.7	4	39A	-2						6	16	
FAYETTEVILLE	21.78	355.1	4	47A	0	8	49	11	5	10	5	32	PP
COLUMBIA	21.96	24.9	4	49	1	8	56	15			5	26	
CHAPEL HILL	24.43	26.0	5	14	2				5	30			
CARACAS	24.72	96.0	5	14	-1	9	44	15					
TUCSON TELE.	24.81	319.5	5	17	1	9	43	12					
TUCSON	24.82	319.2	5	17	1	9	48	17					
SAN JUAN	25.10	77.2	5	41	22								
MORGANTOWN	27.34	20.5	5	39K	-1								
WASHINGTON	27.79	25.5	5	41	-3						11	55	
CLEVELAND	28.55	16.5	5	49A	-1								
PENNSYLVANIA	29.11	22.3	5	55	0						11	19	*SS
BOULDER CITY	29.77	320.6	6	2	1								
FORT FRANCE	29.81	85.3									8	56	
TRINIDAD	30.04	93.4									9	3	
FLAMING GRGE	30.57	333.5	6	9	1						9	51	
PASADENA	30.86	314.4	6	10A	-1	11	14	6			9	6	PCP
PALISADES	30.90	27.2	6	9A	-2	11	12	3	6	26	7	14	PP
HUANCAYO	30.94	147.0	6	12	0	11	21	12					
RAPID CITY	31.19	344.2	6	13	-1								

SALT LAKE C.	31.56	330.4	6	18	1	11	22	3	6	37	
EUREKA	32.77	324.4	6	29	1				7	30	
WESTON	33.16	28.5	6	30A	-1	11	46	2			
FRESNO	33.42	317.1	6	32A	-1						
OTTAWA	33.90	20.7	6	36A	-1						
VINEYARD	34.47	315.8	6	42A	0						
LICK	34.96	316.5	6	47A	1				9	23	PP
STA. CRUZ C.	35.02	315.7	6	47A	0						
RENO	35.07	321.0	6	49A	2						
BOZEMAN	35.17	336.5	6	49	1	12	24	9			
BRANNER	35.37	316.2	6	51K	1						
CONCORD	35.59	317.0	6	52A	0						
BERKELEY	35.67	316.8	6	53A	1	12	23	0	8	22	PP
SHAWINIGAN	35.94	22.7	6	54A	-1						
BUTTE	36.06	335.4	6	56	0	12	51	22			
AREQUIPA	36.65	145.8	7	1	0						
MINERAL	36.66	320.7	7	1A	0				8	38	
UKIAH	36.98	317.8	7	4	0						
SHASTA	37.35	320.6	7	5A	-2						
HUNGRY HORSE	38.54	336.3	7	17	0	13	15	8			
LA PAZ	38.61	141.6	7	8	-9	13	11	3			
HALIFAX	38.63	32.9	7	18A	1						
CORVALLIS	40.23	324.9	7	31	0						
BANFF	41.40	337.6	7	40A	0						
PENTICTON	41.63	332.8	7	43A	1						
VICTORIA	42.84	329.4	7	52A	4						
SANTA LUCIA	51.65	157.2	8	59	-2	16	21	6	19	56	SS
RESOLUTE	60.39	359.1	10	1A	-2						
COLLEGE	62.98	336.6	10	20	-1	18	48	4	10	39	
HONOLULU	62.99	286.8	10	22	1	19	13	29			
THULE	63.35	6.1	10	21	-2						
SCORESBY SD.	69.95	19.6	11	10	5				25	12	SS
NORD	73.79	8.5	11	27A	-1						
DURHAM	78.66	36.2	11	55A	0				14	53	PP
TOLEDO	79.39	51.5	11	58	-1	22	2	9	15	6	PP
KEW	79.96	39.4	12	1	-1				12	22	
FOLINIERE	80.34	42.1	12	3	-1						
BAGNERES	81.89	47.7	12	11	-1						
PARIS	82.26	41.7	12	14	0						
DE BILT	83.16	38.1	12	26	7	22	44	13			
CLERMONT-FD.	83.37	44.6	12	19	-1						
SKALSTUGAN	83.51	25.9	12	21	0						
TROMSOE	83.74	19.2	12	23	1						
WITTEVEEN	83.86	37.1	11	53	-29						
KHEYS	84.00	4.7	12	24	1				12	52	PP
MUNSTER	84.65	37.8	12	21	-5						
BENSBERG	84.66	38.8	12	26A	0				13	17	
BESANCON	84.91	42.6	12	27	-1						
KIRUNA	85.00	20.6	12	28	0	22	46	-4			
GOTEBORG	85.30	31.5	12	30	0						
STRASBOURG	85.70	41.0	12	32	0	22	56	0	28	50	SS
BASLE	85.88	42.1	12	32	0				18	20	
KARLSRUHE	85.98	40.5	12	35	2	23	2	3			
COPENHAGEN	86.22	33.4	12	35	1	23	14	12	29	20	SS
ISOLA	86.48	45.4	12	35	0						
EBINGEN	86.58	41.2	12	36	0						
STUTTGART	86.60	40.5	12	36	0	23	9	4			
UMEA	86.69	24.3	12	38	2						
MONACO	86.87	45.8	12	39	2						
UPPSALA	87.25	28.4	12	38	-1	22	55	-16			
SODANKYLA	87.30	19.9	12	38	-1				16	1	PP
JENA	87.33	38.0	12	39	0	23	2	-10	13 45	29	2 SS
HALLE	87.35	37.4	12	40	0						
COLLMBERG	88.04	37.4	12	43A	0				16	9	PP
KASPERSKE H.	89.16	39.3	12	48A	0				15	2	
PRUHONICE	89.44	38.2	12	49	-1	23	19	-13	29	42	SS
FLORENCE X.	89.48	44.8	12	50	0	23	14	-18			
PETROPAVLOVK	89.93	325.3	12	52	0	23	27	-9	23	49	SCS
TIKSI	89.98	348.0	12	53	1	23	19	-18	16	23	PP
NURMIJARVI	90.08	26.3	12	53	0				14	11	
TRIESTE	90.51	42.5	12	55	0	23	2	-39	32	0	
MAGADAN	90.84	333.1	12	56	0	23	51	7	16	34	PP
LJUBLJANA	90.87	41.9	12	56A	0				16	33	PP
ROME	90.97	46.3	12	58	1	23	58	13	26	8	PPS
BRATISLAVA	91.68	39.3	13	0	0						
PULKOVO	92.87	25.4	13	7	2				16	55	PP
TARANTO	94.84	46.3							13	57	
LWOW	95.04	35.8							25	58	PS
BYRD STATION	95.28	184.7	13	13	-3				17	1	PP

YAKUTSK	97.18	341.6							24	1	SKKS
ISTANBUL KA.	102.53	41.6							17	58	PP
SIMFEROPOL	103.43	36.2							27	24	PS
SOUTH POLE	104.22	180.0	12	35	-82				16	33	PP
CAPE HALLETT	105.92	198.4				24	44	8	27	37	PS
TUKUBASAN	109.73	317.4							18	55	PP
MATUSIRO	110.77	318.6							18	46	PP
KSARA	111.03	44.8	18	9	-15				18	46	PP
IRKUTSK	112.21	349.3							19	13	PP
PEKING	119.94	335.3	18	43	1				20	8	
KIMBERLEY	120.02	115.1	18	43	1						
LWIRO	120.32	84.2	18	46	4						
GRAHAMSTOWN	121.45	120.4	18	46K	1						
FRUNSE	121.82	11.6	18	48	3				20	20	PP
TASHKENT	121.99	16.6	18	51	5				20	21	PP
BROKEN HILL	122.44	98.2	18	49A	2						
BULAWAYO	123.17	104.8	18	49	1						
MAWSON	124.27	168.6	18	49	-1						
CHARTERS TS.	124.32	255.3	18	52	2						
SHIRAZ	124.46	37.8	18	52K	2						
ZO-SE	124.76	325.2	18	53	2				20	40	
NANKING	125.29	327.9	18	53	1				20	47	
KHOROG	126.19	16.3	18	59	5						
SIAN	127.78	338.1	19	0	3				21	2	
WARSAK DAM	129.45	17.8	19	3	3						
QUETTA	131.32	24.5	19	5	1				21	26	PP
CHENGTU	132.73	341.2	19	8	2				21	35	
DEHRA DUN	134.60	12.2	19	19	9				22	48	
CANTON	135.34	326.0	19	14	3				21	51	
HONG KONG	135.51	324.4	19	11	0				21	55	PP
LHASA	136.21	356.2	19	18	5						
KUNMING	138.27	339.8	19	20	4				22	9	
CHATRA	139.10	1.2	19	15	-3						
SHILLONG	140.19	354.6	19	10	-10						
POONA	144.49	23.6	19	28	0				27	28	
NHATRANG	146.32	320.5	19	37	6						

JUNE 17 15.H 24.M 17.S EPICENTRE -3.62 138.21 DEPTH= 90.KM
A=-0.74415 B= 0.66505 C=-0.06280 D= 0.6664 E= 0.7456
G= 0.0468 H=-0.0418 K=-0.9980 HT= 7.1

DEPTH OF FOCUS= 0.009R

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	
PORT MORESBY	10.57	123.3	2	30	0	4	31	4					
DARWIN	11.36	219.6	2	40	0	4	31	-15					
RABAUL	13.94	92.8	3	17	3								
CHARTERS TS.	18.15	155.0	4	6	-1								
GUAM	18.17	20.8	4	0	-7						4	23	
HONIARA	22.34	106.0	4	53	2								
MANILA	24.87	317.3	5	20	5	9	45	16					
BAGUIO CITY	26.47	319.3	5	31	1	9	55	0					
BRISBANE	27.43	151.0	5	30	-9	10	7	-4					
KOUMAC	30.46	125.7	6	5	-1								
LEMBANG	30.63	262.8	6	35A	28								
ADELAIDE	31.19	179.2	6	10K	-2						12	13	
RIVERVIEW	32.38	159.6	6	22A	-1						18	7	
PORT VILA	32.66	117.6	6	26A	1								
NOUMEA	33.07	126.6	6	28A	-1								
CANBERRA	33.08	163.7	6	29	0						16	35	SCS
MUNDARING	34.96	213.8									2	53	
CANTON	35.97	318.7	6	53	-1						12	23	
ZO-SE	38.16	336.0	7	12K	0	12	58	0					
ABUYAMA	38.37	356.5	7	14K	0								
MATUSIRO	39.96	360.0	7	26K	-1						9	31	PCP
FORT NELSON	39.97	169.5	7	28A	1								
NANKING	40.01	333.9	7	27K	0	13	23	-3					
KUNMING	44.74	311.6	8	8	2								
SIAN	46.70	326.2	8	22K	1								
VLADIVOSTOK	46.88	353.7	8	24K	1								
CHENGTU	47.20	318.7	8	24	-1								
PEKING	47.93	337.2	8	31	0	15	18	-2					

KARAPIRO	48.24	140.0	8	34A	1						
CHANGCHUN	48.64	347.6	8	35K	-1						
TONGARIRO	48.98	141.4	8	40	1						
CHATEAU	48.99	141.4	8	40	1						
TUAI	49.78	140.0	8	46	1						
WELLINGTON	49.80	144.0	8	49	4						
AFIAMALU	50.37	105.0	8	50K	0						
LANCHOW	50.90	323.9	8	54	0						
PAOTOW	51.00	332.4	8	55	1	16	4	1			
SHILLONG	53.46	305.6	9	10K	-3						
CHATRA	57.82	304.8	9	44	0						
ULAN-BATOR	58.19	335.7	9	46	-1						
PETROPAVLOVK	59.01	14.2	9	53	1						
YAKUTSK	65.78	355.6	10	36	-1						
MIRNY	70.19	197.6	11	1	-4						
CAPE HALLETT	71.43	170.2	11	12	0	20	54	32			
WARSAK DAM	72.93	307.1	11	21	0						
ANDIJAN	74.37	314.0	11	30	1						
SCOTT BASE	75.69	174.0	11	37K	0						
QUETTA	75.75	302.2	11	37	0						
STALINABAD	76.37	311.0								12	19
MAWSON	81.09	202.0	12	5A	-1					13	29
SOUTH POLE	86.40	180.0	12	32	-1	13	1		13	14	*SP
COLLEGE	86.51	24.3	12	33	-1				13	6	
SHIRAZ	88.03	299.7	12	40K	-1						
BYRD STATION	88.58	170.2	12	43	-1	13	12		13	26	*SP
TANANARIVE	89.47	251.2	12	49	1				13	28	
SODANKYLA	101.54	338.5	13	42	-1						
RESOLUTE	102.70	12.6	13	46	-2						
KIRUNA	103.57	339.8	13	51	-1						
EUREKA	104.50	50.3	13	59	3						
NURMIJARVI	104.59	332.1	13	56	0						
UPPSALA	108.09	332.8	14	11	777						
BROKEN HILL	108.12	253.6							22	6	
HERMANUS	111.37	230.9							14	4	PPS
GOTEBORG	111.70	332.2	14	14	-250						
WICHITA MTS.	119.06	52.1	18	41	3				19	59	PP
HUANCAYO	143.20	115.5	19	25	2						
LA PAZ	147.17	128.3	19	36	6				20	6	
SAN JUAN	152.04	56.6	19	47	9				20	13	

JUNE 17 18.H 39.M 58.S EPICENTRE 14.63 -91.32 DEPTH= 119.KM

A=-0.02222 B=-0.96774 C= 0.25097 D=-0.9997 E= 0.0230
G=-0.0058 H=-0.2509 K=-0.9680 HT= 5.8

DEPTH OF FOCUS= 0.014R

SE= 4.29

	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	1.79	334.1	0	32	0	1	2	6				
SAN SALVADOR	2.26	114.4	0	35	-3	1	9	3				
SANTIAGO MA.	2.98	112.0	0	47	0	1	28	5				
OAXACA	5.76	295.1	1	14	-11						2	6
VERA CRUZ	6.47	315.3				2	34	-14				
MERIDA	6.49	14.2	1	32	-3	2	55	7			2	5
PUEBLA	7.91	304.5	2	1	7	3	3	-20				
TACUBAYA	8.91	303.3	1	53K	-14	3	29	-18			2	52
LEON	11.78	304.7									6	2
GUADALAJARA	12.92	299.5				5	20	-2			6	9
CHINCHINA	18.19	120.3	4	6K	0	7	50	28				
CHIHUAHUA	19.53	317.9									9	50
FUQUENE	19.55	116.0	4	22K	1	8	24	34				
BOGOTA	19.68	118.7	4	24	2	8	15	23				
WICHITA MTS.	21.05	343.1	4	32	-4							
LUBBOCK	21.15	335.0	4	33	-4							
COLUMBIA	21.42	24.0	4	41	1	8	46	21				
FAYETTEVILLE	21.53	353.6	4	39A	-2	8	50	23			5	27 PP
CHAPEL HILL	23.88	25.2	5	5	1							
CARACAS	24.15	97.0	5	22	16	9	40	27				
LAWRENCE	24.49	352.6	5	7	-3							
TUCSON TELE.	24.98	318.2	5	9	-5						5	30
TUCSON	24.99	317.9	5	9	-5							
MORGANTOWN	26.83	19.7	5	31	0							
PENNSYLVANIA	28.59	21.6							6	9	11	7 *SS

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
LARAMIE	29.33	337.7	5 49	-5				6 39
BOULDER CITY	29.92	319.5	5 53	-6				
PALISADES	30.34	26.6	6 2	-1	11 8	15	6 12	8 56 PCP
FLAMING GRGE	30.57	332.5	6 11	6				7 9
RAPID CITY	31.06	343.3	5 58	-11				
PASADENA	31.08	313.5	6 2	-7	11 14	9		
SALT LAKE C.	31.60	329.4	6 10	-4				
WESTON	32.59	28.1	6 23	1				
EUREKA	32.88	323.5	6 21	-4				
OTTAWA	33.38	20.1	6 29	0				
FRESNO	33.62	316.2	6 24	-7				
BREBEUF	34.21	22.3	6 36	0				
VINEYARD	34.68	315.0	6 34A	-6				
BOZEMAN	35.13	335.7	6 42	-2				
LICK	35.16	315.7	6 39A	-5				
RENO	35.22	320.2	6 41A	-4				
SHAWINIGAN	35.41	22.3	6 47	0				
BERKELEY	35.86	316.0	6 44	-6				
BUTTE	36.04	334.6	6 46	-6				
MINERAL	36.80	320.0	6 53K	-5				
SHASTA	37.50	319.9	6 58	-6				
HALIFAX	38.03	32.6	7 10K	1				
LA PAZ	38.48	142.6	7 10	-2				16 2 SS
CORVALLIS	40.33	324.2	7 23K	-5				
PENTICTON	41.63	332.2	7 35	-3				
VICTORIA	42.89	328.7	7 45K	-4				
ALBERNI	44.08	328.7	7 57	-1				
RESOLUTE	60.08	358.9	9 52	-5				
COLLEGE	62.93	336.4	10 12	-4	10 38		10 48	*SP
THULE	62.97	6.0	10 14	-3				
NORD	73.39	8.5	11 20	-1				
FOLINIERE	79.70	42.3	11 35	-21				
SKALSTUGAN	82.95	26.0	12 13	0				
TROMSOE	83.24	19.3	12 16	1				
BENSBERG	84.03	39.0	12 22	3				
KIRUNA	84.49	20.7	12 28	7				
STUTTGART	85.96	40.7	12 27	-1				
UMEA	86.15	24.4	12 30	1				
SODANKYLA	86.80	20.0	12 31	-1				
COLLMBERG	87.42	37.5	12 40	5				13 12
KASPERSKE H.	88.52	39.4	12 41	0				
NURMIJARVI	89.52	26.4	12 44	-1				
SHIRAZ	123.83	38.2	18 44	0				
QUETTA	130.77	25.1	18 59	1				
SHILLONG	139.92	355.5	19 1	-14				
NHATRANG	146.46	321.7	19 32	6				

JUNE 18 3.H 12.M 38.S EPICENTRE -6.01 113.03 DEPTH= 619.KM

A=-0.38903 B= 0.91534 C=-0.10394 D= 0.9203 E= 0.3911
G= 0.0407 H=-0.0957 K=-0.9946 HT= 7.0

DEPTH OF FOCUS= 0.092R

SE= 1.17

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
LEMBANG	5.43	261.0	1 36	-2	2 54	-1		
MEDAN	17.20	303.3	3 29K	1	6 19	3		
DARWIN	18.67	111.1	3 41	-1				
MANILA	22.04	21.2	4 13	1	7 59	24		
MUNDARING	26.00	173.8	4 46A	-1				
HONG KONG	28.15	2.2	5 6	0	9 9	-2		6 42 PP
CANTON	28.92	0.6	5 14K	1	9 23	0		7 58
KUNMING	32.52	342.5	5 46K	3	10 21	3		8 32
PORT MORESBY	33.97	97.9	5 55	0	10 38	-2		
CHARTERS TS.	35.17	116.6	6 6	1	10 57	-1		
GUAM	36.96	58.3	6 20	0				
ADELAIDE	37.31	144.0	6 22A	0	11 26	-3		
CHENGTU	37.47	347.2	6 24K	0	11 30	-1		9 10
SHILLONG	37.52	327.6	6 24K	0				
ZO-SE	37.71	11.5	6 27K	1	11 36	1		9 9
NANKING	38.25	7.9	6 31	1	11 44	1		9 20
RABAUL	39.02	89.3	6 37	1				
SIAN	40.22	354.7	6 48K	2	12 13	2		9 34

CHATRA	41.14	323.7	6 55K	2					8 39		
LHASA	41.26	330.4	6 56K	2	12 27	1					
LANCHOW	42.71	349.0	7 7K	1	12 48	1					
MELBOURNE	42.97	142.1	7 8	0					11 37		
BRISBANE	43.33	124.0	7 13	3					9 6		
CANBERRA	44.11	136.4	7 16A	0	13 8	2			11 42	SCP	
RIVERVIEW	44.85	133.2	7 23A	1							
POONA	45.68	303.1	7 27K	-1							
ABUYAMA	45.88	26.0	7 28K	-2							
PEKING	45.90	3.4	7 30K	0	13 30	-1					
PAOTOW	46.44	356.9	7 34	0	13 39	0					
HONIARA	46.60	97.3	7 35	0							
MATUSIRO	48.45	27.3	7 47K	-2	14 4	-2			9 37	PP	
TUKUBASAN	49.08	29.1	7 51K	-3	14 9	-6					
CHANGCHUN	50.83	11.5	8 5K	-2	14 35	-3			11 0		
VLADIVOSTOK	51.81	17.5	8 14K	0							
LAHORE	52.51	317.7	8 17	-2							
ULAN-BATOR	53.97	354.9	8 29	0							
NOUMEA	53.98	113.1	8 29K	0							
PORT VILA	55.17	107.3	8 38K	1							
WARSAK DAM	55.86	318.3	8 41	-1							
QUETTA	56.94	311.9	8 48K	-1	15 53	-5					
IRKUTSK	58.52	353.7	8 59	-1							
Y.-SAKHLINSK	58.98	23.3	9 2	-1							
ANDIJAN	59.63	325.0	9 7K	0							
FRUNSE	59.80	328.1	9 8K	-1							
COBB RIVER	63.43	133.1	9 32	0							
KARAPIRO	64.75	129.1	9 40	0			10 9				
WELLINGTON	64.96	132.9	9 40	-2							
TONGARIRO	65.02	130.5	9 42	0							
CHATEAU	65.03	130.5	9 42	0							
SHIRAZ	67.97	305.2	9 59A	-1					12 15		
YAKUTSK	69.04	8.3	10 6	0							
MAWSON	70.11	198.2	10 12	-1			12 18		12 57		
CAPE HALLETT	74.71	164.5	10 40K	1	19 31	4	12 50				
SVERDLOVSK	75.71	333.3	10 45	1							
MAKHACH-KALA	76.59	316.6	10 50	1							
SCOTT BASE	76.92	169.9	10 52K	1	20 3	13	13 3				
TIFLIS	78.04	314.7	10 58	1							
KSARA	82.73	305.1	11 21	0							
BULAWAYO	82.73	250.5	11 22A	1							
JERUSALEM	82.85	303.0	11 23K	1			13 31				
BROKEN HILL	83.27	256.2	11 25	1					13 32		
SOUTH POLE	84.03	180.0	11 27	0	20 51	-10	13 37		14 52	PP	
KIMBERLEY	85.61	241.7	11 35K	0							
SIMFEROPOL	86.40	315.7	11 39	0							
MOSCOW	86.78	326.8	11 40	-1							
BYRD STATION	90.18	172.0	11 57	1					22 1	SCS	
KHEYS	90.51	352.3	11 57	-1							
SODANKYLA	94.11	337.2	12 13	-1							
NIEDZIKA	96.28	319.0	12 24	0					16 27		
KIRUNA	96.50	337.6	12 23	-2	22 3	0					
TROMSOE	97.02	339.4	12 25	-2							
UPPSALA	97.87	329.5	12 31	0					16 26	PP	
VIENNA-H.	98.88	317.8							16 46	PP	
COLLEGE	99.30	25.3	12 37	-1			14 46		16 46	PP	
PRUHONICE	100.02	319.6	16 53K	252					17 16		
SKALSTUGAN	100.13	333.5	12 41	-1					16 57	PP	
LJUBLJANA	100.20	315.6	16 56	254							
KASPERSKE H.	100.70	318.7	16 56	252							
COLLMBERG	100.93	321.0	12 45	0							
NORD	101.32	353.4	12 45K	-2							
HALLE	101.57	321.2	17 0	252							
RESOLUTE	109.50	7.6	13 22	777					17 21		
THULE	109.63	0.3	17 22	777							
ALBERNI	115.17	37.8	17 34	2							
VICTORIA	116.30	38.2	17 36K	2							
CORVALLIS	117.83	42.3	17 49	12							
PENTICTON	118.26	36.2	17 39K	1							
BANFF	119.68	32.9	17 41K	1							
SHASTA	119.78	46.2	17 42K	1							
MINERAL	120.47	46.3	17 44A	2						20 24	
BERKELEY	120.78	49.2	17 45	2							
CONCORD	120.90	49.1	17 45	2							
STA. CRUZ C.	121.24	50.1	17 46	2							
LICK	121.41	49.6	17 46K	2						19 25	
VINEYARD	121.79	50.2	17 48	3							
HUNGRY HORSE	121.97	35.1	17 47	2							

RENO	122.04	46.6	17 48A	3				19 45		
BUTTE	124.02	36.9	17 50	1						
EUREKA	124.81	45.3	17 52	2				20 32		
PASADENA	125.10	52.2	17 53K	2						
BOZEMAN	125.11	36.6	17 54	3						
BOULDER CITY	127.02	48.9	17 58	3				19 54		
FLAMING GRGE	128.62	40.9	17 42	-16				17 59		
MBOUR	130.18	283.7						20 30	PP	
RAPID CITY	130.56	34.1	18 3	2						
TUCSON	131.52	51.6	17 51	-12						
WICHITA MTS.	139.17	41.3	18 10	-7	20 58		27 35		PKKP	
SHAWINIGAN	139.30	6.1	18 11	-7			20 58			
OTTAWA	140.03	9.6	18 12	-7			21 0			
FAYETTEVILLE	141.02	36.1	18 16K	-6	20 3		18 39		PP	
HALIFAX	141.43	356.1	18 20A	-3						
WESTON	143.57	5.4	18 26A	0			21 9		PP	
PENNSYLVANIA	144.01	14.1	18 27	1						
MORGANTOWN	144.54	17.4	18 29K	2	21 10					
PALISADES	144.60	9.1	18 28	1	21 11					
COLUMBIA	149.25	23.2	18 37	3						
LA PAZ	157.61	177.1	19 26	40						
SAN JUAN	167.67	356.2	18 57	1				23 58		

JUNE 18 13.H 55.M 17.S EPICENTRE -31.49 179.69 DEPTH= 397.KM

A=-0.85430 B= 0.00462 C=-0.51975 D= 0.0054 E= 1.0000
G= 0.5197 H=-0.0028 K=-0.8543 HT= 1.3

DEPTH OF FOCUS= 0.057R

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	
RAOUL ISLAND	3.04	43.4	1	4	1	1	58	5					
ONERAHI	6.16	224.7	1	38	3	2	57	8					
KARAPIRO	7.28	206.9	1	51	4						3	9	
TUAI	7.59	195.2	1	50	-1	3	18	0					
CHATEAU	8.41	202.6	1	59	-1	3	11	-24					
TONGARIRO	8.41	202.7	1	59	-1	3	32	-3					
WELLINGTON	10.54	200.7	2	22	-3	4	17	-3			14	12	SCS
COBB RIVER	11.09	208.4	2	29	-2	4	28	-4			14	9	SCS
KAIMATA	12.90	208.8	2	50	-3	5	21	12					
SUVA	13.33	354.8	2	53	-4	5	19	1					
GEBBIES PASS	13.40	202.6	2	55	-2	5	13	-6					
NOUMEA	14.93	304.6	3	15A	1	5	48	-2					
PORT VILA	17.14	320.4	3	35	-1	6	25	-6					
AFIAMALU	19.17	26.0	3	57K	1	7	13	5					
BRISBANE	23.76	273.0	5	3	23	8	24	-1					
RIVERVIEW	24.11	256.8	4	45A	2	8	31	0			5	49	PP
CANBERRA	25.85	253.2	5	1A	2	9	0	1	6	19	6	16	PP
HONIARA	28.60	315.9	5	27	4								
CHARTERS TS.	32.05	282.6	5	54	1	10	34	-2					
ADELAIDE	34.28	253.0	6	13K	1								
PORT MORESBY	37.35	299.0	6	37	0	11	53	-3			8	18	
RABAUL	37.49	310.8	6	38	-1						11	54	
CAPE HALLETT	41.19	184.4	7	10	1	12	52	-1	8	31	15	17	*SS
SCOTT BASE	46.82	183.7	7	54K	1	14	17	4	9	17	12	31	SCP
DARWIN	48.71	281.7	7	56	-12	14	35	-4					
MUNDARING	53.27	251.6	8	39A	-2								
BYRD STATION	54.23	169.2	8	48	0				10	12	9	46	PCP
HAWAII V.OB.	56.04	28.8	9	0	-1								
HONOLULU	56.64	25.0	9	4	-1								
KIPAPA	56.78	25.0	9	4	-2								
SOUTH POLE	58.68	180.0	9	19	0	16	52	1	10	45	13	22	PPP
MAWSON	70.59	201.3	10	33A	-2	19	7	-8	12	31	13	44	PP
ARGENTINE I.	71.73	156.5	12	41	120	19	27	-1					
MANILA	72.55	300.0	10	48	2	19	38	1					
BAGUIO CITY	74.04	301.1	10	53	-2								
MATUSIRO	78.03	327.0	11	15K	-2	20	31	-6			20	56	SCS
PORT STANLEY	83.01	148.1	11	42	-1								
ZO-SE	83.36	312.6	11	43K	-1	21	35	4	13	23	14	1	*SP
CANTON	83.52	301.9	11	46K	1	21	39	7			14	3	*SP
Y.-SAKHLINSK	84.95	335.6	11	52	0	21	47	1					
NANKING	85.52	311.9	11	53K	-2	21	49	-3	13	35	14	12	*SP
PETROPAVLOVK	86.13	347.4	11	57K	-1								
VLADIVOSTOK	86.20	327.1	11	58K	0	21	59	1					

STA. CRUZ C.	87.26	43.0	12	3K	0					
VINEYARD	87.45	43.5	12	5K	1					
PASADENA	87.67	47.2	12	5K	0	22	20	8	15	33 PP
LICK	87.70	42.9	12	10	5				15	38
BERKELEY	87.70	42.2	12	5K	0	21	52	-20		
CONCORD	87.88	42.3	12	7K	1					
UKIAH	88.03	40.8	12	7	0					
FRESNO	88.40	44.4	12	9	0					
SHASTA	89.58	40.1	12	14K	0					
MINERAL	89.78	40.8	12	15K	0					
CHANGCHUN	89.92	324.0	12	14K	-2	22	33	1	13 58	14 34 *SP
RENO	90.24	42.3	12	24K	7					
BOULDER CITY	90.94	47.6	12	20	-1					
TUCSON	91.28	52.5	12	23	1	22	51	7		
TUCSON TELE.	91.40	52.5	12	24	1					
PEKING	92.32	316.5	12	25	-2	22	56	3		22 17 SKS
EUREKA	92.45	44.3	12	26	-2					
KUNMING	92.55	297.9	12	29	1	23	0	5	14 10	14 49 *SP
SIAN	93.33	308.4	12	31	-1	23	5	3	14 13	22 26 SKS
MAGADAN	93.80	345.7								16 22 PP
CHENGTU	94.68	303.1	12	38	0	23	19	6	14 20	14 59 *SP
SALT LAKE C.	95.73	45.2	12	43	0					
PENTICTON	96.86	35.1	12	45	-3					
FLAMING GRGE	97.33	46.2	12	47	-3	22	48	1		16 14
LANCHOW	97.78	307.5	12	53	1	23	46	56		
BUTTE	98.47	40.7	12	53	-2					17 1 PP
BOZEMAN	99.12	41.6	12	58	0					17 5 PP
COLLEGE	99.34	13.4	12	58	-1				14 19	29 14 PKKP
WICHITA MTS.	101.15	56.2	13	5	-2	23	3	-3	14 42	17 19 PP
SHILLONG	101.17	293.1								17 19
YAKUTSK	101.49	338.4	13	6	-2					
ULAN-BATOR	102.39	318.9	17	32	260					
RAPID CITY	102.88	46.1	13	15	1					
FAYETTEVILLE	104.95	56.8	17	14	230					
KIMBERLEY	115.51	204.4	17	55	0					28 28
RESOLUTE	118.87	17.6	17	59K	-3					
SAN JUAN	119.69	85.7	18	3	0					
OTTAWA	121.36	53.0	18	4	-2					21 0
PALISADES	121.49	58.4				24	27	-1		19 39 PP
BULAWAYO	121.65	212.3	18	17K	10					
QUETTA	123.09	287.6	18	10K	0					
SHAWINIGAN	123.63	52.2	18	10K	-1					
WINDHOEK	123.72	199.4	18	12	1					
STALINABAD	124.18	297.7	18	10	-2					
THULE	125.50	15.6	18	12	-2					
KHEYS	125.89	350.1	18	14	-1					
BROKEN HILL	126.62	215.5	18	18K	2					20 2 PP
NORD	129.39	3.1	18	19	-3					21 0 SKP
SVERDLOVSK	131.47	320.1	18	25	-1					
SHIRAZ	134.84	282.0								21 21
LWIRO	136.52	224.9	18	29	-6					21 28
SCORESBY SD.	139.15	10.9	18	38	-2					21 34 SKP
TROMSOE	140.29	349.6	18	34	-8					20 34 PP
SODANKYLA	140.71	343.9	18	35	-8					21 38 SKP
KIRUNA	141.64	347.5	18	37	-8					
TIFLIS	142.75	298.8	18	43	-4					
KAJAANI	142.97	339.9	18	42	-5					
MOSCOW	144.07	323.6	18	47	-2					
REYKJAVIK	144.64	16.2	18	49K	-1					29 19
PULKOVO	145.11	333.2	18	50	-1					
UMEA	145.15	344.2	18	49	-2					19 23
SIDA	145.80	13.9	18	53K	1					
SOTCHI	146.35	302.5	18	52	-1					
NURMIJARVI	146.60	337.7	18	51	-2					
SKALSTUGAN	146.91	349.7	18	54	0					22 15 PKS
BANGUI	147.69	217.2	18	56	1	21	12			
UPPSALA	149.20	342.3	18	59	2					19 20
KSARA	149.54	284.2	18	58	1	20	42		21	16 *SPKP
JERUSALEM	149.83	280.0	18	58K	0	20	45			
SIMFEROPOL	150.04	306.5	19	4K	6					
BERGEN	150.84	354.3	19	15	16					
GOTEBORG	152.46	345.7	19	8K	6					
HELWAN	152.79	274.9	19	1	-1					20 52
LWOW	154.18	322.2	19	3	-1					19 28
COPENHAGEN	154.20	343.3	19	13A	9					19 41 PKP2
KRAKOW	156.07	326.6	19	5	-2					19 36 PKP2
SKALNATE PL.	156.51	324.7	19	7	0	20	56			
RACIBORZ	156.84	328.7	19	8	0					19 40 PKP2

COLLMBERG	157.90	337.4	19	8K	-1	20	48	23	20	PP
HALLE	158.05	339.2	19	8	-1			23	18	PP
PRAGUE	158.41	333.5	19	52	42					
PRUHONICE	158.44	333.2	19	9	-1			23	28	PP
JENA	158.67	339.0	19	9	-1			23	35	PP
BRATISLAVA	158.72	326.5	19	7	-3			19	48	PKP2
VIENNA-H.	159.00	327.6	19	9	-1			19	50	
CHEB	159.14	336.6	19	41	30			20	25	PKP2
KASPERSKE H.	159.50	333.2	19	10K	-1			23	31	PP
BENSBERG	159.77	346.2	19	11	0			23	31	PP
KEW	160.03	0.0	19	12	1			19	54	PKP2
HEIDELBERG	160.86	341.8	19	11	-1			19	57	
STUTTGART	161.27	339.9	19	11	-2			23	41	PP
LJUBLJANA	161.47	325.9	19	12K	-1	20	54	23	43	PP
STRASBOURG	161.86	342.6	19	14	1			20	16	PP
EBINGEN	161.89	339.7	19	12	-1			20	2	
RAVENSBURG	162.05	337.8	19	11	-2			20	1	
TRIESTE	162.13	326.3	19	14	0	20	56	23	51	PP
PARIS	162.57	353.8	20	5	51			20	9	PKP2
FOLINIERE	162.74	0.4	19	14	0					
BASLE	162.88	341.6	20	6A	52					
NEUCHATEL	163.53	342.2	20	9	54					
GARCHY	164.02	351.6	19	29	14			23	55	PP
FLORENCE X.	164.71	326.6	19	13	-3			20	2	PKP2
CLERMONT-FD.	165.49	350.4	20	18	61					
ISOLA	166.07	337.5	19	17	0			24	8	PP
MONACO	166.34	335.6	19	17	-1			20	21	PP
SERRA PILAR	168.29	32.5	19	20K	1			20	31	PKP2
BAGNERES	168.43	358.3	19	19	0					
TOLEDO	171.09	18.9	19	21	1			24	34	PP
GRANADA	173.70	24.7	20	33K	71					

JUNE 18 22.H 13.M 42.S EPICENTRE -57.09-141.97 DEPTH= 180.KM

A=-0.43007 B=-0.33635 C=-0.83780 D=-0.6160 E= 0.7877
G= 0.6599 H= 0.5161 K=-0.5460 HT= -7.9

DEPTH OF FOCUS= 0.023R

SE= 2.84

	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	
BYRD STATION	24.08	170.6	5	0	0						5	41	PP
CAPE HALLETT	24.52	213.1	5	5K	0	9	46	37					
SCOTT BASE	26.98	201.4	5	27	0	10	12	22					
WELLINGTON	31.76	281.1									6	56	
ROXBURGH	31.91	270.1				11	24	17					
CHATEAU	32.84	284.6	6	19	0								
SOUTH POLE	33.09	180.0	6	22	1						9	1	PCP
KARAPIRO	33.78	286.1	6	24	-3								
ARGENTINE I.	36.01	135.6	6	46	0								
WILKES	45.55	212.6				14	52	21					
AFIAMALU	48.69	320.0									19	36	SS
SUVA	48.74	306.3				15	23	7			11	37	PPP
RIVERVIEW	50.00	267.9	8	48	10	15	48	14					
MIRNY	50.03	205.3	8	39	1								
CANBERRA	50.06	264.8	8	36	-3								
SANTA LUCIA	52.72	95.4				16	26	16					
BRISBANE	54.08	274.4	9	14	6	16	48	19					
MAWSON	54.27	191.4	9	9K	-1				9	34	10	12	PCP
CHARTERS TS.	63.47	273.8	10	10	-3								
AREQUIPA	65.74	82.8	10	26	-2								
LA PAZ	67.53	85.7	10	39	0	19	42	23					
MUNDARING	69.73	242.5	10	52	-1								
PORT MORESBY	71.80	281.1	11	4	-1	20	28	19					
CHINCHINA	81.60	67.3	11	59	0	22	16	21					
BOGOTA	82.09	68.8	12	16	14	22	18	18					
FUQUENE	82.98	68.7	12	20	13								
CARACAS	90.75	71.8	12	44	0						23	40	SKKS
TUCSON	92.81	26.0	12	53	0								
TUCSON TELE.	92.92	26.1	12	53	-1								
PALISADES	113.16	49.8									34	56	SS
MATUSIRO	114.77	299.2				26	52	122			35	28	*SSS
COLLEGE	121.71	357.1	18	31	-2								
SHILLONG	130.58	253.8									21	5	
LAHORE	144.28	240.0	19	13	-2								

QUETTA	146.39	229.2	19	21	2		
WARSAK DAM	147.61	238.9	19	25	4		
TOLEDO	147.87	104.1	19	26	5		
SHIRAZ	150.75	206.5	19	31	6	22	18 PKS
NORD	151.06	14.4	19	29	3		
BAGNERES	152.36	104.1	19	35	7		
HELWAN	152.39	167.4	19	39	11	23	26 PP
JERUSALEM	154.62	174.4	19	34	3		
GARCHY	156.67	99.8	19	36	3		
KSARA	156.69	175.5	19	39	6	24	43 PP
PARIS	157.27	96.1	19	36	2		
STUTTGART	160.90	103.5	19	40	2	20	23
TRIESTE	161.12	116.9	19	40	1		
LJUBLJANA	161.79	117.3	19	39	0	20	27
JENA	163.35	100.4	19	41	0	23	39 PP
KASPERSKE H.	163.37	108.2	19	42	1		
COLLMBERG	164.30	101.0	19	42	0	24	25 PP
PRUHONICE	164.39	107.1				20	39 PKP2

JUNE 19 1.H 45.M 27.S EPICENTRE 12.72 121.97 DEPTH= 56.KM

A=-0.51663 B= 0.82779 C= 0.21878 D= 0.8483 E= 0.5295
G=-0.1158 H= 0.1856 K=-0.9758 HT= 6.1

DEPTH OF FOCUS= 0.004R

SE= 1.53

	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
MANILA	2.12	336.1	0	33	-1	1	3	4				
BAGUIO CITY	3.92	340.1	0	58	-1	1	12	-32				
HENGCHUN	9.30	353.0	2	43	29							
TAWU	9.63	354.1	2	33	15	4	45	39				
TAINAN	10.36	351.0	3	8	40							
HWALIEN	11.19	358.4	2	42	3							
HONG KONG	12.08	323.1	2	51	0	5	10	5				
TAIPEI	12.25	358.1	2	51	-3							
NHATRANG	12.47	269.1	2	58	1	5	11	-4				
CANTON	13.18	322.7	3	5	-1	5	38	6				
ZO-SE	18.31	357.8	4	10	-1	7	38	8				
NANKING	19.47	351.9	4	25	1	8	3	7				
KUNMING	21.94	307.0	4	50	0	8	50	6				
GUAM	22.19	85.5	4	53	1				5	17		
DJAKARTA	24.06	219.6	5	11K	0	9	17	-4				
LEMBANG	24.09	217.1	5	12K	1	9	22	0				
CHENGTU	24.37	319.9	5	14	0	9	34	8				
SIAN	24.50	333.2	5	15	0	9	37	8				
MEDAN	24.75	250.5	5	19K	2	9	36	3				
ABUYAMA	25.26	26.9	5	24K	2							
PEKING	27.68	350.4	5	44	0	10	27	6				
MATUSIRO	27.85	28.8	5	44	-2	10	29	5			6	50 PP
LANCHOW	28.40	328.0	5	50	-1	10	39	7				
PAOTOW	29.67	341.4	6	3	1	11	0	7				
SHILLONG	31.09	298.7	6	13A	-2							
CHANGCHUN	31.13	4.7	6	16	1	11	22	6				
VLADIVOSTOK	31.48	14.0	6	18	0							
PORT MORESBY	33.30	130.1	6	34	0						11	50
ULAN-BATOR	37.28	343.2	6	58	-10	12	56	5				
Y.-SAKHLINSK	38.38	23.0	7	18	1							
CHARTERS TS.	40.43	143.4	7	33	-1						8	13
POONA	46.59	283.5	8	25	1							
BOMBAY	47.57	284.0	8	30	-2						10	28
ALMATA	49.21	317.0	8	46	2							
YAKUTSK	49.54	4.8	8	48	1	15	52	3				
PETROPAVLOVK	49.68	28.3	8	47K	-1							
BRISBANE	49.83	143.4	8	49	0	15	57	4				
ADELAIDE	50.02	162.0	8	48K	-3							
FRUNSE	50.61	315.6	8	54	-1							
MAGADAN	51.42	18.3	9	4	3							
ANDIJAN	51.48	312.3	9	3	1							
NAMANGAN	52.06	312.4	9	6	0							
STALINABAD	53.56	308.7	9	17	0							
QUETTA	53.57	298.1	9	17K	0							
TASHKENT	53.88	312.1	9	19	0							
RIVERVIEW	53.99	149.9	9	22A	2	16	43	-7			15	49

CANBERRA	54.21	152.7	9	21	-1							
TIKSI	59.03	2.5									10	56 PCP
SVERDLOVSK	63.89	327.5	10	28	-1							
SHIRAZ	66.05	296.9	10	39	-4	19	29	4	11	12		
MAKHACH-KALA	70.10	311.2	11	8	0							
GORIS	70.98	307.6	11	13	0							
KARAPIRO	71.08	137.7	11	15	1							
CHATEAU	71.79	138.8	11	17	-1							
TIFLIS	72.10	309.9	11	20	0							
KHEYS	73.37	351.2	11	28	1							
SOTCHI	75.76	312.0	11	41	0							
MOSCOW	76.42	324.6	11	44	-1							
COLLEGE	78.68	25.8	11	56	-1						12	23
SIMFEROPOL	79.63	313.8	12	33	30							
KSARA	79.83	302.5	12	4	0	22	2	1	12	32	22	56 PS
SODANKYLA	80.41	337.0	12	6	-1						15	14 PP
KAJAANI	80.52	333.6	12	7	0							
JERUSALEM	80.69	300.5	12	10	2							
NURMIJARVI	82.61	330.3	12	18	0							
KIRUNA	82.63	338.0	12	18K	0	22	34	4				
TROMSOE	82.65	339.9	12	19	1							
NORD	83.76	354.4	12	23K	-1							
UMEA	83.79	334.1	12	25	1							
HELWAN	84.32	299.2	12	27	0							
LWOW	85.45	319.9	12	33	1							
UPPSALA	86.17	330.6	12	35K	-1							
SKALSTUGAN	87.21	335.1	12	41	0							
SOFIA	87.72	313.2	12	44	0							
KRAKOW	87.93	320.9	12	45	0				13	4		
RESOLUTE	89.81	9.2	12	53	0	23	45	6				
CAPE HALLETT	90.55	166.8	12	57A	0							
THULE	90.82	2.4	12	58	0							
PRUHONICE	91.23	322.0	13	1	1							
COLLMBERG	91.65	323.6	13	2	0						16	38 PP

JUNE 18 3.H 12.M 38.S EPICENTRE -6.01 113.03 DEPTH= 619.KM

A=-0.38903 B= 0.91534 C=-0.10394 D= 0.9203 E= 0.3911
G= 0.0407 H=-0.0957 K=-0.9946 HT= 7.0

DEPTH OF FOCUS= 0.092R

SE= 1.17

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
LEMBANG	5.43	261.0	1	36	-2	2	54	-1					
MEDAN	17.20	303.3	3	29K	1	6	19	3					
DARWIN	18.67	111.1	3	41	-1								
MANILA	22.04	21.2	4	13	1	7	59	24					
MUNDARING	26.00	173.8	4	46A	-1								
HONG KONG	28.15	2.2	5	6	0	9	9	-2			6	42	PP
CANTON	28.92	0.6	5	14K	1	9	23	0			7	58	
KUNMING	32.52	342.5	5	46K	3	10	21	3			8	32	
PORT MORESBY	33.97	97.9	5	55	0	10	38	-2					
CHARTERS TS.	35.17	116.6	6	6	1	10	57	-1					
GUAM	36.96	58.3	6	20	0								
ADELAIDE	37.31	144.0	6	22A	0	11	26	-3					
CHENGTU	37.47	347.2	6	24K	0	11	30	-1			9	10	
SHILLONG	37.52	327.6	6	24K	0								
ZO-SE	37.71	11.5	6	27K	1	11	36	1			9	9	
NANKING	38.25	7.9	6	31	1	11	44	1			9	20	
RABAUL	39.02	89.3	6	37	1								
SIAN	40.22	354.7	6	48K	2	12	13	2			9	34	
CHATRA	41.14	323.7	6	55K	2						8	39	
LHASA	41.26	330.4	6	56K	2	12	27	1					
LANCHOW	42.71	349.0	7	7K	1	12	48	1					
MELBOURNE	42.97	142.1	7	8	0						11	37	
BRISBANE	43.33	124.0	7	13	3						9	6	
CANBERRA	44.11	136.4	7	16A	0	13	8	2			11	42	SCP
RIVERVIEW	44.85	133.2	7	23A	1								
POONA	45.68	303.1	7	27K	-1								
ABUYAMA	45.88	26.0	7	28K	-2								
PEKING	45.90	3.4	7	30K	0	13	30	-1					
PAOTOW	46.44	356.9	7	34	0	13	39	0					
HONIARA	46.60	97.3	7	35	0								
MATUSIRO	48.45	27.3	7	47K	-2	14	4	-2			9	37	PP
TUKUBASAN	49.08	29.1	7	51K	-3	14	9	-6					
CHANGCHUN	50.83	11.5	8	5K	-2	14	35	-3			11	0	
VLADIVOSTOK	51.81	17.5	8	14K	0								

LAHORE	52.51	317.7	8	17	-2						
ULAN-BATOR	53.97	354.9	8	29	0						
NOUMEA	53.98	113.1	8	29K	0						
PORT VILA	55.17	107.3	8	38K	1						
WARSAK DAM	55.86	318.3	8	41	-1						
QUETTA	56.94	311.9	8	48K	-1	15	53	-5			
IRKUTSK	58.52	353.7	8	59	-1						
Y.-SAKHLINSK	58.98	23.3	9	2	-1						
ANDIJAN	59.63	325.0	9	7K	0						
FRUNSE	59.80	328.1	9	8K	-1						
COBB RIVER	63.43	133.1	9	32	0						
KARAPIRO	64.75	129.1	9	40	0				10	9	
WELLINGTON	64.96	132.9	9	40	-2						
TONGARIRO	65.02	130.5	9	42	0						
CHATEAU	65.03	130.5	9	42	0						
SHIRAZ	67.97	305.2	9	59A	-1						12 15
YAKUTSK	69.04	8.3	10	6	0						
MAWSON	70.11	198.2	10	12	-1				12	18	12 57
CAPE HALLETT	74.71	164.5	10	40K	1	19	31	4	12	50	
SVERDLOVSK	75.71	333.3	10	45	1						
MAKHACH-KALA	76.59	316.6	10	50	1						
SCOTT BASE	76.92	169.9	10	52K	1	20	3	13	13	3	
TIFLIS	78.04	314.7	10	58	1						
KSARA	82.73	305.1	11	21	0						
BULAWAYO	82.73	250.5	11	22A	1						
JERUSALEM	82.85	303.0	11	23K	1				13	31	
BROKEN HILL	83.27	256.2	11	25	1						13 32
SOUTH POLE	84.03	180.0	11	27	0	20	51	-10	13	37	14 52 PP
KIMBERLEY	85.61	241.7	11	35K	0						
SIMFEROPOL	86.40	315.7	11	39	0						
MOSCOW	86.78	326.8	11	40	-1						
BYRD STATION	90.18	172.0	11	57	1						22 1 SCS
KHEYS	90.51	352.3	11	57	-1						
SODANKYLA	94.11	337.2	12	13	-1						
NIEDZIKA	96.28	319.0	12	24	0						16 27
KIRUNA	96.50	337.6	12	23	-2	22	3	0			
TROMSOE	97.02	339.4	12	25	-2						
UPPSALA	97.87	329.5	12	31	0						16 26 PP
VIENNA-H.	98.88	317.8									16 46 PP
COLLEGE	99.30	25.3	12	37	-1				14	46	16 46 PP
PRUHONICE	100.02	319.6	16	53K	252						17 16
SKALSTUGAN	100.13	333.5	12	41	-1						16 57 PP
LJUBLJANA	100.20	315.6	16	56	254						
KASPERSKE H.	100.70	318.7	16	56	252						
COLLMBERG	100.93	321.0	12	45	0						
NORD	101.32	353.4	12	45K	-2						
HALLE	101.57	321.2	17	0	252						
RESOLUTE	109.50	7.6	13	22	777						17 21
THULE	109.63	0.3	17	22	777						
ALBERNI	115.17	37.8	17	34	2						
VICTORIA	116.30	38.2	17	36K	2						
CORVALLIS	117.83	42.3	17	49	12						
PENTICTON	118.26	36.2	17	39K	1						
BANFF	119.68	32.9	17	41K	1						
SHASTA	119.78	46.2	17	42K	1						
MINERAL	120.47	46.3	17	44A	2						20 24
BERKELEY	120.78	49.2	17	45	2						
CONCORD	120.90	49.1	17	45	2						
STA. CRUZ C.	121.24	50.1	17	46	2						
LICK	121.41	49.6	17	46K	2						19 25
VINEYARD	121.79	50.2	17	48	3						
HUNGRY HORSE	121.97	35.1	17	47	2						
RENO	122.04	46.6	17	48A	3						
BUTTE	124.02	36.9	17	50	1						
EUREKA	124.81	45.3	17	52	2						19 45
PASADENA	125.10	52.2	17	53K	2						20 32
BOZEMAN	125.11	36.6	17	54	3						
BOULDER CITY	127.02	48.9	17	58	3						19 54
FLAMING GRGE	128.62	40.9	17	42	-16						17 59
MBOUR	130.18	283.7									20 30 PP
RAPID CITY	130.56	34.1	18	3	2						
TUCSON	131.52	51.6	17	51	-12						
WICHITA MTS.	139.17	41.3	18	10	-7				20	58	27 35 PKKP
SHAWINIGAN	139.30	6.1	18	11	-7						20 58
OTTAWA	140.03	9.6	18	12	-7						21 0
FAYETTEVILLE	141.02	36.1	18	16K	-6				20	3	18 39 PP
HALIFAX	141.43	356.1	18	20A	-3						
WESTON	143.57	5.4	18	26A	0						21 9 PP

PENNSYLVANIA	144.01	14.1	18 27	1							
MORGANTOWN	144.54	17.4	18 29K	2				21 10			
PALISADES	144.60	9.1	18 28	1				21 11			
COLUMBIA	149.25	23.2	18 37	3							
LA PAZ	157.61	177.1	19 26	40							
SAN JUAN	167.67	356.2	18 57	1						23 58	

JUNE 18 13.H 55.M 17.S EPICENTRE -31.49 179.69 DEPTH= 397.KM

A=-0.85430 8= 0.00462 C=-0.51975 D= 0.0054 E= 1.0000
G= 0.5197 H=-0.0028 K=-0.8543 HT= 1.3

DEPTH OF FOCUS= 0.057R

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	
RAOUL ISLAND	3.04	43.4	1 4	1	1 58	5			
ONERAHI	6.16	224.7	1 38	3	2 57	8			
KARAPIRO	7.28	206.9	1 51	4				3 9	
TUAI	7.59	195.2	1 50	-1	3 18	0			
CHATEAU	8.41	202.6	1 59	-1	3 11	-24			
TONGARIRO	8.41	202.7	1 59	-1	3 32	-3			
WELLINGTON	10.54	200.7	2 22	-3	4 17	-3		14 12	SCS
COBB RIVER	11.09	208.4	2 29	-2	4 28	-4		14 9	SCS
KAIMATA	12.90	208.8	2 50	-3	5 21	12			
SUVA	13.33	354.8	2 53	-4	5 19	1			
GEBBIES PASS	13.40	202.6	2 55	-2	5 13	-6			
NOUMEA	14.93	304.6	3 15A	1	5 48	-2			
PORT VILA	17.14	320.4	3 35	-1	6 25	-6			
AFIAMALU	19.17	26.0	3 57K	1	7 13	5			
BRISBANE	23.76	273.0	5 3	23	8 24	-1			
RIVERVIEW	24.11	256.8	4 45A	2	8 31	0		5 49	PP
CANBERRA	25.85	253.2	5 1A	2	9 0	1	6 19	6 16	PP
HONIARA	28.60	315.9	5 27	4					
CHARTERS TS.	32.05	282.6	5 54	1	10 34	-2			
ADELAIDE	34.28	253.0	6 13K	1					
PORT MORESBY	37.35	299.0	6 37	0	11 53	-3		8 18	
RABAUL	37.49	310.8	6 38	-1				11 54	
CAPE HALLETT	41.19	184.4	7 10	1	12 52	-1	8 31	15 17	*SS
SCOTT BASE	46.82	183.7	7 54K	1	14 17	4	9 17	12 31	SCP
DARWIN	48.71	281.7	7 56	-12	14 35	-4			
MUNDARING	53.27	251.6	8 39A	-2					
BYRD STATION	54.23	169.2	8 48	0			10 12	9 46	PCP
HAWAII V.OB.	56.04	28.8	9 0	-1					
HONOLULU	56.64	25.0	9 4	-1					
KIPAPA	56.78	25.0	9 4*	-2					
SOUTH POLE	58.68	180.0	9 19	0	16 52	1	10 45	13 22	PPP
MAWSON	70.59	201.3	10 33A	-2	19 7	-8	12 31	13 44	PP
ARGENTINE I.	71.73	156.5	12 41	120	19 27	-1			
MANILA	72.55	300.0	10 48	2	19 38	1			
BAGUIO CITY	74.04	301.1	10 53	-2					
MATUSIRO	78.03	327.0	11 15K	-2	20 31	-6		20 56	SCS
PORT STANLEY	83.01	148.1	11 42	-1					
ZO-SE	83.36	312.6	11 43K	-1	21 35	4	13 23	14 1	*SP
CANTON	83.52	301.9	11 46K	1	21 39	7		14 3	*SP
Y.-SAKHLINSK	84.95	335.6	11 52	0	21 47	1			
NANKING	85.52	311.9	11 53K	-2	21 49	-3	13 35	14 12	*SP
PETROPAVLOVK	86.13	347.4	11 57K	-1					
VLADIVOSTOK	86.20	327.1	11 58K	0	21 59	1			
STA. CRUZ C.	87.26	43.0	12 3K	0					
VINEYARD	87.45	43.5	12 5K	1					
PASADENA	87.67	47.2	12 5K	0	22 20	8		15 33	PP
LICK	87.70	42.9	12 10	5				15 38	
BERKELEY	87.70	42.2	12 5K	0	21 52	-20			
CONCORD	87.88	42.3	12 7K	1					
UKIAH	88.03	40.8	12 7	0					
FRESNO	88.40	44.4	12 9	0					
SHASTA	89.58	40.1	12 14K	0					
MINERAL	89.78	40.8	12 15K	0					
CHANGCHUN	89.92	324.0	12 14K	-2	22 33	1	13 58	14 34	*SP
RENO	90.24	42.3	12 24K	7					
BOULDER CITY	90.94	47.6	12 20	-1					
TUCSON	91.28	52.5	12 23	1	22 51	7			
TUCSON TELE.	91.40	52.5	12 24	1					
PEKING	92.32	316.5	12 25	-2	22 56	3		22 17	SKS

EUREKA	92.45	44.3	12	26	-2						
KUNMING	92.55	297.9	12	29	1	23	0	5	14	10	14 49 *SP
SIAN	93.33	308.4	12	31	-1	23	5	3	14	13	22 26 SKS
MAGADAN	93.80	345.7									16 22 PP
CHENGTU	94.68	303.1	12	38	0	23	19	6	14	20	14 59 *SP
SALT LAKE C.	95.73	45.2	12	43	0						
PENTICTON	96.86	35.1	12	45	-3						
FLAMING GRGE	97.33	46.2	12	47	-3	22	48	1			16 14
LANCHOW	97.78	307.5	12	53	1	23	46	56			
BUTTE	98.47	40.7	12	53	-2						17 1 PP
BOZEMAN	99.12	41.6	12	58	0						17 5 PP
COLLEGE	99.34	13.4	12	58	-1				14	19	29 14 PKKP
WICHITA MTS.	101.15	56.2	13	5	-2	23	3	-3	14	42	17 19 PP
SHILLONG	101.17	293.1									17 19
YAKUTSK	101.49	338.4	13	6	-2						
ULAN-BATOR	102.39	318.9	17	32	260						
RAPID CITY	102.88	46.1	13	15	1						
FAYETTEVILLE	104.95	56.8	17	14	230						
KIMBERLEY	115.51	204.4	17	55	0						28 28
RESOLUTE	118.87	17.6	17	59K	-3						
SAN JUAN	119.69	85.7	18	3	0						
OTTAWA	121.36	53.0	18	4	-2						21 0
PALISADES	121.49	58.4				24	27	-1			19 39 PP
BULAWAYO	121.65	212.3	18	17K	10						
QUETTA	123.09	287.6	18	10K	0						
SHAWINIGAN	123.63	52.2	18	10K	-1						
WINDHOEK	123.72	199.4	18	12	1						
STALINABAD	124.18	297.7	18	10	-2						
THULE	125.50	15.6	18	12	-2						
KHEYS	125.89	350.1	18	14	-1						
BROKEN HILL	126.62	215.5	18	18K	2						20 2 PP
NORD	129.39	3.1	18	19	-3						21 0 SKP
SVERDLOVSK	131.47	320.1	18	25	-1						
SHIRAZ	134.84	282.0									21 21
LWIRO	136.52	224.9	18	29	-6						21 28
SCORESBY SD.	139.15	10.9	18	38	-2						21 34 SKP
TROMSOE	140.29	349.6	18	34	-8						20 34 PP
SODANKYLA	140.71	343.9	18	35	-8						21 38 SKP
KIRUNA	141.64	347.5	18	37	-8						
TIFLIS	142.75	298.8	18	43	-4						
KAJAANI	142.97	339.9	18	42	-5						
MOSCOW	144.07	323.6	18	47	-2						
REYKJAVIK	144.64	16.2	18	49K	-1						29 19
PULKOVO	145.11	333.2	18	50	-1						
UMEA	145.15	344.2	18	49	-2						19 23
SIDA	145.80	13.9	18	53K	1						
SOTCHI	146.35	302.5	18	52	-1						
NURMIJARVI	146.60	337.7	18	51	-2						
SKALSTUGAN	146.91	349.7	18	54	0						22 15 PKS
BANGUI	147.69	217.2	18	56	1	21	12				
UPPSALA	149.20	342.3	18	59	2						19 20
KSARA	149.54	284.2	18	58	1	20	42		21	16	*SPKP
JERUSALEM	149.83	280.0	18	58K	0	20	45				
SIMFEROPOL	150.04	306.5	19	4K	6						
BERGEN	150.84	354.3	19	15	16						
GOTEBORG	152.46	345.7	19	8K	6						
HELWAN	152.79	274.9	19	1	-1						20 52
LWOW	154.18	322.2	19	3	-1						19 28
COPENHAGEN	154.20	343.3	19	13A	9						19 41 PKP2
KRAKOW	156.07	326.6	19	5	-2						19 36 PKP2
SKALNATE PL.	156.51	324.7	19	7	0	20	56				
RACIBORZ	156.84	328.7	19	8	0						19 40 PKP2
COLLMBERG	157.90	337.4	19	8K	-1	20	48		23	20	PP
HALLE	158.05	339.2	19	8	-1				23	18	PP
PRAGUE	158.41	333.5	19	52	42						
PRUHONICE	158.44	333.2	19	9	-1						23 28 PP
JENA	158.67	339.0	19	9	-1						23 35 PP
BRATISLAVA	158.72	326.5	19	7	-3						19 48 PKP2
VIENNA-H.	159.00	327.6	19	9	-1						19 50
CHEB	159.14	336.6	19	41	30						20 25 PKP2
KASPERSKE H.	159.50	333.2	19	10K	-1						23 31 PP
BENSBERG	159.77	346.2	19	11	0						23 31 PP
KEW	160.03	0.0	19	12	1						19 54 PKP2
HEIDELBERG	160.86	341.8	19	11	-1						19 57
STUTTGART	161.27	339.9	19	11	-2						23 41 PP
LJUBLJANA	161.47	325.9	19	12K	-1				20	54	23 43 PP
STRASBOURG	161.86	342.6	19	14	1						20 16 PP
EBINGEN	161.89	339.7	19	12	-1						20 2

RAVENSBURG	162.05	337.8	19	11	-2				20	1	
TRIESTE	162.13	326.3	19	14	0	20	56		23	51	PP
PARIS	162.57	353.8	20	5	51				20	9	PKP2
FOLINIERE	162.74	0.4	19	14	0						
BASLE	162.83	341.6	20	6A	52						
NEUCHATEL	163.53	342.2	20	9	54						
GARCHY	164.02	351.6	19	29	14				23	55	PP
FLORENCE X.	164.71	326.6	19	13	-3				20	2	PKP2
CLERMONT-FD.	165.49	350.4	20	18	61						
ISOLA	166.07	337.5	19	17	0				24	8	PP
MONACO	166.34	335.6	19	17	-1				20	21	PP
SERRA PILAR	168.29	32.5	19	20K	1				20	31	PKP2
BAGNERES	168.43	358.3	19	19	0						
TOLEDO	171.09	18.9	19	21	1				24	34	PP
GRANADA	173.70	24.7	20	33K	71						

JUNE 18 22.H 13.M 42.S EPICENTRE -57.09-141.97 DEPTH= 180.KM
A=-0.43007 B=-0.33635 C=-0.83780 D=-0.6160 E= 0.7877
G= 0.6599 H= 0.5161 K=-0.5460 HT= -7.9

DEPTH OF FOCUS= 0.023R

SE= 2.84

	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	
BYRD STATION	24.08	170.6	5	0	0						5	41	PP
CAPE HALLETT	24.52	213.1	5	5K	0	9	46	37					
SCOTT BASE	26.98	201.4	5	27	0	10	12	22					
WELLINGTON	31.76	281.1									6	56	
ROXBURGH	31.91	270.1				11	24	17					
CHATEAU	32.84	284.6	6	19	0								
SOUTH POLE	33.09	180.0	6	22	1						9	1	PCP
KARAPIRO	33.78	286.1	6	24	-3								
ARGENTINE I.	36.01	135.6	6	46	0								
WILKES	45.55	212.6				14	52	21					
AFIAMALU	48.69	320.0									19	36	SS
SUVA	48.74	306.3				15	23	7			11	37	PPP
RIVERVIEW	50.00	267.9	8	48	10	15	48	14					
MIRNY	50.03	205.3	8	39	1								
CANBERRA	50.06	264.8	8	36	-3								
SANTA LUCIA	52.72	95.4				16	26	16					
BRISBANE	54.08	274.4	9	14	6	16	48	19					
MAWSON	54.27	191.4	9	9K	-1				9	34	10	12	PCP
CHARTERS TS.	63.47	273.8	10	10	-3								
AREQUIPA	65.74	82.8	10	26	-2								
LA PAZ	67.53	85.7	10	39	0	19	42	23					
MUNDARING	69.73	242.5	10	52	-1								
PORT MORESBY	71.80	281.1	11	4	-1	20	28	19					
CHINCHINA	81.60	67.3	11	59	0	22	16	21					
BOGOTA	82.09	68.8	12	16	14	22	18	18					
FUQUENE	82.98	68.7	12	20	13								
CARACAS	90.75	71.8	12	44	0						23	40	SKKS
TUCSON	92.81	26.0	12	53	0								
TUCSON TELE.	92.92	26.1	12	53	-1								
PALISADES	113.16	49.8									34	56	SS
MATUSIRO	114.77	299.2				26	52	122			35	28	*SSS
COLLEGE	121.71	357.1	18	31	2								
SHILLONG	130.58	253.8									21	5	
LAHORE	144.28	240.0	19	13	-2								
QUETTA	146.39	229.2	19	21	2								
WARSAK DAM	147.61	238.9	19	25	4								
TOLEDO	147.87	104.1	19	26	5								
SHIRAZ	150.75	206.5	19	31	6						22	18	PKS
NORD	151.06	14.4	19	29	3								
BAGNERES	152.36	104.1	19	35	7								
KASPERSKE H.	92.13	321.4	13	4	0								
HALLE	92.18	324.0	13	5	1								
JENA	92.62	323.6	13	6	0	23	51	-13			16	57	PP
LJUBLJANA	92.68	318.3	13	6	-1								
TRIESTE	93.33	318.1	13	10	0								
SCORESBY SD.	93.38	348.6	13	11	1						25	12	PS
SCOTT BASE	93.85	171.4	13	12	0				13	23	29	43	PKKP
STUTTGART	94.87	322.2	13	17	0	24	38	15			30	57	SS
HEIDELBERG	94.93	323.0	13	17	0								
BENSBERG	95.13	324.8	13	19	1								

ROME	95.59	315.0				24	46	56			
SOUTH POLE	102.64	180.0	17	13	201						
EUREKA	105.21	42.8	14	2	777						
BYRD STATION	107.26	170.8	17	41	777						
FLAMING GRGE	108.60	38.6	14	20	777						
TUCSON TELE.	112.59	46.8	19	16	46						
WICHITA MTS.	119.12	37.8	18	44	2				20	2	PP
SHAWINIGAN	119.54	11.6	18	45	2						
FAYETTEVILLE	120.65	33.7	18	46A	1						
PALISADES	124.56	14.6							37	51	SS
SAN JUAN	148.08	14.6	19	40	4						
ST. KITTS	149.77	8.9	19	47	9						
ANTIGUA	150.09	7.3	19	47	8						
DOMINICA	151.96	6.9	19	53	11						
CARACAS	155.30	21.3	20	18A	32						
LA PAZ	169.53	112.2	20	5	5						

JUNE 19 2.H 46.M 0.S EPICENTRE 39.25 143.16 DEPTH= 41.KM

A=-0.62148 B= 0.46556 C= 0.63009 D= 0.5995 E= 0.8003
G=-0.5043 H= 0.3778 K=-0.7765 HT= -1.4

DEPTH OF FOCUS= 0.001R

SE= 3.53

	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
MIYAKO	1.01	294.0	0	17A	-1	0	32	1				
MIZUSAWA	1.58	266.5	0	26	0	0	47	1				
MORIOKA	1.61	287.0	0	28A	2	0	54	8				
ISINOMAKI	1.65	241.1	0	26A	-1	0	47	0				
HATINOHE	1.80	316.1	0	27A	-2	0	56	5				
SENDAI	2.02	241.9	0	32A	0	0	57	1				
AOMORI	2.41	311.4	0	39	1	1	11	5				
AKITA	2.42	282.3	0	39A	1	1	16	10				
HUKUSIMA	2.59	235.6	0	38A	-2	1	15	4				
SAKATA	2.62	263.5	0	41	0	1	19	8				
ONAHAMA	2.90	218.6	0	41	-4	1	15	-4				
URAKAWA	2.92	354.4	0	45	0	1	15	-4				
HIROO	3.03	2.2	0	43	-3							
SHIRAKAWA	3.14	228.4	0	47	-1	1	22	-3				
HAKODATE	3.15	325.2	0	45	-3	1	19	-6				
MORI	3.47	326.2	0	58	5	1	37	4				
NIIGATA	3.48	249.0	0	54	1	1	40	7				
MURORAN	3.49	332.4	0	59	6	1	46	12				
MITO	3.57	217.5	0	51K	-3	1	40	4				
TOMAKOMAI	3.59	341.0	0	57	3							
OBIHIRO	3.67	0.4	0	53	-2							
UTUNOMIYA	3.74	225.1	0	54	-3	1	54	14				
KAKIOKA	3.83	219.1	0	54	-4	1	47	5				
KUSIRO	3.85	13.7	0	54	-4	1	38	-5				
TUKUBASAN	3.88	219.7	0	54K	-4							
TYOSI	3.97	208.3	0	53	-7	1	44	-2				
AIKAWA	4.04	253.9	1	11	10	1	39	-8				
SAPPORO	4.06	340.9	1	5	4	1	50	2				
SUTTSU	4.19	328.9	1	2	-1	2	2	11				
XUMAGAYA	4.31	225.3	1	4	0	2	6	12				
MAEBASI	4.31	230.0	1	3A	-1	1	54	0				
TAKADA	4.42	242.6	1	5	-1	2	3	6				
HONGO	4.44	218.4	1	5	-1						2	18
NEMURO	4.47	23.3	1	1	-6	1	51	-7				
TOKYO C.M.O.	4.48	218.4	1	5	-2	2	3	5				
ASAHIGAWA	4.57	352.8	1	11	3	2	25	24				
TITIBU	4.60	226.1	1	7	-2	2	13	12				
OIWAKE	4.67	232.9	1	11	1	2	7	4				
NAGANO	4.69	238.3	1	10	0	2	30	26				
YOKOHAMA	4.73	217.4	1	8	-2	2	17	12				
MATUSIRO	4.76	237.0	1	9A	-2	2	10	4				
RUMOE	4.84	346.7	1	20	8	2	19	11				
ABASHIRI	4.84	9.6	1	9	-3	2	3	-5				
MATUMOTO	5.09	235.6	1	16	1	2	26	12				
KOHU	5.11	227.2	1	18	2	2	24	10				
HUNATU	5.12	224.5	1	16	0	2	16	1				
WAZIMA	5.27	251.2	1	18	0							
AJIRO	5.30	219.0	1	15K	-3	2	12	-7				

MISIMA	5.32	220.5	1	15	-4	2	25	5			
TOYAMA	5.35	243.5	1	18	-1	2	36	16			
OSIMA	5.40	215.3	1	17	-3						
TAKAYAMA	5.61	238.4	1	20	-3						
IIDA	5.64	230.4	1	24	1	2	36	8			
SHIZUOKA	5.72	223.2	1	21	-3	2	46	16			
OMAESAKI	6.10	222.0	1	41	11	3	13	34			
WAKKANAI	6.27	350.4	1	33	1						
GIHU	6.38	235.0	1	34	0						
NAGOYA	6.40	232.5	1	31	-3	2	59	12			
TSURUGA	6.69	239.7	1	36	-2						
HIKONE	6.79	236.4	1	39	0	3	9	13			
KAMEYAMA	6.92	232.7	1	50	9	3	16	17			
TU	6.99	231.6	1	53	11						
KYOTO	7.28	236.9	1	44	-2	3	36	28			
NARA	7.43	234.4	1	57	9						
ABUYAMA	7.48	236.6	1	45A	-4						
TOYOOKA	7.61	243.4	1	49	-2						
OWASE	7.61	229.4	2	0	9	3	38	21			
OSAKA	7.64	235.5	2	2	11	4	7	50			
Y.-SAKHLINSK	7.78	357.8	1	50	-3	3	17	-4			
KOBE	7.85	237.0	1	58	4	3	58	35			
SUMOTO	8.23	236.1	2	2	3	4	10	38			
SIOMISAKI	8.31	228.1	2	47	47	4	23	49			
TAKAMATU	8.81	238.9	2	20	13	4	39	53			
MATSUE	8.88	247.9								7	4
KOTI	9.62	236.7	2	22	3	4	30	24			
MATUYAMA	9.94	240.3	2	23	0	4	40	26			
SIMIDU	10.47	235.1	2	26	-4					5	41
OOITA	11.08	240.8	2	35	-4					5	27
HUKUOKA	11.74	245.2	2	55	8	5	21	23			
KUMAMOTO	11.95	241.4	2	48	-2						
CHANGCHUN	14.13	294.6	3	17A	-2	6	7	12			
PETROPAVLOVK	17.41	32.6	4	2	1	7	19	8			
ZO-SE	19.69	252.4	4	36	8						
PEKING	20.78	280.8	4	35A	-5	8	31	7			
MAGADAN	20.90	10.9	4	38	-3						
NANKING	21.03	257.6	4	38	-4	8	43	14			
YAKUTSK	24.24	344.5	5	13	-1	9	33	6			
PAOTOW	25.37	283.7	5	23	-2						
HONG KONG	29.92	244.2	6	5	-1	11	6	7			
CANTON	30.00	246.3	6	5	-2						
LANCHOW	31.14	276.7	6	15	-2						
CHENGTU	33.01	267.2	6	31	-2						
KUNMING	36.69	259.7	7	3A	-1						
NHATRANG	40.34	237.5	7	35	0			7	55		
SEMIPALATNSK	44.73	305.9	8	6	-5						
SHILLONG	44.34	268.2	8	10	-2						
COLLEGE	46.49	33.4	8	24	-1	15	12	3	8	49	9 3 *SP
FRUNSE	50.52	297.5	8	55	-1						
KHEYS	50.77	347.8	8	58	0	16	12	3			10 56 PP
DARWIN	52.63	195.2									10 30
SVERDLOVSK	54.42	317.9	9	24	-1						
TASHKENT	54.77	297.6	9	26	-2						20 42 SS
KHOROG	54.80	292.5	9	28	0						
NARSAK DAK	56.34	288.7	9	34	-5						
LENBANG	56.43	223.9	9	49	10						
MORO	58.93	356.6	9	54	-3						
RESOLUTE	60.12	15.1	10	3A	-2						
QUETTA	61.61	287.1	10	14A	-1						
PAULE	62.89	8.0	10	22	-2						
SODANKYLA	63.46	337.2	10	25	-3						
ASHKABAD	63.31	298.7	10	30	0						
TROMSOE	64.07	341.2	10	30	-2						
KIRUNA	64.94	339.4	10	45	8						
KAJAANI	65.21	334.1	10	38	-1						
MOSCOW	66.30	323.5	10	46	0						
UMEA	67.32	336.3	10	57K	1						
MURMIJARVI	68.64	332.2	11	0K	-1						
SHASTA	68.68	54.5	11	2	1						
HUNGRY HORSE	69.23	44.1	11	33	29						
MINERAL	69.38	54.4	11	8	3						
SCORESBY SD.	70.05	354.7	11	8	-1						
TIFLIS	70.54	308.2	11	12	0						
BORIS	70.97	305.6	11	13	-1						
RENO	70.97	54.3	11	19A	4						
BUTTE	71.42	45.4	11	21	3						
UPPSALA	71.57	334.3	11	17K	-1						

SHIRAZ	72.39	294.0	11	22K	-1	20	48	5		11	42
BOZEMAN	72.48	45.0	11	28	4						
EUREKA	73.40	52.5	11	29	0						
WOODY	73.84	57.1	11	35	3						
BOULDER CITY	76.26	54.8	11	50	4						
LWOW	76.40	324.4	11	46	0						
FLAMING GRGE	76.42	48.0	11	47	0						
RAPID CITY	77.74	42.5	11	57	3						
KRAKOW	78.03	326.6	12	3	-2						
LARAMIE	78.33	45.8	12	1	4						
RACIBORZ	78.74	327.4	11	58	-1						
COLLMBERG	79.86	330.8	12	5A	-1					15	4 PP
HALLE	80.10	331.5	12	5	-2						
PRAGUE	80.29	329.3								12	47
PRUHONICE	80.31	329.2	12	8	0						
BRATISLAVA	80.67	326.7	12	9	-1						
JENA	80.69	331.3	12	9	-1					12	37
VIENNA-H.	80.92	327.2	12	11	0						
KSARA	80.97	306.4	12	11	0						
KASPERSKE H.	81.37	329.2	12	13A	-1					15	15 PP
KARAPIRO	82.36	154.7	12	24	5						
JERUSALEM	82.73	305.2	12	22A	1						
STUTTGART	83.32	331.3	12	24	0						
LJUBLJANA	83.43	326.8	12	23	-1						
STRASBOURG	84.03	332.0	12	27	0						
TRIESTE	84.07	327.0	12	27	0						
BASLE	84.98	331.6	13	32K	60						
FOLINIERE	86.63	336.9	12	39	-1						
FLORENCE K.	86.64	327.3	12	39A	-1						
GARCHY	86.80	334.1	12	42	1					12	50 PCP
WICHITA MTS.	86.88	46.6	12	41	0					13	2
FAYETTEVILLE	88.27	43.0	12	47	-1						
SOUTH POLE	129.06	180.0	19	1	-2						
BYRD STATION	129.62	167.0	19	4	-1						

JUNE 19 7.H 38.M 27.S EPICENTRE 39.25 143.01 DEPTH= 46.KM

A=-0.62020 B= 0.46718 C= 0.63015 D= 0.6017 E= 0.7987
G=-0.5033 H= 0.3791 K=-0.7765 HT= -1.4

DEPTH OF FOCUS= 0.002R

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
MIYAKO	0.90	296.7	0	17A	0	0	32	2				
MIZUSAWA	1.47	265.9	0	25	0	0	43	0				
MORIOKA	1.49	288.1	0	26A	1	0	50	6				
ISINOMAKI	1.55	238.7	0	25A	-1	0	47	2				
HATINOHE	1.71	318.8	0	27	-1	0	53	4				
SENDAI	1.92	240.0	0	31A	0	0	54	0				
AKITA	2.30	282.7	0	33	2	1	14	10				
YAMAGATA	2.31	245.2	0	36A	0	1	10	6				
AOMORI	2.32	313.2	0	36	-1	1	14	10				
HUKUSIMA	2.49	233.9	0	38A	-1	1	11	2				
SAKATA	2.50	263.0	0	41	2	1	17	8				
ONAHAMA	2.84	216.6	0	40	-4	1	22	5				
URAKAWA	2.90	356.6	0	45	0	1	16	-3				
HIROO	3.04	4.3	0	44	-3	1	20	-2				
SHIRAKAWA	3.06	226.8	0	48	1	1	26	3				
HAKODATE	3.08	326.9	0	47K	0	1	30	7				
NIIGATA	3.38	248.1	0	54	2	1	39	8				
MORI	3.40	327.7	0	55	3	1	35	4				
MURORAN	3.43	334.0	0	56	4	1	40	8				
MITO	3.50	215.9	0	50K	-3	1	39	5				
TOMAKOMAI	3.55	342.7	1	0	6	1	45	10				
UTUNOMIYA	3.67	223.6	0	54	-2	1	53	15				
OBIHIRO	3.67	2.2	0	53	-3	1	46	8				
KAKIOKA	3.76	217.5	0	54	-3	1	54	13				
TUKUBASAN	3.80	218.2	0	54	-4							
KUSIRO	3.87	15.3	0	55	-3	1	37	-6				
TYOSI	3.92	206.7	0	41	-13	1	38	-7				
AIKAWA	3.92	253.3	1	9	10	2	1	16				
SAPPORO	4.02	342.4	1	0	-1	1	45	-2				
SUTTSU	4.12	330.2	1	2	0	2	5	15				

MAEBASI	4.22	228.9	1	3A	0						
KUMAGAYA	4.23	224.1	1	0	-4	1	59	7			
TAKADA	4.32	241.7	1	5	0	2	5	10			
HONGO	4.37	217.1	1	4	-2				2	17	
TOKYO C.M.O.	4.41	217.0	1	5	-1	2	5	8			
NEMURO	4.51	24.6	1	3	-5	1	50	-9			
TITIBU	4.52	224.9	1	7	-1	2	14	14			
ASAHIGAWA	4.55	354.1	1	11	3	1	33	-27			
OIWAKE	4.58	231.9	1	10	2	2	4	3			
NAGANO	4.59	237.4	1	11	2	2	19	18			
YOKOHAMA	4.66	216.1	1	7	-3	2	11	8			
MATUSIRO	4.66	236.0	1	9A	-1	2	10	7	2	5	
RUMOE	4.81	347.9	1	10	-2	2	5	-2			
ABASHIRI	4.86	10.9	1	9	-3	2	4	-4			
MATUMOTO	4.99	234.7	1	15	1	2	27	15			
KOHU	5.03	226.1	1	14	-1	2	23	11			
HUNATU	5.04	223.4	1	15	0	2	19	6			
WAZIMA	5.16	250.7	1	17	0	1	45	-31			
AJIRO	5.23	217.9	1	15K	-3	2	10	-7			
MISIMA	5.24	219.4	1	23	5	2	27	9			
TOYAMA	5.25	242.8	1	18	0	2	43	25			
OSIMA	5.33	214.1	1	16	-3						
TAKAYAMA	5.52	237.7	1	22	0						
IIDA	5.56	229.5	1	23	1	2	40	14			
SHIZUOKA	5.64	222.2	1	21	-2	2	37	9			
KANAZAWA	5.72	243.6	1	24	0						
OMAESAKI	6.02	221.0	1	32	3	3	10	33			
WAKKANAI	6.24	351.4	1	35	3						
GIHU	6.28	234.2	1	32	0						
NAGOYA	6.40	231.5	1	32	0	2	53	5			
TSURUGA	6.59	239.1	1	38	1						
HIKONE	6.70	235.7	1	41	3	2	55	1			
KAMEYAMA	6.83	232.0	1	41	1	3	7	10			
KYOTO	7.18	236.3	1	45	0	3	20	14			
NARA	7.34	233.8	2	0	13						
ABUYAMA	7.38	236.0	1	47A	-1						
TOYOOKA	7.50	242.9	1	48	-1						
OWASE	7.53	228.7	1	49	-1	3	12	-3			
OSAKA	7.54	234.8	1	54	4	3	39	24			
KOBE	7.75	236.4	1	53	0	3	43	23			
Y.-SAKHLINSK	7.77	358.5	1	49	-4	3	11	-10			
SUMOTO	8.14	235.5	1	34	-24				2	39	
SIOMISAKI	8.22	227.5	2	2	3	3	59	27			
YONAGO	8.59	246.6	2	5	1						
TAKAMATU	8.71	238.4	2	10	4	4	23	39			
MATSUE	8.78	247.5	2	8	1						
MUROTO	9.31	232.7	1	53	-21	3	23	-36			
KOTI	9.52	236.2	2	16	-1	4	27	23			
HIROSIMA	9.78	243.4	2	24	3	4	23	13			
MATUYAMA	9.84	239.9	2	25	3	4	14	2			
SIMIDU	10.38	234.6	2	25	-4	5	41	76			
OOITA	10.98	240.3	2	36A	-1	4	55	15			
HUKUOKA	11.64	244.8	2	45	-1	5	11	15			
SAGA	11.87	243.6	3	1	12						
MIYAZAKI	11.93	235.7	2	48	-2	6	19	76			
NAGASAKI	12.46	242.6	2	56	-1				6	13	
CHANGCHUN	14.02	294.7	3	16A	-2	6	9	16			
PETROPAVLOVK	17.47	32.9	4	3	1	7	20	8			
ZO-SE	19.58	252.2	4	23	-4	8	23	24			
PEKING	20.66	280.7	4	34A	-4	8	37	16			
MAGADAN	20.91	11.2	4	39	-2						
NANKING	20.92	257.4	4	38A	-3	8	43	17			
YAKUTSK	24.21	344.7	5	12	-1	9	25	0			
PAOTOW	25.25	283.6	5	22	-1						
GUAM	25.73	176.1	6	7	39						
ULAN-BATOR	27.35	300.3	5	41	-2	10	24	7			
SIAN	27.66	270.3	5	45A	0						
IRKUTSK	29.59	308.9	6	2A	-1	10	57	4			
HONG KONG	29.81	244.0	6	5	0	11	11	14		16	9 SCS
CANTON	29.89	246.2	6	5A	0						
LANCHOW	31.02	276.6	6	15	0	11	36	20			
MANILA	31.16	224.3	6	17	0	11	17	-1			
CHENGTU	32.89	267.0	6	30A	-2						
TIKSI	33.24	351.9	6	33	-2	11	53	3			
KUNMING	36.57	259.6	7	2A	-1						
NHATRANG	40.24	237.3	7	35	1						
SEMIPALATNSK	44.63	305.9	8	5	-5						
SHILLONG	44.72	268.1	8	10	0						
COLLEGE	46.55	33.4	8	24	-1	15	12	3	8	54	9 55 PCP

CHATRA	+7.74	272.5	5	35A	-179						
PORT MORESBY	-9.55	174.5	8	33	-7	15	38	0		22	27
FRUNSE	50.42	297.4	8	55	0						
DARWIN	52.60	195.0	9	9	-2						
HONOLULU	53.01	91.7								17	2
DEHRA DUN	53.08	281.5	9	17	2					17	8
NAMANGAN	53.15	296.3	9	16A	1						
SVERDLOVSK	54.34	317.9	9	24	0	16	55	-2			
TASHKENT	54.67	297.6	9	25	-1					11	30 PP
KHOROG	54.69	292.4	9	27	0	17	9	7			
LAHORE	55.31	284.7	9	32	1						
NARSAK DAM	56.23	288.6	9	38	0						
LEMBANG	56.35	223.7	9	38	-1					11	34
NORD	58.92	356.6	9	54	-3						
CHARTERS TS.	59.11	176.4	9	57	-1						
RESOLUTE	60.15	15.1	10	3	-2	18	16	3		19	51 SCS
QUETTA	61.50	287.0	10	13	-1	18	23	-8		12	30 PP
THULE	62.90	7.9	10	23	-1						
BOMBAY	63.13	273.1								18	51
SODANKYLA	63.41	337.2	10	26	1						
ASHKABAD	63.70	298.6	10	29	0	18	57	-1			
TROMSOE	64.03	341.2	10	31	0						
KIRUNA	64.99	339.3	10	36	-1					12	57 PP
KAJAANI	65.15	334.0	10	38	0						
MOSCOW	66.23	323.4	10	45	0						
UMEA	67.77	336.2	10	54	-1						
NURMIJARVI	68.58	332.1	10	59	-1						
SHASTA	68.78	54.4	11	1	0						
MINERAL	69.47	54.3	11	6	1						
TEHERAN	69.60	299.8	10	7	-59						
SCORESBY SD.	70.04	354.7	11	10	1	20	26	11			
TIFLIS	70.44	308.2	11	13	2	20	23	4			
BERKELEY	70.46	56.8	11	18	7	20	26	6			
GORIS	70.77	305.5	11	13A	0	20	30	7		13	54 PP
RENO	71.06	54.2	11	19	4						
LICK	71.16	57.0	11	19	3						
BUTTE	71.50	45.4	11	20	2						
UPPSALA	71.52	334.3	11	17	-1						
SHIRAZ	72.28	294.0	11	22K	0	20	43	2	11 45	14	0 PP
EUREKA	73.49	52.4	11	30	1						
MOODY	73.94	57.0	11	31	-1						
SIMFEROPOL	74.62	315.8	11	36	0						
GOTEBORG	75.05	335.2	11	53	15						
SALT LAKE C.	75.17	49.3	11	41	2						
LWOW	76.33	324.3	11	46	0						
BOULDER CITY	76.35	54.7	11	47	1						
FLEMING GRGE	76.51	48.0	11	47	0						
KRAKOW	77.96	326.5	11	46	-9					12	19
NIEDZICA	78.27	325.9	11	58	2					12	23
COLLMBERG	79.80	330.8	12	5	0				12 31	15	18 PP
PRUHONICE	80.24	329.1	12	9	2					15	15 PP
BRATISLAVA	80.60	326.7	12	10	1						
WITTEVEEN	80.80	334.9	12	12	2						
KSARA	80.87	306.3	12	12	1					15	20 PP
TUCSON	81.29	55.4	12	16	3						
TUCSON TELE.	81.30	55.3	12	15	2						
KASPERSKE H.	81.30	329.1	12	13A	0					15	17 PP
BENSBERG	82.19	333.6	12	17	0				12 41		
KARAPIRO	82.42	154.6	12	21	2						
STUTTGART	83.26	331.2	12	23	0				12 51		
LJUBLJANA	83.36	326.7	12	24A	1					15	28 PP
TRIESTE	84.01	326.9				22	49	3			
BASLE	84.92	331.5	12	33A	2					18	53
HELWAN	86.38	306.0	12	39	1					15	57
FLORENCE X.	86.57	327.2								20	10
FOLINIERE	86.58	336.8	12	9	-30						
GARCHY	86.74	334.0	12	49	9					13	21 PCP
WICHITA MTS.	86.96	46.5	12	41	0	23	18	4		14	17
FAYETTEVILLE	88.35	42.9	12	48	0						
PALISADES	93.32	27.1								24	13
SOUTH POLE	129.06	180.0	19	13	10						
BYRD STATION	129.64	167.1	19	5	0						
LA PAZ	144.63	59.0	19	45	14						

JUNE 19 7.H 59.M 40.S EPICENTRE 39.31 143.17 DEPTH= 36.KM

A=-0.62095 B= 0.46504 C= 0.63100 D= 0.5994 E= 0.8004
G=-0.5051 H= 0.3783 K=-0.7758 HT= -1.4

DEPTH OF FOCUS= 0.000R

SE= 2.99

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MIYAKO	0.99	290.3	0 17A	0	0 31	0		
MORIOKA	1.59	284.6	0 28A	2	0 51	5		
MIZUSAWA	1.60	264.0	0 26	0	0 46	0		
ISINOMAKI	1.69	239.2	0 27A	0	0 46	-2		
HATINOHE	1.75	314.5	0 27	-1	0 55	5		
SENDAI	2.06	240.3	0 31A	-2	0 54	-3		
AOMORI	2.37	310.1	0 41	4	1 10	5		
AKITA	2.41	280.7	0 40A	2	1 14	8		
YAMAGATA	2.45	245.2	0 37A	-1	1 8	1		
HUKUSIMA	2.63	234.4	0 38A	-3	1 14	2		
SAKATA	2.63	262.0	0 41	0	1 17	5		
URAKAWA	2.85	354.2	0 49	5	1 20	3		
ONAHAMA	2.96	217.9	0 46	0	1 25	5		
HIROO	2.97	2.2	0 42	-4				
HAKODATE	3.10	324.4	0 48	0	1 25	1		
SHIRAKAWA	3.19	227.6	0 47	-2	1 22	-4		
MORI	3.41	325.5	0 54	2				
MURORAN	3.43	331.7	0 50	-2	1 40	8		
NIIGATA	3.51	248.0	0 55	2	1 39	5		
TOMAKOMAI	3.53	340.5						1 16
OBIHIRO	3.60	0.4	0 53	-2				
MITO	3.63	217.0	0 52K	-3	1 38	1		
KUSIRO	3.78	13.8	0 57	0	1 38	-3		
KAKIOKA	3.88	218.5	0 54	-5	1 19	-25		
TUKUBASAN	3.93	219.2	0 55A	-4				
SAPPORO	4.00	340.5	1 4	4	1 49	2		
TYOSI	4.03	207.9	0 57	-4	1 54	6		
AIKAWA	4.06	253.0	1 11	10	2 1	13		
SUTTSU	4.13	328.4	1 9	7	2 11	21		
MAEBASI	4.36	229.4	1 4A	-1	2 1	5		
KUMAGAYA	4.36	224.7	1 4	-1	2 4	8		
NEMURO	4.40	23.6	1 3	-3	1 51	-6		
TAKADA	4.46	241.8	1 7	0	1 57	-1		
HONGO	4.50	218.0	1 11	4				2 3
TOKYO C.M.O.	4.53	217.9	1 6	-2	2 4	4		
TITIBU	4.65	225.6	1 7	-2	2 14	11		
OIWAKE	4.72	232.3	1 13	3	2 12	7		
NAGANO	4.73	237.6	1 11	0	1 29	-36		
ABASHIRI	4.78	9.7	1 9	-2	2 4	-2		
RUMOE	4.78	346.4	1 38	27	2 37	31		
YOKOHAMA	4.78	217.0	1 14	3	2 6	0		
MATUSIRO	4.80	236.3	1 10A	-2	2 11	4		
MATUMOTO	5.13	235.0	1 15	-1	2 27	12		
KOHU	5.16	226.7	1 15	-2	2 20	4		
HUNATU	5.17	224.0	1 17	0	2 13	-3		
WAZIMA	5.29	250.6	1 18	-1				
AJIRO	5.35	218.6	1 16K	-3	2 12	-9		
MISIMA	5.37	220.1	1 17	-3				
TOYAMA	5.39	242.9	1 19	-1	2 41	19		
OSIMA	5.45	214.9	1 16	-5				
TAKAYAMA	5.66	237.9	1 21	-3				
IIDA	5.69	230.0	1 25	1	2 43	14		
SHIZUOKA	5.77	222.8	1 29	4	2 34	3		
KANAZAWA	5.86	243.7	1 24	-2				
OMAESAKI	6.15	221.6	1 41	10				
NAGOYA	6.45	232.0	1 33	-2	2 57	9		
TSURUGA	6.73	239.3	1 38	-1				
HIKONE	6.83	235.9	1 41	1	2 58	0		
KAMEYAMA	6.96	232.3	1 50	8	3 12	11		
TU	7.03	231.2	1 52	9				
KYOTO	7.32	236.5	1 45	-2	3 19	9		
NARA	7.47	234.0	2 2	13				
ABUYAMA	7.52	236.2	1 46A	-4				
TOYOOKA	7.64	243.0	1 54	3				
OMASE	7.66	229.1	2 12	20	3 44	26		
OSAKA	7.68	235.1						2 14
SUMOTO	8.27	235.7	1 48	-12				4 11
VLADIVOSTOK	9.30	297.7	2 13	-2				
KOTI	9.66	236.4	3 6	47	4 24	16		
MATUYAMA	9.98	240.0	2 24	0	4 27	11		

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MAGADAN	20.83	11.0	4 40	-1				
YAKUTSK	24.18	344.5	5 11	-3	9 31	4		
NHATRANG	40.38	237.5	7 34	-2				
SHILLONG	44.85	268.1	8 12K	0				
COLLEGE	46.43	33.4	8 24	-1				8 48
CHATRA	47.86	272.5	8 36A	0				
SVERDLOVSK	54.37	317.9	9 24	-1				
LAHORE	55.41	284.7	9 32	-1				
WARSAK DAM	56.33	288.7	9 38	-1				
NORD	58.87	356.6	9 55	-2				
CHARTERS TS.	59.16	176.6	10 17	18				
RESOLUTE	60.05	15.1	10 4	-2				
QUETTA	61.60	287.0	10 14	-2				
THULE	62.82	8.0	10 22	-2				
SODANKYLA	63.40	337.2	10 26	-2				
KIRUNA	64.88	339.4	10 36	-2				
KAJAANI	65.15	334.1	10 39	0				
UMEA	67.76	336.3	10 55	-1				
NURMIJARVI	68.58	332.2	10 59	-2				
SHIRAZ	72.37	294.0	11 23K	-1				
EUREKA	73.35	52.5	11 31	1				
WOODY	73.80	57.1	11 31	-1				
FLAMING GRGE	76.37	48.1	11 52	5				
COLLMBERG	79.81	330.8	12 5A	-1				15 7 P?
PRUHONICE	80.25	329.2	12 8	0				
KASPERSKE H.	81.31	329.2	12 14A	0				
KARAPIRO	82.42	154.7	12 25	5				
STUTTGART	83.26	331.3	12 24	0				
FOLINIERE	86.57	336.9	12 40	0				
GARCHY	86.74	334.1	12 41	0				
WICHITA MTS.	86.82	46.6	12 42	0				13 32
FAYETTEVILLE	88.22	43.0	12 50	2				
SCOTT BASE	117.78	174.5	18 53	11				
SOUTH POLE	129.12	180.0	19 11	7				
BYRD STATION	129.68	167.0	19 5	0				

JUNE 19 17.H 4.M 37.S EPICENTRE 36.49 70.87 DEPTH= 194.KM

A= 0.26414 B= 0.76133 C= 0.59212 D= 0.9448 E=-0.3278
G= 0.1941 H= 0.5594 K=-0.8059 HT= -0.4

DEPTH OF FOCUS= 0.025R

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KHOROG	1.12	28.1	0 32	2	0 54	0		
KULYAB	1.66	328.0	0 35	0	1 0	-2		
OBI-GARM	2.39	337.6	0 43	0	1 15	-1		
GARM	2.54	350.0	0 45	1	1 17	-2		
WARSAK DAM	2.55	167.1	0 44	0				
DUZHANBE	2.66	321.9	0 46	0	1 19	-2		
DZERGETAL	2.74	5.9	0 47	0	1 22	-1		
MURGAB	3.08	51.5	0 52	2				
FERGANA	3.95	10.2	1 1	0	1 46	-3		
ANDIJAN	4.41	15.0	1 7	0	1 57	-2		
NAMANGAN	4.53	7.7	1 9	0				2 10
TASHKENT	4.98	346.1	1 13	-1				1 53
LAHORE	5.71	148.7	1 22K	-2	2 21	-8		2 4 *SP
TCHIMKENT	5.88	350.8	1 26	0	2 29	-4		1 45
NARYN	6.35	37.5	1 31	-1				
FRUNSE	6.96	23.4	1 40	0	2 58	0		2 28
QUETTA	7.10	208.6	1 42K	0	2 58	-4		2 30 *SP
RYBACHE	7.23	33.0	1 43	-1	3 3	-2		2 31
FABRICHNAYA	7.89	31.1	1 52	0	3 20	0		
ALMATA	8.23	32.8	1 57	0				3 50
PRZHEVALSK	8.35	41.9	1 58	0				
DEHRA DUN	8.60	133.7	2 1	0	3 27	-10		2 9 PP
KURMENTY	8.65	39.0	2 0	-2				
ASHKABAD	10.09	282.0	2 19	-2				
KIZYL-ARVAT	11.85	287.6	2 41	-3				5 8
KARACHI	12.08	196.8	2 44K	-2	4 49	-9		3 33 *SP
SEHORE	14.32	156.3	3 12	-3	5 40	-9		5 57 SS
SEMIPALATNSK	15.46	23.0	3 22	-7	6 16	2		
TEHERAN	15.76	273.1	3 34A	2	6 27	6		

SHIRAZ	16.81	251.3	3	45K	0	6	49	5			3	57 PP
BAKU	16.87	289.7	3	48	2							
CHATRA	16.87	120.2	3	45K	-1	6	43	-3			3	57 PP
BOMBAY	17.61	173.9	3	54	0	7	8	7			4	43 PPP
SHEMAKHA	17.86	290.1	3	55	-2						7	13
BOKARO	18.03	130.3	3	57A	-1	7	7	-3			4	19 PPP
POONA	18.09	170.8	4	0A	1	7	16	5			7	37
LHASA	18.22	106.2	4	2A	2							
MAKHACH-KALA	19.07	297.0	4	9	0						4	44
GORIS	19.55	286.3	4	15A	1						8	29 PCP
HYDERABAD	20.14	158.5	4	19K	-1	7	58	8			4	40 PP
GROZNY	20.39	297.3	4	25	2						5	16 *SP
CALCUTTA	20.58	127.7	4	28A	3	8	9	11			5	28
EREVAN	20.98	288.1	4	31	3						8	19
SHILLONG	20.99	115.3	4	29K	0	8	10	4			5	1 PP
SVERDLOVSK	21.48	344.5	4	34	1				5	6	8	21
VISHAKHAPTNM	21.69	146.3	4	40K	5	8	33	15			5	14 PP
BAKURIANA	21.81	292.3	4	39	2							
PIATIGORSK	22.44	298.2	4	43	0						9	29 SS
TOCKLAI	22.50	108.8	4	42	-1							
CHITTAGONG	22.98	122.0	4	50	2				5	25	5	51 *SP
MADRAS	24.84	157.9	5	8	2	9	14	2			5	49 PP
LANCHOW	26.51	81.0	5	22A	1	9	42	3	6	3	6	26 *SP
CHENGTU	28.13	92.2	5	36A	0	10	7	2			6	39 *SP
IRKUTSK	28.32	45.6	5	37	0	10	10	2			11	23 *SS
KSARA	28.64	275.1	5	41	1	10	23	10	6	22	6	30 PP
ULAN-BATOR	28.78	55.3	5	42	1	10	22	7				
SIMFEROPOL	28.90	298.5	5	41A	-1				6	21	6	40 PP
KYAKHTA	29.02	50.2	5	43	0				6	25	10	15
KUNMING	29.50	103.6	5	48A	0	10	29	2			6	51 *SP
MOSCOW	29.59	321.1	5	48	-1	10	30	2	6	28	6	46 PP
KABANSK	29.61	47.0	5	49	0	10	30	2	6	31	11	47 *SS
JERUSALEM	29.77	271.4	5	50A	0	10	37	6				
PAOTOW	30.73	70.3	6	0	1	10	49	3	6	45	12	1 *SS
SIAN	30.98	82.7	6	2	1	10	53	3			7	6 *SP
PORT BLAIR	31.61	135.9	6	7	1							
ISTANBUL KA.	32.67	291.0	6	14	-1	11	18	2	6	55		
KISHINEV	32.72	302.0	6	22	6						13	41 SSS
ISTANBUL UN.	32.74	291.0	6	16	0							
HELWAN	33.57	270.3	6	23	0						11	29
IASI	33.59	302.3	6	22	-1						8	2
BUCHAREST	34.61	297.3	6	30	-2	13	5	79				
PULKOVO	34.86	324.9	6	34	0				7	16	14	17 SSS
PEKING	35.46	70.2	6	39	0	12	2	3	7	22	7	45 *SP
LWOW	36.08	306.7	6	44	0						8	10 PP
SOFIA	36.76	294.7	6	52	2						7	59
ATHENS	37.26	286.8	6	53K	-1							
NURMIJARVI	37.77	324.3	6	58A	0				7	35		
KAJAANI	37.79	330.6	7	0A	1							
WARSAW	38.14	310.4	7	1	0						9	13 PCP
BELGRADE	38.61	298.5	7	7K	2	12	51	4			15	30 SS
KRAKOW	38.74	306.9	7	6	0				7	47	9	11 PCP
CANTON	38.90	98.0	7	9A	1	12	54	3			8	14 *SP
CHORZOW	39.34	307.3	7	11	0						8	50 PP
NANKING	39.52	32.0	7	14A	1	13	2	2	7	58	8	19 *SP
SODANKYLA	39.70	335.0	7	15A	1				7	56		
RACIBORZ	39.85	306.9	7	25	9						8	53 PP
HONG KONG	39.96	98.5	7	18A	2	13	11	4	8	1	8	22 *SP
BRATISLAVA	40.65	304.0	7	21	-1				8	3		
UMEA	40.76	328.3	7	24A	1				8	7		
UPPSALA	41.01	322.0	7	24A	-1	13	21	-1	8	7	9	8 PP
VIENNA-H.	41.13	304.2	7	27A	1						9	8 PP
MEDAN	41.57	135.4									8	53
CHANGCHUN	41.60	62.5	7	30A	0				8	14		
TARANTO	41.63	292.4	7	58	28							
ZAGREB	41.63	300.6	7	30	0						8	39
ZO-SE	41.78	82.2	7	32	1	13	36	2	8	17	8	38 *SP
KIRUNA	42.04	334.1	7	34A	0				8	15		
NHATRANG	42.06	115.1	8	3	29				8	45		
PRUHONICE	42.21	306.9	7	35A	0	13	43	3			9	18 PP
PRAGUE	42.28	307.0	7	39	4							
LJUBLJANA	42.61	301.1	7	39A	1				8	22	9	23 PP
KASPERSKE H.	42.90	305.7	7	41A	1						8	47
COLLMBERG	43.12	308.9	7	43A	1	13	57	4	8	25	9	27 PP
TRIESTE	43.20	300.6	7	43	0	13	55	1	8	26	9	28 PP
TROMSOE	43.23	336.3	7	43	0						10	26 PP
COPENHAGEN	43.36	315.4	7	43	-1	14	2	5	8	25	17	33 SS
MESSINA	43.45	289.6	7	45K	0							

CHEB	43.60	307.2	7 32	-14					
GOTEBORG	43.69	318.3	7 45A	-2			8 28	9 32	PP
HALLE	43.76	309.3	7 47	0	14 5	3			
JENA	44.03	308.5	7 49	-1	14 3	-3		17 41	SS
YAKUTSK	44.05	35.5	7 47	-3			8 30	17 21	SCS
SKALSTUGAN	44.15	326.8	7 49	-1	13 57	-11			
KHEYS	44.52	357.0	8 4	11	14 29	16	8 47	15 49	*SS
KHEYS	44.52	357.0	7 56	3			8 39	9 38	PP
PADOVA	44.55	300.6	7 58	4	14 8	-6		9 36	PP
ROME	44.82	295.6	7 55	-1	14 19	1	8 38	9 41	PP
FLORENCE X.	45.29	298.5	7 57	-3				9 42	PP
RAVENSBURG	45.68	304.3	8 1	2			8 45		
STUTTGART	45.76	305.7	8 3	0	14 31	0	8 47		
CHUR	45.90	303.0	8 4	0			8 46		
TUBINGEN	45.93	305.4	8 4	-1			8 48		
HEIDELBERG	46.03	306.6	8 5	0			8 49	9 11	
EBINGEN	46.05	304.9	8 5	0			8 49		
KARLSRUHE	46.29	306.1	8 9	2					
MUNSTER	46.40	310.3						8 57	
PAVIA	46.46	300.8						8 58	
STRASBOURG	46.78	305.6	8 11	0				14 55	
BENSBERG	46.80	309.0	8 11	0			8 55	10 7	PP
WITTEVEEN	46.88	311.5	8 12	0					
BASLE	47.09	304.3	8 13	-1				9 19	
BERGEN	47.20	322.0	8 24	10					
NEUCHATEL	47.61	303.7	8 17	-1					
DE BILT	47.88	310.7			15 7	6			
ISOLA	48.16	299.9	8 21A	-1			9 5		
BESANCON	48.21	304.2	8 21	-1					
MANILA	49.60	102.4	8 47	14				15 32	
PARIS	50.16	306.8	8 36	-1			9 20	9 42	*SP
CLERMONT-FD.	50.47	302.9	8 40	1				9 22	
KEW	51.35	310.7	8 46A	0	15 49	0	9 31	9 52	
DURHAM	51.43	315.0	8 36A	-11			9 31	10 46	PP
ABUYAMA	51.68	71.4	8 49	1					
FOLINIERE	52.08	307.4	8 50	-1				9 33	
Y.-SAKHLINSK	52.88	54.6	8 57	0	16 12	3	9 44	17 30	*SS
MATUSIRO	53.06	68.4	8 57A	-2	16 12	0	9 43	17 31	*SS
BAGNERES	53.28	300.4	8 58	-2			9 43		
NORD	53.79	349.5	9 3A	-1			9 49		
LWIRO	54.92	234.9	9 3A	-9					
LEMBANG	55.17	133.6						9 58	
SCORESBY SD.	57.02	336.4	9 28A	1	17 15	10	10 13	17 29	PS
TOLEDO	57.35	298.1	9 28A	-1				11 34	PP
ALMERIA	57.39	294.2	9 29K	-1			9 47	10 13	PCP
SIDA	57.51	328.2	9 31	0			10 16	10 38	*SP
BANGUI	57.53	249.1	8 29	-62					
REYKJAVIK	59.00	329.3					10 27		
TANANARIVE	59.35	205.8	9 44A	1				11 32	
COIMBRA	60.31	300.0	9 49K	-1					
PETROPAVLOVK	60.61	43.9	9 48	-4			10 36	12 7	PP
THULE	64.45	350.1	10 16	-1					
BROKEN HILL	64.55	226.3	10 18A	0					
RESOLUTE	68.71	356.0	10 43	-1				11 29	
BULAWAYO	69.04	222.6	10 46A	0					
PRETORIA	73.84	219.5	11 14	-1					
COLLEGE	74.53	16.1	11 17	-2	20 36	0	12 5		
PIETERMZBURG	75.96	215.6	11 27K	0					
WINDHOEK	77.62	229.8	11 36K	0					
KIMBERLEY	78.03	220.3	11 36K	-2					
MUNDARING	80.25	142.2	11 48K	-2					
PORT MORESBY	84.69	105.7	12 12	-1	23 49	87		13 0	
CHARTERS TS.	90.64	114.6	12 41	0				13 32	
SHAWINIGAN	91.11	335.8	12 44K	1					
OTTAWA	93.08	337.1	12 52	0					
PENTICTON	94.06	6.9	12 57	0					
ADELAIDE	95.07	130.2	13 1K	0					
PALISADES	96.38	333.9			23 22	-2		25 30	PS
BUTTE	97.81	2.4	13 14	0			14 1		
RAPID CITY	99.62	355.7	13 23	1					
CANBERRA	101.85	125.1	13 34	2					
FLAMING GRGE	102.95	0.2	13 37	0				17 40	
MAWSON	103.95	183.1	14 35	54				18 58	
EUREKA	104.14	5.5	13 42	0					
WICHITA MTS.	108.48	350.9	14 2	777				18 17	PP
KARAPIRO	121.59	116.1	18 30	0					
SOUTH POLE	126.31	180.0	18 38	-1			19 33	26 46	
SCOTT BASE	126.60	164.8	18 40	0			19 32	20 42	PP

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BYRD STATION	136.16	177.4	18	44	-14				19	34	22	10 SKP
LA PAZ	138.64	287.7	19	5	3							

JUNE 20 3.H 21.M 30.S EPICENTRE 12.29 44.25 DEPTH= 0.KM

A= 0.70014 B= 0.68197 C= 0.21150 D= 0.6978 E=-0.7163
G= 0.1515 H= 0.1476 K=-0.9774 HT= 6.2

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
SHIRAZ	18.91	22.7	4	24K	0	7	53	0	4	31	8	16 SS
LWIRO	21.08	227.7	4	48A	0	8	39	0				
JERUSALEM	21.10	338.2	4	51A	3	9	0	21				
HELWAN	21.21	327.5	4	51A	2	8	32	-9				
KSARA	22.75	341.7	4	57A	-8	9	33	23			5	45 PP
TEHERAN	24.22	14.3	5	11	-8	9	49	13				
BANGUI	26.53	254.9	5	39	-2	10	36	22				
QUETTA	27.56	46.3	5	52A	2	10	39	8			6	40 PP
BOMBAY	28.27	73.0	6	0	3	10	47	5			6	45 PP
POONA	29.18	74.0	5	6A	-59							
TIFLIS	29.32	0.8	5	59	-7							
MAKHACH-KALA	30.70	4.7	6	20	2	11	30	9				
BROKEN HILL	30.82	210.9	6	18K	-2							
TANANARIVE	31.18	174.0	6	23	0						8	18
SOTCHI	31.42	353.7	6	25	0	11	40	8				
ISTANBUL KA.	31.61	337.8	6	26A	-1	11	44	9			7	37 PP
ISTANBUL UN.	31.61	337.7	6	27	0							
KODAIKANAL	32.64	90.2									12	9
WARSAK DAM	32.94	44.5	6	38	0							
SIMFEROPOL	33.68	347.0	6	45	0							
STALINABAD	34.07	35.5	6	48	0							
MADRAS	35.05	84.9	6	55A	-1	12	30	1			8	15 PP
SOFIA	35.32	332.9	6	59	0							
BUCHAREST	35.60	337.5									12	48
BULAWAYO	35.71	205.7	7	9K	7							
DEHRA DUN	36.05	54.8	7	5	0	12	53	9			8	32
TASHKENT	36.28	32.6	7	7	0	12	56	8				
KISHINEV	36.97	342.4	7	13	0	13	4	6				
NAMANGAN	37.34	35.1	7	16A	0	13	13	9				
ANDIJAN	37.59	36.0	7	18	0	13	16	8				
VISHAKHAPTNM	38.06	77.0	7	26	4	13	32	17			9	1
BELGRADE	38.28	332.4	7	24	0						8	55 PP
FRUNSE	40.22	35.2	7	40	0	13	58	10				
ROME	40.44	322.7	7	27	-15	13	55	4			9	59 PPP
PRETORIA	40.92	202.4	7	44	-2							
LWOW	40.96	340.0	7	47	1							
BOKARO	41.00	67.8	7	49K	3	14	3	4			9	9 PP
ALMATA	41.82	36.3	7	53	0	14	22	11				
LJUBLJANA	42.02	328.9	7	55	0						9	32 PP
TRIESTE	42.14	328.0	7	56	0	14	21	5			9	36 PP
FLORENCE X.	42.31	324.1	7	44	-13	14	4	-15				
BRATISLAVA	42.33	333.0	7	55	-2						9	40 PCP
KRAKOW	42.62	336.9	7	55	-4							
VIENNA-H.	42.71	332.6	7	59	-1				9	46		
CHATRA	42.74	63.7	7	58K	-2						17	55
PADOVA	42.98	326.4									10	0
MOSCOW	43.65	354.6	8	8	0							
WINDHOEK	43.68	217.6	8	8	0							
KASPERSKE H.	44.63	331.5	8	15A	-1						10	2 PP
PRUHONICE	44.79	333.0	8	16	-1	15	0	5			10	5 PP
PRAGUE	44.91	333.0	8	18	0	15	2	5				
KIMBERLEY	44.93	204.5	8	15K	-3							
ISOLA	45.00	322.0	8	19	0						10	9 PP
SVERDLOVSK	46.20	12.4	8	28	0	15	21	6				
CHITTAGONG	46.34	70.3	8	30	1						10	21 PP
COLLMBERG	46.43	333.3	8	29	-1						10	19 PP
STUTTGART	46.49	328.5	8	30	-1	15	23	4			10	24 PP
LHASA	46.64	60.8	8	32	0	15	24	3				
SHILLONG	46.70	66.5	8	29	-3							
JENA	46.81	332.1	8	36	3	15	30	6			10	21 PP
HALLE	47.04	332.8	8	34	-1						10	23 PP
STRASBOURG	47.15	327.4	8	38	2	15	20	-9			10	29 PP
HEIDELBERG	47.17	328.8	8	36	0							
BESANCON	47.34	325.0	8	40	3							
ALICANTE	47.42	311.3	8	32	-6	15	25	-7			13	45 SS

CLERMONT-FD.	48.21	321.9	8	46	2						
GRAHAMSTOWN	48.39	199.9	8	46A	1						
PULKOVO	48.51	350.6	8	50	4						
BAGNERES	48.83	317.4	8	57	8						
BENSBERG	48.93	329.6	8	48	-2					10	49 PP
MUNSTER	49.35	330.9	8	57	4						
GRANADA	49.37	308.7				19	40	220		8	40 PP
PARIS	50.16	325.0	9	2	3						
NURMIJARVI	50.25	347.5	8	58	-2						
TOLEDO	50.55	311.9	9	5	3	16	24	8		11	1 PP
UPPSALA	51.42	343.2	9	9	0						
FOLINIERE	51.83	323.7	9	11	-1						
HERMANUS	52.18	206.3								31	19 PKKP
KAJAANI	53.00	351.0	9	23	2						
KEW	53.09	326.7	9	23	2	16	54	3			
MEDAN	54.51	94.4	9	34A	2						
DURHAM	55.46	329.7	9	41A	2	17	37	14			
SODANKYLA	56.25	351.9	9	42	-2						
KUNMING	56.47	68.0	9	46	0	17	37	1			
KIRUNA	57.65	349.5	9	53	-1						
CHENGTU	57.90	61.5	9	55	-1						
LANCHOW	58.34	55.2	9	58	-1	18	5	4			
TROMSOE	59.50	350.0	10	5	-2						
SIAN	62.30	57.7	10	27	1	18	57	5			
ULAN-BATOR	62.71	42.2	10	27	-2						
HONG KONG	67.01	70.9	11	0	3	18	53	-57			
PEKING	68.39	51.7	11	4	-1	20	2	-4			
KHEYS	68.63	2.4	11	5	-2	20	19	10			
NANKING	70.55	60.2	11	20	1						
SCORESBY SD.	70.62	341.0	11	23K	4					21	39 SCS
ZO-SE	72.65	61.1	11	31	0						
MORO	73.80	352.3	11	36	-2						
MANILA	74.41	78.1	11	43	2					14	59
CHANGCHUN	75.18	47.7	11	44	-2						
TIKSI	76.73	13.9	11	54K	-1	21	44	3			
YAKUTSK	77.12	28.8	11	55	-2	21	47	1			
MAWSON	80.82	172.9	12	15	-2						
MATUSIRO	85.93	53.7	12	43	0	23	10	-6			
RESOLUTE	89.58	350.0	13	5	4						
SOUTH POLE	102.21	180.0	13	59	1				16 30		
COLLEGE	102.53	5.2	18	13	253						
SCOTT BASE	108.54	169.1								18	56 PP
WICHITA MTS.	121.45	324.3	18	56	1					20	28 PP
AFIAMALU	144.89	96.7	19	45	6						

JUNE 20 14.H 27.M 7.S EPICENTRE -21.54 168.36 DEPTH= 58.KM

A=-0.91342 B= 0.17994 C=-0.36508 D= 0.1933 E= 0.9811
G= 0.3582 H=-0.0706 K=-0.9310 HT= 4.3

DEPTH OF FOCUS= 0.004R

SE= 4.33

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NOUMEA	2.36	250.9	0	35A	-2	1	7	2				
PORT VILA	3.83	352.3	0	57K	-1	1	45	3				
KOUMAC	4.38	282.1	1	6K	0	2	2	6				
SUVA	9.62	71.1	2	23	5							
HONIARA	14.78	323.2	3	18	-9							
ONERAHI	14.97	162.4	3	40	11							
BRISBANE	15.75	245.1	3	35	-4	6	33	1				
KARAPIRO	17.32	162.0	3	51	-8							
TONGARIRO	18.50	163.5	4	6	-8							
CHATEAU	18.51	163.4	4	6	-8							
TUAI	18.62	159.3									4	48
COBB RIVER	19.75	171.3									5	8
RIVERVIEW	19.85	228.2	4	27A	-2	8	17	13			4	51 *SP
AFIAMALU	19.93	70.8	4	22	-8	8	5	-1				
WELLINGTON	20.30	167.1	4	26	-7	8	23	10			5	52
CHARTERS TS.	21.17	269.8	4	44	2	8	44	15				
CANBERRA	22.15	227.4	4	51	-1	9	0	13				
GEBBIES PASS	22.32	172.7	4	57	3							
RABAUL	23.66	314.5	5	13	6							
ROXBURGH	23.88	179.2				9	22	4				

PORT MORESBY	24.11	296.7	5	13	2				9	15
MELBOURNE	26.23	226.5	5	30	-1	10	30	33		
MOORLANDS	27.63	216.1	5	1	-43					
ADELAIDE	29.60	236.6	6	3	1					
DARWIN	37.41	277.3	7	10	1					
MURRARING	47.74	245.9	8	30	-3					
CAPE HALLETT	50.79	179.5	8	49	-7	16	17	11	14	21 SCP
SCOTT BASE	56.37	180.5	9	32K	-5				11	52 PP
LEMBANG	60.79	274.2	10	7K	-1					
MATUSIRO	64.62	333.0	10	34A	0	19	16	9		
BYRD STATION	65.75	169.5	10	33	-8					
ZO-SE	69.51	317.4	11	5	1	20	16	10		
CANTON	69.94	306.1	11	9	2	20	25	14		
NANKING	71.67	316.7	11	18	1	20	44	13		
CHANGCHUN	76.32	329.1	11	45	1	21	35	12		
PEKING	73.50	321.4	11	58	2	21	59	12		
KUNMING	79.19	302.4	12	2	2	22	7	13		
SIAN	79.52	313.2	12	5	3	22	14	16		
CHENGTU	81.04	307.8	12	12	2	22	26	13		
LANCHOW	83.99	312.4	12	27	2					
LICK	87.75	48.3	12	44A	0					
SHILLONG	88.13	298.3	12	47K	2					
PASADENA	88.74	52.5	12	46	-2					
FRESNO	88.77	49.5	12	48	-1					
MINERAL	89.24	45.7	12	49A	-2					
BOULDER CITY	92.00	52.1	13	2	-2					
COLLEGE	92.34	17.1	13	2	-3	13	17			
EUREKA	92.68	48.5	13	5	-2					
DEHRA DUN	101.23	298.2							16	22
QUETTA	110.42	295.3	18	17	-8					
LA PAZ	112.56	119.4	18	45	15					
SHIRAZ	122.63	292.1	18	53	4					
PALISADES	124.13	54.4							32	10 PPS
KSARA	136.94	296.9	19	21	5					
SOFIA	144.34	314.3	19	31	1					
COLLMBERG	144.84	333.5	19	29K	-1				22	12
BRATISLAVA	145.11	326.4	19	33	2					
VIENNA-H.	145.43	327.0	19	32	1					
ATHENS	145.83	306.4	19	33A	1					
KASPERSKE H.	146.17	330.4	19	32	-1					
MUNSTER	146.32	339.0	19	36	3					
BANGUI	146.46	243.6	19	34	1	20	2			
BENSBERG	147.33	338.4	19	37	2					
LJUBLJANA	147.82	325.5	19	36A	1				19	58
STUTTGART	148.32	333.9	19	40	4					
TRIESTE	148.49	325.6	19	42	6					
FOLINIERE	151.53	345.1	19	47	6					
GARCHY	151.87	339.2	19	49	7					

JUNE 21 3.H 57.M 46.S EPICENTRE 15.24 -87.40 DEPTH= 118.KM

A= 0.04373 B=-0.96428 C= 0.26125 D=-0.9990 E=-0.0453
G= 0.0113 H=-0.2610 K=-0.9653 HT= 5.7

DEPTH OF FOCUS= 0.013R

SE= 2.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTIAGO MA.	2.03	210.8	0	32	-3	1	2	2				
SAN SALVADOR	2.33	228.5	0	35	-4	1	9	1				
COMITAN	4.66	283.0	1	14	4	2	18	14				
MERIDA	6.06	340.0	1	35	6	2	50	13				
OAXACA	9.17	282.4				3	54	1			4	46
VERA CRUZ	9.22	296.5				4	14	20			3	30
BALBOA HTS.	9.89	128.3	2	5	-16							
TACUBAYA	12.00	291.8	2	50	1	5	10	10			5	57
GALERAZAMBA	12.63	109.1				5	18	3				
CHINCHINA	15.44	130.2	3	29	-4	6	45	24	3	39		
FUQUENE	16.58	124.4	3	48K	1	7	8	22				
MANZANILLO	16.61	285.6									7	26
BOGOTA	16.83	127.5	3	50	0	7	9	17	4	0		
COLUMBIA	19.54	16.0	4	17	-4	7	54	4				
SAN JUAN	20.61	78.3	4	31	-1							
FAYETTEVILLE	21.63	344.9	4	40A	-2	8	52	23	5	1		
CHIHUAHUA	21.81	310.7									6	35

WICHITA MTS.	21.85	334.6	4 40	-4	8 45	12					
ST. LOUIS I	23.44	354.4	4 58	-2	9 16	15					
ST. KITTS	23.77	81.6	5 3	0							
GRENADA	25.14	94.1	5 17	1							
MORGANTOWN	25.16	13.6	5 15A	-1	10 1	31					
WASHINGTON	25.26	19.1	5 16	-1							
CLEVELAND	26.63	9.9	5 28	-2	10 19	25					
PENNSYLVANIA	26.78	16.2	5 28	-3	10 12	16					
TUCSON TELE.	27.19	312.8	5 33	-2							
TUCSON	27.22	312.6	5 34	-1						6 21	PP
PALISADES	28.22	21.9	5 39	-5	10 31	11	6 1			10 48	*SS
HUANCAYO	29.63	155.6	6 2	5							
OTTAWA	31.64	15.8	6 11	-3							
RAPID CITY	31.73	338.1	6 12	-3							
FLAMING GRGE	31.93	327.6	6 14	-3						3 57	
BOULDER CITY	32.03	315.2	6 19	1							
DRESEUF	32.32	18.3	6 13	-2							
PASADENA	33.51	309.8	6 31	1	12 8	25					
SHAWINIGAN	33.53	18.4	6 29	-2							
EUREKA	34.76	319.5	6 40	-1							
BOZEMAN	36.27	331.6	6 55	1							
LA PAZ	36.83	148.1	7 4	5							
VINEYARD	37.01	311.8	7 0	0							
BUTTE	37.24	330.7	7 2	0							
RENO	37.27	316.8	7 4A	2							
LICK	37.46	312.5	7 6A	2						7 31	
STA. CRUZ C.	37.56	311.8	7 5	0							
CONCORD	38.05	313.2	7 10	1							
BERKELEY	38.13	312.9	7 10	0							
MINERAL	38.86	316.8	7 16A	0							
SHASTA	39.57	316.8	7 20	0							
HUNGRY HORSE	39.62	332.0	7 22	0							
CORVALLIS	42.14	321.4	7 43A	0							
PENTICTON	42.95	329.2	7 49	0							
VICTORIA	44.42	326.0	8 2K	1							
RESOLUTE	59.58	357.7	9 50	-4	18 1	8					
COLLEGE	63.91	335.6	10 20	-3			10 56				
SCORESBY SD.	67.61	19.3	10 45	-1							
NORD	72.23	8.4	11 14K	0							
KEW	76.43	40.0	11 38	-1							
FOLINIERE	76.69	42.8	11 40	0							
BAGNERES	73.00	48.5	11 48	1							
SKALSTUGAN	80.73	26.5	12 3	1							
BENSBERG	81.16	39.6	12 4	0							
KIRUNA	82.56	21.4	12 12	1							
ISOLA	82.67	46.3	12 13	1							
STUTTGART	83.02	41.5	12 13	-1							
UMEA	84.01	25.2	12 18	-1							
UPPSALA	84.31	29.3	12 20	0							
COLLMBERG	84.61	38.3	12 22	0						15 42	PP
SODANKYLA	84.91	20.8	12 24K	1							
KASPERSKE H.	85.63	40.3	12 27K	0						13 10	
TRIESTE	86.83	43.6	12 35	2							
LJUBLJANA	87.22	43.0	12 36K	1							
NURMIJARVI	87.27	27.3	12 36	1							
BRATISLAVA	88.15	40.4	12 40	1							
BYRD STATION	96.58	185.4	13 21	3							

JUNE 21 6.H 39.M 24.S EPICENTRE 27.88 54.71 DEPTH= 39.KM

A= 0.51137 B= 0.72262 C= 0.46510 D= 0.8163 E=-0.5777
G= 0.2687 H= 0.3797 K=-0.8853 HT= 2.5

DEPTH OF FOCUS= 0.001R

SE= 1.35

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHIRAZ	2.61	313.1	0 42K	2				0 55 PG
TEHERAN	8.33	341.0	2 1	0				
QUETTA	10.95	75.0	2 36	-1	4 35	-4		2 52 PPP
KARACHI	11.46	102.6	2 40	-4	4 43	-8		
WARSAK DAM	15.68	62.9	3 39	0				
STALINABAD	15.86	44.2	3 40	-1				
TIFLIS	16.01	332.1	3 45	2				
KSARA	17.22	294.8	3 59	0	7 13	6		7 38 SS

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JERUSALEM	17.35	287.7	4	1	1					
LAHORE	17.43	73.1	3	59	-2					
TASHKENT	17.96	37.9	4	5	-3					
BOMBAY	18.85	114.4	4	20	1	7	56	12	8	53
ANDIJAN	19.39	44.0	4	25	0	8	4	8		
SOTCHI	19.79	326.3	4	29	0	8	9	4		
POONA	19.87	113.8	4	31A	1					
DEHRA DUN	20.53	77.6	4	38	1	8	28	8	5	8 PP
HELWAN	20.57	281.1	4	36	-1	8	44	24		
FRUNSE	21.97	42.0	4	53	1	9	0	13		
ALMATA	23.62	43.6	5	11A	3	9	26	10		
SIMFEROPOL	23.66	321.5	5	9	1	9	21	4		
ISTANBUL KA.	24.80	308.7	5	21A	2	9	51	15	6	0 PP
ISTANBUL UN.	24.84	308.6	5	20K	0					
ATHENS	27.78	299.2	5	47K	0					
KISHINEV	27.86	320.3	5	42	-6					
BOKARO	28.22	91.1	5	53	2					
CHATRA	28.80	84.4	5	57A	1					
SVERDLOVSK	29.24	6.7	6	0	0					
SOFIA	29.38	308.5	6	6	5					
MOSCOW	30.43	340.8	6	11	1					
LWOW	32.06	321.5	6	24	-1					
SHILLONG	33.19	95.3	6	33A	-2					
CHITTAGONG	33.95	90.9	6	43	2					
KIECZKA	33.93	318.7	6	41	0					
MESSINA	34.19	297.7	6	43	0					
BRATISLAVA	35.42	315.2	6	53	-1					
ZAKOPANE	35.50	313.7	6	54	0					
VIENNA-KL.	35.90	315.0	6	58	0					
PULKOVO	35.99	339.2	6	59	0					
LJUBLJANA	36.42	310.8	7	3A	1				8	28 PP
TRIESTE	36.83	309.9				12	53	6		
KASPERSKE H.	37.94	315.3	7	15	0				9	32
MURMIJARVI	38.44	336.5	7	20A	1	13	14	3	8	51 PP
LWIRO	38.97	224.0	7	25	1					
COLLMBERG	39.02	318.4	7	24A	0	13	21	1	8	58 PP
JENA	39.74	317.4	7	30	0				8	47
RAVENSBURG	40.10	312.1	7	32	-1					
KAJAANI	40.14	342.0	7	33A	0					
STUTTGART	40.56	313.5	7	35	-2					
UPPSALA	40.71	332.2	7	38A	0				9	10 PP
MONACO	40.91	305.6	7	40	0					
COPENHAGEN	41.03	324.5	7	42	1				8	10
ISOLA	41.24	306.2	7	41	-1				9	22 PP
STRASBOURG	41.49	312.9	7	43	-1					
BANGUI	41.53	242.4	7	45	0	14	0	2		
NEUCHATEL	41.72	310.4	7	46	0					
APATITY	41.73	347.9	7	47A	1					
LANCHOW	42.09	66.1	7	50A	1					
GOTEBORG	42.14	327.1	7	49A	-1					
UMEA	42.22	338.1	7	48A	-2				9	26 PP
MUNSTER	42.42	317.8	7	53	1					
BENSBERG	42.42	316.2	7	52A	0					
KUNMING	42.86	82.2	7	55A	-1					
SODANKYLA	43.02	344.5	7	58A	1				9	39 PP
MITTEVEEN	43.21	318.8	7	59	1					
IRKUTSK	43.99	42.4							9	55
CLERMONT-FD.	44.12	309.1	8	6	0					
GARCHY	44.38	310.2	8	7	-1				3	29
ULAN-BATOR	44.83	48.9	8	13	2					
SKALSTUGAN	44.91	334.7	8	12A	0					
KIRUNA	44.93	342.4	8	12A	0				9	52 PP
PARIS	44.97	312.3	8	12	-1					
TORTOSA	45.91	301.0	8	19	-1					
BAGNERES	46.16	304.1	8	21	-1				10	50
SIAN	46.41	68.1	8	25A	1	15	14	6		
TROMSOE	46.60	343.6	8	26	0				10	9 PCP
POTOSI	46.76	59.3	8	29	2	15	19	6		
FOLINIERE	46.92	311.9	8	27	-1					
TANANARIVE	47.03	139.3	8	31	2				10	4
BROKEN HILL	49.17	214.5	7	46A	-60					
GRANADA	49.36	296.4	9	16K	29					
TOLEDO	49.44	300.0	8	43	0					
PEKING	51.48	59.6	9	3A	0	16	23	4		
CANTON	52.72	81.2	9	13	1					
KHEYS	52.86	0.7	9	14	0					
NHATRANG	53.10	95.6	9	15	0				9	41 SP
HONG KONG	53.69	81.8	9	20	0					

BULAWAYO	54.00	210.7	9	22A	0							
NANKING	54.94	68.9	9	29A	0							
ZO-SE	57.16	69.4	9	44A	-1	17	36	0				
SCORESBY SD.	59.56	337.7	10	2A	1							
NORD	59.89	350.7	10	3	-1							
WINDHOEK	61.92	219.7	9	19K	-59							
KIMBERLEY	63.19	209.4	10	25	-1							
MBOUR	67.40	274.8	10	54	1							
Y.-SAKHLINSK	68.88	47.1	11	1	-1							
MATUSIRO	69.12	58.9	11	2A	-2	20	19	14				
THULE	70.25	347.8	11	10	-1							
RESOLUTE	75.80	352.0	11	43A	0							
PETROPAVLOVK	76.01	37.2	11	43	-1							
COLLEGE	85.91	9.4	12	37	0							
SHAWINIGAN	92.02	326.8	13	6	0							
CHARTERS TS.	100.44	107.2									17	13
ADELAIDE	100.92	123.7									18	49
CANBERRA	108.77	120.5									19	30
EUREKA	112.43	352.2	18	4	-27							
WICHITA MTS.	112.82	336.3	18	17	-15						29	29 PKKP
SOUTH POLE	117.72	180.0	18	43	1							
TUCSON TELE.	118.53	346.0	18	46	3							
SCOTT BASE	121.66	166.7	18	50	1							
BYRD STATION	127.71	181.3	19	4	3							
HUANCAYO	130.82	278.3	19	12	5							

JUNE 21 16.H 4.M 52.S EPICENTRE 37.86 29.28 DEPTH= 67.KM

A= 0.69043 B= 0.38710 C= 0.61112 D= 0.4890 E=-0.8723
G= 0.5331 H= 0.2989 K=-0.7915 HT= -0.9

DEPTH OF FOCUS= 0.005R

SE= 5.60

	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	
ISTANBUL UN.	3.19	356.1	0	45	-4						0	52	SG
ISTANBUL KA.	3.21	357.2									0	45	PG
ATHENS	4.40	273.2	0	56A	-10	1	50	-6			2	8	SG
SOFIA	6.64	318.6	1	28	-9						1	28	P*
KSARA	6.71	124.9	1	42	4	3	8	14			3	56	SG
BUCHAREST	6.98	340.9	1	30	-12	2	40	-20			2	2	PG
JERUSALEM	7.78	139.4	1	52	-1	3	20	0					
SIMFEROPOL	7.96	25.6	1	48	-7								
HELWAN	8.15	167.3	1	53	-5	3	24	-5					
TITOGRAD	8.93	303.9	2	3	-5						3	48	
KISHINEV	9.16	358.1	2	6	-6								
BELGRADE	9.61	319.1	2	17	-1						4	13	
TARANTO	9.70	289.3									3	43	
SOTCHI	9.77	50.9	2	22	2								
TIMISOARA	9.91	325.2	2	8	-14						5	21	SG
MESSINA	10.84	276.0	2	23	-11								
BUDAPEST	12.21	325.2									6	44	
LWOW	12.54	344.2	3	4	7								
TIFLIS	12.55	67.3	3	4	7								
ZAGREB	12.70	313.0									6	29	
SKALNATE PL.	13.06	332.9	2	28	-36	5	8	-20					
ROME	13.12	292.6	3	7	-3						6	3	SS
BRATISLAVA	13.61	323.1	3	2	-9								
LJUBLJANA	13.68	311.4	3	4	-8						7	16	SGSGSG
KRAKOW	13.91	334.2	3	8	-7						7	38	
TRIESTE	13.95	308.8	3	7	-9						7	27	SGSGSG
VIENNA-H.	14.01	321.9	3	8	-8						3	24	PP
RACIBORZ	14.57	330.5	3	24	0						7	51	
FLORENCE X.	14.87	299.1	3	6	-22	5	40	-31					
PADOVA	15.03	305.6									4	59	
WARSAW	15.49	340.7	3	29	-7								
KASPERSKE H.	15.99	319.3	3	33	-9								
PRUHONICE	16.07	323.6	3	40	-3						5	56	
CHUR	17.10	308.0	3	58	2								
MONACO	17.53	296.4	3	54	-7	7	12	0					
COLLMBERG	17.69	324.6	3	57	-6						4	11	PP
TEHERAN	17.83	90.1	4	9	4	7	41	22					
ISOLA	17.90	297.7	4	0	-6								
JENA	13.12	321.0	4	4	-4	7	29	4			3	26	
STUTTGART	13.13	313.4	4	2	-6	7	33	3			5	4	

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.

HALLE	18.32	323.7	4 4	-7	7 38	9	
MOSCOW	18.75	14.8	4 13	-3			
KARLSRUHE	18.75	313.1	4 10	-6	7 44	5	
HEIDELBERG	18.76	314.5	4 10	-6			
STRASBOURG	18.92	311.3	4 13	-5	7 52	9	
BESANCON	19.50	306.2	4 19	-5			
BENSBERG	20.42	317.0	4 23	-6	8 20	6	4 48 PP
MUNSTER	20.73	319.8	4 33	-4			
SHIRAZ	20.95	106.1	4 30K	-9	8 30	6	5 14 PPP
CLERMONT-FD.	20.97	300.4	4 33	-7			
COPENHAGEN	21.13	332.9	4 42	1	3 32	5	
GARCHY	21.39	304.5	4 38	-6			
DOURBES	21.45	312.7	4 39	-5	8 46	13	
NITTEVEEN	21.69	320.9	4 44	-3			
PULKOVO	21.94	1.4	4 46	-3	8 54	12	
DE BILT	22.07	317.9	4 48	-2	8 56	11	
TORTOSA	22.41	286.6			8 55	4	
TURMIJARVI	22.84	354.1	4 57	-1			
UPPSALA	23.24	345.0	5 0	-2	9 9	4	
ALICANTE	23.33	280.4	4 56	-7	9 2	-6	
FOLKESTONE	24.09	306.5	5 5	-5			
KEW	24.86	312.7	5 12	-6	9 45	12	
JERSEY	25.23	306.7	4 35	-46			
TOLEDO	25.95	284.9	5 23	-5	9 59	8	6 13 PP
GRANADA	26.02	278.7	5 35K	7	9 49	-3	12 17
UMEA	26.56	351.0	5 27	-6			
SKALSTUGAN	27.73	343.7	5 40	-4			
SVERDLOVSK	28.11	37.4	5 46	-1	10 36	10	
SODANKYLA	29.60	357.9	5 58	-3			
APATITY	29.84	3.2	5 40	-23			6 44 PP
KIRUNA	30.43	353.4	6 5	-3			
ANDIJAN	33.23	71.3	6 36	3			
FRUNSE	34.59	67.2	6 47K	3			
LWIRO	39.91	180.7					16 35
SCORESBY SD.	42.03	337.0	7 45	-2			
KHEYS	44.22	6.5					17 42
NORD	46.73	351.7	8 21	-3			
CHATRA	49.44	85.1	8 46	1			
SHILLONG	53.74	83.9	9 16	-1			
ULAN-BATOR	55.51	52.9	9 31	1			
WINDHOEK	61.19	192.9	10 10	0			
RESOLUTE	61.91	345.6	10 12	-3			
COLLEGE	77.58	358.7	11 48	-2			
HUNGRY HORSE	88.17	336.5	12 34	-11			
BOZEMAN	89.51	333.4	12 50	-1			

JUNE 21 19.H 14.M 38.S EPICENTRE 27.81 54.84 DEPTH= 47.KM

A= 0.51016 B= 0.72417 C= 0.46402 D= 0.8175 E=-0.5759
G= 0.2672 H= 0.3793 K=-0.8858 HT= 2.5

DEPTH OF FOCUS= 0.002R

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHIRAZ	2.74	312.6	0 41K	-2	1 13	3		0 56 PG
TEHERAN	3.44	340.5	1 58	-4	4 5	28		
QUETTA	10.87	74.6	2 35	-1	4 34	-3		2 50 PPP
KARACHI	11.34	102.4	2 43	1				
WARSAK DAM	15.61	62.6	3 38	0				
STALINABAD	15.83	43.8	3 41	0				
TIFLIS	16.13	332.0	3 47	2				
KSARA	17.34	294.9	3 58	-2	7 5	-5		4 15 PP
LAHORE	17.34	72.9	3 57	-3				
JERUSALEM	17.48	287.8	3 59K	-3				
RAMANGAN	19.03	42.1	4 13	-3	7 57	9		
ANDIJAN	19.36	43.7	4 24	0	8 0	5		
SOTCHI	19.91	326.2	4 27	-3	8 3	-3		
DEHRA DUN	20.44	77.4	4 40	4				11 56
HELWAN	20.69	281.3	4 36	-2				13 58
FRUNSE	21.95	41.8	4 52	1				
ALMATA	23.60	43.4	5 10	3				
SIMFEROPOL	23.78	321.5	5 7	-2	9 20	2		
ISTANBUL KA.	24.92	308.7			9 57	19		

ATHENS	27.91	299.3	5	52	4					
CHATRA	28.70	84.3	5	56	1					
MOSCOW	30.54	340.8	6	15	4					
SHILLONG	33.09	85.2	6	32	-1					
KRAKOW	34.61	319.5	6	44	-2					
PULKOVO	36.09	339.1	6	57	-2					
LJUBLJANA	36.55	310.0	7	1A	-2					
KASPERSKE H.	38.07	315.4	7	14	-2				7	42
NURMIJARVI	38.54	336.5	7	19	0					
LMIRO	38.99	224.2							16	41
COLLMBERG	39.15	318.4	7	23	-2				8	59 PP
HALLE	39.83	318.4	7	28	-2				9	35
KAJAANI	40.24	341.9	7	36	2					
UPPSALA	40.82	332.2	7	36	-2					
APATITY	41.82	347.9	7	46	-1					
UMEA	42.33	338.0	7	46	-5					
SODANKYLA	43.12	344.5	7	56	-1				9	37 PP
GARCHY	44.51	310.3	8	6	-2					
SKALSTUGAN	45.02	334.7	8	11	-1					
KIRUNA	45.03	342.4	8	11	-2					
TROMSOE	46.70	343.6	8	24	-2					
FOLINIERE	47.04	312.0	8	26	-3					
BROKEN HILL	49.17	214.7	8	45A	0					
TOLEDO	49.57	300.1	8	46	-2					
KHEYS	52.93	0.7	8	48	-25					
MATUSIRO	69.06	58.9	11	1K	-2					
RESOLUTE	75.88	352.1	11	41	-2					
COLLEGE	85.96	9.5	12	35	-1					
SOUTH POLE	117.65	180.0	18	41	0					

JUNE 21 20.H 24.M 59.S EPICENTRE -7.83 109.95 DEPTH= 121.KM

A=-0.33800 B= 0.93138 C=-0.13526 D= 0.9400 E= 0.3411
G= 0.0461 H=-0.1271 K=-0.9908 HT= 6.8

DEPTH OF FOCUS= 0.014P

SE= 2.50

	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	2.51	293.1	0	43K	2						15	21	SCS
DJAKARTA	3.50	297.7	0	53	-1	1	37	1					
MEDAN	15.96	314.8	3	36	-3	6	53	21					
NHATRANG	19.93	357.9	4	24	-1	3	0	3					
DARWIN	21.05	104.1	4	36	0	8	22	4					
MUNDARING	24.72	167.2	5	10A	-2	9	43	21					
MANILA	24.93	26.3	5	19	5						5	45	
PORT BLAIR	25.86	318.3									6	10	
BAGUIO CITY	26.29	23.6	5	32	6						11	16	
HONG KONG	30.22	7.8	6	1	-1	10	53	2			12	33	PCS
CANTON	30.90	6.1	6	9	1	11	1	-1	6	35	11	49	*SS
KUNMING	33.49	348.1	6	29	-1				6	56			
MADRAS	36.09	304.8	6	59	7						12	22	
PORT MORESBY	36.81	95.2	6	59	1	12	35	2			8	22	PP
CHARTERS TS.	37.20	113.0	7	2	1	12	40	1					
TOCKLAI	37.39	337.3									7	48	
SHILLONG	37.57	332.6	7	3K	-2								
ADELAIDE	37.78	139.8	7	6A	0						14	57	
CHENGTU	38.69	351.8	7	13	-1				7	41			
ZO-SE	40.17	15.0	7	27K	1	13	26	3	7	54			
GUAM	40.51	58.7	7	31	2								
NANKING	40.55	11.6	7	32K	3	13	33	4	7	59	14	21	*SS
CHATRA	40.92	328.1	7	31K	-1						9	31	
LHASA	41.45	334.8	7	38K	1								
SIAN	41.86	358.7	7	42K	2	13	47	-1	8	9			
RABAUL	42.13	87.6	7	43	1								
MELBOURNE	43.52	138.7	7	55	2								
LANCHOW	44.02	352.9	7	59K	2	14	21	1					
POONA	44.20	306.7	7	58A	-1								
BRISBANE	44.93	121.1	8	18A	13	14	37	4					
CANBERRA	45.00	133.2	8	6A	1				8	48	13	25	PCS
RIVERVIEW	45.93	130.3	8	14A	1	14	52	5	8	38	18	13	SS
TARRALEAH	47.04	142.9	8	23	2								
MOORLANDS	47.56	142.6	8	27K	2								
FORT NELSON	47.94	143.1	8	33	5								

PEKING	47.96	6.4	8 29K	0	15 17	1	8 57	
PAOTOW	48.16	0.1	8 31	1	15 21	2	8 59	
DEHRA DUN	48.74	322.6	8 32	-3				13 44
ABUYAMA	48.88	28.2	8 35K	-1				
HONIARA	49.43	95.7	8 40	0				
MATUSIRO	51.49	29.2	8 53K	-3				13 39
LAHORE	51.88	320.8	8 55	-3				
TUKUBASAN	52.18	30.9	8 57K	-4				13 40
CHANGCHUN	53.27	13.8	9 7K	-2			9 33	
KOUMAC	53.94	109.7	9 13A	-1				
WARSAK DAM	55.26	321.1	9 22	-1				
ULAN-BATOR	55.57	357.5	9 24	-1				
QUETTA	55.95	314.5	9 25	-3	16 59	-6		19 4 SCS
NOUMEA	56.12	111.5	9 22A	-7				
PORT VILA	57.58	106.0	9 40A	0				
ALMATA	59.03	332.4	9 55	5				
ANDIJAN	59.43	327.4	9 51	-2	17 49	-1		
FRUNSE	59.80	330.5	9 53K	-2				
STALINABAD	59.96	323.4	9 52	-4				
MACQUARIE I.	60.73	149.7	10 1	0				
TANANARIVE	61.43	252.8	10 7A	1			10 33	12 6 PP
TASHKENT	61.50	326.0	10 3	-4	18 3	-14		
KAIMATA	63.84	133.6	10 26	4				
GEBBIES PASS	65.00	134.7	10 30	0				
WELLINGTON	66.01	131.7	10 25	-11				
KARAPIRO	66.01	128.0	10 36	0			11 2	
TONGARIRO	66.21	129.4	10 38	1				
CHATEAU	66.22	129.4	10 38	1			10 57	
SHIRAZ	66.56	306.9	10 38A	-2	19 20	1		
MAWSON	67.44	197.7	10 44	-1				13 12 PP
TEHERAN	70.01	312.4	11 0K	-1	19 59	-1		
CAPE HALLETT	73.80	163.9	11 24K	1				
GORIS	75.23	314.2	11 30K	-1				
SCOTT BASE	75.69	169.5	11 34K	0	21 8	4	12 9	14 18 PP
SVERDLOVSK	75.99	334.6	11 34	-2				
AFIAMALU	76.83	102.5	11 41A	1				
PIETERMZBURG	77.11	241.5	11 44K	2				14 12
TIFLIS	77.17	315.8	11 43K	1	21 21	1		
BULAWAYO	79.25	251.0	11 55A	1				
BROKEN HILL	79.87	256.7	11 57A	0				
LWIRO	80.93	269.0	12 5	2				38 16
KSARA	81.28	305.9	12 5K	0	22 9	6	12 45	15 10 PP
JERUSALEM	81.29	303.8	12 6A	1				
SOTCHI	81.33	316.2	12 5	0				
KIMBERLEY	82.07	242.1	12 9K	0				
SOUTH POLE	82.23	180.0	12 10	1	21 49	-24		15 16 PP
HELWAN	84.10	301.1	12 20K	1				23 19
SIMFEROPOL	85.58	316.3	12 27K	1				
MOSCOW	86.63	327.3	12 36	5				
ISTANBUL KA.	88.27	311.7	12 37	-2	23 13	1	13 6	13 27 *SP
ISTANBUL UN.	88.32	311.6	12 40A	1			13 6	
BYRD STATION	88.80	172.4	12 43	1			13 31	24 18
WINDHOEK	89.65	247.4	12 48	2				
KISHINEV	89.65	317.5	12 48	2				
IASI	90.53	317.5						23 9
BACAU	90.87	316.8						23 11
BUCHAREST	91.04	314.6						23 41
PULKOVO	91.51	330.1	12 53	-1	23 37	-4		
ATHENS	91.80	307.9	12 56K	0				23 40
BANGUI	91.90	274.1	12 58	2			13 34	
APATITY	92.07	338.1	12 55K	-2	23 12	-34		24 37 PS
SOFIA	92.77	312.5	13 3	3	24 19	27		
LWOW	93.29	319.7	13 1	-2	23 24	-32		
KAJAANI	93.59	334.1	13 4K	0	23 25	-34		
NURMIJARVI	94.43	330.4	13 8K	0	23 31	-35		24 9 S
SODANKYLA	94.59	337.3	13 7K	-1	23 30	-37		
WARSAW	95.46	321.8			23 38	2		
SKALNATE PL.	95.66	318.7	13 15	2				
KRAKOW	95.95	319.6	13 14	-1	23 38	0		24 6 S
UMEA	96.83	333.5	13 16	-3				
KIRUNA	97.01	337.5	13 18	-1				
RACIBORZ	97.06	319.5	13 22	2			13 51	
BRATISLAVA	97.67	317.6	13 22	0				
UPPSALA	97.87	329.4	13 23K	0	23 48	0		24 15 S
MESSINA	98.23	307.5						23 31
LJUBLJANA	99.34	315.4	13 30K	0	24 55	59		17 30 PP
PRUHONICE	99.41	319.3	13 31	1				16 37
TRIESTE	99.37	314.9			24 0	2		24 53 S
KASPERSKE H.	100.03	318.5	13 32	-1				

SKALSTUGAN	100.38	333.2	13	34	-1						
COLLMBERG	100.40	320.7	13	34	-1						
ROME	100.73	311.1				24	6	4		25	1 S
HALLE	101.05	320.9	16	31	173						
PADOVA	101.19	314.7								24	57
JENA	101.30	320.3	17	24	225					17	45 PP
COLLEGE	102.24	25.3	18	0	257					18	27
STUTTGART	102.87	318.2	16	49	183	24	18	5			
STRASBOURG	103.88	318.0	16	53	183						
BENSBERG	104.08	320.5	16	51	180						
BESANCON	105.18	316.8	17	1	777						
GARCHY	107.15	317.0	14	5	777					17	4 PP
BAGNERES	109.75	312.9	18	1	777					18	47
SCORESBY SD.	110.47	344.5	14	37	-221					18	33
THULE	111.44	359.6	13	35	-285						
RESOLUTE	111.68	6.9	18	22	2					29	25
TOLEDO	113.36	310.0	14	9	-255					19	14
VICTORIA	119.61	37.9	18	38	2						
CORVALLIS	121.22	42.0	18	42K	3						
PENTICTON	121.52	35.8	18	42	2						
SHASTA	123.25	46.0	18	46K	3						
MINERAL	123.93	46.2	18	47K	3						
BERKELEY	124.28	49.2	18	48	3						
LICK	124.91	49.6	18	50K	4						
HUNGRY HORSE	125.20	34.5	18	51	4						
RENO	125.50	46.5	18	52K	5						
BUTTE	127.29	36.3	18	53	2						
EUREKA	128.25	45.1	18	56	3						
BOZEMAN	128.38	35.9	18	57	4						
PASADENA	128.62	52.2	18	57	4					22	5
BOULDER CITY	130.51	48.7	19	0	3						
TUCSON	135.04	51.6	19	8	3					19	38
TUCSON TELE.	135.09	51.4	18	58	-8						
SHAWINIGAN	141.35	3.0	19	14	-3						
OTTAWA	142.25	6.5	19	15	-4						
WICHITA MTS.	142.53	40.3	19	17	-2					22	48 PP
HALIFAX	142.92	352.3	19	19K	-1						
FAYETTEVILLE	144.26	34.5	19	22K	0	20	15			22	52 PP
CLEVELAND	144.97	15.1	19	24	1						
WESTON	145.57	1.7	19	26K	2					22	55 PP
PENNSYLVANIA	146.43	10.8	19	29	3						
PALISADES	146.78	5.3	16	58	-148						
WASHINGTON	148.42	10.5	19	33	4						
TACUBAYA	149.48	64.9	19	41	10						
COLUMBIA	152.05	19.7	19	38	4						
LA PAZ	155.76	184.5	19	43	4					23	45 PP
HUANCAYO	159.57	165.1	19	51	7			20	29		
SAN JUAN	168.83	340.3	19	55	3						
TRINIDAD	171.01	288.8	19	58	4						

JUNE 22 0.H 56.M 5.S EPICENTRE 42.44 19.35 DEPTH= 43.KM

A= 0.69846 B= 0.24529 C= 0.67230 D= 0.3314 E=-0.9435
G= 0.6343 H= 0.2228 K=-0.7403 HT= -2.6

DEPTH OF FOCUS= 0.002R

SE= 3.23

	DELTA DEG.	AZ. DEG.	P M	P O-C S	S M	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TITOGRAD	0.07	263.9							0	3	PG
SKOPJE	1.62	106.0							0	28	PG
BELGRADE	2.51	18.1	0	40K 0	1	19 9			0	47	PG
TARANTO	2.52	219.5	0	30 -10					1	30	
SOFIA	2.95	83.6	0	46 0	1	25 4					
TIMISOARA	3.58	21.5			2	34 57			0	56	P*
ZAGREB	4.16	325.5	1	3A 0	2	16 25					
LJUBLJANA	5.01	317.5	1	15 0	2	13 0			1	32	PG
BUDAPEST	5.05	357.4	1	16 0	2	15 1			1	39	PG
MESSINA	5.13	215.7	1	14 -3	2	14 -2			1	36	PG
ROME	5.13	266.3	1	16 -1	2	18 2			1	32	PG
TRIESTE	5.16	310.4	1	17 0	2	16 0			1	34	PG
ATHENS	5.58	141.7	1	22A -1	2	29 2			1	34	P*
BRATISLAVA	5.95	345.3	1	25 -3							
FLORENCE X.	6.08	285.5	1	29 -1	2	50 11					

PADOVA	6.17	301.4	1	39	8	2	42	0	3 5	S*
VIENNA-H.	6.18	341.2	1	31	-1	2	39	-3		
BOLOGNA	6.19	292.2				3	46	64	1 48	P*
PRATO	6.20	286.2	1	38	6	2	48	6		
SKALNATE PL.	6.77	5.0	1	40	0	2	6	-51		
NIEDZIKA	7.02	5.2	1	43	0				1 49	PP
ISTANBUL UN.	7.34	97.7	1	47	-1	2	34	-37		
ISTANBUL KA.	7.40	97.4							1 59	PG
KRAKOW	7.63	2.8	1	52	0	3	25	7	2 17	P*
RACIBORZ	7.69	354.4	1	30	-23				2 15	
KASPERSKE H.	7.81	330.9	1	54A	0	3	24	2	2 21	
PAVIA	7.86	293.9	2	7	12				4 11	S*
CHORZOW	7.90	356.4	2	10	15	3	21	-4	2 45	PG
KISHINEV	8.16	52.6	1	57	-2	2	34	-57		
PRUHONICE	8.24	337.9	2	1A	1	3	34	1	2 35	PG
CHUR	8.27	305.6	2	0	-1	3	37	3		
PRAGUE	8.36	337.7	2	9	7					
MONACO	8.82	282.5	2	7	-1	4	59	64		
CHEB	9.04	330.1							4 41	SG
ISOLA	9.14	285.2	2	17	4	4	0	5		
EBINGEN	9.29	311.7	2	13	-2				4 9	
TUBINGEN	9.44	313.7	2	17	0					
STUTTGART	9.48	315.4	2	15	-2					
BASLE	9.77	305.4	2	20	-1				4 29	
COLLMBERG	9.97	336.1	2	23K	0				3 0	P*
NEUCHATEL	9.93	301.6	2	23	-1				5 42	
JENA	10.03	330.6	2	25	0	4	37	20	3 31	PG
KARLSRUHE	10.08	314.4	2	18	-8	4	19	1		
HEIDELBERG	10.16	316.9	2	25	-2				4 17	
STRASBOURG	10.18	311.1	2	24	-3	4	37	16	3 30	
HALLE	10.37	333.4	2	31	1	4	41	15		
BESANCON	10.64	301.4	2	31	-2	4	39	7	3 16	
SIMFEROPOL	10.99	71.8	2	36	-2	4	43	2		
BENSBERG	11.93	319.8	2	49	-2	4	57	-6	3 26	P*
CLERMONT-FD.	12.13	291.5	2	54	1	4	35	-33		
MUNSTER	12.42	324.2	3	1	4				7 9	
GARCHY	12.52	298.3	2	56	-3	5	9	-9	3 29	
DOURDES	12.75	312.0	3	1	-1	5	43	20		
UCCLE	13.26	314.3	3	15	7	6	2	27		
PARIS	13.40	304.2	3	9	-1					
WITTEVEEN	13.43	325.0	3	27	16					
DE BILT	13.61	320.1	4	7	54	6	55	71		
BAGNERES	14.13	279.1	3	19	-1				4 19	
SOTCHI	14.95	78.7	3	32	2	6	29	14		
KSARA	15.58	118.1	3	42	3					
ALICANTE	15.65	261.5	3	35	-4	6	30	-2	3 51	PP
HELWAN	15.82	138.6	3	43	1				7 47	
GOTEBORG	15.98	345.5	3	49	5					
KEW	16.14	310.8	3	46	0	6	47	4		
JERUSALEM	16.51	125.0	3	53	3					
UPPSALA	17.47	357.1	4	2A	0					
ALMERIA	17.69	258.9	4	7	2	7	17	-1		
TOLEDO	17.80	269.6	4	8	2	7	26	5		
MOSCOW	17.82	35.4	4	9	2					
GRANADA	18.38	261.1	4	24K	10	7	44	10	4 45	PP
NURMIJARVI	18.39	8.3	4	13	-1					
PULKOVO	18.63	17.5	4	15	-2				7 43	
TIFLIS	18.89	83.6	4	23	3					
BERGEN	19.93	339.3	3	37	-54					
SERRA PILAR	20.85	275.9	4	44K	3				5 7	PP
UMEA	21.43	1.1	4	45	-2					
SKALSTUGAN	21.58	351.4	4	47A	-1				5 37	
KAJAANI	22.21	9.7	4	55	0					
SODANKYLA	25.30	6.6	5	24	0					
KIRUNA	25.46	1.0	5	25	-1					
TEHERAN	25.65	94.4	5	27	-1	10	0	9		
TROMSOE	27.26	359.7	5	41	-2				6 35	PP
SHIRAZ	29.51	104.8	6	1K	-2	10	23	-30		
SVERDLOVSK	29.84	46.8	6	5	-1					
SCORESBY SD.	34.90	337.2	6	50	0					
TASHKENT	36.76	74.4	8	20	74					
BANGUI	37.90	181.2	7	15	0				7 43	
ANDIJAN	39.15	74.0	7	27	1					
QUETTA	39.78	92.0	7	29	-2					
FRUNSE	40.04	70.0	7	34A	1					
KHEYS	40.71	9.0	7	39	0					
NORD	41.15	352.4	7	41A	-1					
ALMATA	41.50	68.5	7	34	-11					
LWIRO	45.29	166.7	8	16	0					

TIKSI	56.00	21.1	9	33	-4						
BROKEN HILL	57.22	169.5	9	57	11						
SHILLONG	60.70	81.1	10	6A	-4						
SHAWINIGAN	62.12	308.7	10	18	-1						
BULAWAYO	62.85	170.2	10	24A	0						
OTTAWA	64.47	308.9	10	35	0						
MORGANTOWN	70.45	306.0	11	12	0						
COLLEGE	72.56	354.3	11	24	-1						
BANFF	78.85	333.0	12	3	2						
FAYETTEVILLE	81.10	311.3	12	13A	0						
PENTICTON	81.78	334.3	12	12	-4						
LARAMIE	82.95	321.5	12	25	3						
MATUSIRO	83.64	45.2	12	25A	-1						
VICTORIA	83.67	336.1	12	26	0						
WICHITA MTS.	84.52	313.0	12	31	1	23	7	15			
EUREKA	88.95	327.0	12	53	1						
SOUTH POLE	132.24	180.0	19	11	1						
BYRD STATION	139.40	190.2	19	28	5					22	39 PP
SCOTT BASE	142.11	169.3	19	18	-10						
CAPE HALLETT	146.91	164.2	19	40K	4						
KARAPIRO	161.28	84.1	20	1	5						

JUNE 23 8.H 55.M 52.S EPICENTRE 44.10-128.81 DEPTH= 0.KM

A=-0.45152 B=-0.56137 C= 0.69354 D=-0.7792 E= 0.6267
G=-0.4347 H=-0.5404 K=-0.7204 HT= -3.2

SE= 2.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
CORVALLIS	3.98	81.2	1	2	-1							
FERNDALE	4.88	134.7	1	22	6							
SHASTA	5.84	123.4	1	30	0							
UKIAH	6.50	138.0	1	38	-1							
MINERAL	6.53	122.6	1	41K	1						2	41
SAN FRANCSCO	7.95	140.6	1	58	-1							
BERKELEY	7.96	139.3	1	57	-3	3	23	-8				
CONCORD	7.97	138.0	1	57	-3							
RENO	8.12	121.1	2	4A	2						2	34
BRANNER	8.36	140.8	2	2A	-3							
LICK	8.67	138.7	2	8K	-1						2	41
STA. CRUZ C.	8.78	141.6	2	8	-3							
VINEYARD	9.27	139.9	2	15K	-3							
FRESNO	10.04	133.8	2	28K	0							
EUREKA	10.64	111.3	2	38	1							
HUNGRY HORSE	11.08	62.3	2	43	0	4	55	6				
BUTTE	11.65	74.9	2	49	-1							
BOZEMAN	12.70	76.7	3	5	1							
PASADENA	12.91	136.7	3	6K	-1							
BOULDER CITY	13.42	122.4	3	16	2							
SITKA	13.60	344.7	3	18	2							
FLAMING GRGE	14.67	95.8	3	30	0						5	59
GLEN CANYON	14.89	112.7	3	38	5							
RAPID CITY	18.38	81.1	4	18	0							
TUCSON	18.39	124.0	4	19	1							
TUCSON TELE.	18.39	123.6	4	20	2							
COLLEGE	23.37	339.5	5	11	0	9	25	4				
CHIHUAHUA	23.84	122.8									5	40 PPP
LAWRENCE	25.53	89.9	5	32	0							
FAYETTEVILLE	27.51	94.9	5	50K	0	10	13	-17			6	27 PP
ST. LOUIS 1	29.27	87.3	6	4	-2	10	50	-8				
KIPAPA	33.10	236.4	6	47	7							
HONOLULU	33.24	236.3	6	42	1	12	4	3			7	39
RESOLUTE	34.15	15.3	6	47	-2	12	16	1				
CLEVELAND	34.42	77.6	6	53K	2	12	23	4				
TACUBAYA	34.90	125.4	6	56	1							
MORGANTOWN	36.23	79.7	7	6A	0						8	26 PP
VERA CRUZ	36.89	121.8				12	40	-17			7	28 *SP
OTTAWA	37.16	68.9	7	13	-1							
PENNSYLVANIA	37.25	76.9	7	13	-2	13	6	3			8	29 PP
COLUMBIA	37.98	88.7	7	20	-1	13	14	0				
OAXACA	38.18	124.8	7	18	-5						7	40
CHAPEL HILL	38.48	84.7	7	23	-2							
WASHINGTON	38.57	79.3	7	26	0	13	15	-8			8	51 PP
SHAWINIGAN	38.77	66.1	7	27	-1							

MERIDA	39.79	112.6	7	36	0	13	31	-10			9	14 PPP
PALISADES	39.93	74.7	7	37	0	13	43	0			9	3 PP
WESTON	41.18	71.6	7	48	0	14	3	1			9	25 PP
COMITAN	41.60	120.2	8	22	31	14	6	-2				
HALIFAX	45.48	65.4	8	23K	0							
PETROPAVLOVK	46.90	307.9	8	33	-1						15	27
MAGADAN	48.85	318.2	8	49	0							
NORD	49.75	10.3	8	57	1	16	8	3			19	38 SS
TIKSI	52.48	337.0	9	15K	-2	16	41	-2				
SCORESBY SD.	54.34	23.3	9	29K	-1	17	13	5			21	30 SS
KHEYS	55.47	358.6	9	39	0	17	25	2				
YAKUTSK	57.04	326.6	9	48	-2							
SAN JUAN	57.91	95.2	9	54	-2							
UGLEGORSK	58.01	309.2	9	56	-1							
Y.-SAKHLINSK	58.74	306.9	10	0	-2	18	6	0				
CHINCHINA	60.68	113.8	10	14	-1	18	39	8				
FUQUENE	61.56	111.8	10	23	2	18	52	10			12	48 PP
BOGOTA	61.96	112.8	10	27	3	18	52	5			22	58 SS
CARACAS	62.65	102.4	10	29A	1						12	42 PP
TROMSOE	64.13	12.0	10	38	0							
ABISKO	65.30	12.6									20	23
KIRUNA	66.00	12.3	10	48	-2	19	38	0				
TRINIDAD	66.46	98.1	10	53	0							
TUKUBASAN	66.61	298.3	10	49	-5	19	40	-5			27	9 SSS
VLADIVOSTOK	67.22	308.4	10	56	-2	19	46	-6				
SODANKYLA	67.30	10.0	10	56	-3							
MATUSIRO	67.61	299.6	10	57	-3	19	58	1			24	18 SS
APATITY	67.86	7.3	11	0	-2	19	56	-4			20	8 PS
SKALSTUGAN	68.32	17.6	11	10	5							
UMEA	69.67	14.1	11	14	1							
ABUYAMA	70.32	299.7	11	17A	0							
UPPSALA	72.80	17.0	11	32	0	20	59	1				
NURMIJARVI	73.51	13.3	11	35	-1							
IRKUTSK	73.65	329.2	11	36	-1	21	10	3				
HUANCAYO	74.01	125.1	11	41	2							
KEW	74.89	30.5	11	45	1	21	24	3			21	58 PS
PULKOVO	75.07	10.8	11	45	0	21	25	2				
COPENHAGEN	75.33	21.5	11	48	1							
ULAN-BATOR	76.10	325.1	11	51	0						14	54 PP
FOLINIERE	77.03	32.2	11	58	2							
PEKING	77.86	314.6	12	1	0	21	56	2				
BENSBERG	77.90	26.7	12	1	0						12	48
PARIS	78.11	30.5				22	1	5			15	33 PP
HALLE	78.90	23.8	12	1	-6	22	7	2				
SVERDLOVSK	79.12	354.7	12	5	-3							
JENA	79.29	24.2	12	11	2	21	53	-16			25	8
COLLMBERG	79.38	23.3	12	8	-1						16	46
GARCHY	79.60	31.0	12	9	-1						12	39
MOSCOW	79.88	7.7	12	12	0							
STRASBOURG	80.15	27.6	12	14	1	22	23	5			27	26 SS
PAOTOW	80.48	318.6	12	15	0	22	22	1				
STUTTGART	80.48	26.6	12	18	3	22	25	4				
WARSAW	80.58	18.3	12	17	1	22	11	-11			22	28 SKS
PRUHONICE	81.00	23.0	12	20	2	22	31	4			26	32 SS
KASPERSKE H.	81.49	23.9	12	19	-1						14	30
ZO-SE	81.66	305.4	12	22	1	22	47	13				
LA PAZ	81.80	122.3	12	22	0	22	38	3				
BAGNERES	81.96	35.1	12	23	0							
KRAKOW	82.35	19.7	12	23	-2						13	27 PCP
NANKING	82.35	307.6	12	25	0	22	43	2				
VIENNA-H.	83.08	22.6	12	29	0							
LWOW	83.50	17.3	12	36	5	23	0	8				
ISOLA	83.70	30.3	12	35	3				12	46		
TORTOSA	83.96	36.2	12	58	25						24	23
LJUBLJANA	84.53	24.7	12	35	-1						13	14
TRIESTE	84.66	25.4				23	2	-2			34	58
GRANADA	85.09	40.9	12	58K	19	23	16	8				
FLORENCE X.	85.52	27.8	13	13	32	23	39	27				
ALICANTE	85.57	38.2	12	43	2	23	14	1			28	51 SS
SIAN	85.99	315.4	12	44K	1	23	21	4			23	12 SKS
LANCHOW	87.02	319.8	12	49K	1	23	30	3				
BELGRADE	87.33	21.4	13	42	52	23	32	2			24	35 PS
ROME	87.61	27.9	13	12	21	23	42	10			29	32 SS
BUCHAREST	89.07	17.7									25	10
ALMATA	90.01	341.5	13	4K	1							
FRUNSE	90.95	343.0	13	7	0							
CHENGTU	91.33	316.6	13	9	0	24	11	5			23	43 SKS
CANTON	92.26	305.4				24	21	7				

HONG KONG	92.38	304.3				24	21	6			
ISTANBUL KA.	92.91	16.6	13	7	-9				16	53	PP
ANDIJAN	93.41	344.0	13	21	3						
TASHKENT	93.42	346.4	13	20	2	25	40	76			
STALINABAD	96.19	346.2	14	7	36						
KUNMING	96.51	314.4				24	11	2			
KSARA	101.20	12.9	13	57	3				18	0	PP
QUETTA	104.68	345.9	18	28	259	24	52	3	27	37	
RIVERVIEW	106.30	238.7				26	7	71	18	53	PP
CAPE HALLETT	123.60	198.7	19	0	0						
BYRD STATION	123.98	178.1	19	1	1						
LWIRO	133.84	31.8							21	49	
SOUTH POLE	133.91	180.0	19	18	-1						
BROKEN HILL	144.66	40.3	19	38K	0						
MIRNY	148.26	210.5	19	47	3						
BULAWAYO	149.59	45.5	19	49	2						
PRETORIA	153.85	53.1	19	38	-15						
KIMBERLEY	153.95	62.8	19	54	1						

JUNE 23 9.H 22.M 49.S EPICENTRE 44.18-128.85 DEPTH= 48.KM

A=-0.45132 B=-0.56039 C= 0.69446 D=-0.7788 E= 0.6272
G=-0.4356 H=-0.5409 K=-0.7195 HT= -3.2

DEPTH OF FOCUS= 0.002R

SE= 1.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
CORVALLIS	4.00	82.3	0	59	-2	1	47	0				
SHASTA	5.91	123.8	1	27	0							
MINERAL	6.60	122.9	1	37A	0							
BERKELEY	8.03	139.5	2	0	3							
RENO	8.18	121.4	1	59	0							
LICK	8.75	138.9	2	4K	-3						2	55
HUNGRY HORSE	11.07	62.7	2	39	0							
ISABELLA	11.65	133.4	2	44	-2							
BUTTE	11.65	75.2	2	48	2							
BOZEMAN	12.70	77.0	3	2	1							
PASADENA	12.98	136.9	3	2	-2							
FLAMING GRGE	14.70	96.0	3	22	-5							
GLEN CANYON	14.94	112.9	3	33	3							
RAPID CITY	18.39	81.3	4	13	0							
TUCSON	18.45	124.1	4	13	-1				7	25	-10	
TUCSON TELE.	18.46	123.7	4	14	0							
COLLEGE	23.29	339.4	5	6	2							
LUBBOCK	23.43	107.6	5	6	0							
LAWRENCE	25.55	90.0	5	26	0							
FAYETTEVILLE	27.54	95.1	5	44K	0							
ST. LOUIS 1	29.29	87.4	4	59	-61							
RESOLUTE	34.09	15.4	6	42	0							
MORGANTOWN	36.25	79.8	7	1A	0							
OTTAWA	37.15	68.9	7	8	0							
BREBEUF	38.53	68.0	7	19	-1							
SHAWINIGAN	38.77	66.1	7	21	-1							
TIKSI	52.40	337.0	9	10	0							
SCORESBY SD.	54.28	23.3	9	24A	0				17	4	8	
KHEYS	55.40	358.6	9	32	0							
SAN JUAN	57.94	95.2	9	49	-1							
CARACAS	62.69	102.4	10	21A	-1							
KIRUNA	65.94	12.3	10	43	0							
TRINIDAD	66.50	98.1	10	44	-3							
SODANKYLA	67.23	10.0	10	51A	-1							
SKALSTUGAN	68.25	17.6	10	57	-1							
BERGEN	69.27	22.4									17	23
UMEA	69.60	14.1	11	1	-5							
UPPSALA	72.74	17.0	11	25	0							
NURMIJARVI	73.45	13.3	11	30A	1							
HUANCAYO	74.07	125.1	11	34	1							
FOLINIERE	76.98	32.2	11	50	0							
BENSBERG	77.85	26.7	11	55	1							
SVERDLOVSK	79.05	354.7	12	0	-1							
COLLMBERG	79.32	23.2	12	3	1							
GARCHY	79.55	31.0	12	4	0							
AREQUIPA	79.81	124.8	12	7	2							

STUTTGART	30.43	26.6	12 8	0		
KASPERSKE H.	31.43	23.9	12 14	0		
LA PAZ	31.86	122.3	12 17	1		
NIEDZIKA	32.97	19.7	12 21	0		
ISOLA	33.65	30.3	12 28	3		12 48
BYRD STATION	124.05	178.0	18 51	-2		
SCOTT BASE	127.00	194.0	19 0	-1		
SOUTH POLE	133.93	180.0	19 14	2		
BROKEN HILL	144.62	40.2	19 33K	1		
MIRNY	148.31	210.6	19 38	0		
BULAWAYO	149.55	45.3	19 41K	1		

JUNE 23 10.H 5.M 34.S EPICENTRE 18.75 145.50 DEPTH= 218.KM

A=-0.78088 B= 0.53677 C= 0.31955 D= 0.5665 E= 0.8241
G=-0.2633 H= 0.1810 K=-0.9476 HT= 5.0

DEPTH OF FOCUS= 0.029R

SE= 2.59

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
GUAM	5.31	188.0	1 20	0				
TUKUBASAN	18.04	345.8	3 57	0				7 18
MATUSIRO	18.84	341.6	4 6A	0	7 28	4		11 32 SCP
MIZUSAWA	20.66	350.3	4 43	19	8 7	10		
RABAUL	23.74	163.3	4 52	-2				
VLADIVOSTOK	26.87	337.6	6 6	43				
PORT MORESBY	28.02	176.5	5 32	-1				
Y.-SAKHLINSK	28.28	356.0	5 34	-1				
CHARTERS TS.	38.61	178.8	7 4	0				
PORT VILA	42.63	146.9	7 36K	-1				
KOUMAC	43.19	153.8	7 41A	0				
NOUMEA	45.66	152.4	8 0A	-1				
BRISBANE	46.41	171.0	8 7	1				
SHILLONG	49.85	287.9	8 34	1				
RIVERVIEW	52.56	174.1	9 0	7				
AFIAMALU	53.16	124.6	8 58	0				
ADELAIDE	53.81	186.9	9 2K	0				
CANBERRA	53.88	176.5	9 2K	-1				
MELBOURNE	56.28	180.5	9 20	0				
MUNDARING	57.72	209.5	9 30	0				
TARRALEAH	60.75	179.2	9 51K	0				
MOORLANDS	60.90	178.6	9 52	0				
FORT NELSON	61.40	178.4	9 55A	0				
KARAPIRO	63.06	153.6	10 5	-1				
COLLEGE	63.31	26.0	10 7	-1			11 5	10 45
TONGARIRO	64.13	154.4	10 13	0				
CHATEAU	64.14	154.4	10 13	0				
WELLINGTON	65.61	156.1	10 21	-2				
GEBBIES PASS	66.95	158.9	10 30	-1				
SVERDLOVSK	71.73	324.8	11 5	5				
CORVALLIS	77.92	46.9	11 38	3				
RESOLUTE	79.42	13.6	11 44	1				
SHASTA	79.57	50.6	11 46A	2				
BERKELEY	80.45	53.3	11 50	1				
LICK	81.07	53.7	11 54A	2				12 53
RENO	81.80	51.1	11 58K	2				
FRESNO	82.64	53.8	11 50K	-10				
THULE	82.85	7.6	11 59	-2				
HUNGRY HORSE	82.93	41.4	12 4	2				
SODANKYLA	83.25	340.0	12 2	-1				
SHIRAZ	83.43	298.9	12 4	0				
TROMSOE	84.17	343.6	12 7	-1				13 3
KAJAANI	84.67	337.0	12 10	0				
BUTTE	84.68	43.2	12 11	0				
PASADENA	84.73	55.9	12 12	1				
KIRUNA	84.89	341.8	12 10	-2				
BOULDER CITY	86.69	53.2	12 11	-9				
FLAMING GRGE	88.78	47.0	12 32	2				13 22
SKALSTUGAN	90.26	341.0	12 35	-2				
UPPSALA	91.02	336.5	12 38	-3				
TUCSON	91.15	55.4	12 43	2				
TUCSON TELE.	91.20	55.3	12 44	3				
LARAMIE	91.22	45.5	12 44	2				
RAPID CITY	91.52	42.2	12 45	2				

SCOTT BASE	97.19	175.6	13	9	0
SOUTH POLE	108.64	180.0	18	14	777
BYRD STATION	109.21	169.4	17	55	777
LA PAZ	147.90	91.3	19	21	5

JUNE 23 11.H 5.M 0.S EPICENTRE 35.58 139.88 DEPTH= 84.KM

A=-0.62332 B= 0.52532 C= 0.57923 D= 0.6444 E= 0.7647
G=-0.4429 H= 0.3733 K=-0.8152 HT= -0.1

DEPTH OF FOCUS= 0.008R

SE= 4.10

	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
TOKYO C.M.O.	0.14	314.3	0	10K	-3	0	20	-3				
HONGO	0.16	326.4	0	10	-3	0	20	-3				
YOKOHAMA	0.24	231.2	0	12K	-2	0	23	-1				
TUKUBASAN	0.66	15.8	0	10	-7							
KAKIOKA	0.69	20.7	0	11A	-6	0	19	-12				
KUMAGAYA	0.70	324.8	0	14K	-4	0	25	-6				
TITIBU	0.76	301.9	0	16	-2	0	29	-2				
TYOSI	0.81	79.7	0	13K	-5	0	25	-7				
AJIRO	0.83	230.5	0	18K	-1	0	32	0				
MISIMA	0.89	239.1	0	19K	0	0	34	1				
OSIMA	0.90	206.9	0	18K	-1	0	32	-2				
HUNATU	0.91	265.3	0	11	-8	0	33	-1				
MITO	0.93	30.9	0	13A	-6	0	23	-11				
UTUNOMIYA	0.97	359.7	0	15	-5	0	26	-8				
MAEBASI	1.05	321.6	0	18K	-3	0	33	-3				
KOHU	1.08	275.2	0	21K	0	0	37	0				
OIWAKE	1.31	305.2	0	23	-1	0	40	-2				
SHIZUOKA	1.35	243.7	0	20A	-4	0	46	3				
SHIRAKAWA	1.56	10.1	0	23	-4	0	37	-10				
ONAHAMA	1.60	30.9	0	21	-7	0	38	-10				
MATUSIRO	1.66	305.9	0	27K	-1	0	49	0				
IIDA	1.67	268.6	0	30	1	0	54	4				
OMAESAKI	1.67	234.7	0	32	3	0	50	0				
MATUMOTO	1.69	293.9	0	29	0	0	52	2				
NAGANO	1.74	309.2	0	30A	1	0	53	2				
TAKADA	2.01	319.6	0	32	-1	0	55	-2				
TAKAYAMA	2.21	285.7	0	38	2							
HUKUSIMA	2.22	12.2	0	32K	-4	0	56	-6				
NAGOYA	2.41	261.1	0	37	-1	1	2	-5				
NIIGATA	2.43	344.4	0	36	-3	1	4	-4				
TOYAMA	2.44	298.1	0	40	1	1	5	-3				
GIHU	2.54	266.9	0	41A	1							
YAMAGATA	2.69	8.0	0	39K	-3	1	9	-5				
AIKAWA	2.76	332.3	0	40K	-3	1	5	-11				
KANAZAWA	2.78	290.9	0	44	0							
SENDAI	2.81	16.7	0	40	-4	1	4	-13				
KAMEYAMA	2.88	256.4	0	37	-8	1	12	-7				
TU	2.89	253.3	0	52	7							
HIKONE	2.98	265.1	0	47	1	1	28	7				
WAZIMA	3.00	307.7	0	46	-1							
HUKUI	3.00	280.1	0	49	2							
ISINOMAKI	3.07	21.7	0	42K	-6	1	15	-9				
TSURUGA	3.10	272.4	0	49	1							
SAKATA	3.31	359.4	0	49	-2	1	19	-11				
OWASE	3.38	244.6	0	52	0	1	42	11				
KYOTO	3.44	261.9	0	53	0	1	59	26				
ABUYAMA	3.60	259.9	0	55K	0							
OSAKA	3.68	256.7	1	2	6	2	3	24				
MIZUSAWA	3.68	15.4	0	50	-6	1	31	-8				
KOBE	3.95	258.2	1	10	10	2	12	27				
SIOMISAKI	4.00	239.1	1	3	3	2	7	20				
TOYOOKA	4.12	270.8	1	2	0	1	52	2				
AKITA	4.14	2.4	1	9	7	1	54	4				
MORIOKA	4.24	13.6	1	0	-4	1	44	-9				
SUMOTO	4.26	254.6	1	9	5						2	22
MIYAKO	4.39	21.6	1	4	-2	1	46	-10				
TOTTORI	4.65	270.8	1	14	5							
TAKAMATU	4.95	257.0	1	25	11	2	31	21				
HATINOHE	5.11	14.3	1	12	-4	2	3	-11				
AOMORI	5.28	7.5	1	10	-8	2	8	-10				

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MATSUE	5.55	270.6									1	45
KOTI	5.61	250.7	1	40	17	2	30	3				
HAKODATE	6.26	6.1	1	37	5	2	43	1				
MORI	6.53	4.5	1	45	10							
URAKAWA	6.94	18.2	1	35	-6	2	49	-10				
TOMAKOMAI	7.16	10.1				2	54	-10				
HIROO	7.21	20.8				2	51	-14				
OOITA	7.21	253.4									2	15
SAPPORO	7.57	8.2	2	5	15	3	12	-3				
OBIHIRO	7.77	18.4				3	10	-9				
KUMAMOTO	8.08	252.7	1	1	-56							
KUSIRO	8.18	24.0									3	0
NEMURO	8.91	27.9									3	28
SHILLONG	42.16	270.0	7	44	-2							
COLLEGE	50.98	31.6	8	52	-3				9	27		
LAHORE	53.87	285.8	9	15	-2							
CHARTERS TS.	55.69	172.7	9	31	1							
QUETTA	60.20	287.5	10	0	-2							
NORD	62.42	356.2	10	13	-3							
RESOLUTE	64.32	13.9	10	25	-4							
SODANKYLA	65.82	337.1	10	36	-3							
THULE	66.86	7.0	10	42	-3							
KAJAANI	67.35	333.8	10	47	-1							
KIRUNA	67.43	339.0	10	46	-3							
UMEA	70.10	335.8	11	3	-2							
NURMIJARVI	70.64	331.7	11	7	-1							
SHIRAZ	71.47	293.5	11	12	-1							
SKALSTUGAN	72.81	338.2	11	19	-2							
SCORESBY SD.	73.43	353.7	11	24	-1							
HUNGRY HORSE	73.69	41.9	11	28	1							
UPPSALA	73.71	333.6	11	23	-4							
CHINA LAKE	78.82	54.0	11	54	-1							
NIEDZIKA	79.86	324.8	12	0	-1							
KARAPIRO	80.26	152.1	12	4	1							
BOULDER CITY	80.54	52.5	11	54	-11							
FLAMING GRGE	80.83	45.9	12	5	-1							
COLLMBERG	81.74	329.5	12	9	-2							
PRUHONICE	82.07	327.9	12	12	-1							
KASPERSKE H.	83.12	327.8	12	17	-1						15	28
BASLE	86.89	329.9									18	46
GARCHY	88.88	332.2	12	45	-1							
SOUTH POLE	125.40	180.0	18	51	0							
BYRD STATION	126.62	167.7	18	54	0				19	19		

JUNE 23 16.H 36.M 34.S EPICENTRE 27.78 55.03 DEPTH= 121.KM

A= 0.50783 B= 0.72610 C= 0.46356 D= 0.8195 E=-0.5731
G= 0.2657 H= 0.3799 K=-0.8861 HT= 2.5

DEPTH OF FOCUS= 0.014R

SE= 2.95

	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	
SHIRAZ	2.89	310.8	0	35A	-11	1	4	-16					
TEHERAN	8.52	339.6	1	54	-8	3	27	-10					
QUETTA	10.71	74.2	2	23	-8	4	19	-10			2	42	*SP
MARSAK DAM	15.47	62.3	3	26	-6								
STALINABAD	15.73	43.4	3	35	-1								
TIFLIS	16.24	331.6	3	42	0								
LAHORE	17.19	72.7	3	46	-9								
KSARA	17.51	294.8	3	54	-4	7	1	-5			7	26	SS
JERUSALEM	17.65	287.8	3	58K	-1								
TASHKENT	17.86	37.2	4	4	2	7	23	9					
NAMANGAN	18.99	41.8	4	14	0	7	47	9					
ANDIJAN	19.26	43.3	4	15	-2	7	51	7					
SOTCHI	20.03	325.9	4	23	-2	8	5	6					
DEHRA DUN	20.20	77.3	4	25	-3	8	10	7			4	41	PP
HELWAN	20.37	281.4	4	34	0	8	23	9					
FRUNSE	21.36	41.5	4	46	3	8	51	19					
ALMATA	23.50	43.1	5	2	3	9	19	18					
SIMFEROPOL	23.92	321.3	5	1	-2	9	16	3					
ISTANBUL KA.	25.00	308.7	5	8	-6	9	39	12			5	52	PP
ISTANBUL UP.	25.12	308.5	5	16	1	9	57	29					
KISHINEV	23.11	320.1	5	41	-1								
BUCHAREST	23.47	313.4									11	4	

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CHATRA	28.53	84.4	5	45A	-1						
IASI	28.93	319.5	6	9	19					8	11
SVERDLOVSK	29.31	6.3	5	55	2						
SOFIA	29.66	308.5	6	0	4					6	47 PP
MOSCOW	30.62	340.6	6	4	-1						
LHASA	31.56	77.9	6	13	0						
SHILLONG	32.92	85.2	6	21	-4						
TARANTO	33.49	302.1	7	0	31						
SKALNATE PL.	34.17	318.2	6	33	-2						
KRAKOW	34.74	319.4	6	39	-1	11	58	-3		8	11 PPP
WARSAW	35.19	323.3								14	34 SS
BRATISLAVA	35.69	315.1	6	51	3					7	57 PP
RACIBORZ	35.76	318.6	6	48	-1						
VIENNA-H.	36.17	315.0	6	53	1						
PULKOVO	36.18	339.0	6	51	-1	12	28	5			
LJUBLJANA	36.70	310.8	6	56	-1					8	16 PP
TRIESTE	37.11	309.9				12	45	8		8	56 PPP
ROME	37.28	303.5	7	27	25	12	47	8		16	16 SSS
PRUHONICE	37.90	317.0	7	9	2	12	58	9		7	34
KASPERSKE H.	38.21	315.3	7	8	-1						
FLORENCE X.	38.47	306.3	7	31	20	12	48	-9			
NUMMIJARVI	38.64	336.4	7	12	-1	13	6	6		8	47 PP
LWIRO	39.09	224.5	7	17	0						
COLLMBERG	39.28	318.4	7	17	-1	13	17	7		8	53 PP
HALLE	39.97	318.3	7	3	-21	13	28	8			
JENA	40.00	317.4	7	28	4					14	11
KAJAANI	40.33	341.8	7	26	-1	13	30	5			
STUTTGART	40.83	313.5	7	29	-2					9	16
UPPSALA	40.93	332.1	7	30	-2	13	38	4			
COPENHAGEN	41.27	324.5				13	49	10		16	50 SS
HEIDELBERG	41.34	314.3	7	36	1						
ISOLA	41.52	306.3	7	38	1						
BASLE	41.68	311.3								14	6
BANGUI	41.74	242.8	7	38	0						
STRASBOURG	41.76	312.9	7	41	2	13	44	-2		9	57 PCP
LANCHOW	41.88	66.0	7	39	0						
APATITY	41.89	347.8	7	39	-1	13	55	7			
UMEA	42.42	338.0	7	43	-1					9	23 PP
MUNSTER	42.68	317.8	7	52	6						
BENSBERG	42.69	316.2	7	46	0				8	6	
SODANKYLA	43.19	344.4	7	50	0					9	37 PP
GARCHY	44.66	310.3	8	0	-2						
ULAN-BATOR	44.68	48.8	8	7	5	14	43	14			
KIRUNA	45.11	342.3	8	4	-2	14	42	7		9	56 PP
SKALSTUGAN	45.12	334.6	8	4	-2						
TORTOSA	46.21	301.1								15	5
PAOTOW	46.57	59.2	8	17	0	15	8	12			
TROMSOE	46.77	343.6	8	18	-1				8	32	10 14 PP
TANANARIVE	46.98	189.7	8	23	3					8	47
FOLLMIERE	47.19	312.0	8	20	-2						
KEW	47.41	315.7	8	22	-2						
BROKEN HILL	49.24	214.9	8	38	0						
GRANADA	49.66	296.5	8	18A	-23					15	44
PEKING	51.29	59.5	8	54	1	16	15	14			
KHEYS	52.96	0.6	9	7	1						
BULAWAYO	54.06	211.1	9	13A	-1						
NANKING	54.71	68.9	9	19	0						
YAKUTSK	58.73	32.2	9	41	-6						
TIKSI	58.81	20.9	9	46	-2	17	49	7			
SCORESBY SD.	59.76	337.7	9	55	1						
NORD	60.04	350.7	9	55	-1						
WINDHOEK	62.02	220.0	10	10	0						
VLADIVOSTOK	62.41	53.6	10	9	-3						
KIMBERLEY	63.24	209.7	10	16	-2						
MATUSIRO	63.93	59.0	10	52	-2						
THULE	70.40	347.9	11	2	-1						
PETROPAVLOVK	75.91	37.3	11	35	0						
RESOLUTE	75.94	352.1	11	35	0						
COLLEGE	85.96	9.6	12	28	1					12	54
MAWSON	95.26	177.0	13	12	1						
EUREKA	112.57	352.5	18	26	4						
WICHITA MTS.	113.02	336.6	18	25	2						
SOUTH POLE	117.62	180.0	18	34	3						
SCOTT BASE	121.50	166.7	18	42	3						
BYRD STATION	127.61	101.2	13	54	3						
KARAPIRO	129.75	117.6	18	58	3						

JUNE 24 9.H 35.M 54.S EPICENTRE 3.98 97.39 DEPTH= 22.KM

A=-0.12834 B= 0.98933 C= 0.06395 D= 0.9917 E= 0.1286
G=-0.0039 H= 0.0684 K=-0.9976 HT= 7.1

SE= 2.75

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MEDAN	1.35	107.1	0 20A	-4				
DJAKARTA	13.81	136.9	3 26	9				7 25
LEMBANG	14.82	136.4	3 32	1				
MADRAS	19.22	298.8	4 25K	-1	8 11	15		4 56 PP
VISHAKHAPTNM	19.42	315.7	5 12A	44	9 16	76		5 45 PP
CALCUTTA	20.41	335.4						8 36
KODAIKANAL	20.71	289.5	4 40	-2				
KUNMING	21.64	13.2	4 53	2	8 57	12		
SHILLONG	22.11	346.7	4 55A	-1	9 2	8		
BOKARO	22.68	331.5						9 14
TOCKLAI	22.78	353.9						5 34
HONG KONG	24.41	40.3	5 18	-1	9 48	14		
CHATRA	24.74	337.7	5 21K	-1	9 57	17		
BAGUIO CITY	25.91	59.9			10 7	8		
BOMBAY	28.22	303.6						10 48
DEHRA DUN	31.94	327.2	6 48	21	11 51	15		13 50 SSS
SIAN	31.97	10.2	6 27	0				
LANCHOW	32.46	9.7	6 36	5	12 2	13		
NANKING	34.40	33.2			12 23	9		
LAHORE	34.96	324.3	6 54	1				
PADTOW	38.18	15.6	7 21	1	13 22	10		
QUETTA	38.81	315.6	7 27	2				13 38
PEKING	39.70	22.8	7 36	3				
MUNDARING	39.98	154.7	7 33K	-2				
ANDIJAN	42.98	331.9	8 3	3				
ALMATA	43.12	338.1	7 57	-4				
STALINABAD	43.17	326.7						8 44
FRUNSE	43.66	335.6	8 4A	-1				
ULAN-BATOR	44.53	9.1	8 15	3	14 56	10		
TASHKENT	44.92	329.8	8 17	2				
CHANGCHUN	46.72	27.7			15 24	7		10 22 PP
IRKUTSK	48.47	5.7						10 40 PP
VLADIVOSTOK	49.54	33.0	8 51	-1				
MATUSIRO	49.54	43.8	8 51A	-1	16 3	6		14 11 PCS
CHARTERS TS.	53.61	118.4	9 22	0				
TANANARIVE	54.07	243.3	9 24	-2				9 44
ADELAIDE	54.84	138.4	9 27	-4				
TIFLIS	60.04	316.7	10 6	-2				
BRISBANE	61.82	123.9	10 22	2				
CANBERRA	62.16	133.5	10 19	-3				
YAKUTSK	62.72	16.5	10 26	0				
RIVERVIEW	63.08	131.2			18 42	-15		
SOTCHI	64.21	317.0	10 32	-4				
KSARA	64.26	305.7	10 29	-7				12 16
JERUSALEM	64.36	303.3	10 38A	1				
HELWAN	67.31	300.6	10 52	-4				21 53
SIMFEROPOL	68.46	317.0	11 0	-3				
LWIRO	68.83	266.1	11 8	3				
MOSCOW	70.06	328.7	11 12	-1				
TIKSI	70.42	10.1	11 6	-9				
MIRNY	70.43	181.9	11 15	0				
BROKEN HILL	70.70	253.3	11 17	0				
ISTANBUL UN.	71.16	312.0	11 17	-2	20 24	-10		
BULAWAYO	71.60	247.4	11 22	0				
BUCHAREST	73.90	315.1	11 38	2				
ATHENS	74.70	308.2	11 40A	0				
MAWSON	75.44	193.0	11 41	-4				
SOFIA	75.61	313.0	11 43	-2				
LWOW	76.26	320.3	11 49	0				
KIMBERLEY	76.77	239.4	11 50	-2				
SODANKYLA	79.00	338.1	12 1	-3				
BRATISLAVA	80.57	318.0	12 14	1				
UMEA	80.78	334.0	12 12	-2				
VIENNA-H.	81.06	318.1	12 17	2				
KIRUNA	81.42	338.0	12 16	-1	22 24	-2		
UPPSALA	81.43	329.8	12 19	2				
LJUBLJANA	82.20	315.8	12 20	-1				
TROMSOE	82.27	339.7	12 24	2				
PRUHONICE	82.36	319.7	12 22	0				13 12

TRIESTE	82.72	315.3	12 22	-2				
KASPERSKE H.	82.96	318.9	12 30	5			12 54	
KARAPIRO	83.12	128.8	12 26	0				
CHATEAU	83.35	130.0	12 24	-3				
COLLMBERG	83.40	321.0	12 26	-1			12 33	PCP
HALLE	84.07	321.2	12 31	0				
SKALSTUGAN	84.28	333.4	12 28	-4				
FLORENCE X.	84.48	313.4	12 34	1				
STUTTGART	85.79	318.5	12 38	-1	23 11	1		
MUNSTER	86.75	321.7	12 44	0				
BENSBERG	87.08	320.7	12 44	-2			18 51	
MONACO	87.25	313.5	12 47	0				
ISOLA	87.50	313.9	12 45	-3				
CAPE HALLETT	88.60	163.0	12 51	-2				
NORD	89.52	352.3	12 59	2				
SCOTT BASE	89.59	168.6	12 56	-2				
GARCHY	90.04	317.2	13 1	1				
FOLINIERE	92.22	319.0	13 12	2				
BAGNERES	92.59	313.3	13 13	1				
SOUTH POLE	93.95	130.0	13 23	5				
COLLEGE	96.60	23.0	16 58	208				
BYRD STATION	101.95	173.9	13 50	-4				
MINERAL	123.24	35.1	18 56	0				
EUREKA	126.96	32.2	19 2	-1				
RAPID CITY	128.70	19.0	19 5	-1				
FLAMING GRGE	129.04	26.1	19 6	-1				
BOULDER CITY	130.11	34.4	19 5	-4			22 32	
PALISADES	134.53	350.8					23 33	PKS
TUCSON TELE.	135.09	34.4	19 6	-12				
WICHITA MTS.	138.67	20.1	19 27	2			22 58	

JUNE 24 16.H 19.M 27.S EPICENTRE -4.68 145.10 DEPTH= 216.KM

A=-0.81748 B= 0.57023 C=-0.08105 D= 0.5721 E= 0.8202
G= 0.0665 H=-0.0464 K=-0.9967 HT= 7.0

DEPTH OF FOCUS= 0.029R

SE= 1.97

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP H	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	5.11	156.7	1	15	-1	2	12	-4					
RABAUL	7.06	86.4	1	41	0								
CHARTERS TS.	15.36	175.9	3	28	2	6	19	8					
HONIARA	15.47	108.6	3	32	4	6	24	11					
DARWIN	16.05	240.6	3	34	-1	6	22	-4					
GUAM	18.03	358.9	3	58	1	7	17	10	4	40	7	57	*SS
BRISBANE	23.74	162.8	4	57	4	8	59	9					
RIVERVIEW	29.54	169.8									12	22	
CANBERRA	30.70	173.7	5	57K	1						7	11	PP
ADELAIDE	30.71	190.3	5	57	1						15	47	SCS
MELBOURNE	32.99	180.2	6	17	1						7	18	PP
LEMBANG	37.35	264.9	6	51K	-2								
MUNDARING	38.34	221.5	7	1A	0								
ABUYAMA	40.35	347.9	7	17K	-1								
TUKUBASAN	40.95	353.8	7	22K	-1								
MATUSIRO	41.51	351.6	7	26K	-1	13	25	-1			9	21	PCP
CANTON	41.52	313.0	7	29K	2								
ZO-SE	42.28	328.9	7	33K	0								
KARAPIRO	43.18	144.2	7	41	0				8	24			
MIZUSAWA	43.74	355.5	7	49	4	14	2	4					
CHATEAU	44.05	145.5	8	4	17						8	32	
NANKING	44.30	327.4	7	50K	1	14	11	5					
VLADIVOSTOK	49.06	347.2	8	27	1								
KUNMING	50.70	307.9	8	41K	2								
CHANGCHUN	51.48	341.7	8	43K	-2								
Y.-SAKHLINSK	51.52	357.9	8	44	-1	15	47	0					
SIAN	51.61	321.4	8	46K	0								
PEKING	51.84	331.8	8	46K	-1								
CHENGTU	52.69	314.6	8	54	0								
PAOTOW	55.33	327.9	9	12	-1	16	40	2					
LANCHOW	55.97	319.8	9	18K	1								
PETROPAVLOVK	58.61	9.5	9	37	1								
SHILLONG	59.73	303.1	9	43K	-1								
LHASA	62.01	307.0	10	0	1								
ULAN-BATOR	62.17	331.9	9	59	-1	18	12	6					

CHATRA	64.12	302.7	10	13	0								
YAKUTSK	67.56	352.2	10	34	0	19	16	4					
SCOTT BASE	74.01	175.3	11	14	1				12	2	12	12	PCP
LAHORE	76.23	303.9	11	16	-10								
TIKSI	76.91	354.8	11	28	-1								
FRUNSE	79.04	315.1	11	42	1								
WARSAK DAM	79.09	305.8	11	43	2								
QUETTA	82.15	301.2	11	53	1								
STALINABAD	82.28	309.8	11	59	1								
COLLEGE	84.69	23.3	12	9	-1				12	57			
SOUTH POLE	85.35	180.0	12	14	1						13	13	*SP
BYRD STATION	86.36	170.0	12	19	1				13	8			
SVERDLOVSK	90.86	326.8	12	39	0								
KHEYS	94.10	350.5	12	54	0								
SHIRAZ	94.53	299.3	12	55	-1						16	48	PPP
CHINA LAKE	98.63	54.6	13	17	2								
EUREKA	99.35	50.9	13	22	1								
MOSCOW	103.66	326.3									17	52	PP
SODANKYLA	104.99	339.4	13	41	-2						17	46	PKP
TROMSOE	106.37	342.9	13	49	777								
KIRUNA	106.87	341.0	13	51	777								
WICHITA MTS.	114.19	54.0	19	13	60								
NIEDZICA	115.64	323.5	18	19	3								
PRUHONICE	118.70	326.0	18	25	3						19	46	
COLLMBERG	118.86	327.9	18	24	2						20	7	
KASPERSKE H.	119.68	325.5	18	26	2						19	52	
LJUBLJANA	120.65	322.1	18	28A	2								
STUTTGART	122.26	327.0	18	31	2								
ISOLA	126.13	323.5	18	32	-4								
MONACO	126.16	322.3	18	39	3								
GARCHY	126.47	328.6	18	40	3				20	38			
PALISADES	129.72	38.3									33	10	SS
SAN JUAN	146.60	63.4	19	17	3								

JUNE 25 2.H 29.M 29.S EPICENTRE 40.30 144.29 DEPTH= 34.KM

A=-0.61639 B= 0.44315 C= 0.65090 D= 0.5837 E= 0.8119
G=-0.5285 H= 0.3800 K=-0.7592 HT= -2.0

DEPTH OF FOCUS= 0.0000

SS= 2.62

	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
HIROO	1.65	334.2	0	28A	1	0	48	1				
URAKAWA	1.76	320.5	0	31A	2	0	53	3				
MIYAKO	2.11	237.0	0	33A	-1	0	57	-2				
HATINOHE	2.11	263.5	0	33	-1	0	59	0				
KUSIRO	2.19	2.2	0	34A	-1	1	1	0				
OBIHIRO	2.27	339.4	0	37	1							
MORIOKA	2.63	246.3	0	39A	-2	1	9	-3				
AOMORI	2.66	271.6	0	43	7	1	12	-1				
HEMURO	2.70	20.4	0	41A	-1	1	10	-4				
TOMAKOMAI	2.73	312.9	0	51	9	1	25	11				
HAKODATE	2.84	291.9	0	45	1	1	17	0				
MURORAN	2.91	302.5				1	17	-2				
MIZUSAWA	2.96	236.5	0	46	1	1	16	-4				
MORI	3.03	295.1	0	51	4							
SAPPORO	3.15	317.0	0	50	2	1	22	-3				
ABASHIRI	3.22	350.9	0	50	1	1	23	1				
ISHINOMAKI	3.29	225.0	0	51A	1	1	26	-3				
SENDAI	3.33	252.7	0	53	6	1	36	5				
SUTTSU	3.62	304.7									2	22
SENDAI	3.64	227.1	0	54A	-1	1	36	-2				
TUMOI	3.72	329.8	0	52	-4							
SHIKATA	3.92	242.5	1	1	2	1	47	2				
YAMAGATA	3.97	231.3	0	59A	-1	1	43	-3				
HUKUSHIMA	4.25	225.4	1	4	0	1	54	1				
OTAWARA	4.67	215.6	1	7	-3	1	53	-6				
SHIRAKAWA	4.85	222.1	1	11	-2	2	5	-3				
NIIGATA	4.97	235.4	1	14	0	2	13	2			2	44
KURILSK	5.15	29.5	1	16	-1							
MITO	5.33	215.3	1	13	-1	2	15	-5				
AIZUWA	5.44	241.2	1	21	0	2	19	-4				
UTUNOMIYA	5.47	220.6	1	21	0	2	21	-3				

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KAKIOKA	5.58	216.5	1	20	-3						
TUKUBASAN	5.63	217.0	1	20	-3	2	21	-7			
TYOSI	5.75	209.1	1	0	-25						
KUMAGAYA	6.03	221.2	1	28	-1	2	39	1			
TOKYO C.M.O.	6.23	216.4	1	31	-1	2	38	-5			
NAGANO	6.30	231.0	1	35	2						
Y.-SAKHLINSK	6.32	350.2	1	31	-2	2	42	-3			
OIWAKE	6.33	227.0	1	41	8						
MATUSIRO	6.38	230.1	1	33A	-1	2	45	-2	3	11	
YOKOHAMA	6.49	215.7	1	34	-2	2	46	-3			
WAZIMA	6.68	241.6	1	40	2						
MATUMOTO	6.72	229.5	1	42	3						
KOHU	6.82	223.2	1	40	0	2	50	-8			
HUNATU	6.85	221.1	1	44	3	2	58	0			
MISIMA	7.06	218.3	1	33	-11						
OSIMA	7.16	214.4	1	43	-2						
GIHU	8.01	230.1	2	0	3						
NAGOYA	8.06	228.1	2	16	19	3	48	20			
UGLEGORSK	8.43	350.0	2	1	-2						
KYOTO	8.89	232.2	1	35	-34	3	45	-4			
ABUYAMA	9.08	232.1	2	10A	-2						
CHANGCHUN	14.36	288.4	3	20	-3	5	59	-3			
PETROPAVLOVK	15.64	33.8	3	43	4						
ZO-SE	21.01	249.9	4	46	3	8	44	14			
PEKING	21.39	277.2	4	40	-7	8	34	-3			
NANKING	22.24	255.0	4	56	1	9	5	12			
YAKUTSK	23.00	342.3	5	2	-1						
PAOTOW	25.88	280.8	5	31	1						
ULAN-BATOR	27.45	297.6	5	44	-1						
SIAN	28.66	268.3	5	55	-1						
KUNMING	37.83	258.6	7	16	1						
COLLEGE	44.72	34.2	8	12	0				8	55	
CHATRA	48.66	271.9	8	44	1						
LAHORE	55.87	284.3	9	38	1						
NORD	57.43	356.7	9	46	-2						
RESOLUTE	58.39	15.6	9	53	-1						
APATITY	60.19	335.6	10	5	-2						
THULE	61.23	8.3	10	12	-2						
QUETTA	61.99	286.9	10	19	0						
SODANKYLA	62.37	337.2	10	21K	-1						
TROMSOE	62.88	341.3	10	25	0				10	54	PCP
KIRUNA	63.79	339.4	10	30	-1						
KAJAANI	64.19	334.1	10	34	0						
MOSCOW	65.57	323.5	10	43	1						
PULKOVO	66.03	329.6	10	45	-1						
UMEA	66.75	336.4	10	49	-1						
NURMIJARVI	67.67	332.3	10	55	-1						
SCORESBY SD.	68.58	355.1	11	2	1						
SKALSTUGAN	69.21	339.2	11	5	0						
UPPSALA	70.54	334.6	11	14A	1						
EUREKA	71.78	53.4	11	21	0						
SHIRAZ	72.54	294.2	11	25	0				11	55	
CHINA LAKE	73.01	57.3	11	30	2						
GOTEBORG	74.05	335.6	11	30	-4						
FLAMING GRGE	74.75	48.9	11	38	0						
RAPID CITY	76.01	43.3	11	46	1						
LARAMIE	76.63	46.6	11	50	1						
NIEDZICA	77.53	326.3	11	55	1						
COLLMBERG	78.92	331.3	12	2K	0				12	9	PCP
PRUHONICE	79.41	329.7	12	5K	1						
TUCSON	79.61	56.4	12	5	0						
TUCSON TELE.	79.62	56.2	12	6	1						
KASPERSKE H.	80.47	329.7	12	11K	1						
BENSBERG	81.23	334.2	12	14	0						
STUTTGART	82.36	331.8	12	20	0						
LJUBLJANA	82.59	327.3	12	21K	0						
KARAPIRO	83.41	155.6	12	33	8						
WICHITA MTS.	85.19	47.4	12	34	0						
FOLLINGE	85.54	337.5	12	36	0						
FAYETTEVILLE	86.55	43.8	12	41K	0				12	56	
ISOLA	87.07	330.7	12	44	1						
SOUTH POLE	130.61	180.0	19	9	1						
BYRD STATION	130.94	166.7	19	8	0						

JUNE 25 9.H 10.M 3.S EPICENTRE -19.8I-177.74 DEPTH= 432.KM

A=-0.94080 B=-0.03705 C=-0.33693 D=-0.0393 E= 0.9992
G= 0.3367 H= 0.0133 K=-0.9415 HT= 4.7

DEPTH OF FOCUS= 0.063R

SE= 1.31

	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
SUVA	3.98	293.9				2	32	19				
AFIAMALU	8.19	45.1	1	57	-2	3	27	-5				
NOUMEA	14.96	257.7	3	15	2							
KOUMAC	16.89	264.4	3	36K	4							
KARAPIRO	18.97	196.5	3	55	2							
CHATEAU	20.17	195.3	4	4	0							
BRISBANE	27.99	240.8	5	13	-3							
RIVERVIEW	30.93	236.8	5	38	-3							
CANBERRA	33.09	235.2	5	59	0							
CHARTERS TS.	33.80	263.3	6	5	0						7	37
ADELAIDE	41.17	239.2	7	5A	-1							
SCOTT BASE	58.57	183.8	9	16	1							
BYRD STATION	65.28	170.6	9	59	0							
MATUSIRO	69.00	323.4	10	25A	-2				12	12		
SOUTH POLE	70.31	180.0	10	30	0						10	51
BERKELEY	77.51	41.9	11	11K	0							
LICK	77.58	42.6	11	12K	1							
PASADENA	78.04	47.0	11	14	0							
FRESNO	78.44	44.0	11	16	0							
SHASTA	79.16	39.6	11	20K	0							
MINERAL	79.42	40.2	11	21K	0							
RENO	80.04	41.7	11	25	1							
BOULDER CITY	81.34	46.9	11	31	0							
ARGENTINE I.	81.51	157.0	11	31	-1							
TUCSON	82.31	51.9	11	37	1							
TUCSON TELE.	82.43	51.8	11	37	0							
EUREKA	82.46	43.5	11	36	-1							
PENTICTON	85.95	33.9	11	54	0							
COLLEGE	87.49	12.3	11	58	-3				13	46		
FLAMING GRGE	87.52	44.8	12	0	-1							
BUTTE	88.06	39.3	12	8	4							
BANFF	89.16	33.8	12	14	5							
WICHITA MTS.	92.59	54.1	12	23	-2				14	13		
RAPID CITY	93.02	44.1	12	26	-1							
KIMBERLEY	127.05	204.9	18	14	0							
TROMSOE	129.15	352.6	18	16	-2							
NURMIJARVI	136.34	344.1	18	29	-2							
LWIRO	145.94	232.9	18	51	2							
NIEDZICA	147.11	338.1	18	51	1							
COLLMBERG	147.46	347.4	18	54A	3				20	47		
PRUHONICE	148.34	344.8	18	55	3							
BENSBERG	148.68	354.0	18	56A	3							
KASPERSKE H.	149.37	345.3	18	58	4				20	52		
STRASBOURG	150.96	352.4	19	3	7							
FOLINIERE	151.03	3.7	18	56	0							
LJUBLJANA	151.95	341.7	19	4A	6							
BESANCON	152.46	354.5									30	34
GARCHY	152.59	358.8	19	5	7						19	17 PKP2

JUNE 25 16.H 46.M 34.S EPICENTRE 21.77 143.83 DEPTH= 0.KM

A=-0.75034 B= 0.54863 C= 0.36878 D= 0.5902 E= 0.8072
G=-0.2977 H= 0.2177 K=-0.9295 HT= 4.2

SE= 3.15

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	8.31	173.8	2	1	-4							
OSIMA	13.52	344.2	3	18	2							
SIOMISAKI	13.64	330.2	3	16	-2	6	9	18				
OMAESAKI	13.70	340.1	3	32	14							
AJIRO	13.86	343.6	3	17	-3	5	50	-6				
MISIMA	13.97	343.2	3	22	0							
OWASE	13.97	332.9	2	22	-60							
SHIZUOKA	13.98	341.3	3	20	-2							
YOKOHAMA	14.09	345.9	3	21	-2						7	48
MUROTO	14.27	325.3	3	42	16							

TOKYO C.M.O.	14.31	346.5	3	24A	-2					
MONGO	14.33	346.6	3	36	9				11	3
HUTATU	14.37	343.2	3	25	-2	6	9	1		
KAMEYAMA	14.54	335.2	3	29	0				5	29
KOHU	14.59	342.7	3	28	-2	6	11	-3		
NAGOYA	14.64	337.2	3	30	-1	6	20	5		
IIDA	14.67	340.3	3	28	-3					
TITIBU	14.75	344.7	3	30	-2					
KANIOKA	14.75	348.3	3	27	-5	6	1	-16		
OSAKA	14.76	332.2	3	26	-6				9	4
TUKUBASAN	14.76	343.1	3	27	-5	6	13	-5	3	54 PPP
KUMAGAYA	14.94	345.8	3	33	0				6	42
MITO	14.95	349.4	3	37	4	6	14	-6		
KOTI	14.95	324.4	3	42	9				7	20
GIHU	14.92	337.1	3	32	-2					
KOBE	14.94	331.3	3	34	-1	7	2	40		
MIYAZAKI	14.90	315.0	3	39	4	6	42	19		
KYOTO	14.99	333.4	3	34	-1				4	45
HIKONE	15.00	335.4	3	31	-4	6	11	-12		
UTUNOMIYA	15.12	347.7	3	40	3				6	16
MAEBASI	15.15	345.2	3	40	3	6	30	3		
TAKAMATU	15.18	327.5	3	39	1	6	46	19		
OIWAKE	15.22	343.6	3	23	-15					
MATUMOTO	15.30	341.8	3	37	-2				6	34
ONAHAMA	15.34	351.1	3	36	-4					
MATUYAMA	15.48	323.3	3	42	0				8	12
MATUSIRO	15.50	342.9	3	38A	-4	6	35	0		
SHIRAKAWA	15.61	349.2	3	41	-2					
NAGANO	15.63	343.0	3	47	3	6	46	8		
OOITA	15.72	319.1	3	45A	0	6	45	5		
TOYOOKA	15.81	332.1	3	44	-2	6	46	4		
TOYAMA	15.95	340.3	3	41	-7	6	50	4		
KUMAMOTO	16.02	316.1	3	49	0	6	39	-8		
TAKADA	16.02	343.6							4	43
HIROSIMA	16.06	323.8	3	52	3	7	1	13		
HUKUSIMA	16.18	350.4	3	49	-2	6	45	-6		
NAGASAKI	16.50	314.3	3	55K	0	7	0	2		
SAGA	16.55	316.5	4	9	14					
NIIGATA	16.61	346.7	4	1	5	7	7	6		
SENDAI	16.63	351.9	3	54	-2	6	54	-7		
WAZIMA	16.67	340.4	3	53	-4					
YAMAGATA	16.69	350.4	3	55	-2	7	21	18		
HUKUOKA	16.72	317.6	3	2	-56	6	27	-36		
ISINOMAKI	16.74	353.2	3	58	0	6	55	-9		
TOMIE	17.19	312.1	4	5A	2	7	38	24		
SAKATA	17.41	349.5	4	7	1	7	37	18		
MIZUSAWA	17.45	353.0	4	8	1	7	16	-4		
MIYAKO	17.89	355.3	4	12	0	7	42	12		
MORIOKA	18.01	353.4	4	14	0	7	37	4		
AKITA	18.17	350.7	4	15	-1	7	52	15		
HATINOHE	18.80	354.6	4	23	0	7	51	0		
AOMORI	19.16	352.9	4	30	2					
HAKODATE	20.14	353.3	4	40	1					
URAKAWA	20.34	357.8	4	43	2					
MORI	20.45	353.1	4	46	4	8	45	18		
HIROO	20.45	358.9	4	45	3					
HUALIEN	20.58	280.4	4	45	2	7	49	-40		
MURORAN	20.63	354.0	4	44	0					
TAIPEI	20.72	283.3	4	55	10	8	8	-24		
HSINKONG	20.80	277.9	4	46	0	8	54	20		
TOMAKOMAI	20.88	355.3	4	53	6					
TAITUNG	21.01	276.9	4	52	4	8	47	9		
OBIHIRO	21.09	358.7	4	53	4					
KUSIRO	21.15	1.2	4	49	0	8	58	17		
SUTTSU	21.18	352.7	4	50	0	8	52	11		
TAMU	21.26	275.9	4	51	1	8	54	11		
ALISHAN	21.32	279.1	4	54	3					
SAPPORO	21.34	355.0	4	52K	1	8	35	-9		
HENGCHUN	21.41	274.9	5	0	8				9	30 SSS
TAICHUNG	21.44	280.8	5	3	11					
NEMURO	21.55	3.5	4	58	5					
TAINAN	21.86	277.7	5	0	4					
RUMOE	22.19	355.8	5	1	1					
ZO-SE	22.27	299.4	4	58K	-3	9	7	5		
MANILA	22.71	255.7	5	3	-2				6	48
VLADIVOSTOK	23.50	337.7	5	12K	-1	9	26	2		
KURILSK	23.63	7.1	5	16K	2					
WAKKANAI	23.65	356.2	5	16	2	9	58	32		
NANKING	24.52	300.0	5	21	-2	9	47	6		

Y.-SAKHLINSK	25.20	358.2	5	29K	0						
CHANGCHUN	26.83	329.4	5	43K	-1						
RABAUL	27.07	161.5	5	43	-3						
UGLEGORSK	27.28	357.5	5	49K	1						
HONG KONG	27.48	276.7	5	52	2	10	22	-8			
PEKING	29.72	314.0	6	7	-3	11	9	3			
SIAN	33.07	299.7	6	37	-3	12	3	4			
PETROPAVLOVK	33.20	16.4	5	40K	-61						
PAOTOW	34.18	311.0	6	48	-1						
CHENGTU	36.65	292.4	7	9	-1	13	2	8			
LANCHOW	37.52	301.2	7	16	-2						
KUNMING	37.74	283.3	7	21	1						
MAGADAN	38.07	5.8	7	23	1						
ULAN-BATOR	39.40	320.5	7	32	-2	13	33	-3			
YAKUTSK	41.38	350.0	7	48	-2						
CHARTERS TS.	41.67	176.6	7	50	-2	14	13	3			
IRKUTSK	42.98	325.0	8	2	-1	14	28	-1			
LEMBANG	45.48	235.4	8	22A	-1	15	2	-3			
DJAKARTA	45.68	236.8	8	21	-4	15	1	-7			
TIKSI	50.62	353.9	9	0	-3						
CHATRA	51.53	287.6	9	10	0						
BOKARO	53.21	284.1								10	21
KIPAPA	53.78	78.8	9	34	7						
RIVERVIEW	55.73	172.6	9	40	-1	17	33	6		10	33 PCP
ADELAIDE	56.64	185.0	9	45	-3	17	42	3			
CANBERRA	56.99	175.0	9	48K	-2	17	51	7	9 54	12	0 PP
ALMATA	58.77	308.2	10	0	-3						
DEHRA DUN	59.00	293.1	10	3	-1	18	13	3			
FRUNSE	60.49	307.8	10	12K	-2	18	30	1			
COLLEGE	61.32	26.9	10	18	-2	18	36	-4		12	33 PP
LAHORE	61.97	295.0	10	24	0						
ANDIJAN	62.33	305.6	10	26	-1	18	54	1			
NAMANGAN	62.83	305.9	10	39	9						
TARRALEAH	63.79	177.8	10	41	4						
NARSAK DAM	63.87	298.2	10	36	-1						
FORT NELSON	64.46	177.1	10	45	4						
KULYAB	64.70	302.7								13	20 PCP
STALINABAD	65.36	303.6	10	46	-1						
KARAPIRO	66.45	153.0	10	51	-3						
CHATEAU	67.53	153.8	10	58	-3						
KHEYS	67.97	349.8	11	1	-2	19	59	-3			
SVERDLOVSK	68.37	324.0	11	2	-4	20	3	-4			
QUETTA	68.46	295.0	11	6	0	20	6	-2		24	42 SS
NORD	76.35	357.1	11	50	-3						
RESOLUTE	76.87	13.5	11	54K	-2	21	40	-3			
APATITY	77.52	338.4	11	57	-3	21	47	-4		21	59 SCS
PENTICTON	77.91	41.7	12	2	0						
SHASTA	78.88	50.6	12	8	1						
TEHERAN	79.50	304.2	12	11	1						
MINERAL	79.56	50.8	12	10A	-1						
SAN FRANCSCO	79.80	53.5	12	15	3						
SODANKYLA	79.88	339.5	12	9	-3						
BERKELEY	79.91	53.3	12	14	1	22	12	-4		27	32 SS
THULE	80.08	7.3	12	12	-2						
STA. CRUZ C.	80.40	54.1	12	18	3						
LICK	80.55	53.7	12	18A	2					12	56
TROMSOE	80.84	343.1	12	15	-3					15	34 PP
MOSCOW	80.94	326.6	12	3	-15						
VINEYARD	80.95	54.1	12	25	7						
RENO	81.13	51.1	11	59	-20						
KIRUNA	81.55	341.3	12	19	-2	22	27	-6			
HUNGRY HORSE	81.70	41.2	12	25	3	22	39	4			
SORIS	81.96	309.2	12	26K	3	22	34	-3			
FRESNO	82.13	53.7	12	26	2						
TIFLIS	82.22	311.7	12	27	2						
PULKOVO	82.50	332.1	12	22	-4	22	38	-5			
BUTTE	83.56	43.0	12	32	0	22	53	0			
EUREKA	83.91	50.0	12	34	1					15	55 PP
UMEA	84.12	338.2	12	43	13						
PASADENA	84.33	55.6	12	37	1	23	2	1		23	38 SS
NUTTI JARVI	84.47	334.3	12	35	-1						
BOZEMAN	84.67	42.0	12	39	2	23	6	2			
SOTCHI	84.91	315.0	12	36	-2						
BOULDER CITY	86.13	52.9	12	44	-1						
SKALSTUGAN	86.90	340.4	12	45	-3						
SCORESBY SD.	87.45	355.3	12	54K	3	23	29	-2		22	48
UPPSALA	87.64	335.9	12	47	-5	23	32	-1		23	7
FLAMING GRGE	87.86	46.5	12	53	0	23	54	19		16	51

SIMFEROPOL	87.87	318.0	12	52	-1					
KISHINEV	89.99	321.7	13	3	0					
LARAMIE	90.22	44.8	13	5	1				17	4
RAPID CITY	90.33	41.6	13	5	0					
IASI	90.61	322.3	13	12	6					
TUCSON	90.72	54.8	13	7	1					
TUCSON TELE.	90.76	54.7	13	8	1					
LWOW	91.04	325.8	16	43	215					
WARSAW	91.09	328.9							23	40 SKKS
KSARA	91.96	307.6	13	10	-2	24	14	2	16	50 PP
COPENHAGEN	92.53	334.8							16	58 PP
BUCHAREST	93.02	320.6				23	45	-37		
ISTANBUL KA.	93.04	316.6							17	1 PP
JERUSALEM	93.40	306.0							17	4 PP
COLLMBERG	95.42	331.5	13	25	-3				17	13 PP
CAPE HALLETT	95.54	172.2							17	24
BRATISLAVA	95.63	327.4	13	29	0	23	59	-6		
PRUHONICE	95.64	329.9	13	25	-4	24	4	-1	15	55
SOFIA	95.66	320.3	13	30	1					
HALLE	95.74	332.1	13	39	9	24	3	-3		
MIRNY	95.91	198.2	13	32	2					
JENA	96.31	331.9	13	32	0	24	56	47	17	31 PP
KASPERSKE H.	96.68	329.7	13	30	-4				17	42
HELWAN	97.25	306.0	13	30	-6				17	30
BENSBERG	98.15	334.0	13	38	-2				17	38 PP
LJUBLJANA	98.36	327.0	13	41	0				17	45 PP
WICHITA MTS.	98.36	47.6	13	41	0	24	24	5	17	31 PP
STUTTGART	98.91	331.5	13	41	-3				17	48 PP
TRIESTE	99.03	327.1				24	19	-4	17	48 PP
STRASBOURG	99.71	332.1							17	53 PP
SCOTT BASE	100.32	175.2							17	54 PP
BESANCON	101.51	332.2							17	59
FLORENCE K.	101.61	327.0							18	7 PP
ROME	102.30	325.0							18	13 PP
GARCH	102.71	333.3							18	11 PP
ISOLA	103.37	329.6							18	19 PP
MONACO	103.53	329.1							17	48 PP
MANSON	106.53	203.3	18	44	777					
PENNSYLVANIA	106.67	31.8							18	47 PP
PALISADES	108.33	29.2							19	1 PP
WASHINGTON	108.52	32.6	18	50	777					
TORTOSA	109.01	331.4	18	54	777					
SOUTH POLE	111.64	180.0	18	42	5				19	20
TOLEDO	111.73	333.9	13	53	16					
BYRD STATION	112.45	169.2	18	16	-22				18	40
GRANADA	113.81	332.0							20	1 PP
LWIRO	114.04	277.5							14	1
BULAWAYO	119.89	258.7	18	55	2					
LA PAZ	149.39	85.7	19	52	5				23	50 PP

JULE 26 7.4 2.M 49.S EPICENTRE -21.48 170.26 DEPTH= 0.KM

A=-0.91794 B= 0.15762 C=-0.36407 D= 0.1692 E= 0.9056
G= 0.3583 H=-0.0616 X=-0.9314 HT= 4.3

SE= 3.70

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
NOUMEA	3.63	256.3	0	57A	-2	1	41	-2				
PORT VILA	4.15	333.6	1	2K	-4	1	52	-4				
KOUMAC	5.66	270.3	1	24	-3	2	23	-6				
MOTIAGA	15.55	310.3									4	47
BRISBANE	16.96	246.3	3	58	-2	7	12	3				
KARAPIRO	17.02	165.6	4	1	0							
CHATEAU	18.23	166.8	4	17	1							
AFIAMALU	18.69	69.2	4	13	-4							
COBB RIVER	19.65	174.4	4	34	1	8	31	22				
WELLINGTON	20.10	170.1	4	36	-2	8	35	16				
RIVERVIEW	20.88	229.9	4	47A	1	8	34	-1	4	55	5	11 PP
KAIMATA	21.00	177.5	4	56	9							
DEBBIES PASS	22.25	175.4	5	0	0							
CHARTERS TS.	22.48	269.2	5	0	-2	9	14	9				
CANBERRA	23.17	228.9	5	10	1	9	23	6	5	17	5	47 PP
PORT MORESBY	25.26	294.3	5	31	2	10	11	13				
MELBOURNE	27.23	227.7	5	47	-1	11	0	35				

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MOORLANDS	23.47	217.5	6	3A	4					
TARRALEAH	23.30	218.4	6	9	7					
ADELAIDE	30.72	237.2	6	24	5				9	17 PCP
DARWIN	33.70	277.0	7	27	0					
KUPBARING	43.96	245.3	8	47K	-3					
CAPE HALLETT	50.35	130.0	9	2	-3	16	23	3	10	26 SCS
SCOTT BASE	56.45	100.9	9	44A	-2	17	40	4	11	33 PP
LERBANG	62.09	273.6	10	22	-3					
MATUSIRO	65.17	331.9	10	43	-2	19	24	-4		
MIRNY	65.43	205.4	10	44	-3					
BYRD STATION	65.50	169.6	10	44	-4				11	37
SOUTH POLE	68.65	130.0	11	5	-2					
HAMSON	76.72	202.1	11	52K	-3					
ARGENTINE I.	34.11	159.0	12	31	-3					
STA. CRUZ C.	36.32	47.9	12	53	0					
BERKELEY	36.50	47.1	12	55	9	23	31	3	29	11 SS
VINEYARD	36.62	48.4	12	55	8					
LICK	36.73	47.3	12	47K	0					
PASADENA	37.67	51.9	12	53	1	23	41	3		
FRESNO	37.74	49.0	12	53	6					
SHASTA	37.93	44.6	12	52	-1					
MINERAL	38.27	45.2	12	52A	-3				14	41
RENO	39.07	46.6	12	59	1					
STILLONG	39.25	297.8	13	2	3					
BOULDER CITY	40.93	51.6	13	7	0					
EUREKA	41.67	48.0	13	9	-1					
COLLEGE	41.91	16.6	13	8	-4				17	52
TUCSON	42.30	56.3	12	58	-16					
TUCSON TELE.	42.50	56.3	12	58	-16					
HUNGRY HORSE	46.77	40.6	13	32	-2					
FLAMING GORGE	46.85	43.8	13	33	-1					
PALISADES	123.03	54.3	19	2	3				22	53 PPP
NURMIJARVI	134.16	337.1	19	23	3					
KSARA	138.07	297.1	19	21	-6	26	35	-1	21	59 PP
NIEDZIKA	143.33	326.8	19	31	5				20	2
COLLMBERG	145.35	334.7	19	39	-1				19	44 PKP2
HALLE	145.60	335.9	19	43	3				20	30
PRUHONICE	145.70	331.9	19	41	1					
VIENNA-H.	146.03	328.2	19	47A	6					
JENA	146.20	335.6	19	45	4				20	17
MUNSTER	146.72	340.3	19	47	5					
KASPERSKE H.	146.75	331.7	19	47	5				21	17
ATHENS	146.84	307.2	19	42K	0					
GENSBERG	147.73	339.8	19	47	3				20	11
STUTTGART	148.32	335.4	19	47	1					
STRASBOURG	149.55	336.8	19	56	9					
BASLE	150.49	335.3	20	6	10					
BESANCON	151.32	337.4	19	59	10					
FOLLINIERE	151.78	347.0	19	23	-27				19	55
GARCHY	152.25	341.1	20	1	10					
ISOLA	153.43	332.3	20	4	12					
MONACO	153.62	331.2	20	4	11					

JUNE 26 14.H 47.M 21.S EPICENTRE 52.03 174.62 DEPTH= 0.KM

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SE= 1.38

	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	
PETROPAVLOVK	9.77	281.8	2	22	-3	4	6	-10			3	29	
MAGADAN	15.27	303.6	3	40	2								
UGLEGORSK	20.79	274.7	4	46	1						8	45	
COLLEGE	23.01	41.8	5	8	1	9	21	7					
YAKUTSK	25.84	310.2	5	35	1	10	1	-2					
MIZUSAWA	26.51	254.1	5	44A	3								
SITKA	28.90	60.1	6	7	5	10	55	2					
TUKUBASAN	29.06	250.6	6	3A	-1	10	52	-3	6	15	7	2	PP
VLADIVOSTOK	29.78	269.6	6	9	-1	11	7	0			7	11	PP
MATUSIRO	29.95	253.2	6	11K	-1	11	9	0					
ABUYAMA	32.66	253.7	6	35K	-1								
CHANGCHUN	33.47	275.7	6	41A	-2	12	1	-3					
KIPAPA	37.22	134.9	7	19	4								
VICTORIA	38.68	69.9	7	41	14								
RESOLUTE	40.78	24.0	7	44A	0								

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PEKING	41.23	276.9	7	48A	0	14	2	-1	9	27	PP
IRKUTSK	41.53	299.2	7	51A	1				9	20	PP
BANFF	41.82	62.4	7	52	-1						
ULAN-BATOR	42.30	292.4	7	57	0				9	39	PP
KHEYS	43.03	347.6	8	4	1	14	23	-1	9	50	PP
ZO-SE	43.96	263.0	8	11A	1						
HUNGRY HORSE	44.12	65.2	8	11	-1	14	41	-4			
PAOTOU	44.64	281.7	8	17A	1						
NANKING	44.77	266.0	8	16A	-1	14	52	-2			
THULE	45.72	17.1	8	25	1						
BUTTE	46.26	67.1	8	28	-1						
NORD	46.42	2.3	8	30A	0						
BOZEMAN	47.32	66.7	8	37	0						
EUREKA	48.22	76.3	8	43	-1				10	23	PP
SIAN	49.37	275.9	8	52A	-1	16	0	0	10	49	PP
PASADENA	50.37	83.1	9	2	1	16	14	1	10	21	PCP
BOULDER CITY	51.18	79.0	9	7	0						
FLAMING GRGE	51.19	70.6	9	5	-2				10	53	
LANCHOW	51.27	281.2	9	8	0	16	26	0			
RAPID CITY	52.70	63.8	9	17	-1						
LARAMIE	53.15	67.9	9	21	-1						
CANTON	54.55	262.4	9	32A	0	17	12	1			
HONG KONG	54.64	261.1	9	32	-1	17	13	1			
CHENGTU	54.04	276.2	9	32A	-2	17	12	-3	11	42	PP
SEMIPALATNSK	54.93	308.8	9	33	-2	17	9	-7			
TUCSON	56.14	79.6	9	43	0				11	44	PP
TUCSON TELE.	56.15	79.4	9	44	1						
SCORESBY SD.	57.16	6.5	9	51A	0	17	47	2	13	15	PPP
APATITY	57.19	343.4	9	49A	-2				19	41	
TROMSOE	57.31	350.1	9	52	0				12	21	PP
SODANKYLA	58.46	346.1	9	59	-1				10	49	
SVERDLOVSK	58.71	324.0	10	2	0				12	13	PP
KIRUNA	58.86	348.9	10	2A	-1	18	3	-5			
RABAUL	59.23	206.3	10	5	0						
KUNMING	59.59	272.6	10	7A	-1	18	16	-1			
KAJAANI	61.34	344.1	10	18	-2						
WICHITA MTS.	61.67	69.1	10	20	-2	18	45	1	12	21	PP
UMEA	62.71	347.5	10	26A	-3						
FRUNSE	62.99	305.6	10	30	-1	19	2	2			
FAYETTEVILLE	63.19	65.1	10	30	-2						
REYKJAVIK	63.41	8.0	10	34A	1						
LHASA	63.43	284.7	10	35	1	19	7	1			
SKALSTUGAN	63.85	351.3	10	35A	-1				11	11	
SIDA	64.05	6.2	10	35	-3						
NURMIJARVI	65.20	344.2	10	44	-1				11	53	
OTTAWA	65.66	46.7	10	46	-2						
CLEVELAND	65.91	53.0				19	33	-4			
SHILLONG	65.91	281.1	10	47	-3						
SHAWINIGAN	66.07	44.2	10	48A	-3						
TASHKENT	66.76	307.8	10	54	-1	19	49	2	11	16	PCP
MOSCOW	66.82	335.2	10	55	0	19	47	-1	13	24	PP
UPPSALA	66.89	347.6	10	55A	-1	19	45	-3	20	47	SCS
BERGEN	67.54	354.3	11	7	7						
CHATRA	67.80	285.4	11	0A	-2	19	59	0			
MORGANTOWN	68.10	53.4	11	4	0						
PENNSYLVANIA	68.21	51.2	11	3	-1			11	14	21	2
CHITTAGONG	68.33	278.8	11	2	-3						
KHOROG	68.55	303.6	11	7	1						
GOTEBORG	69.66	350.2	11	13A	0						
PALISADES	69.92	48.6	11	13	-2	20	17	-7	25	25	SS
WESTON	70.00	46.1	11	14	-1				21	9	
GEORGETOWN	70.07	52.0	11	14	-2	20	23	-3			
WASHINGTON	70.07	52.0	11	14	-2				12	8	
DEHRA DUN	70.47	294.3				20	47	16	11	57	
WARSAK DAM	71.21	301.3	11	22	-1						
COPENHAGEN	71.59	349.5	11	21	-4	20	44	0	21	26	PS
LAHORE	71.60	297.7	11	25A	0						
COLUMBIA	71.89	57.9	11	26	-1						
WARSAW	73.71	343.4	11	38	1	21	7	-1	20	33	
ASHKABAD	74.57	312.7	11	44	2				16	38	PPP
LWOW	75.44	340.8	11	49	2	21	29	2	16	30	PPP
MUNSTER	75.74	351.7	11	50	1						
HALLE	75.76	348.9	11	49	0	21	28	-3			
DE BILT	75.81	353.3	11	50	1	21	36	5			
COLLMBERG	75.83	348.2	11	50A	0				14	42	PP
KRAKOW	76.00	343.5	11	49	-2	21	34	1	11	58	PCP
CHARTERS TS.	76.01	207.4	11	47	-4						
RACIBORZ	76.26	344.6	11	53A	1				12	5	PCP

JENA	76.36	349.0	11	52	-1	21	44	7	15	5	PP
QUETTA	76.62	302.0	11	54A	0	21	38	-2	14	40	PP
SKALNATE PL.	76.78	343.0	11	50	-5	21	52	10			
BENSBERG	76.78	351.9	11	55A	0	21	59	17	12	27	
PRUHONICE	76.91	346.9	11	57A	1	21	40	-3	14	49	PP
TIFLIS	76.95	323.8	11	58	2	21	48	4	14	44	PP
IASI	77.15	337.6	11	57	0	21	47	1			
SIMFEROPOL	77.53	332.4	11	57A	-2	21	47	-3	14	53	PP
KASPERSKE H.	77.88	347.4	12	1A	0				14	59	PP
HEIDELBERG	78.18	350.6	12	3	0						
BRATISLAVA	78.29	344.8	12	3	0				15	1	PP
GORIS	78.31	321.7	12	4	1	22	3	5	15	4	PP
VIENNA-H.	78.33	345.3	12	5A	2						
KARLSRUHE	78.60	350.8	12	6	1	22	15	13			
STUTTGART	78.75	350.2	12	6	0	22	2	-1	15	5	PP
STRASBOURG	79.09	351.1	12	8A	0	22	4	-3	15	21	PP
PARIS	79.26	354.7	12	9	0	22	9	0			
FOLINIERE	79.44	356.7	12	10	0						
TEHERAN	79.48	316.2	12	11	1	22	13	2			
CAMPULUNG	79.55	338.7	12	15	5	22	19	7			
BUCHAREST	80.1'	337.7	12	12A	-1	22	18	1	22	43	PS
BASLE	80.15	351.1	11	44	-29				22	15	
BESANCON	80.57	352.2	12	15	-1						
NEUCHATEL	80.73	351.5	12	17	1						
GARCHY	80.75	354.2	12	17	0	22	23	-1	13	42	
LJUBLJANA	80.76	346.1	12	18	1				15	21	PP
BELGRADE	80.94	341.7	12	19A	1	22	29	3	15	56	
BERMUDA	81.21	47.4	12	17	-2	22	26	-3			
TRIESTE	81.26	346.5	12	20	1	22	37	8			
BRISBANE	81.42	199.5	12	20	0	22	32	1			
PADOVA	81.76	347.8	12	24	2	22	31	-4			
POONA	82.00	289.7	12	22A	-1	22	34	-3			
CLERMONT-FD.	82.25	354.0	12	26A	2						
SOFIA	82.37	339.1	12	26	1				12	47	
ISTANBUL KA.	82.52	334.4	12	26A	0	22	45	3	15	38	PP
ISTANBUL UN.	82.57	334.5	12	27	1				15	30	PP
FLORENCE X.	83.44	348.0	12	33	3	22	50	-2			
ISOLA	83.52	351.0	12	33A	2				15	54	PP
MONACO	83.93	350.7	12	34	1						
SHIRAZ	84.15	312.2	12	33	-1	22	59	0	15	45	PP
BAGNERES	85.11	355.9	12	39A	0						
ROME	85.12	346.7	12	34	-5	23	2	-6	15	54	PP
TARANTO	85.74	342.9							21	45	
KSARA	87.15	326.6	12	50	1	23	39	11	16	14	PP
TORTOSA	87.33	355.5	13	17	27	23	34	4			
RIVERVIEW	87.99	199.4				23	39	3	13	13	
COIMBRA	88.06	2.3	12	54	1						
TOLEDO	88.41	359.0	12	58	3	23	39	-1	13	29	
JERUSALEM	89.23	326.3	13	0A	1				16	10	PP
ALICANTE	89.84	356.1	13	3	1	23	50	-3			
CANBERRA	89.88	200.7	13	2	0						
GRANADA	91.10	358.6	13	14K	6	24	11	7	16	37	PP
ADELAIDE	92.20	208.0	13	20	7						
HELWAN	92.20	328.7	13	13	0	23	49	-26			
SAN JUAN	92.20	56.0	13	13	0						
LWIRO	122.74	313.1							20	23	PP
CAPE HALLETT	124.13	131.6				27	36	93	32	0	PS
SCOTT BASE	129.76	132.2	19	9	-2				21	26	PP
BROKEN HILL	133.76	311.7	19	19	0						
BYRD STATION	136.95	166.5									
BULAWAYO	130.60	307.4	19	20	-8						
SOUTH POLE	141.90	180.0	19	29	-5						
MAWSON	144.53	217.3	19	34A	-4				23	0	PP
PIETERMIZBURG	145.37	296.4	19	40	0						
KIMBERLEY	147.67	304.4	19	47	3						
ARGENTINE I.	148.00	137.2	19	56	12						
PORT STANLEY	148.19	110.5	19	56	12						

JUNE 27 7.H 3.M 56.S EPICENTRE 27.53 89.07 DEPTH= 116.KM

A=-0.13995 B= 0.87695 C= 0.45975 D= 0.9075 E= 0.1575
F=-0.0725 G= 0.4540 H=-0.3330 NT= 2.6

DEPTH OF FOCUS= 0.013?

SS= 4.65

	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	
TOCKLAI	3.91	259.5	1	2	3								
KUNMING	4.08	125.2	0	47K	-14								
CHENGTU	5.33	53.0	0	59K	-19								
SHILLONG	6.73	254.8	1	31A	-7	2	52	-1			1	39	PP
LHASA	7.36	288.5	1	39A	-7	3	38	29					
CHITTAGONG	8.35	233.5	2	0	1	3	40	7			2	6	PP
LANCHOW	9.41	24.3	1	53	-16	3	45	-13					
CHATRA	10.62	269.0	2	24	-6	4	25	-2	2	32	2	40	PPP
SIAN	10.79	49.2	2	11	-21	4	3	-28					
CALCUTTA	10.90	245.2	2	45	12	5	6	32			3	33	
BOKARO	12.52	255.8	2	51	-4	5	23	11			3	3	PPP
CANTON	13.64	105.7	2	51	-18	5	15	-23					
HONG KONG	14.65	107.5	3	5	-17	5	40	-22					
PASTOU	15.85	32.0	2	26	-11								
PORT BLAIR	16.06	201.9	3	40	-2						6	1:	
VISAKHAPTAM	17.51	239.4	3	57A	-1	7	6	-1			4	12	PP
FANKING	17.69	70.5	2	58K	-17	6	43	-23					
PHATRANG	17.95	106.0	3	59	-4	7	24	0					
DEHRA DUN	18.61	283.6	4	1:	1	7	44	14			4	40	PPP
PEKING	18.87	44.3	3	59K	-14	7	16	-20					
ZO-CE	19.60	74.2	4	8K	-13	7	33	-18					
TAINAN	19.65	93.6	4	31	9	7	51	-1					
TAICHUNG	19.74	95.0	4	17	-6	8	1	7					
KAOHSIUNG	19.81	99.6	4	27	4								
HSINCHU	19.84	92.9	4	19	-5								
ALISHAN	20.01	96.7	4	19	-6	8	7	8					
YUSHAN	20.15	96.7	4	24	-3								
TAIPEI	20.20	92.0	4	24	-4	8	14	10					
SEHORE	20.33	262.6	4	25	-4	8	21	16			4	50	PP
HENGCHUN	20.43	100.9	4	46	16								
TAMU	20.45	99.0	4	26	-4	8	15	8					
TAITUNG	20.54	98.5	4	26	-5	8	23	14					
ILAN	20.54	92.6	4	27	-4								
HUALIEN	20.62	94.8	4	27A	-5	8	17	7					
HSINKONG	20.63	97.4	4	25	-7	8	17	6					
ULAN-BATOR	21.26	14.6	4	31	-7	8	22	0					
HYDERABAD	21.51	246.5	4	39A	-1	8	39	12			11	45	PCS
LAHORE	21.88	236.5	4	42	-2	8	40	7					
MADRAS	22.82	234.4	4	54K	1	9	10	20			5	26	PP
MADRAS DUM	24.47	292.1	5	9	0	9	37	19					
POONA	24.84	250.2	5	14A	1	9	30	14			10	47	SS
POONE	25.02	214.0	5	14	0	9	41	14					
IRKUTSK	25.02	7.6	5	7	-7	9	28	1					
KHOROG	25.18	300.2	5	15	-1								
BOMBAY	25.57	256.0	5	24	5	9	54	18			5	56	PP
TOMIE	26.15	71.6	5	17	-8	9	58	12					
CHANGCHUN	26.65	45.5	5	18K	-12	9	44	-10					
ITUHARA	26.71	68.1									13	56	
SEMIPALATNSK	26.97	332.9	5	27	-5						10	11	
NAGASAKI	27.09	71.4	5	23K	-11	10	13	12					
UNZENDAKE	27.41	71.5	5	29	-7								
SAGA	27.48	70.3	6	6	29	11	9	62					
HUKUOKA	27.57	69.6	5	25	-13	10	20	11					
KUMAMOTO	27.79	71.3	5	6	-34	10	32	19					
TASHKENT	28.00	307.2	5	42	0	10	30	14			6	44	PP
ASOSAN	28.10	71.2									6	31	
QUETTA	28.21	283.1	5	42A	-2	10	34	15			6	37	PP
MIYAZAKI	28.37	73.2				10	44	22					
OOITA	28.58	70.5	5	37	-10						14	10	SS
KARACHI	28.83	272.0	5	53	4								
UWAJIMA	29.36	70.6									14	27	
MATUYAMA	29.58	69.4	5	50	-6						12	50	
SIMIDU	29.70	71.5									12	29	
KOTI	30.19	70.0	6	17	16	11	56	65					
MUROTO	30.72	70.6									12	48	
VLADIVOSTOK	30.74	51.0	5	54	-12	10	41	-18			6	52	PP
SUMOTO	31.37	68.6	5	59	-13						14	4	
TOYOOKA	31.37	66.3	7	17	65	11	42	33					
KOBE	31.61	67.9	6	8	-6						15	39	
OSAKA	31.89	68.0									6	53	
ABUYAMA	31.94	67.6	6	7K	-10								
SHIMISAKI	32.06	70.3									14	5	
KYOTO	32.08	67.3	6	2	-16	11	30	10					
HIKONE	32.52	66.9	6	17	-5								
KAMEYAMA	32.63	67.7	6	24	1	11	23	-7					

GIHU	32.95	66.7	6	9	-16						
NAGOYA	33.10	67.2	6	13	-14					16	54
TOYAMA	33.39	64.4	6	29	0					17	22
IIDA	33.82	66.6	6	16	-17						
OMAESAKI	34.11	68.2				11	55	3			
MATUSIRO	34.19	64.8	6	24A	-12	11	51	-2		7	53 PP
NAGANO	34.19	64.6	6	3	-33						
SHIZUOKA	34.27	67.6				12	7	13		18	4
DJAKARTA	34.34	166.2	6	37A	0	12	7	12			
AIKAWA	34.34	62.2	6	30	-7						
KOHU	34.42	66.4	6	49	11					17	39
OIWAKE	34.45	65.2	6	34	-4	11	52	-5			
HUNATU	34.59	66.7	6	38	-1					14	11
MISIMA	34.72	67.3								7	36
TITIBU	34.86	65.9	6	35	-7						
MAEBASI	34.87	65.1	6	47	5	12	57	54			
NIIGATA	34.96	62.5	7	13	30					14	55
KUMAGAYA	35.11	65.6	7	7	23						
LEMBANG	35.14	165.1	6	44A	0	12	18	10			
TOKYO C.M.O.	35.39	66.4	6	7	-39	12	4	-7			
UTUNOMIYA	35.52	64.9	6	52	5						
ASHKABAD	35.55	297.5	6	47	0						
TUKUBASAN	35.69	65.5	6	35K	-14	12	10	-6	6 44	8	3 PP
KAKIOKA	35.76	65.5	6	53	4						
AKITA	35.97	59.5	7	5	14						
YAMAGATA	36.01	62.1	6	46	-5						
HUKUSIMA	36.07	62.9	6	42	-10						
SENDAI	36.45	62.1	6	47	-8						
SUTTSU	36.55	54.4								8	5
MIZUSAWA	36.70	60.7	7	4	7					14	50
ISINOMAKI	36.79	61.9	6	48	-10					17	30
MORIOKA	36.79	59.7	6	0	-58						
MIYAKO	37.40	59.9	7	1	-2						
SAPPORO	37.41	54.2	6	50	-13	12	38	-4			
WAKKANAI	38.12	50.6	7	0	-9						
URAKAWA	38.31	56.0	7	7	-4						
OBIHIRO	38.72	54.9	7	27	13						
UGLEGORSK	39.34	45.0	7	7	-12					16	10 SSS
KUSIRO	39.61	55.0	7	10	-11						
SVERDLOVSK	39.97	327.9	7	20	-4						
YAKUTSK	40.03	22.0	7	15	-10	13	14	-8		8	57 PP
SHIRAZ	40.72	284.4	7	28	-2	13	44	12		9	14 PP
TEHERAN	41.08	293.7	7	36	3	13	45	8			
GUAM	44.76	98.8	7	59	-4					8	7
GORIS	44.99	299.4	8	6A	1	14	49	15		10	3 PP
TIFLIS	46.13	302.5	8	17A	3	15	5	15		10	5 PP
TIKSI	47.13	12.4				14	49	-15		9	56 PP
MAGADAN	47.49	32.9	8	20	-5	15	11	2			
PETROPAVLOVK	50.36	42.6	8	39	-8					10	33 PP
MOSCOW	51.73	320.7	8	57	0	16	18	10		10	53 PP
SIMFEROPOL	53.79	307.1	9	12A	-1	16	48	12		17	4 PS
KSARA	53.97	293.3	9	16	2	17	2	23	9 45	11	20 PP
JERUSALEM	54.95	291.0	10	0	39						
KHEYS	55.71	352.5	9	20	-6	17	8	6		11	30 PP
KAJAANI	57.47	330.4	9	34	-5						
ISTANBUL KA.	57.96	303.1	9	42A	0					11	21
ISTANBUL UN.	58.02	303.0	9	44	1	17	44	12			
IASI	58.10	310.4	9	43	0					19	36
SODANKYLA	58.15	334.3	9	39	-5						
HELWAN	58.66	289.8	9	48	1					19	34
NURMIJARVI	58.83	326.2	9	43A	-5	17	49	6			
PORT MORESBY	59.28	121.3	9	49	-2	17	59	10		10	41
BUCHAREST	59.53	307.4	9	53A	0					14	44 PPP
LWOW	60.08	313.8	9	58	1	18	12	13		13	41 PPP
RABAUL	60.11	113.1	9	52	-5						
KIRUNA	60.54	334.7				18	4	-1			
UMEA	60.77	330.1	9	56A	-6						
TROMSOE	61.06	336.8	9	59	-5					12	24 PP
MUNDARING	61.38	163.4	10	5A	-1						
WARSAW	61.60	316.8				18	25	7		18	54 PPS
UPPSALA	62.38	325.7	10	8	-4					18	35
SKALNATE PL.	62.62	313.5	10	14	0	19	8	37			
ATHENS	62.66	300.6	10	14A	0					12	38
CHORZOW	63.20	314.9	10	17	-1					10	45 PCP
BELGRADE	63.40	308.7	10	20K	1					12	45 PP
RACIBORZ	63.74	314.8	10	22	1					10	50 PCP
SKALSTUGAN	64.31	330.3	10	19	-6						
BRATISLAVA	64.87	312.9	10	29	0	19	8	9			
VIENNA-H.	65.33	313.2	10	31	-1					11	12 PCP

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GOTEBORG	65.66	323.9	10 30	-4						
CHARTERS TS.	65.78	130.9	10 29	-6	19 19	9				
COPENHAGEN	65.88	321.7	10 32	-3	19 23	12	10 44	19 58	PS	
PRUHONICE	66.05	315.3	10 33	-3	19 28	15		20 23	PPS	
PRAGUE	66.11	315.4			19 29	15				
ZAGREB	66.21	310.6	10 40	3	19 28	13				
NORD	66.54	351.7	10 31	-8						
COLLMBERG	66.67	317.0	10 37	-3	19 37	16		13 6	PP	
TARANTO	66.82	304.8						13 22		
KASPERSKE H.	66.89	314.6	10 42A	0				12 29		
LJUBLJANA	67.13	311.2	10 41	-2				13 2	PP	
TRIESTE	67.76	310.9	10 48	1	19 46	12		20 23	SP	
TANANARIVE	67.98	233.1	10 47	-1				11 47		
JENA	68.10	316.8	10 46	-3	19 40	2		13 17	PP	
MESSINA	68.77	302.9	10 54	1						
MUNSTER	69.68	318.7	11 0	1						
STUTTGART	69.70	315.1	10 56	-3	20 10	13		11 40		
ROME	69.80	307.4	11 0	0	20 14	16		13 36	PP	
RAVENSBURG	69.81	314.1	10 59	-1						
HEIDELBERG	69.85	315.9	11 0	0						
TUBINGEN	69.91	314.9	11 0	0						
FLORENCE X.	70.03	309.6	11 2	1	20 17	16				
EBINGEN	70.09	314.6	11 2	1						
KARLSRUHE	70.16	315.6	11 4	2	20 17	15				
CHUR	70.17	313.1	11 6	4				20 14		
BENSBERG	70.27	317.8	11 2A	0				11 23	PCP	
STRASBOURG	70.71	315.3	11 5	0	20 22	13		24 40		
DE BILT	71.05	319.4	11 10	3	20 24	12				
BASLE	71.19	314.3	11 29	21				21 47		
BESANCON	72.30	314.4	11 16	2				12 37		
ADELAIDE	72.59	146.7	11 14A	-2	20 44	14		13 56	PP	
MONACO	72.64	310.6	11 17	1						
ISOLA	72.73	311.2	11 18	1			11 27			
ABERDEEN	73.03	326.0	11 19	0	20 18	-17		14 11	PP	
LWIRO	73.64	258.6	11 23A	1	20 58	16				
SCORESBY SD.	73.79	342.5	11 22A	-1	20 57	14		21 24	PS	
PARIS	73.88	316.9	11 25	1	20 55	11				
GARCHY	74.12	315.3	11 26	1				13 6		
KEW	74.45	320.2	11 27	0	21 2	11		14 20	PP	
COLLEGE	74.52	24.0	11 20	-7	21 0	8		12 5		
CLERMONT-FD.	74.70	313.8	11 29	1	21 11	18				
BRISBANE	75.11	132.1	11 29	-2	21 6	8				
FOLINIERE	75.68	317.7	11 36	2						
THULE	76.00	356.9	11 30	-6						
SIOA	76.58	336.0	11 40K	1						
RESOLUTE	77.64	3.8	11 39K	-6						
REYKJAVIK	77.72	337.4	11 47	2						
BAGNERES	77.76	312.2	11 41	-5				14 13		
MELBOURNE	77.96	144.4	11 47	0	21 47	18				
CANBERRA	78.30	140.3	11 46	-3	21 46	13		11 51	PCP	
RIVERVIEW	78.49	137.9	11 50K	0	21 51	16		14 52	PP	
TORTOSA	78.52	310.0	12 27	37						
BANGUI	79.52	269.5	11 59	4	21 55	9				
BROKEN HILL	80.11	248.1	12 58	60				13 5	PCP	
ALICANTE	80.31	308.1	11 59	0	22 3	9		23 7	PPS	
NOUMEA	81.79	120.3	12 7A	0						
TOLEDO	82.04	310.8	12 11	3	22 31	19		15 10	PP	
TARRALEAH	82.08	146.5	12 12	3				12 16	PCP	
ALMERIA	82.41	307.5	12 10A	0	22 19	4		15 21	PP	
MOORLANDS	82.55	146.2	12 14A	3				12 18	PCP	
FORT NELSON	82.99	146.5	12 20	7	22 39	18				
BULAWAYO	83.01	243.1	12 13	0				12 19	PCP	
GRANADA	83.04	308.3	12 40A	26	22 37	15		15 45	PP	
SERRA PILAR	84.40	313.7	12 20K	0						
COIMBRA	84.77	312.8	12 24	2				15 43	PP	
LISBON	86.03	311.9	12 31A	3	22 52	1		15 45	PP	
PRETORIA	86.35	238.6	12 36	6						
KIMBERLEY	90.51	237.7	12 49	-1						
HONOLULU	91.03	65.4						16 22		
WINDHOEK	93.48	246.5	13 5	2						
WILKES	93.98	175.4			23 30	-33		25 26		
KARAPIRO	96.73	129.3	13 19	1						
HERMANUS	97.42	235.1			24 5	19		26 13	PS	
HUNGRY HORSE	98.85	21.6	13 42	14						
BUTTE	101.37	21.9	17 43	244						
MINERAL	102.61	30.7	13 58	13						
BERKELEY	104.28	32.6	13 46	-6	24 34	14		18 2	PP	
EUREKA	105.76	27.5	14 0	777				18 34	PP	

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RAPID CITY	105.88	16.5	17	43	777					
FLAMING GRGE	106.95	22.2	19	14	777					
BOULDER CITY	109.21	28.6	17	5	777					
PASADENA	109.23	32.1	14	14	777	24	56	15	18 40	PP
CAPE HALLETT	110.49	162.0							18 58	PP
PALISADES	111.50	354.3				25	2	11	19 6	PP
SCOTT BASE	112.20	167.8	18	23	1				19 8	PP
TUCSON TELE.	114.06	27.4	18	27	2					
TUCSON	114.09	27.6	18	29	4					
FAYETTEVILLE	115.50	11.9	18	32	4					
WICHITA MTS.	115.87	16.1	18	29	0	25	21	14	19 35	PP
SOUTH POLE	117.37	180.0	18	30	-2				20 5	PP
BERMUDA	118.45	344.4							19 47	
BYRD STATION	125.02	172.4	18	37	-9	26	1	23		
SAN JUAN	132.16	340.9	19	2	2					
TRINIDAD	137.59	330.8	19	11	1					
CARACAS	139.83	338.3	19	12	-2				40 18	SS
ARGENTINE I.	140.82	191.0	19	14	-2					
FUQUENE	146.46	346.9	19	29	3				20 47	
BOGOTA	147.36	347.2	19	32	5				30 2	SKKS
PORT STANLEY	150.27	209.4	19	36	4					
HUANCAYO	163.73	340.1	19	56	8					
LA PAZ	163.85	310.2	19	53	4				24 25	PP
SANTA LUCIA	169.35	233.9	21	15	82				25 10	

JUNE 27 7.H 52.M 54.S EPICENTRE 54.64 158.08 DEPTH= 278.KM

A=-0.53925 B= 0.21704 C= 0.81370 D= 0.3734 E= 0.9277
G=-0.7549 H= 0.3038 K=-0.5813 HT= -7.1

DEPTH OF FOCUS= 0.039R

SE= 1.15

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
KLYUCHI	2.32	42.2	0	46	-2	1	22	-4				
MAGADAN	6.32	324.1	1	36	3	2	50	4				
UGLEGORSK	11.34	247.2	2	39	3	4	44	5				
YAKUTSK	16.51	308.0	3	36	-1							
MIZUSAWA	19.28	223.4	4	7	1	7	27	3				
TUKUBASAN	22.21	221.3	4	34	0						8	21
MATUSIRO	22.69	225.2	4	37K	-2	8	28	4				
ABUYAMA	25.22	227.6	5	1	-1							
COLLEGE	28.20	47.1	5	28	-1						6	15
IRKUTSK	31.45	288.2	5	56K	-2							
RESOLUTE	42.34	22.2	7	28A	0							
NORD	43.97	358.9	7	41	-1						9	23 PCP
THULE	45.90	13.8	7	56	-1							
VICTORIA	46.78	63.4	8	3A	-1							
CORVALLIS	49.37	67.4	8	24A	1							
APATITY	51.37	336.1	8	37K	-1							
HUNGRY HORSE	51.65	58.2	8	40	0							
SHASTA	52.49	70.5	8	47	0						9	32
SODANKYLA	53.03	338.7	8	50A	0						9	54 PCP
FRUNSE	53.14	294.0	8	51	0							
BUTTE	53.97	59.5	8	57	0							
BERKELEY	54.55	72.9	9	2A	1				9	20		
RENO	54.72	69.8	9	4A	1							
SCORESBY SD.	55.18	0.0	9	8	2				10	4		
LICK	55.28	72.9	9	7A	0						10	4
STA. CRUZ C.	55.32	73.4	9	7A	0				9	22		
KAJAANI	55.57	336.0	9	8	-1							
SHILLONG	55.87	266.7	9	9	-2							
FRESNO	56.71	72.1	8	52A	-25						9	46
EUREKA	56.84	67.3	9	18	0				10	12		
UMEA	57.44	339.3	9	19	-3						10	10
CHATRA	57.64	271.6	9	23	0							
KHOROG	58.61	291.5	9	30	0							
SKALSTUGAN	59.16	343.0	9	32K	-2							
FLAMING GRGE	59.23	61.8	9	34	0						10	21
NURMIJARVI	59.37	335.3	9	34K	-1						10	20 PCP
PASADENA	59.53	73.0	9	37	1				10	34		
MOSCOW	59.71	325.6	9	37	-1							
RAPID CITY	59.96	55.4	9	41	2							
BOULDER CITY	60.01	69.3	9	40	0							

GLEN CANYON	61.02	66.3	9	46	0						
REYKJAVIK	61.56	360.0	9	51K	1						
UPPSALA	61.56	338.6	9	49K	-1					10	10
SIDA	61.88	358.1	9	55	3						
BERGEN	63.27	345.3	10	1	0						
GOTEBORG	64.70	340.7	10	10K	0					10	40
TUCSON TELE.	64.99	69.1	10	13	1						
TUCSON	64.99	69.2	10	12	0			11	11	12	29 PP
QUETTA	66.60	289.4	10	20K	-2						
LAWRENCE	67.69	53.8	10	29	0						
TIFLIS	68.44	312.3	10	35	1						
LWOW	69.01	330.1	10	37	0						
WICHITA MTS.	69.46	58.9	10	40A	0	19	25 1			21	48
GORIS	69.58	309.9	10	40	-1						
SIMFEROPOL	69.98	321.2	10	44	1						
TEHERAN	70.28	304.1	10	45	0						
RACIBORZ	70.37	333.8	10	46	1						
OTTAWA	70.39	37.1	10	44A	-2						
SHAWINIGAN	70.40	34.6	10	45A	-1						
NIEDZIKA	70.41	332.2	10	47	1					11	58
COLLMBERG	70.48	337.6	10	46K	0	19	54 19			13	13 PP
FAYETTEVILLE	70.50	54.9	10	45A	-1	20	27 51			14	34 PPP
MUNSTER	70.95	341.2	10	50	1						
BREBEUF	71.03	35.7	10	48	-1						
JENA	71.14	338.3	10	50	0					11	55
PRUHONICE	71.36	336.1	10	52K	1					12	41
BENSBERG	72.00	341.1	10	55	0					11	35
KASPERSKE H.	72.38	336.4	10	58K	1					12	48
BRATISLAVA	72.41	333.8	10	58	0						
STUTTGART	73.67	339.1	11	5	0						
MORGANTOWN	73.79	43.0	11	5A	-1						
STRASBOURG	74.16	340.0	11	8	0					11	38
SHIRAZ	74.65	299.6	11	9A	-2	20	21 -1			13	59 PP
PARIS	74.89	343.6	10	57	-15						
LJUBLJANA	75.03	334.6	11	13	0						
BASLE	75.20	339.8	11	14	0						
FOLINIERE	75.39	345.5	11	15	0						
CHUR	75.44	338.3	11	15	0						
BESANCON	75.78	340.8	11	17	0						
NEUCHATEL	75.83	340.1	11	18	1						
GARCHY	76.28	342.8	11	40	20						
CLERMONT-FD.	77.73	342.3	11	12	-16					12	13
COLUMBIA	78.17	46.8	11	30	0						
ISOLA	78.51	339.2	11	32	0					11	34 PCP
MONACO	78.86	338.8	11	34	0						
KSARA	78.88	314.1	11	34	0						
ATHENS	79.79	325.0	11	38A	-1						
BAGNERES	80.86	343.8	11	44	0						
JERUSALEM	80.92	313.6	11	47	2						
HELWAN	84.20	315.6	12	2K	1						
TOLEDO	84.61	346.3	12	6A	3						
COIMBRA	84.83	349.7	12	6	2						
CANBERRA	89.94	187.4	12	29	0					13	34
SCOTT BASE	132.34	177.5	18	41	0			19	48	21	43 SKP
KIMBERLEY	137.68	288.3								21	51
BYRD STATION	141.96	163.8	18	53	-4			20	8	22	11 SKP
SOUTH POLE	144.46	180.0	19	2	-1					22	17 SKP

JUNE 28 13.H 15.M 25.S EPICENTRE -4.97 102.43 DEPTH= 59.KM

A=-0.21448 B= 0.97293 C=-0.08604 D= 0.9766 E= 0.2153
G= 0.0185 H=-0.0840 K=-0.9963 HT= 7.0

DEPTH OF FOCUS= 0.004R

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
DJAKARTA	4.54	105.6	1	7	-1	1	59	-1				
LEMBANG	5.48	110.0	1	22K	1	2	40	16				
NHATRANG	18.36	21.5	4	12	0							
MUNDARING	29.80	156.0	6	9	5							
KUNMING	29.91	0.6	6	5	0							
SHILLONG	32.04	341.8	6	22A	-1							
CHATRA	34.89	335.7	6	50K	2							
LHASA	36.11	343.0	7	0A	2	12	37	4				

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SIAN	39.48	8.5	7 27A	1							
LAMCHOW	40.82	1.7	7 38A	0							
PORT MORESBY	44.56	98.3	8 8	0							
ADELAIDE	44.88	136.5	8 11K	0							
LAHORE	45.13	325.4	8 13A	0							
CHARTERS TS.	45.18	113.4	8 13	0	14 51	3					
PAOTOW	45.86	9.1	8 20A	2							
PEKING	46.53	14.6	8 25A	1							
WARSAK DAM	48.51	325.3	8 36	-3							
QUETTA	48.74	318.0	8 40A	-1							
RABAUL	49.58	91.3	8 45	-2							
MELBOURNE	50.67	136.2	9 4	8							
CANBERRA	52.44	131.5	9 9	0							
CHANGCHUN	52.77	20.7	10 10A	59							
BRISBANE	52.90	120.7	9 13	1						14 59	
MATUSIRO	53.13	36.1	9 12	-2	17 15	36					
ANDIJAN	53.19	331.6	9 14	-1	16 35	-4					
FRUNSE	53.84	334.8	9 20A	1							
HONIARA	57.19	98.0	9 41	-2							
SHIRAZ	58.93	309.0	9 55K	-1	18 4	9	10 4		10 52	PCP	
Y.-SAKHLINSK	62.79	29.8	10 21	-1							
MAWSON	68.04	195.3	10 53	-2							
TIFLIS	69.99	317.7	11 8	1							
YAKUTSK	70.02	13.3	11 10	2							
BULAWAYO	73.13	250.6	11 26	0							
BROKEN HILL	73.26	256.5	10 46	-41							
KSARA	73.60	307.2	11 27	-2							
PETROPAVLOVK	74.57	31.4	11 35A	0							
TIKSI	78.39	8.3	11 54K	-2							
SCOTT BASE	79.89	168.8	12 4	0						12 13	PCP
MOSCOW	80.27	328.7	12 7	1							
SOUTH POLE	85.06	180.0	12 30	-1						14 31	
LWOW	86.32	320.5	12 39K	2							
APATITY	86.69	339.0	12 39	0							
NURMIJARVI	88.30	331.1	12 47K	1						13 10	
NIEDZIKA	88.62	319.7	12 49	1						16 19	
SODANKYLA	89.13	338.0	12 51	1							
RACIBORZ	90.07	320.1	12 56	1							
PRUHONICE	92.40	319.8	13 7	1							
BYRD STATION	92.55	173.3	13 7	1						13 16	PCP
KASPERSKE H.	92.97	318.9	12 58	-10							
COLLMBERG	93.48	321.0	13 12	1							
COLLEGE	102.80	24.3	17 55	242							
MINERAL	127.08	41.7	19 0	2							
EUREKA	131.21	39.7	19 8	2							
WICHITA MTS.	144.57	30.6	19 31	1						22 47	PP
MORGANTOWN	145.43	3.2	19 34A	2							
FAYETTEVILLE	145.46	24.1	19 33A	1							
LA PAZ	156.72	203.5	19 17	-31							

JUNE 29 9.H 22.M 53.S EPICENTRE -13.77 165.93 DEPTH= 0.KM

A=-0.94249 B= 0.23618 C=-0.23652 D= 0.2431 E= 0.9700
G= 0.2294 H=-0.0575 K=-0.9716 HT= 6.0

SE= 2.06

	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
PORT VILA	4.56	150.0	1	10A	-2	2	0	-6				
KOUMAC	6.93	192.9	1	44A	-1	3	2	-4				
HONIARA	7.28	305.7	1	39	-11	3	18	4				
NOUMEA	8.50	176.8	2	5A	-2	3	38	-7				
SUVA	12.78	111.5	3	8	2							
RABAUL	16.58	303.7	4	0	5							
BRISBANE	18.29	220.2	4	16	0	7	25	-14				
PORT MORESBY	18.90	281.3	4	26	2	8	3	11				
CHARTERS TS.	19.83	248.8	4	34	-1	8	17	4				
AFIAMALU	21.64	93.0	4	52	-2	9	33	44				
ONERAHI	23.18	162.4	5	13	4	9	33	16				
RIVERVIEW	24.06	211.4	5	18K	1	9	31	-2			5	54 PP
CANBERRA	26.33	212.5	5	38	-1	10	16	5			6	23 PP
TONGARIRO	26.71	163.2	5	43	1							
CHATEAU	26.71	163.2	5	43	1							
TUAI	26.83	160.3	5	43	-1	10	18	-1				
COBB RIVER	27.85	169.0	5	58	5	10	42	7				

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WELLINGTON	28.47	165.9	5	58	0	10	44	-2		6	49 PP
MELBOURNE	30.36	214.1	6	14	-1						
GEBBIES PASS	30.38	170.3	6	14	-2						
ROXBURGH	31.74	175.5				11	29	-8		7	39 PP
ADELAIDE	32.37	224.5	6	32	-1	11	41	-6		7	14
MOORLANDS	32.85	206.0	6	38	1						
TARRALEAH	33.05	207.0	6	38	-1						
FORT NELSON	33.18	205.3	6	43	3	12	0	0			
MACQUARIE I.	41.00	186.2	7	46	0						
MUNDARING	48.81	239.5	8	47K	-2						
HONOLULU	49.62	46.0	8	56	1	15	45	-13			
MANILA	52.62	300.8	9	17	-1					11	31
TUKUBASAN	55.39	334.7	9	36	-2	17	26	4	9 44	11	41 PP
ABUYAMA	56.31	330.0	9	45K	0						
MATUSIRO	56.46	333.3	9	44K	-2	17	44	8			
LEMBANG	57.67	270.6	9	54K	0	17	48	-4			
CAPE HALLETT	58.57	178.5	9	59A	-2	17	39	-25		12	23 PP
DJAKARTA	58.58	271.1	10	0	-1					18	16
ZO-SE	61.94	316.8	10	24	0	18	55	8			
HONG KONG	62.12	304.6	10	26	1	18	17	-32			
CANTON	63.17	304.9	10	32K	0	19	11	3			
WILKES	63.96	201.7	10	34A	-3	19	17	5	10 45	13	3 PP
Y.-SAKHLINSK	63.99	342.5	10	36	-1	19	9	-4			
SCOTT BASE	64.09	179.8	10	37A	-1	19	3	-11		12	59 PP
NANKING	64.14	316.2	10	37K	-1	19	19	4			
UGLEGORSK	66.04	343.1	10	50K	0						
PETROPAVLOVK	66.81	355.2	10	54	-1						
CHANGCHUN	68.25	329.5	11	4	0	20	9	4			
MIRNY	70.68	203.9	11	18	-1	20	34	1			
PEKING	70.71	321.6	11	19K	0	21	17	43			
SIAN	72.20	313.1	11	28K	0	20	55	4			
KUMMING	72.70	302.1	11	33K	2	21	4	7			
BYRD STATION	73.86	169.9	11	36	-2	20	49	-21			
MAGADAN	74.09	352.1	11	38	-1						
CHENGTU	74.09	307.8	11	40K	1	21	19	7			
PADTOW	74.83	319.2	11	44K	0	21	28	8		14	35 PP
SOUTH POLE	76.32	180.0	11	51	-1	21	45	8		12	11 PCP
LANCHOW	76.71	312.6	11	55	1	21	47	6			
ULAN-BATOR	80.72	324.2	12	16	0						
YAKUTSK	80.73	343.6	12	16	0						
SHILLONG	81.98	298.7	12	23	0						
MAWSON	82.20	202.1	12	26K	2	22	47	7		22	35 SKS
KERGUELEN I.	83.45	220.9	12	36	6	23	1	9			
STA. CRUZ C.	84.39	49.9	12	36A	1						
IRKUTSK	84.42	327.1	12	36	1						
BERKELEY	84.52	49.1	12	36	0	22	55	-7		23	57 PS
LICK	84.78	49.7	12	38K	1						
COLLEGE	85.81	18.0	12	41	-1	23	8	-7		16	16 PP
MINERAL	85.92	46.9	12	42A	-1						
FRESNO	85.95	50.8	12	44	1						
PASADENA	86.32	53.7	12	46	1	23	14	-6		24	31 PS
CORVALLIS	86.37	42.5	12	41A	-4						
CHATRA	86.39	298.6	12	48K	3						
RENO	86.91	48.2	12	48A	0						
VICTORIA	87.86	38.9	12	52A	0						
TIKSI	88.77	349.0	12	56	-1	23	45	2			
MADRAS	89.01	283.5								23	55
BOULDER CITY	89.49	52.8	13	1	1						
EUREKA	89.70	49.2	13	1	0						
PENTICTON	90.48	39.1	14	4	59						
KODAIKANAL	90.92	280.2								24	6
TUCSON	91.64	57.3	13	12	2	24	15	6		23	33 SKS
TUCSON TELE.	91.76	57.3	13	11	0						
ARGENTINE I.	92.71	161.1	13	14	-1						
HUNGRY HORSE	93.67	41.2	13	19	0						
BUTTE	93.99	43.7	13	20	-1						
FLAMING GRGE	94.94	49.2	13	25	0						
DEHRA DUN	95.03	299.8								17	18
FRUNSE	100.17	311.7	13	48	-1						
ANDIJAN	101.52	309.3	13	58	3						
WICHITA MTS.	102.15	57.0	13	59	1	24	37	0		17	57 PP
TASHKENT	103.91	309.6	14	8	2	23	45	-60			
STALINABAD	103.99	306.7	14	11	5						
QUETTA	104.46	298.0	17	31	203	24	55	7		18	32 PP
RESOLUTE	105.61	15.8	14	13	777					18	27
FAYETTEVILLE	105.89	56.1	18	51	777						
SVERDLOVSK	109.79	325.7								19	5 PP
CLEVELAND	115.84	50.5				25	35	0			

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SHIRAZ	116.90	296.4	18	47	1				23	22 PKS
APATITY	118.07	341.3	18	56	7				19	56 PP
LA PAZ	118.71	117.7	18	53	3				21	53 PP
CHINCHINA	118.78	91.9	18	50	0				30	5 PS
OTTAWA	119.53	45.5	18	51	-1					
MAKHACH-KALA	120.01	311.8	18	39	-13					
BOGOTA	120.21	92.7	18	57	4				30	18 PS
TROMSOE	120.46	347.2	19	56	63					
BREBEUF	120.96	45.0	18	54	0					
SHAWINIGAN	121.30	43.6	18	55	0					
GORIS	121.41	308.0							20	32 PP
PALISADES	121.60	50.2	18	54	-2	25	55	0	20	25 PP
TIFLIS	122.20	310.8	18	57	0					
MOSCOW	122.39	328.3	19	1	4					
SCORESBY SD.	123.11	3.2	18	59A	1				20	41 PP
WESTON	123.25	48.2	18	47	-12	26	1	1	20	36 PP
KIMBERLEY	123.46	221.3	19	7A	8					
PULKOVO	123.73	334.8							20	45 PP
NURMIJARVI	125.49	337.7	19	2	-1					
BULAWAYO	126.17	232.1	19	3	-1					
SKALSTUGAN	126.94	345.6	19	7	1					
HALIFAX	128.02	43.6	19	13K	5					
CARACAS	128.30	87.4	19	18	9				30	19
UPPSALA	128.42	340.2							21	10 PP
SIMFEROPOL	128.79	317.2	19	13	4					
BROKEN HILL	129.41	238.0	19	12	1				30	38
SAN JUAN	129.91	77.5	19	12	0				22	35
KSARA	130.66	302.9	19	12	-1				21	32 PP
KISHINEV	131.26	321.7	19	6	-8					
JERUSALEM	131.58	300.3	19	17A	2				21	41 PP
LWOW	132.49	327.2	19	21	5				22	47
WARSAW	132.49	331.3							22	41
COPENHAGEN	133.42	339.6	19	11	-7				21	43 PP
TRINIDAD	133.69	88.3	19	20	1				22	50 PKS
ISTANBUL KA.	133.70	314.4	19	17	-2				21	43 PP
BUCHAREST	134.19	319.9							21	53
LWIRO	134.62	252.7	19	7	-13			19 27		
HELWAN	135.22	298.6	19	19	-3				32	10 PP
COLLMBERG	136.66	335.4	19	27	3				22	6 PP
SOFIA	136.79	319.2	19	29	5				19	35 PP
HALLE	136.92	336.3	19	25	0				22	22 PP
PRUHONICE	136.99	333.0	19	27	2	26	37	3	22	6 PP
BRATISLAVA	137.08	329.4	19	27	2				20	7 PKP2
VIENNA-H.	137.38	330.0	19	29	4				22	16
BELGRADE	137.38	323.4	19	27A	2				23	45 PPP
JENA	137.51	336.1	19	48	22				22	27 PP
KASPERSKE H.	138.05	332.9	19	27K	0				22	21 PP
ATHENS	138.74	312.7							22	27 PP
DE BILT	138.77	342.0	19	32	4				22	20 PP
BENSBERG	139.11	339.5	19	31	2				22	27 PP
LJUBLJANA	139.81	328.9	19	25	-5				22	28 PP
STUTTGART	140.13	335.9	19	25	-5				22	30 PP
KARLSRUHE	140.28	336.8	19	29	-2				32	47 PS
TRIESTE	140.48	329.0							23	12 SKP
KEW	140.79	346.4	19	28	-4				22	30 PP
STRASBOURG	140.88	337.0	19	31	-1				22	31 PP
PADOVA	141.57	330.3							22	2
BASLE	141.81	336.2	19	28	-5				22	56
TARANTO	141.83	320.1	20	44	71				31	0 SKKS
PARIS	142.48	342.0	19	31	-4				22	43 PP
BESANCON	142.65	337.4	19	35	0					
PRATO	143.06	329.2	19	35	-1				22	58 PP
FOLINIERE	143.34	344.9	19	36	0					
GARCHY	143.65	340.2	19	35	-2				22	51 PP
ROME	143.73	325.7	19	35K	-2				20	32 PKP2
MESSINA	144.21	318.3	19	36	-2				19	58
ISOLA	144.73	333.3	19	39	1				23	8 PP
MONACO	144.91	332.5	19	38	-1				23	19 PKS
CLERMONT-FD.	144.95	338.9	19	40K	1				22	41 SKP
BANGUI	146.44	257.0	19	44	3				24	23
BAGNERES	148.34	339.9	19	45	1				23	16 PKS
SERRA PILAR	152.33	351.1	19	58K	7				20	13 PKP2
TOLEDO	152.54	343.1	20	5	14				22	42 PP
ALICANTE	152.71	336.2	19	54	3	27	0	3	27	15 PPP
ALMERIA	154.78	337.8	20	0	6				23	59 PP
GRANADA	154.88	340.0	20	14	20	26	34	-25	24	1 PP
MBOUR	177.12	77.5	20	17A	5				25	53 PP

JUNE 29 14.H 2.M 55.S EPICENTRE 52.67-173.74 DEPTH= 170.KM

A=-0.60540 B=-0.06645 C= 0.79314 D=-0.1091 E= 0.9940
G=-0.7884 H=-0.0865 K=-0.6090 HT= -6.4

DEPTH OF FOCUS= 0.022R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	17.99	37.2	3	57	-4	7	23	10			8	26	PCP
MAGADAN	20.74	303.4	4	30	1								
SITKA	22.33	63.3	4	43	-1								
Y.-SAKHLINSK	28.30	276.2	5	39	-1								
ALBERNI	30.52	76.5	6	1	1								
YAKUTSK	30.94	310.1	6	3	0								
TIKSI	31.10	328.9	6	7	2								
VICTORIA	31.68	77.0	6	7A	-3								
KIPAPA	33.46	152.8	7	21	56								
PENTICTON	33.55	73.6	6	24	-2								
HONOLULU	33.56	153.0	7	21	55								
CORVALLIS	33.69	83.3	6	42K	15								
TUKUBASAN	36.13	261.6	6	46	-2								
SHASTA	36.44	88.2	6	48	-2								
MATUSIRO	37.06	263.7	6	55K	0	12	39	11			9	13	PCP
MINERAL	37.14	88.0	6	53K	-3								
RESOLUTE	37.26	25.5	6	56	-1						9	13	
HUNGRY HORSE	37.27	72.0	6	55	-2	12	51	20			9	14	PCP
BERKELEY	38.28	91.7	7	2	-4								
RENO	38.72	87.7	7	8	-1								
LICK	38.99	91.9	7	9K	-3								
STA. CRUZ C.	38.99	92.6	7	26	14								
BUTTE	39.33	74.4	7	29	15								
VINEYARD	39.53	92.4	7	30	14								
ABUYAMA	39.77	264.0	7	18	0								
FRESNO	40.48	91.1	7	39	15								
EUREKA	41.09	84.9	7	27	-2								
THULE	42.91	19.5	7	44	0								
PASADENA	43.22	92.6	7	42	-4								
KHEYS	43.90	349.3									8	15	
BOULDER CITY	44.03	88.0	7	50	-3								
FLAMING GRGE	44.16	78.6	7	51	-3						8	10	
NORD	45.41	4.6	8	2	-2				8	24	9	39	PCP
RAPID CITY	45.89	71.2	8	3	-4								
LARAMIE	46.19	75.7	8	4	-6						8	20	
TUCSON	48.99	88.7	8	29	-2								
TUCSON TELE.	48.99	88.5	8	29	-2								
ZO-SE	51.12	271.9	8	47	-1								
PAOTOW	51.37	288.7	8	50	1								
NANKING	51.90	274.7	8	53	0								
WICHITA MTS.	54.67	77.4	9	11	-3						14	43	
SCORESBY SD.	55.49	11.1	9	19A	-1				9	39			
SIAN	56.30	283.7	9	24	-1								
FAYETTEVILLE	56.31	73.2	9	22K	-3				9	40	10	19	PP
TROMSOE	57.67	354.8	9	35	0						9	55	
LANCHOW	58.02	288.7	9	37	0								
SODANKYLA	59.31	351.0	9	46	0						10	32	PCP
OTTAWA	59.80	53.8	9	47	-3								
SHAWINIGAN	60.40	51.2	9	51	-3								
CANTON	61.70	271.6	10	3K	1								
CHENGTU	61.76	284.3	10	4	1								
MORGANTOWN	61.78	61.0	10	1A	-2				10	20			
KAJAANI	62.40	349.6	10	3	1								
PALISADES	63.91	56.1	10	15	-2	18	47	10			10	34	PCP
SKALSTUGAN	64.00	357.0	10	18	0								
HONIARA	65.82	208.6	10	8	-21								
NURMIJARVI	66.22	350.2	10	31	-1						10	53	
KUNMING	66.60	231.1	10	36K	2								
UPPSALA	67.46	353.8	10	40	0						11	7	PCP
GOTEBORG	69.90	356.7	10	56	1						11	56	
SHILLONG	72.64	289.4	11	11K	0								
CHATRA	74.33	293.6	11	24K	3								
HALLE	76.10	356.3	11	31	0						16	38	PPP
COLLMBERG	76.25	355.7	11	32	0						11	55	
BERSBERG	76.75	359.4	11	36	2								
LAHORE	77.36	305.7	11	39	1								

PRUHONICE	77.49	354.5	11	39K	1					12	7	
KASPERSKE H.	79.39	355.1	11	45K	2					12	28	
FOLINIERE	78.78	4.5	11	46	1							
STUTTGART	78.91	358.0	11	47	1							
TIFLIS	80.26	331.8	11	55	2							
CHARTERS TS.	80.35	217.8	11	52	-2					12	52	
GARCHY	80.40	2.2	12	55	61							
QUETTA	82.04	310.3	12	4	1							
ISOLA	83.53	359.4	12	12	2							
BRISBANE	84.91	209.5	12	8	-9							
SAN JUAN	85.73	65.2	12	22	1	12	42					
SHIRAZ	88.64	321.0	12	36K	1							
BANGUI	122.21	345.4	18	40	5					21	59	SKP
LWIRO	126.37	331.6	14	20A	-263					20	34	
SCOTT BASE	130.31	185.4								22	6	SKP
BYRD STATION	135.96	168.3	18	56	-5	19	19					
SOUTH POLE	142.48	180.0	19	7	-6	19	34					
BULAWAYO	143.20	323.4	19	13A	-1							
ARGENTINE I.	143.60	138.0	19	11	-4							
MAWSON	149.43	219.0	19	27K	3	19	48					
PIETERMZBURG	150.92	312.9	19	35	8							
KIMBERLEY	152.45	322.9	19	31	2							

JUNE 29 22.H 1.M 19.S EPICENTRE 85.00 100.42 DEPTH= 0.KM

A=-0.01588 B= 0.08635 C= 0.99614 D= 0.9835 E= 0.1809
G=-0.1802 H= 0.9797 K=-0.0873 HT=-14.1

SE= 3.45

	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	
NORD	11.64	319.5	2	52	1								
TIKSI	14.25	142.2	3	24	-2								
THULE	18.63	351.7	4	18	-3								
RESOLUTE	20.32	11.7	4	41	0	8	32	8					
TROMSOE	20.34	275.1	4	40	-1						5	35	
APATITY	21.11	259.0	4	48	-1	8	42	2					
SODANKYLA	21.87	265.9	4	55	-2								
KIRUNA	21.97	272.4	4	59	1	9	1	5					
YAKUTSK	23.87	145.2	5	17	1	9	37	7					
KAJAANI	25.01	263.0	5	27	0								
UMEA	25.92	270.4	5	43	7								
SKALSTUGAN	26.85	278.2	5	45	1								
COLLEGE	27.52	59.1	5	52	2						6	39	
MAGADAN	27.65	122.3	5	49	-3								
NURMIJARVI	28.80	264.6	6	13	11								
SVERDLOVSK	29.63	225.4	6	8	-2	11	4	-1					
UPPSALA	30.06	271.5									6	57	PP
MOSCOW	32.42	249.8	6	34	0	11	48	-1					
IRKUTSK	32.89	175.6	6	41	3								
COPENHAGEN	34.64	275.3				12	22	-1					
SEMIPALATNSK	35.10	202.6	6	55	-2								
ULAN-BATOR	37.27	172.8	7	18	2								
WARSAW	37.31	265.9									13	1	
HALLE	38.83	274.7	7	18	-11	13	27	0					
COLLMBERG	38.94	273.7	7	29	-1						8	56	PP
JENA	39.43	275.0				13	31	-5			8	0	
LWOW	39.44	262.3	7	33	-1	13	36	0			9	2	PP
KRAKOW	39.57	266.5	7	34	-1								
BENSBERG	39.78	279.3	7	52	15								
PRUHONICE	40.11	271.8	7	39	0	13	49	2			9	9	
NIEDZIKA	40.16	266.0	7	40	0						8	5	
KASPERSKE H.	41.04	272.6	7	47	0						9	21	
BRATISLAVA	41.68	268.9	7	56	4								
STUTTGART	41.77	276.8	7	52	-1	14	10	-1					
CHANGCHUN	41.84	152.8	7	52	-2	14	14	2					
STRASBOURG	42.09	278.3	7	50	-6	14	19	3			9	41	
VLADIVOSTOK	42.84	145.8	8	2	0	14	30	3					
FRUNSE	42.87	208.1	8	2	0	14	27	0			9	41	PP
BESANCON	43.57	279.8	7	59	-9								
GARCHY	43.79	282.6	8	10	1						9	55	
LJUBLJANA	44.01	271.1	7	56	-15								
TRIESTE	44.48	271.8									27	19	
TASHKENT	44.62	213.7	8	19	3								
PEKING	45.33	163.0	8	23	1	15	6	3					
TIFLIS	45.77	239.6	8	26	1	15	1	-8			10	11	PP

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HUNGRY HORSE	46.07	31.6	8	29	1				
FLORENCE X.	46.55	274.0				15	23	3	18 55
GORIS	47.86	237.7	8	42	0				
ROME	48.31	272.4				15	46	1	19 13
BUTTE	48.46	30.5	8	48	1				
MATUSIRO	49.73	139.7	8	56	0	15	53	-12	12 20
RAPID CITY	50.76	21.9	8	53	-11				
SIAN	50.95	170.9	9	5	-1				
TEHERAN	51.24	232.0	9	9	1				
WARSAK DAM	51.81	210.7	9	0	-12				
SHASTA	53.27	40.1	9	12	-11				
LARAMIE	53.44	24.3	9	24	0				
MINERAL	53.66	39.4	9	28	2				
FLAMING GRGE	53.67	27.9	9	56	30				
LAHORE	54.13	207.6	9	29	0				
PALISADES	54.20	354.7	9	31	1	17	11	5	21 17 SS
KSARA	54.32	247.7	9	34	3	17	21	13	12 48 PPP
ZO-SE	54.38	158.0	9	30	-1	17	9	0	
REMO	54.56	37.8	9	33	0				
EUREKA	54.82	34.2	9	35	1				
QUETTA	55.83	215.3	9	41	-1	17	25	-3	
SHIRAZ	57.21	230.2	9	50K	-2				13 17
FAYETTEVILLE	58.98	13.8	10	2A	-2				
SHILLONG	59.60	189.0	10	7	-1				
KUNMING	60.00	177.6	10	12	1	18	25	2	
PASADENA	60.02	36.7	10	12	1				
WICHITA MTS.	60.24	18.0	10	11	-2	18	29	3	22 19 SS
TUCSON TELE.	62.18	29.7	10	26	0				
TUCSON	62.26	29.8	10	26	0				
TRINIDAD	84.21	342.0	12	36	1				
MAWSON	153.30	211.3	19	59	6				

ADDITIONAL READINGS TO

APRIL 1 15.H 18.M 23.S EPICENTRE 39.91 77.73 DEPTH= 0.KM

JENA	46.25	306.7	8	28	-1	15	13	-3		10	15 PP
AIKAWA	46.29	72.0								25	2
OWASE	46.35	77.9	8	28	-2	15	12	-6			
NAGOYA	46.47	76.2	8	36	5					9	21
Y.-SAKHLINSK	46.48	58.8	8	32	1					10	20 PP
MORI	46.52	65.9	8	33	2						
SAPPORO	46.74	64.3	8	30	-3	15	13	-10			
NAGANO	46.78	73.7	8	34	1	15	20	-4			
MATUSIRO	46.84	73.9	8	31	-3	15	21	-3		18	22 SCS
NIIGATA	46.92	71.8	8	25	-9	15	3	-23		18	34 SCS
IIDA	46.97	75.3	8	37	2	15	25	-1			
AKITA	47.01	69.1								19	27
OIWAKE	47.17	74.0	8	39	3						
HAMAMATU	47.22	76.4	8	37	0						
REGGIO CALA.	47.41	288.7	8	38	0	15	36	3			
MESSINA	47.44	238.9	8	38A	-1	15	33	0	8 51	10	33 PP
KOHU	47.45	74.0	8	43	4						
MAEBASI	47.53	73.7	8	40	1						
PADOVA	47.54	299.4	8	38A	-1	15	40	6		10	32 PP
SHIZUOKA	47.62	75.8	8	37	-3						
OMAESAKI	47.64	76.3								15	12
HUNATU	47.67	74.9	8	42	2						
TITIBU	47.71	74.2	8	47	6						
KUMAGAYA	47.86	73.9	8	50	8					18	32
BERGEN	47.94	320.4	8	43	1					11	17 PPP

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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.