The International Seismological Summary

1962 APRIL, MAY, JUNE

The Summary is produced by means of an electronic computer and a card-controlled tabulator. No lower case letters are available so the letterpress is uniformly in capitals. Phases pP, sP, sS when available are therefore designated by *PP, *SP, *SS; the asterisk implying that the first letter of the pair is equivalent to lower case. An additional column is provided and used exclusively for the phase pP. Surface waves are no longer included in a separate column. Residuals are by comparison with the Jeffreys-Bullen tables; P is used up to 105°, PKP from 110°, S up to 95° and SKS from 95°. For P and PKP beyond the scope of the tables the dummy figure of 777 is placed to complete the residual column. The quantity called SE at the head of each earthquake is the standard error of the computed P residuals.

I.S.C., EDINBURGH
July 1968

The Director of the I.S.S. wishes to express his thanks to H.M. Treasury, to U.N.E.S.C.O. and I.C.S.U. acting through the agency of F.A.G.S. and to the International Association of Seismology which have covered the cost of preparation and printing of this volume.

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U.N.E.S.C.O. Subvention 1967 *AVS*/414/24.

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APRIL 1 0.H 45.M 9.S EPICENTRE 33.37 58.93 DEPTH= 0.KM

A= 0.43187 B= 0.71674 C= 0.54751 D= 0.8565 E=-0.5161
G= 0.2826 H= 0.4690 K=-0.8368 HT= 0.7

SE= 2.00

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ASHKABAD	4.59	354.3	1 12	0	2 16	9		
VANNOVSKAYA	4.62	351.8	1 12	0				
KIZYL-ARVAT	6.20	340.5	1 31	-4				2 7
SHIRAZ	6.61	237.6	1 39	-2				2 11 PG
TEHERAN	6.65	292.9	1 40	-1	3 41	42		
QUETTA	7.53	112.8	1 54	1				
DUZHANBE	9.51	54.2	2 20	-1				6 45
KHOROG	11.07	64.7	2 43	1				5 28
GORIS	11.84	304.7	2 51A	-2				
NAKHICHEVAN	12.36	301.9	2 59	-1	5 51	31		
ANDIJAN	13.01	51.7	3 6K	-2				5 7
MAKHACH-KALA	13.13	320.2	3 7	-3				8 47
LAHORE	13.13	93.8	3 5	-5				
TIFLIS	13.95	310.7	3 21	0				10 56
GROZNY	14.32	317.7	3 27A	1				3 34 PP
AKHALKALAKI	14.65	307.6	3 34	4				
BAKURIANA	14.78	308.8	3 33	1				
FRUNSE	15.52	48.0	3 39K	-3				6 51 SS
PIATIGORSK	16.29	315.4	3 51	0				9 51
NEW DELHI	16.38	102.1	3 51K	-2	7 7	12		3 54 PP
DEHRA DUN	16.53	95.4	3 53	-1	7 8	10		4 17 PPP
SOTCHI	18.13	309.8	4 14K	0				
BOMBAY	19.03	135.8	4 25	-1	8 9	14		4 48 PP
KSARA	19.20	277.7	4 27K	-1	8 14	15		4 47
POONA	19.93	134.2	4 35K	-1	8 24	9		5 2 PP
JERUSALEM	20.04	271.9	4 37K	0	8 29	11		
SIMFEROPOL	22.35	308.4	4 58A	-3				10 15 SSS
SEMIPALATNSK	23.13	36.3	5 9	1				9 24
SVERDLOVSK	23.49	2.3	5 16	4	9 26	3		6 5 PPP
ISTANBUL UN.	24.96	296.5	5 27K	1	9 53	5		
BOKARO	25.38	105.0	5 31					8 43
KISHINEV	26.54	309.8	5 42A	1				11 21 SS
MOSCOW	26.81	332.9	5 46A	3				6 34 PP
VISHAKHAPTNM	26.86	119.5	5 45	1	10 34	15		
IASI	27.41	309.6	5 49A	0	10 48	20		
LHASA	27.57	89.0	5 51	1	10 33	2		6 44 PP
BUCHAREST	27.66	303.2	6 29	38	10 59	27		11 55
MADRAS	28.05	131.3	5 53	-2				
CALCUTTA	28.07	105.0			10 25	-14		
ATHENS	28.86	289.2	6 1K	-1				6 39
SOFIA	29.36	298.9	6 9	3				6 42
SHILLONG	29.62	96.5	6 6	-3				
LWOW	30.49	313.1	6 18K	1				11 48
ESEN BULAK	31.16	54.2	6 26	4				
BELGRADE	31.70	302.6						13 3
PULKOVO	32.44	333.1	6 32	-2				14 33 SSS
BUDAPEST	33.10	307.2	6 33	-6				7 48 PP
RACIBORZ	34.18	311.6	6 46	-3				8 1 PP
HELSINKI	34.80	330.7	6 53	-1				8 2
VIENNA-H.	34.99	308.0	6 56	0				
NURMIJARVI	35.12	331.0	6 56	-1				7 57
MESSINA	35.28	290.5						12 36
LJUBLJANA	35.98	303.9	7 5	1				8 26 PP
KAJAANI	36.26	337.3	7 5	-2				8 18
AMDERMA	36.48	1.6	7 7A	-1	12 50	-1		
LANCHOW	36.76	72.9	7 12	1	13 1	6		
KASPERSKE H.	36.95	309.0	7 12	0				8 41 PP
APATITY	37.29	344.2	7 15A	0	13 8	5		15 41 SS
ROME	37.37	297.0						13 21
COLLMBERG	37.67	312.4	7 17A	-1				8 47 PP
UPPSALA	37.82	327.1	7 21A	1				8 44 PP
CHENGTU	38.10	81.5			13 15	0		
HALLE	38.35	312.6	7 25	1				8 54 PP
JENA	38.49	311.6	7 26	1				8 54 PP
ULAN-BATOR	38.56	53.3	7 29	3	13 29	7		
UMEA	38.70	333.7	7 26A	-1				8 58 PP
SODANKYLA	38.87	340.8	7 27	-1				8 53
KUNMING	38.87	90.4	7 29	1	13 29	2		
STUTTGART	39.74	307.9	7 35	-1				10 46
HEIDELBERG	40.15	308.9	7 37	-2				

FELDBERG	40.39	310.1	7	42	1					
KEVO	40.49	343.5	7	45	3					
STRASBOURG	40.72	307.5	7	44	0				9	22 PP
ROSELEND	40.78	302.8	7	48	4					
BASLE	40.82	305.9	7	45	0					
KIRUNA	40.97	338.9	7	47	1				9	12 PP
SIAN	41.20	74.4	7	53	5					
BENSBERG	41.26	311.1	7	47	-1				9	23 PP
SKALSTUGAN	41.70	330.7	7	53	1				9	41 PP
BESANCON	41.90	305.5	7	54	1					
DOURBES	42.85	309.7	7	58	-3				9	48 PP
GARCHY	43.88	305.6	8	8	-2				8	53
CLERMONT-FD.	43.93	303.4	8	12	2					
PARIS	44.22	307.8	8	12	0					
PEKING	45.70	64.5	8	27	3	15	13	5		
KEW	45.99	311.6	8	28	2					
FOLINIERE	46.19	307.9	8	28	0					
DURHAM	46.77	316.2	8	51	18					
HONG KONG	49.58	88.0				16	7	5		
TOLEDO	50.04	296.6	8	59	1				11	1 PP
GRANADA	50.37	293.1							20	7 SS
MALAGA	51.12	292.7	9	52K	46					
ZO-SE	52.00	74.4	9	14	1	16	38	2		
YAKUTSK	52.22	34.3	9	13A	-2				16	39 PS
TIKSI	52.39	22.1	9	15A	-1				11	20 PP
SCORESBY SD.	55.93	336.4	9	44	2					
ALERT	60.96	352.6	10	16	-1					
MAGADAN	62.79	34.9	10	33	4					
BANDEIRA	64.79	229.8	10	40	-2					
KIMBERLEY	69.75	211.7	11	11	-3					
M.BOUR	70.57	274.7	11	19	0					
MOULD BAY	70.66	359.6	11	17	-2					
RESOLUTE	70.84	352.9	11	19	-1					
COLLEGE	79.86	11.3	12	11	-1				12	34
PENNSYLVANIA	96.13	328.5	14	4A	33					
PENTICTON	97.66	359.0	13	38	1					
EUREKA	107.36	355.9	14	29	777					
WICHITA MTS.	109.06	340.5	18	40	777				15	59 P
SOUTH POLE	123.20	180.0	18	56	-3					
LA PAZ	129.67	276.0	18	35	-36					

APRIL 1 5.H 1.M 57.S EPICENTRE 41.85 143.70 DEPTH= 47.KM

A=-0.60213 B= 0.44228 C= 0.66470 D= 0.5920 E= 0.8059
G=-0.5357 H= 0.3935 K=-0.7471 HT= -2.4

DEPTH OF FOCUS= 0.002R

SE= 3.38

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HIROO	0.51	326.6	0	13K	0	0	22	-1				
URAKAWA	0.75	293.8	0	17K	1	0	31	4				
OBIHIRO	1.13	341.0	0	23	2	0	44	8				
KUSIRO	1.24	24.4	0	22A	0	0	38	0				
TOMAKOMAI	1.76	297.0	0	34	5	0	59	8				
NEMURO	2.03	42.6	0	31K	-2	1	7	10				
MURORAN	2.08	283.9	0	34	0	1	5	6				
HATINOHE	2.10	231.9	0	33	-1	0	59	0				
SAPPORO	2.12	305.8	0	36A	2	1	7	7				
HAKODATE	2.20	269.9	0	36A	1	1	4	2				
MORI	2.35	277.1	0	38	0	1	22	16				
AOMORI	2.43	245.9	0	38A	-1	1	8	0				
MIYAKO	2.56	211.5	0	38	-3	1	7	-4				
RUMOE	2.60	324.6	0	44	3	1	18	6				
SUTTSU	2.74	291.4	0	42	-1	1	22	7				
MORIOKA	2.88	222.6	0	44A	-1	1	25	6				
MIZUSAWA	3.35	216.6	0	50	-2	1	26	-5				
ISINOMAKI	3.87	208.9	0	55A	-4	1	38	-6				
SENDAI	4.17	211.9	1	0	-3	1	49	-3				
YAMAGATA	4.42	216.7	1	4	-3	1	53	-5				
KURILSK	4.54	40.5	1	8A	0	2	2	1				
HUKUSIMA	4.79	212.3	1	8	-4							
Y.-SAKHLINSK	5.22	352.6	1	17A	-1							
NIIGATA	5.31	223.9	1	6	-13	1	59	-21				
ONAHAMA	5.35	204.8	1	25	5	2	16	-5				

SHIRAKAWA	5.44	210.8	1 26	5	2 19	-4
AIKAWA	5.67	229.4	1 23	-1		
MITO	6.01	205.7	1 25	-4	2 32	-6
KAKIOKA	6.25	207.2	1 38	6	2 34	-9
TUKUBASAN	6.28	207.7	1 27A	-6	2 37	-7
TAKADA	6.35	223.4	1 32	-2	2 39	-7
TYOSI	6.51	200.9	1 32	-4	2 40	-10
MAEBASI	6.53	215.0	1 35	-1	2 49	-1
KUMAGAYA	6.61	212.0	1 38	1	2 49	-3
NAGANO	6.71	221.3	1 40	1	2 52	-3
OIWAKE	6.81	217.7	1 54	14	3 30	33
TITIBU	6.88	213.1	1 54	13		
TOKYO C.M.O.	6.89	207.9	1 44	3	2 52	-7
WAZIMA	6.89	231.8	1 41	0		
YOKOHAMA	7.15	207.6	1 56	11	3 29	23
MATUMOTO	7.15	220.4	1 15	-30		
TOYAMA	7.20	226.5	1 46	0		
KOHU	7.36	214.7	1 52	4		
HUNATU	7.42	212.9	2 42	53	3 17	4
MISIMA	7.68	210.5	2 1	9		
AJIRO	7.69	209.5	1 49	-3	3 9	-10
IIDA	7.81	217.9	1 55	1	3 48	26
OSIMA	7.84	207.0			3 11	-12
SHIZUOKA	8.03	212.9	2 24	27	3 45	17
GIHU	8.42	222.3	2 11	8		
OMAESAKI	8.42	212.5	2 11	8		
NAGOYA	8.50	220.5	1 55	-9	3 40	1
HIKONE	8.79	224.0	2 8	0		
VLADIVOSTOK	8.81	282.2	2 8A	0	3 49	2
KAMEYAMA	9.00	221.4	2 21	10		
KYOTO	9.25	225.1	2 10	-4		5 19
HATIDYOZIMA	9.27	200.8			3 44 -14	
TOYOOKA	9.38	230.6	2 14	-2		5 8
ABUYAMA	9.45	225.1	2 13A	-4		
OSAKA	9.64	224.4	1 40	-39		
CHANGCHUN	13.64	284.5	3 11	-2		
PETROPAVLOVK	15.04	36.9	3 21	-10		
MAGADAN	18.26	11.6	4 10	-2	7 35	4
PEKING	20.85	274.2	4 37A	-3	8 25	0 4 56 PP
ZO-SE	20.99	246.5	4 41	-1	8 32	4
YAKUTSK	21.87	342.2	4 48A	-3	8 42	-2
NANKING	22.12	251.9	4 54	1		
PAOTOW	25.27	278.5	5 22	-2	9 48	4
ULAN-BATOR	26.59	295.8	5 35A	-1	10 12	7
IRKUTSK	28.45	305.1	5 53A	0	10 42	7
LANCHOW	31.34	272.7	6 18	-1		
HONG KONG	31.48	240.9			11 43	20
ESEN BULAK	33.96	294.1	6 42A	1		
KUNMING	37.62	256.8	7 13	1	13 3	5
SEMIPALATNSK	43.58	303.8	8 1	0		
LHASA	43.82	271.4	8 6A	3	14 42	12 9 57 PP
COLLEGE	44.10	34.8	8 6	0		8 21 PP
SHILLONG	45.39	265.9	8 15A	-1		
CHATRA	48.20	270.6	8 40A	2		
AMDERMA	48.76	332.7	8 41A	-1	15 41	0
FRUNSE	49.72	295.8	8 50A	0		
MOULD BAY	51.42	17.7	9 2	-1		
ANDIJAN	52.13	294.2	9 8	0		
NAMANGAN	52.50	294.8	9 11	0		
SVERDLOVSK	52.79	316.7	9 14K	1		
DEHRA DUN	53.11	280.0	9 16	1		
TASHKENT	53.96	296.2	9 22A	0		
NEW DELHI	54.67	278.6	9 26A	-1		
ALERT	55.21	4.0	9 35	4		
DUZHANBE	55.60	293.5	9 33	-1		
WARSAK DAM	55.93	287.3	9 33	-3		
RESOLUTE	57.50	15.6	9 45A	-2		
APATITY	59.05	335.2	9 57	-1		
KEVO	59.58	338.9	10 2	0		
SODANKYLA	61.23	336.9	10 11	-2		
QUETTA	61.27	286.0	10 15	2		
VICTORIA	61.86	48.9	10 18	1		
KIRUNA	62.65	339.1	10 22	0		
POONA	62.99	271.2	10 23	-2		
KAJAANI	63.05	333.7	10 24	-1		
VANNOVSKAYA	63.11	297.9	10 25	0		
PENTICTON	63.53	46.6	10 28K	0		
KIZYL-ARVAT	63.61	299.9	10 29	0		
MOSCOW	64.46	323.0	10 33	-1		

UMEA	65.61	336.0	10	40	-2														
NURMIJARVI	66.54	331.9	10	47A	0														
HELSINKI	66.66	331.5	10	48A	0														
HUNGRY HORSE	67.09	45.0	10	51	0														
MINERAL	67.55	55.5	10	54K	0														
CALISTOGA	67.95	57.5	11	7K	11														
BERKELEY	68.61	58.0	11	15A	15														
RENO	69.13	55.3	11	8	4														
TIFLIS	69.26	307.7	11	6A	2														
LICK	69.32	58.1	11	18A	13														
UPPSALA	69.41	334.2	11	5A	0														
PRIEST	70.68	58.6	11	24A	11														
EUREKA	71.50	53.4	11	19	1							11	27						
SHIRAZ	71.71	293.6	11	18A	-1														
PASADENA	73.51	58.9	11	32	2														
FLAMING GRGE	74.39	48.8	10	28	-67											11	8		
BOULDER CITY	74.44	55.6	11	36	1														
LWOW	74.52	324.3	11	38K	2														
UZHGOROD	76.17	324.3	11	45	0														
RACIBORZ	76.77	327.4	11	49	0											11	59	PCP	
CANBERRA	76.95	175.6	11	53	3														
COLLMBERG	77.79	330.9	11	54A	0											14	51	PP	
PRUHONICE	78.28	329.2	11	58	1														
JENA	78.61	331.4	11	59	0											14	51		
VIENNA-H.	78.95	327.2	12	1	0														
KASPERSKE H.	79.34	329.3	12	3	0														
KSARA	79.75	306.3	12	6	1											15	19		
BENSBERG	80.10	333.8	12	7	0							12	17						
FELDBERG	80.30	332.7	12	19	11														
HEIDELBERG	80.90	332.1	12	11	9														
STUTTGART	81.23	331.4	12	13	0											12	33		
LJUBLJANA	81.47	326.9	12	41	27														
MANHATTEN	82.49	42.9	12	19	0														
PARIS	83.47	335.4	12	25	1														
ROSELND	84.61	330.6	12	32	2														
GARCHY	84.63	334.3	12	29	-1														
WICHITA MTS.	84.80	47.1	12	32	1	22	58	4								28	29	55	
ROLLA	85.83	40.9	12	37K	1	23	7	3											
FLORISSANT	85.86	39.4	12	36	0														
ST. LOUIS 1	86.05	39.4	12	38	1														
BREBEUF	86.87	25.3	12	41	0														
BLOOMINGTON	87.32	36.7				23	19	1											
PENNSYLVANIA	89.52	30.2	12	54A	0														
MORGANTOWN	89.73	32.2	12	48	-7														
PALISADES	90.77	27.5				23	59	9											
LA PAZ	142.80	56.8														19	34	PKPZ	

APRIL 1 9.H 26.M 32.S EPICENTRE 81.48 120.61 DEPTH= 0.KM

A=-0.07593 B= 0.12833 C= 0.98882 D= 0.8606 E= 0.5092
G=-0.5035 H= 0.8510 K=-0.1491 HT=-13.8

SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TIKSI	10.07	164.9	2	28	-1								
NORD	15.85	338.6	3	48	2								
ALERT	16.14	1.4	3	46	-4								
MOULD BAY	19.59	38.2	4	30	-2								
YAKUTSK	19.72	167.2	4	33	-1	8	29	18					
KEVO	22.52	294.9	5	4	1								
RESOLUTE	22.93	23.3	5	7	0								
APATITY	23.68	287.2	5	12	-2								
SODANKYLA	24.80	293.0	5	24A	-1								
KIRUNA	25.20	298.7	5	30	1								
COLLEGE	26.83	71.1	5	45	1						6	28	PP
KAJAANI	27.76	289.6	5	53	1								
SVERDLOVSK	29.89	252.8	6	12	0								
NURMIJARVI	31.61	290.1	6	26	-1								
ESEN BULAK	36.12	209.0									8	33	
HALLE	42.10	297.9	7	54	-1				8	2			
COLLMBERG	42.15	296.9	7	56	0						9	38	PP
JENA	42.70	298.1	8	1	1						9	49	
PRUHONICE	43.24	295.1	8	6	1								
STUTTGART	45.12	299.6	8	20	0								

STRASBOURG	45.50	300.9	8 24	1				
FOLINIERE	46.33	308.4	8 29	-1				
DUZHANBE	46.67	237.9	8 33	1				
TIFLIS	46.93	263.5	8 36	2				
LJUBLJANA	47.09	294.0	8 36K	0				
HUNGRY HORSE	47.23	47.8	8 37	0				
BOZEMAN	50.20	45.7	9 1	1				
WARSAK DAM	50.84	234.0	9 2	-2				
TEHERAN	51.83	255.4	9 14	2				
MINERAL	54.23	56.4	9 30A	0				
FLAMING GRGE	55.06	45.1	9 10	-26			9 35	
LARAMIE	55.08	41.5	9 35	-1				
RENO	55.25	54.9	9 46	9				
EUREKA	55.76	51.4	9 43	2				
CALISTOGA	55.79	57.7	9 42A	1				
SHILLONG	57.14	211.1	9 49K	-2				
WICHITA MTS.	62.26	36.0	10 25	-1			39 36	PKPPKP
MAWSON	151.98	223.6	19 56	5			20 5	PKP2

APRIL 1 12.H 11.M 10.S EPICENTRE -4.01 143.52 DEPTH= 79.KM

A=-0.80209 B= 0.59315 C=-0.06944 D= 0.5946 E= 0.8040
G= 0.0558 H=-0.0413 K=-0.9976 HT= 7.1

DEPTH OF FOCUS= 0.007R

SE= 2.92

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT MORESBY	6.46	146.2	1 32A	-3	2 42	-6		
RABAUL	8.63	91.6	2 8A	3				
DARWIN	15.05	235.7	3 24	-6	6 11	-4		
CHARTERS TS.	16.21	170.7	3 42	-2				6 41
HONIARA	17.18	109.1	3 55A	-1	7 7	4		
GUAM	17.40	4.0	4 3	4				5 55
BRISBANE	24.88	160.1	5 15	-2	9 33	1		
KOUMAC	26.06	130.9	5 27A	-1	9 53	2		
PORT VILA	27.86	121.2	5 43A	-1				
MANILA	28.96	310.3	5 55	1				19 40
RIVERVIEW	30.51	167.4	6 21	13	10 59	-3		14 6
ADELAIDE	31.13	187.6	6 8	-6	11 8	-4		6 38 *SP
CANBERRA	31.57	171.4	6 14	-3	11 15	-4	6 34	12 47 PCS
MELBOURNE	33.69	177.9	6 33	-3				11 46
LEMBANG	35.84	263.9	6 50	-4				15 2
DJAKARTA	36.60	265.1						8 26
TANGERANG	36.80	265.1	6 55	-7				7 17
SUVA	36.93	115.1						8 22 PP
MUNDARING	37.82	219.5	7 11A	0				
PERTH	38.05	219.9						23 3 SS
MOORLANDS	38.41	175.6	7 15	-1				13 15 SCP
HONG KONG	38.82	313.6	7 20	1	13 12	1	7 41	9 15 PP
FORT NELSON	38.91	175.5	7 20K	0	13 12	0		
ABUYAMA	39.39	349.7	7 24K	0				
CANTON	39.91	313.8	7 29	1	13 28	1	7 49	9 31 PPP
TUKUBASAN	40.15	355.7	7 28K	-2	13 20	-10		8 56 PP
ZO-SF	40.90	330.1	7 36K	0	13 42	0		14 17 *SS
ONERAHI	42.53	141.9	7 53	3				
NANKING	42.89	328.5	7 55K	2	14 14	3		14 44 *SS
MIZUSAWA	42.98	357.3	7 54	1				14 16
AFIAMALU	45.16	105.6	8 15	4				8 38
COBB RIVER	45.28	148.7	8 11	-1				8 37
MEDAN	45.43	279.0	8 31	18				12 51
TONGARIRO	45.49	144.7	8 13	0				8 48
CHATEAU	45.50	144.7	8 13	0				8 48
KAIMATA	45.69	151.1	8 27	12				
TUAI	46.18	143.1	8 19	0				
WELLINGTON	46.50	147.4	8 22	1				8 50
ROXBURGH	47.06	155.3	8 23	-3	15 12	1		
VLADIVOSTOK	48.07	348.6	8 33K	-1	15 29	4		
KUNMING	49.04	308.4	8 43K	2	15 41	2	9 4	9 9 *SP
KURILSK	49.17	4.1	8 44A	2				
SIAN	50.11	322.2	8 49K	0	15 55	2		9 17 *SP
CHANGCHUN	50.36	342.9	8 50	-1				9 21 *SP
PEKING	50.51	332.8	9 11K	19	15 55	-4		16 28 *SS
Y.-SAKHLINSK	50.81	359.3	8 55K	0	16 1	-2		
CHENGTU	51.10	315.2	8 57	0				9 24 *SP

MACQUARIE I.	51.88	168.6	9	2A	-1						9	46 *SP
UGLEGORSK	52.89	358.8	9	7	-3							
PAOTOW	53.93	328.7	9	16	-2	16	41	-5			9	46 *SP
LANCHOW	54.45	320.5	9	21	-1				9	45	9	54 *SP
TOCKLAI	56.14	306.0	9	38	4							
CHITTAGONG	56.90	299.9	10	9	30							
SHILLONG	58.04	303.4	9	45	-2	17	41	1			10	17
PETROPAVLOVK	58.24	10.7	9	49	0	17	48	5				
LHASA	60.34	307.4	10	4K	1	18	11	1			10	32 *SP
ULAN-BATOR	60.84	332.6	10	5A	-2	18	16	0				
CHATRA	62.43	303.0	10	15	-2	18	35	-1				
ROKARO	62.61	299.3	10	19A	0	18	39	0			12	39 PP
VISHAKHAPTNM	63.17	292.0	10	24	2	18	50	4			10	53 PCP
MAGADAN	63.63	4.1	10	24	-1	18	54	3				
MADRAS	65.11	286.2	10	34A	-1	19	9	-1			19	41
IRKUTSK	65.15	334.7	10	33K	-2							
WILKES	66.35	193.9	10	53	10	19	21	-4			19	47 SP
CAPE HALLETT	70.21	171.6	11	7	0	20	34	23				
DEHRA DUN	71.14	303.8	11	11	-1	20	22	1				
NEW DELHI	71.37	301.8	11	11A	-3	20	22	-2			11	42 PCP
POONA	72.12	290.8	11	15	-3	20	27	-6				
BOMBAY	73.15	291.0	11	24	0	20	45	1	11	53	14	16 PP
LAHORE	74.55	304.1	11	32	0							
TIKSI	76.10	355.3	11	41K	0	21	15	-2				
SEMIPALATNSK	76.48	324.0	11	42	-1							
WARSAK DAM	77.41	306.0	11	47	-1							
FRUNSE	77.46	315.3	11	48A	-1	21	34	2				
KHOROG	78.27	309.4	11	54	1							
ANDIJAN	78.48	312.8	11	56A	2	21	47	4				
NAMANGAN	79.05	312.9	12	0	3	21	50	1				
QUETTA	80.45	301.3	12	6	1							
DUZHANRE	80.64	310.0	12	5	-1	22	0	-5				
MAWSON	82.74	202.4	12	12A	-5				12	32	12	46 *SP
COLLEGE	84.71	23.5	12	25	-2							
SOUTH POLE	86.02	180.0	12	31	-2				12	50		
BYRD STATION	87.29	170.0	12	39	0				12	59		
ASHKARAD	88.63	308.0	12	47	1							
VANNOVSKAYA	88.83	308.0	12	46	-1							
SVERDLOVSK	89.43	326.9	12	49	-1	23	31	0				
KIZYL-ARVAT	90.37	309.1	12	55	1	23	44	4				
AMDERMA	90.91	339.9	12	53	-3							
TEHERAN	94.04	305.4	13	1	-10							
TANANARIVE	94.35	250.8	13	13	1						14	8
CALISTOGA	95.53	51.7	13	24K	6							
MOULD BAY	95.58	13.8	13	16	-2							
BERKELEY	95.77	52.5	13	20A	1						24	26
LICK	96.26	53.0	13	31A	10							
MINERAL	96.30	50.0	13	22A	1							
PRIEST	97.05	54.2	13	24K	-1							
PENTICTON	97.50	40.9	13	25	-2							
PASADENA	99.12	56.2	13	35	1	25	6	62			27	6 PS
EUREKA	100.65	50.7	13	40	-1						29	55 PKKP
HUNGRY HORSE	101.26	41.6	12	59	-45							
APATITY	101.29	338.4	13	42	-2							
BOULDER CITY	101.77	54.2	17	59	253							
MOSCOW	102.22	326.2									18	3 PP
SODANKYLA	103.81	339.2	13	53	-2						18	12 PP
KAJAANI	104.67	335.9	13	56	-3						31	3 PKKP
PULKOVO	104.99	331.2				24	31	0			18	22 PP
KIRUNA	105.72	340.7	14	1	777						18	7 PKP
SIMFEROPOL	106.51	315.7									18	34 PP
KSARA	106.86	304.0	14	32	777						19	4 PP
HELSINKI	107.37	332.6	14	11	777							
NURMIJARVI	107.37	333.0	14	10	777							
JERUSALEM	107.64	301.9									19	10 PP
UPPSALA	110.80	334.1	14	3	-261							
SKALSTUGAN	110.87	338.9									18	51 PP
BULAWAYO	111.78	246.6	18	25K	-1							
BUCHAREST	112.18	316.6	19	16K	49						19	40
BROKEN HILL	113.07	252.6	18	29	1							
UZHGOROD	113.26	321.9	18	31	2							
NIEDZIKA	114.16	323.2	18	52	21						19	47
LWIRO	114.46	265.7	18	41	10							
WICHITA MTS.	115.08	53.5	18	33	1	25	10	-3			19	35 PP
PRUHONICE	117.26	325.6	18	38	1							
COLLMBERG	117.45	327.5	18	37	0				19	3	19	45 PP
HALLE	117.90	328.0	18	2	-36	25	7	-16				
KASPERSKE H.	118.23	325.1	18	38	0						20	10 PP

JENA	118.40	327.6	18 53	14	20 2	PP
LJUBLJANA	119.15	321.7	18 42	2	19 7	
ROLLA	119.37	48.4	18 48	7		
BENSBERG	120.68	329.5			20 14	PP
STUTTGART	120.83	326.5	18 44	1	20 18	PP
MESSINA	121.76	313.1			20 54	
BLOOMINGTON	122.81	45.1	18 47	0		
PARIS	124.39	329.7			20 52	PKP2
GARCHY	125.07	328.0	19 18	26	21 25	
FOLINIERE	125.87	331.3	19 19	26		
SHAWINIGAN	127.25	30.9	18 56A	0		
BREBEUF	127.49	32.4	18 56A	0	38 34	SS
PENNSYLVANIA	127.84	39.5	18 58A	1		
HUANCAYO	138.21	113.0	19 11	-5		
LA PAZ	142.67	123.9	19 23	-1	23 47	PKS
SAN JUAN	147.69	61.5	19 34	1		
ST. KITTS	151.06	60.8	19 52	14		
ANTIGUA	151.92	60.4	19 47	8		
GRENADA	153.78	70.8	19 53	11		

APRIL 2 0.H 14.M 51.S EPICENTRE 18.51 145.65 DEPTH= 210.KM

A=-0.78346 B= 0.53536 C= 0.31556 D= 0.5642 E= 0.8256
G=-0.2605 H= 0.1780 K=-0.9489 HT= 5.0

DEPTH OF FOCUS= 0.028R

SE= 1.38

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
GUAM	5.10	190.1	1 15	-2	1 59	-17			
TUKUBASAN	18.31	345.6	3 59K	-2				7 13	
MIZUSAWA	20.92	350.1	4 29	2					
HWALIEN	23.04	287.8	5 17	29	8 50	11			
TAITUNG	23.31	284.6	4 54	4	8 51	7			
RABAUL	23.46	163.5	4 51	-1					
MANILA	23.85	264.5	5 0	5	8 54	1			
ZO-SF	25.44	304.2	5 11K	1			5 46	10 31	*SS
VLADIVOSTOK	27.15	337.6	5 25	-1	9 50	3	6 0	10 55	*SS
Y.-SAKHLINSK	28.53	355.8	5 36K	-2	10 8	-1		6 27	PP
HONG KONG	29.72	282.7	5 50	1	10 27	-1		6 50	PP
CANTON	30.51	284.2	5 58	2	10 45	5		11 55	*SS
PEKING	33.24	316.4	6 18	-1	11 22	-1		12 29	*SS
DARWIN	34.00	206.6	6 26	0	11 31	-4			
PETROPAVLOVK	35.90	13.4	6 42	0	12 6	2	7 19	13 16	*SS
PADTOW	37.63	313.4	6 56	0	12 29	-1	7 33	13 41	*SS
CHARTERS TS.	38.37	179.1	7 3	1				8 42	
CHENGTU	39.54	295.9	7 13	1				8 16	*SP
KUNMING	40.25	287.2	7 20	2	13 14	5	7 58	14 23	*SS
LANCHOW	40.72	304.1	7 22	0	13 17	1	8 2		
MAGADAN	41.16	4.0	7 26	1	13 26	4			
KOUMAC	42.91	153.9	7 40A	0				13 49	
ULAN-BATOR	43.01	321.9	7 40	0	13 48	-1			
YAKUTSK	44.88	349.4						10 5	
NOUMEA	45.37	152.5	7 58A	-1	14 27	4			
BRISBANE	46.15	171.2	8 5	0				13 14	
MEDAN	48.26	257.9	8 45K	23	15 12	8			
ESEN BULAK	49.07	315.9	8 28	0	15 18	3			
SHILLONG	50.07	288.2	8 35K	0	15 27	-2	10 13	16 33	*SS
LHASA	50.68	293.4	8 41	1	15 42	5	9 23	10 30	PP
PORT BLAIR	51.41	270.3			15 52	5		18 15	
RIVERVIEW	52.31	174.2	8 52A	0	16 5	6	9 43		
HONOLULU	52.73	77.0	8 57	2					
KIPAPA	52.78	76.8	8 57	1			9 36		
CANBERRA	53.63	176.6	9 1A	-1			9 46	10 0	PCP
TIKSI	54.03	353.5	9 2	-3	16 23	0	9 43	19 51	SS
CHATRA	54.20	290.1	9 3K	-3	16 29	4	9 43		
BOKARO	55.72	286.6	9 17A	0	16 49	4	9 58	18 3	*SS
MELBOURNE	56.04	180.7	9 19	0					
MUNDARING	57.58	209.7	9 29A	-1					
MOORLANDS	60.66	178.7	9 51A	0					
FORT NELSON	61.15	178.6	9 54	0					
DEHRA DUN	61.89	295.0	9 58	-1	18 7	2		19 24	*SS
NEW DELHI	62.83	293.1	10 5A	-1	18 19	3	10 55	19 36	*SS
COLLEGE	63.46	26.0	10 8	-2	18 50	26			
TONGARIRO	63.85	154.5	10 12	0					

CHATEAU	63.86	154.4	10 12	0							
FRUNSE	63.86	309.2	10 13	1				10 57			
TUAI	64.19	153.0	10 13	-1							
WELLINGTON	65.33	156.2	10 21	-1							
KHOROG	66.57	303.5	10 30	0	19 6	4					
WARSAK DAM	66.95	299.7	10 32	0							
ROXBURGH	67.22	162.2	10 32	-2							
POONA	67.62	282.9	10 36A	0							
TASHKENT	67.92	307.8	10 39	1					19 20		
BOMBAY	68.48	283.5			19 27	2			20 23	*SS	
AMDERMA	70.70	338.5	10 53	-2							
QUETTA	71.41	296.4	11 0	1	20 3	4					
SVERDLOVSK	72.01	324.9	11 2	-1							
MOULD BAY	73.35	14.4	11 9	-2							
ALBERNI	75.90	42.5	11 26	1					12 12		
ASHKABAD	76.79	305.8	11 29	-1							
VICTORIA	76.97	43.0	11 31K	0					12 19		
ALERT	78.32	3.6	11 37A	-1							
PENTICTON	79.19	41.6	11 43	0							
RESOLUTE	79.62	13.6	11 44	-1					13 1		
CALISTOGA	80.02	52.6	11 49K	2							
MINERAL	80.28	50.8	11 49A	0							
BERKELEY	80.47	53.3	11 49K	-1	21 40	3					
LICK	81.09	53.7	11 55A	2				12 41			
BANFF	81.16	39.0	11 26	-27							
APATITY	81.17	338.9	11 52	-2	21 45	1			11 53	PCP	
RENO	81.83	51.1	11 57	0							
KEVO	82.09	342.0	11 57	-1				12 42			
PRIEST	82.19	54.6	12 1A	2							
TEHERAN	82.76	305.1	12 2	0					21 34		
HUNGRY HORSE	83.01	41.4	12 3	0				12 52			
THULE	83.07	7.6	12 5	1				12 48			
SODANKYLA	83.52	340.1	12 4	-2				12 48	13 14	*SP	
MOSCOW	84.60	327.3	12 11	0				13 7			
EUREKA	84.67	50.3	12 12	1	22 13	-6	12 57		15 32	PP	
PASADENA	84.74	55.9	12 13	1	22 17	-3	13 0				
BUTTE	84.76	43.2	12 12	0							
KAJAANI	84.95	337.1	12 11	-2				12 55			
KIRUNA	85.17	341.9	12 12	-2				12 58			
TIFLIS	85.67	312.5	12 17	1	22 31	2	13 2		22 19	SKS	
BOZEMAN	85.87	43.2	12 19	2			13 5		15 38	PP	
BOULDER CITY	86.71	53.3	12 22	1							
SALT LAKE C.	87.17	47.9	12 25	2			13 12				
UMEA	87.77	338.8	12 25	-1			13 14				
NURMIJARVI	88.14	334.9	12 27	-1			13 15				
HELSINKI	88.21	334.5	12 27	-1							
FLAMING GRGE	88.83	47.1	12 32	1			13 16				
TUCSON	91.17	55.5	12 45	3			13 33				
TUCSON TELE.	91.22	55.4	12 44	2			13 34				
LARAMIE	91.29	45.5	12 45	2					13 32		
UPPSALA	91.30	336.6	12 41K	-2			13 32				
ALBUQUERQUE	93.41	51.5	12 53	0			13 36		16 39	PP	
LUBBOCK	97.43	51.1							14 0		
COLLMBERG	99.09	332.1							17 30	PP	
WICHITA MTS.	99.25	48.7	13 20	1	23 35	-1	14 7		17 23	PP	
MAWSON	104.22	203.1	18 2A	261							
PALISADES	110.32	30.9			24 28	2					
BULAWAYO	120.89	257.2	18 29	2							
CHINCHINA	133.11	64.2	19 5K	14					22 15	PKS	
LA PAZ	147.74	91.7	19 21	4				20 12			

APRIL 3 16.H 25.M 0.S EPICENTRE -10.74 164.73 DEPTH= 56.KM

A=-0.94802 B= 0.25881 C=-0.18512 D= 0.2634 E= 0.9647
G= 0.1786 H=-0.0488 K=-0.9827 HT= 6.4

DEPTH OF FOCUS= 0.004R

SE= 3.21

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HONIARA	4.88	285.0	1	14K	1	2	11	2				
PORT VILA	7.77	153.6	1	49A	-4	3	16	-5				
KOUMAC	9.77	182.5	2	18A	-3	4	16	6				
NOUMEA	11.61	172.1	2	43A	-3	4	48	-7				
RABAUL	14.04	296.6	3	16K	-2	5	58	5				

SUVA	15.17	120.6	3	40	8	6	25	6				
PORT MORESBY	17.36	272.8	4	1K	1						4	21 PP
BRISBANE	20.02	212.5	4	32	1	8	17	9				
CHARTERS TS.	20.07	240.2	4	32K	1	8	18	9				
AFIAMALU	23.16	100.2	5	3	1							
RIVERVIEW	26.14	206.3	5	34A	3	10	1	5	5	44	11	9 SS
ONERAHI	26.41	162.2	5	44	11							
CANBERRA	28.35	207.8	5	52	1	10	37	5	5	59	6	44 PP
TONGARIRO	29.93	163.0	6	4	-1	11	11	14				
CHATEAU	29.94	163.0	6	4	-1	11	13	16				
TUAI	30.07	160.4	6	4	-2							
COBB RIVER	31.03	168.2	6	17	2	11	26	11				
WELLINGTON	31.68	165.5	6	16	-5	11	33	8				
KAIMATA	32.20	170.7	6	29	4							
DARWIN	33.24	263.8	6	35	1							
ADELAIDE	33.80	220.3	6	40	1	12	3	5	6	50	7	52 PP
ROXBURGH	34.84	174.3	6	45	-3	12	24	10				
TARRALFAH	35.27	203.8									7	12
FORT NELSON	35.47	202.2	7	2	9						15	12 SS
KIPAPA	48.57	48.8	8	50	10							
MUNDARING	49.40	237.0	8	45K	-1							
HAWAII V.OB.	49.52	52.9	8	59	12							
PERTH	49.71	237.1	8	49	0	15	59	7			10	41 PP
MANILA	50.09	299.4	8	52	0	16	2	5				
ABUYAMA	53.11	329.9	9	13K	-1							
LEMBANG	56.51	268.9	9	38K	-1	18	31	67				
TANGERANG	57.58	269.5	9	44	-3							
ZO-SE	58.95	316.4	9	55	-1	17	59	3			18	20 *SS
HONG KONG	59.45	303.8	10	1	1	18	11	8				
NHATRANG	59.67	291.0	9	59	-2							
CANTON	60.49	304.2	10	8	1	18	24	8			10	24 *SP
NANKING	61.16	315.8	10	11	0	18	31	6	10	25	18	51 *SS
VLADIVOSTOK	61.41	333.1	10	11	-2							
PETROPAVLOVK	63.72	355.9	10	28A	0	18	52	-5				
CHANGCHUN	65.06	329.5	10	37	0	19	17	4	10	48	19	38 *SS
WILKES	66.34	200.9				19	31	2			20	10 SCS
SCOTT BASE	67.11	179.5	10	49	-1							
PEKING	67.62	321.5	10	53	0	19	49	5			11	13 *SP
SIAN	69.28	312.9	11	4	0							
KUNMING	70.11	301.7	11	10K	1	20	23	9	11	24	11	27 *SP
MAGADAN	70.94	352.5	11	13	-1	20	22	-2				
CHENGTU	71.32	307.5	11	16	0	20	32	4				
PAOTOW	71.79	319.1	11	19	0	20	40	7				
MIRNY	72.97	203.4	11	26	0						16	13
LANCHOW	73.81	312.5	11	31K	0	21	3	7	11	46	11	52 *SP
BYRD STATION	77.03	170.0	11	48	-1							
YAKUTSK	77.50	343.9	11	50A	-2	21	37	0				
ULAN-BATOR	77.59	324.3	11	51	-1	21	43	5				
SOUTH POLE	79.33	180.0	12	2	0				12	11		
SHILLONG	79.51	298.6	12	3K	1	22	5	7			22	23 SKS
IRKUTSK	81.25	327.3	12	13	1	22	20	4				
LHASA	81.42	302.3	12	14K	1	22	25	7			23	4 *SS
COLLEGE	83.32	18.5	12	21	-1							
BERKELEY	83.45	49.6	12	22A	-1							
LICK	83.75	50.3	12	23K	-2							
CHATRA	83.91	298.7	12	26K	1	22	49	6				
PRIEST	84.12	51.7	12	25K	-1							
BOKARO	84.35	295.4	12	26	-2	22	48	0				
MAWSON	84.63	202.1	12	28	-1				12	38		
MINERAL	84.73	47.4	12	25K	-4							
VISHAKHAPTNM	85.21	288.9	12	37	5	23	16	20			23	6 SKS
PASADENA	85.50	54.2	12	35	2	23	3	4			28	36 SS
TIKSI	85.59	349.3	12	33A	-1						18	59
ALBERNI	85.67	38.2	12	36	2							
RENO	85.79	48.6	12	35	0							
VICTORIA	86.26	39.3	12	36	-1							
MADRAS	87.16	283.7				23	9	-6				
BOULDER CITY	88.62	53.1	12	49	1							
EUREKA	88.63	49.5	12	47	-1				13	4		
PENTICTON	88.89	39.4	12	50K	0							
TUCSON	91.01	57.5	13	1	1							
TUCSON TELE.	91.12	57.4	13	14	14							
SALT LAKE C.	92.00	49.0	13	4	0							
HUNGRY HORSE	92.18	41.3	13	4	-1							
DEHRA DUN	92.51	300.2	13	5	-2							
NEW DELHI	92.91	298.4	13	5A	-3	23	35	-32			25	31 PS
BOZEMAN	93.59	44.3	13	12	1							
FLAMING GRGE	93.86	49.2	13	12	-1							
POONA	94.17	288.0	13	13A	-1							

SEMIPALATNSK	94.69	320.3	13	27	11							
ALBUQUERQUE	95.09	55.5	13	17	-1				13	35		
BOMBAY	95.20	288.2				23	56	8			26	0 PS
MOULD BAY	97.04	13.5	13	21	-6							
WARSAK DAM	98.53	303.0	13	35	1							
ANDIJAN	98.69	309.8									17	33 PP
WICHITA MTS.	101.49	56.6	13	54	7	25	30	70			18	9 PP
QUETTA	101.99	298.7									18	4 PP
SAMARKAND	102.71	308.4									18	4 PP
SVERDLOVSK	106.63	326.2									18	32 PP
DUBUQUE	107.92	48.8				26	20	91				
FLORISSANT	108.24	52.7	14	49	777							
ST. LOUIS 1	108.35	52.8	14	49	777							
THULE	108.63	11.5	18	42	777							
C. GIRARDEAU	108.92	54.2	14	30	777							
VANNOVSKAYA	109.62	306.5									18	21 PP
KIZYL-ARVAT	111.00	307.9									19	14 PP
SODANKYLA	116.99	343.1									18	58
KAJAANI	118.83	340.0	18	43	1							
SHAWINIGAN	119.89	42.2	18	45	1							
PALISADES	120.53	48.6	19	34	48							
LA PAZ	121.13	116.7	18	50	3						37	12 SS
UMEA	121.38	342.4	18	51	4							
NURMIJARVI	122.26	337.9	18	49	0							
SKALSTUGAN	123.73	345.6	19	2	10							
KIMBERLEY	124.89	223.5	19	1	7							
BULAWAYO	127.03	234.7	18	59	1							
BROKEN HILL	129.94	240.9	19	23	19							
SAN JUAN	130.33	75.0	19	6	1							
UZHGOROD	130.94	327.6	19	21	15							
COLLMBERG	133.43	335.8	19	19	9						21	59 PP
HALLE	133.69	336.7									19	31
PRUHONICE	133.77	333.6	19	27	16						22	8 PP
JENA	134.28	336.5	19	24	12						20	9
LWIRO	134.29	256.2	19	36	24							
KASPERSKE H.	134.83	333.5	19	24	11						22	6 PP
LJUBLJANA	136.62	329.7	19	26	10							
STUTTGART	136.90	336.3	19	26	9							
GARCHY	140.42	340.4	19	38	15						20	50
BANDEIRA	141.91	228.6	19	39	13							

APRIL 4 14.H 2.M 48.S EPICENTRE 8.22 -83.03 DEPTH= 139.KM

A= 0.12011 B=-0.98254 C= 0.14205 D=-0.9926 E=-0.1213
G= 0.0172 H=-0.1410 K=-0.9899 HT= 6.7

DEPTH OF FOCUS= 0.017R

SE= 3.77

	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
SANTIAGO MA.	7.48	314.9	1	45	-3	3	7	-4				
CHINCHINA	8.04	113.2	1	56	1	3	28	3				
GALERAZAMBA	8.07	71.0	2	3	8	3	31	6				
SAN SALVADOR	8.13	312.4	1	52	-4	3	19	-8				
COMITAN	11.94	312.8	2	52	5	5	38	40			6	34
MERIDA	14.16	334.0	3	12	-3	6	9	20				
CARACAS	16.05	80.6	3	34	-5	6	33	1				
VERA CRUZ	16.75	312.0									4	52
TACUBAYA	19.22	307.0	4	23	8	8	8	27			9	56
SAN JUAN	19.29	56.7	4	14	-2	8	4	22				
GRENADA	21.31	78.0	4	34	-3							
TRINIDAD	21.47	81.8	4	34	-4	8	37	14				
ST. KITTS	21.75	63.4	4	42	1							
FORT FRANCE	22.39	71.2	4	47	0	8	57	18				
LA PAZ	28.65	149.0	5	41	-5	10	30	7				
FAYETTEVILLE	29.55	341.5	5	51K	-3							
C. GIRARDEAU	29.56	349.5	5	53	-1	10	47	10				
WICHITA MTS.	30.00	333.8	5	55	-3	10	49	5			7	45 PP
ROLLA	30.62	346.1	6	1	-2	10	59	5				
ST. LOUIS 1	30.97	349.0	6	7A	1							
BLOOMINGTON	30.99	354.8	6	4	-2	11	0	0				
WASHINGTON	31.01	9.0	5	40	-27	11	36	36			6	28 PP
FLORISSANT	31.15	348.9	6	5	-3							
MORGANTOWN	31.40	4.6	6	9K	-1							
MANHATTEN	33.16	340.6	6	23	-2	11	26	-7				

PALISADES	33.64	12.5	6 29	0	12 2 21		
ALBUQUERQUE	34.20	324.5	6 33	-1			
LONDON ONT.	34.72	2.4	6 37A	-1			
DUBUQUE	34.81	350.1	6 40	1	12 16 17		
TUCSON TELE.	35.16	316.9	6 44	2			
TUCSON	35.18	316.7	6 44	2			
LARAMIE	38.55	332.4	7 22	11			
SHAWINIGAN	39.19	11.2	7 15	-1			
HALIFAX	40.00	21.7	7 26K	3			
BOULDER CITY	40.05	318.4	7 25	2			
FLAMING GRGE	40.12	328.5	7 23	-1			
SALT LAKE C.	41.31	326.3	7 34	1			
PASADENA	41.35	313.7	7 36	2	14 25 48		
EUREKA	42.87	321.8	7 47	1			
PRIEST	44.11	314.8	8 1A	5			
BOZEMAN	44.44	331.9	8 0	1			
LICK	45.39	315.7	8 10K	4			
BERKELEY	46.08	316.0	8 3K	-9	14 57 11		
CALISTOGA	46.68	316.7	8 7K	-9			
MINERAL	46.91	319.3	8 18A	0			
HUNGRY HORSE	47.79	332.4	8 20	-5			
BANFF	50.51	334.0	8 15	-31			
PENTICTON	51.13	329.9	8 51K	0			
VICTORIA	52.60	327.2	9 1	-1			
ALBERNI	53.79	327.2	8 24	-46			
M.BOUR	64.89	78.0	10 28	1	19 12 17		
RESOLUTE	66.77	356.6	10 37	-2			
THULE	68.64	3.7	10 51	1		11 15 PCP	
MOULD BAY	70.79	351.4	11 13	10			
COLLEGE	72.03	336.0	11 11	0			
ALERT	74.76	2.8	11 25	-1			
MALAGA	76.03	54.3	11 36A	2			
TOLEDO	76.33	51.0	11 36	1			
GRANADA	76.67	53.8	11 49	12			
FOLINIERE	78.96	41.9	11 50	0			
BENSBERG	83.81	39.5	12 22	7			
SKALSTUGAN	85.06	26.6	12 22K	1		12 51	
STUTTGART	85.40	41.5	12 23	0		12 43	
JENA	86.58	39.2	12 28	-1		13 19	
HALLE	86.72	38.6	12 30	1			
COLLMBERG	87.40	38.7	12 33A	0			
KIRUNA	87.48	21.7	12 33K	0		12 57	
KASPERSKE H.	88.15	40.8	12 36	0		12 58	
UPPSALA	88.27	29.8	12 38	1			
UMEA	88.48	25.6	12 37K	-1			
PRUHONICE	88.61	39.8	12 42	4			
SODANKYLA	89.88	21.4	12 43	-1			
BYRD STATION	90.06	186.0	12 44	-1			
NURMIJARVI	91.45	28.1	12 53	1			
KAJAANI	91.52	24.3	12 52	0			
MESSINA	91.65	51.2				21 10	
RABAUL	125.01	270.6	18 48	4			
CHARTERS TS.	130.94	250.6	19 1	6			
WARSAK DAM	131.58	28.5	19 0	4			
NEW DELHI	138.73	26.8	19 16	6			
CHATRA	143.88	15.0	19 20	1			
POONA	144.97	40.5	19 24	3			
SHILLONG	146.05	8.3	19 25A	2			
DARWIN	146.45	260.0	19 30	7			
MUNDARING	150.36	214.5	19 32	3			

APRIL 4 20.H 59.M 37.S EPICENTRE 34.26 25.11 DEPTH= 42.KM

A= 0.74997 B= 0.35145 C= 0.56038 D= 0.4243 E=-0.9055
G= 0.5074 H= 0.2378 K=-0.8282 HT= 0.4

DEPTH OF FOCUS= 0.001R

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
ATHENS	3.87	343.5	0 58K	-1	1 35	-9		1 46 SG
ISTANBUL UN.	7.43	23.3	1 47	-2	3 6	-7		
SOFIA	8.54	351.1	2 10	6	4 6	26		2 38
REGGIO CALA.	8.55	299.3	2 3	-1	3 30	-11		
MESSINA	8.66	299.7	2 4	-2	3 35	-8		2 31

TARANTO	8.80	317.0								3	41
JERUSALEM	8.84	103.5	2	4	-4	3	37	-11			
KSARA	8.95	89.8	2	1	-9	3	40	-11		4	33 SG
TITOGRAD	9.36	332.4				4	6	5			
BUCHAREST	10.17	4.0	2	36	9	4	42	21			
BELGRADE	11.14	342.6				4	39	-6		6	2
SIMFEROPOL	12.73	30.3	3	5	4						
KISHINEV	13.05	11.3								3	33
LJUBLJANA	14.27	328.7	3	19	-2	6	11	12		4	44
TRIESTE	14.31	326.0				6	16	16		8	6
UZHGOROD	14.51	352.5	3	24	-1					3	57
BRATISLAVA	15.13	339.1	3	36	3						
VIENNA-H.	15.43	337.6	3	37	1					4	19
BAKURIANA	16.30	57.4	3	48	0						
RACIBORZ	16.60	344.3	3	59	8					4	3 PP
KASPERSKE H.	17.14	333.5	3	57	-1	7	10	4		5	29
TIFLIS	17.19	58.6	3	59	0	7	14	7			
CHUR	17.23	321.5	4	3	4	7	21	13			
PRUHONICE	17.52	336.9	4	3	0					7	35
GORIS	17.75	66.7	4	7	1	7	31	11			
RAVENSBURG	17.81	323.9	4	7	0						
GROZNY	18.42	54.5	4	17K	3	7	45	10			
STUTTGART	18.67	325.7	3	45	-32					4	39
BASLE	18.68	320.4	4	14	-3	7	39	-2			
NEUCHATEL	18.70	318.3	4	18	1						
COLLMBERG	19.16	336.3	4	21K	-2					4	40 PP
STRASBOURG	19.27	323.1	4	25	1					4	47
JENA	19.35	333.5	4	24	-1	8	8	12		4	39 PP
HEIDELBERG	19.38	326.2	4	24	-1						
HALLE	19.69	335.0	4	26	-3	8	17	14			
WELSCHBRUCH	19.88	320.9	4	24	-7						
FELDBERG	20.09	327.6	4	16	-17						
TORTOSA	20.55	295.8	4	54	16						
GARCHY	21.07	314.7	4	43	0					5	13
BENSBERG	21.19	327.4	3	44	-60					3	55 PP
BAGNERES	21.32	301.7	4	45	-1						
TEHERAN	21.56	78.6	4	49	1	8	49	10			
DOURBES	21.83	322.6	4	51	0						
PARIS	22.20	317.7	4	57	3						
ALMERIA	22.56	284.5	5	0	2	9	8	10			
KARLSKRONA	22.86	346.2	4	58	-3						
COPENHAGEN	23.14	341.6	5	2	-2						
MOSCOW	23.15	18.2	5	3	-1	9	10	2			
GRANADA	23.45	285.4	5	4K	-3						
SHIRAZ	23.68	93.6	5	10K	1	9	24	7		9	38 *SS
TOLEDO	23.87	292.1	5	11	0						
FOLINIERE	23.88	315.1	5	11	0						
MALAGA	24.11	284.3	6	2K	49					6	41 PP
KIZYL-ARVAT	25.39	69.7	5	27	2	9	57	11			
PULKOVO	25.75	6.1	5	26	-3						
HELSINKI	25.92	359.8	5	28	-2						
UPPSALA	26.07	351.4	5	30	-2	9	58	0		6	10 PP
NURMIJARVI	26.26	359.5	5	31	-2	10	5	4		5	54
ASHKABAD	27.03	72.5				10	20	7		6	48 PPP
BERGEN	29.16	339.8	5	57	-3						
UMEA	29.74	355.6	6	2	-3					9	16
KAJAANI	29.89	2.3	6	2	-4						
SKALSTUGAN	30.41	348.7	6	8	-3						
SVERDLOVSK	33.00	35.9	6	32	-1						
SODANKYLA	33.16	1.1	6	32	-3						
APATITY	33.68	5.8	6	38A	-1						
KIRUNA	33.72	356.8	6	37	-3					18	58
TASHKENT	35.31	65.2								8	30 PPP
LWIRO	36.48	173.8	7	4K	1						
KHOROG	37.46	71.3	7	14	3						
WARSAK DAM	38.18	76.9	7	17	0						
FRUNSE	39.18	62.3	7	27A	1						
AMDERMA	40.82	18.5	7	38K	-1						
SCORESBY SD.	44.16	339.3	8	7	0						
NEW DELHI	44.42	82.5	8	9K	0						
BROKEN HILL	48.54	175.7	8	50	9						
BANDEIRA	50.16	194.9	8	53A	-1						
BULAWAYO	54.20	175.9	9	24K	0						
ALERT	55.93	350.9	9	35	-1						
SHILLONG	57.61	79.4	9	47K	-1						
THULE	57.80	343.8	9	59	9						
TIKSI	62.03	20.4	10	8	-11						
KIMBERLEY	62.67	180.3	10	22	-1						
RESOLUTE	64.53	345.2	10	35	0						

HALIFAX	66.07	308.6	10 47A	2	
MOULD BAY	67.50	351.3	10 5?	-1	
SHAWINIGAN	70.90	313.7	11 15	0	
MORGANTOWN	79.06	310.6	12 3A	1	
SAN JUAN	80.87	285.9	12 13	2	
COLLEGE	81.04	356.9	12 13	1	
BLOOMINGTON	83.36	313.3	12 25	1	
FLORISSANT	85.91	315.0	12 38	1	
ST. LOUIS 1	85.94	314.8	12 38	1	
C. GIRARDEAU	86.39	313.4	12 43	4	
ROLLA	87.41	315.1	12 45	1	
MANHATTEN	89.16	318.6	12 54	1	
HUNGRY HORSE	90.02	334.1	12 57	0	
PENTICTON	91.07	337.8	12 58	-4	
WICHITA MTS.	93.49	316.6	13 13	0	16 54 PP
EUREKA	98.27	330.6	13 35	1	
SOUTH POLE	124.08	180.0	18 55	1	
BYRD STATION	132.04	187.8	19 12	2	22 35

APRIL 6 16.H 50.M 18.5 EPICENTRE -26.74-113.42 DEPTH= 37.KM

A=-0.35551 B=-0.82059 C=-0.44749 D=-0.9176 E= 0.3975
G= 0.1779 H= 0.4106 K=-0.8943 HT= 2.8

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
SANTA LUCIA	37.42	110.8	7 10	-1	13 4	8		8 38 PP
LA PAZ	43.13	85.8	8 4	6	14 15	-6		
CHINCHINA	48.28	54.9	8 56	17	16 3	28		
FUQUENE	50.01	56.1	8 14	-38				
GALERAZAMBA	52.57	49.9						16 55 PPS
BYRD STATION	53.43	181.3	9 17	-1				
TUCSON	58.71	2.6						10 46
PASADENA	60.72	355.5	10 9	-1	18 42	20		
ALBUQUERQUE	61.70	6.5	10 15	-1				
SCOTT BASE	61.91	193.7	10 17K	-1				11 0 PCP
BOULDER CITY	62.39	358.7	10 23	2				
TRINIDAD	62.69	60.7	10 21	-2				18 59 PS
WICHITA MTS.	62.72	13.7	10 21	-2	18 58	11		12 35 PP
ROXBURGH	62.82	230.5			19 4	15		
PRIEST	62.91	353.4	10 25A	1				
GLEN CANYON	63.39	1.6	10 27	-1				
SOUTH POLE	63.42	180.0	10 27	-1				
LICK	64.20	352.7	10 34A	1				
FAYETTEVILLE	65.07	17.1	10 37K	-1				
CALISTOGA	65.60	352.1	10 42A	0				
EUREKA	65.92	357.8	10 44	0				
UKIAH	66.16	351.7	10 46	1				
RENO	66.20	354.6	10 46	0				
MINERAL	67.17	353.2	10 51A	-1				
SALT LAKE C.	67.18	1.3	10 51	-1				
ROLLA	67.39	18.3	10 53	0	19 54	9		
FLAMING GRGE	67.43	3.3	10 52	-1				
MANHATTEN	67.46	14.1	10 54	0				
LAWRENCE	67.54	15.3	11 7	13				
LARAMIE	68.09	6.4	10 58	0				
ST. LOUIS 1	68.56	19.4	11 0	0				
FLORISSANT	68.67	19.2	11 1	0				
BLOOMINGTON	70.24	22.0	11 11	0	20 24	5		
BOZEMAN	72.09	1.7	11 22	0				
CHICAGO JSA.	72.33	19.9	11 24	1				
BUTTE	72.41	0.6	11 24	0				
MORGANTOWN	73.03	26.4	11 27A	0				
HUNGRY HORSE	74.74	359.6	11 38	1				
PENNSYLVANIA	74.87	27.2	11 38A	0				
VICTORIA	75.45	353.2	11 42	1				
PENTICTON	75.91	355.8	11 44A	0				
ALBERNI	76.34	352.3	11 46A	-1				
PALISADES	76.73	29.7	11 50	1	21 40	8		
MOORLANDS	78.88	228.1	11 59	-2				
RIVERVIEW	79.77	237.4	12 4	-1				22 57 PS
BREBEUF	80.50	27.2	12 9A	0	22 22	10		27 50 SS

CANBERRA	80.73	235.2	12	11	1							
SHAWINIGAN	81.70	27.0	12	15	-1							
ADELAIDE	88.27	231.4	12	49K	1							
CHARTERS TS.	89.87	247.6	12	58	2							
RABAUL	92.06	264.3	13	4	-2							
COLLEGE	95.14	346.0	13	19	-1							
RESOLUTE	101.88	5.0	13	49	-2							
CHANGCHUN	130.14	306.0									22	31 PP
COLLMBERG	132.97	43.7	19	15	4						21	50 PP
KASPERSKE H.	133.71	46.5	19	15	2							
PRUHONICE	134.19	45.2	19	17	4						21	46
NANKING	134.57	289.6	19	14	0						21	49 PP
NURMIJARVI	135.90	28.4	19	14	-3							
PEKING	137.04	300.9	19	22	3						22	3 PP
SIAN	142.96	292.1	19	28	-1						22	41 PP
CHENGTU	147.03	285.7	19	37	1							
LANCHOW	147.04	295.6	19	38	2							
KUNMING	147.50	275.3	19	40	3							
PORT BLAIR	151.20	243.7	19	53	10							
JERUSALEM	152.24	72.1	19	49	5							
KSARA	152.64	67.6	19	49	4							
SHILLONG	157.27	272.7	19	54	3							
LHASA	158.25	283.3	19	57	5							
CHARTRA	161.61	274.9									21	38
TEHERAN	164.23	51.6	20	0	1							
POONA	169.43	220.9	20	5A	3							
NEW DELHI	170.40	283.4	20	3A	0							
QUETTA	176.55	354.6	20	10	4						25	43 PP

APRIL 7 6.H 21.M 33.S EPICENTRE 9.94 144.73 DEPTH= 0.KM

A=-0.80431 B= 0.56894 C= 0.17147 D= 0.5775 E= 0.8164
G=-0.1400 H= 0.0990 K=-0.9852 HT= 6.5

SE= 3.16

	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
GUAM	3.50	0.2	0	57	0							
RABAUL	15.88	151.8	3	49A	3	6	47	4				
PORT MORESBY	19.36	172.8	4	28A	-1							
TORISIMA	20.85	349.2	4	44	-2						6	33
MANILA	23.57	283.9	5	24	11	9	40	16				
YAKUSIMA	24.34	329.0	5	20	0	9	41	4				
BAGUIO CITY	24.36	287.9	5	23	3	10	19	41				
HONIARA	24.49	141.3	5	22A	0	9	47	7				
SIOMISAKI	24.81	341.9	5	25	0	9	50	5				
MIYAZAKI	25.11	332.5	5	24	-4	9	56	5				
SIMIDU	25.19	336.2	5	16	-12	9	46	-6				
OSIMA	25.19	349.6	5	26	-2							
KAGOSIMA	25.22	330.6	5	32	3						7	3
OMAESAKI	25.26	347.3	5	29	0							
OWASE	25.26	343.2	5	31	2	10	2	9				
MERA	25.26	350.5	5	28	-1							
HAMAMATU	25.49	346.5	5	31	0							
AJIRO	25.52	349.2	5	29	-2							
SHIZUOKA	25.58	347.9									5	57
MISIMA	25.61	349.0	5	31	-1	9	55	-4				
KOTI	25.66	338.0	5	34	1	10	7	7				
YOKOHAMA	25.79	350.4	5	33	-1							
SUMOTO	25.90	341.2	5	34	-1	10	11	7				
TAITUNG	25.91	302.3	5	33	-2							
KAMEYAMA	25.92	344.3	5	36	1	10	3	-1				
NARA	25.94	343.1	5	36	1							
TAWU	25.95	301.3	5	32	-4							
OSAKA	26.00	342.5	5	31	-5	10	19	14				
HUNATU	26.02	348.9	5	38	2	9	44	-22				
TOKYO C.M.O.	26.02	350.7	5	37K	1	9	49	-17				
HWALIEN	26.08	305.3	6	0	23	10	39	32				
NAGOYA	26.09	345.4	5	37	0							
DARWIN	26.12	212.2	5	37	0						7	19
KOBE	26.13	341.9	5	42	5							
OOITA	26.13	334.4	5	43	6	10	15	7				
TAKAMATU	26.17	339.7	5	36	-2	10	1	-7				
ABUYAMA	26.19	342.8	5	35A	-3							
KUMAMOTO	26.19	332.5	5	36	-2	10	14	5				
MATUYAMA	26.20	337.0	5	35	-3	10	5	-4				

KOHU	26.22	348.6	5 36	-2	10 11	2		
IIDA	26.23	347.2	5 44	6				
KYOTO	26.28	343.2	5 37	-2	10 2	-8		
GIHU	26.36	345.2	5 38	-1				
ILAN	26.36	307.0	5 44	5				
HIKONE	26.37	344.2	5 40	1				
TITIBU	26.43	349.7	5 39	-1				
KAKIOKA	26.50	351.7	5 39	-2				10 14
TUKUBASAN	26.50	351.6	5 37A	-4	10 15	1		
NAGASAKI	26.50	331.1	5 43	2	10 19	5		
KUMAGAYA	26.54	350.3	5 41	0				
MITO	26.60	352.3	5 42K	0	10 21	6		
SAGA	26.73	332.3	5 45	2				6 46
HIROSIMA	26.80	337.0	5 41	-2	10 24	5		
MAEBASI	26.84	349.9	5 44K	0	10 28	9		
UTUNOMIYA	26.86	351.3	5 37	-7				
OIWAKE	26.86	348.9	5 42	-2	10 32	12		
MATUMOTO	26.90	347.9	5 49	5				
HUKUOKA	26.97	332.9	5 49	4	10 26	5		
TOYOOKA	27.03	342.0	5 47	2	10 29	7		
ONAHAMA	27.11	353.3	5 45	-1	10 32	8		
TOTTORI	27.21	340.9	5 40	-7				
NAGANO	27.26	348.5	5 48	0	10 38	12		
SHIRAKAWA	27.37	352.1	5 47	-2	10 33	5		
MATSUE	27.53	339.1	5 50	0				
TAKADA	27.67	348.8	5 54	3				
HUKUSIMA	27.95	352.8	5 57	3	11 0	23		
SAIGO	28.12	340.2	5 54	-1				
NIIGATA	28.32	350.5	6 1	4				6 46
YAMAGATA	28.46	352.8	6 1	3	10 36	-9		
ISINOMAKI	28.53	354.4	5 57	-2	10 55	8		
SAKATA	29.17	352.1	6 15	10				
MIZUSAWA	29.25	354.3	6 11	5	11 11	13		
MIYAKO	29.69	355.7	6 12	2				
CHARTERS TS.	29.88	177.1	6 9	-2	11 7	-1		
ZO-SE	30.36	317.3	6 13A	-2	11 8	-8	6 20	7 7 PP
HONG KONG	31.75	296.5	6 33K	5	11 33	-4	6 40	13 10 PCS
HAKODATE	31.94	354.4	6 34	5				
URAKAWA	32.13	357.3	6 31	0				
NANKING	32.56	316.4	6 39	-2	11 45	-5	6 41	7 43 PP
CANTON	32.72	297.5	6 35	-1	11 48	-5		7 37 PP
OBIHIRO	32.88	357.9	6 45	7				
KUSIRO	32.92	359.6	6 36	-2				
SAPPORO	33.14	355.5	6 38	-2				
NEMURO	33.27	1.1	6 39	-2				
VLADIVOSTOK	34.90	343.5	6 54A	-1				
NHATRANG	34.91	277.1	6 52	-3				
KURILSK	35.27	3.8	6 57	-1				
KOUMAC	35.90	147.7	7 4A	0				
CHANGCHUN	37.74	336.9	7 18	-1	13 5	-5	7 26	8 44 PP
BRISBANE	37.92	168.3	7 22	1	13 10	-3		
NOUMEA	38.47	146.6	7 26A	1				
UGLEGORSK	39.08	357.2	7 29A	-1	13 25	-5		
PEKING	39.26	324.5	7 30A	-2	13 26	-7	7 38	9 3 PP
LEMBANG	40.54	247.2	7 46K	4				9 46
SIAN	40.72	312.0	7 42A	-2	13 48	-7	7 51	7 55 *SP
TANGERANG	41.19	248.7	7 44	-4				8 36
KUNMING	42.59	296.4	8 0	1	14 17	-6	8 8	9 41 PP
CHENGTU	43.07	304.6	8 1	-2	14 22	-8	8 9	14 34 *SS
RIVERVIEW	43.95	172.3	8 10A	0	14 42	-1		17 58 SS
PETROPAVLOVK	44.41	12.0	8 12	-2	14 44	-5		
ADELAIDE	45.02	187.0	8 17K	-2	14 55	-3		
CANBERRA	45.19	175.1	8 19A	-1	14 57	-3		10 9 PP
LANCHOW	45.25	311.7	8 20A	-1	14 56	-5	8 27	15 10 *SS
MEDAN	46.12	265.4	8 26K	-2	15 9	-5		
MELBOURNE	47.52	179.7	8 38	-1				
ULAN-BATOR	49.43	327.1	8 51A	-2	15 20	-41		
MAGADAN	49.72	4.1	8 54	-2	16 1	-4		
MUNDARING	49.80	212.1	8 55A	-1	16 0	-6		
PORT BLAIR	51.06	277.0	9 7	1				
MOOPLANDS	52.17	177.7	9 13	-1				
SHILLONG	52.35	294.6	9 13A	-3	16 44	3		19 15 SCS
FORT NELSON	52.67	177.6	9 16K	-2	16 54	9		
YAKUTSK	53.13	351.2	9 19	-2	16 46	-5		
IRKUTSK	53.40	330.3	9 15	-8	16 37	-18		
LHASA	53.68	299.5	9 5	-20	16 55	-4		17 8 *SS
ESEN BULAK	54.85	320.7	9 32A	-2	17 14	-1		
TONGARIRO	56.66	151.6	9 47	0				

CHATRA	56.68	295.5	9	46K	-1							
TUAI	57.13	150.1	9	48	-3							
WELLINGTON	57.99	153.6	9	55	-2							
ROXBURGH	59.44	160.1				18	45	30				
VISHAKHAPTNM	59.93	284.7	10	18K	8					13	11	PPP
TIKSI	62.41	354.4	10	29A	-4	18	48	-5				
MADRAS	63.19	279.6	10	40K	8	19	4	1		13	0	PP
DEHRA DUN	64.95	298.8	10	43	0	19	20	-5				
NEW DELHI	65.62	296.8	10	46A	-2	19	24	-9		19	36	PS
SEMIPALATNSK	66.21	320.9	10	48	-4							
FRUNSE	68.73	312.1	11	6	-1							
POONA	68.88	286.1	11	7A	-1							
BOMBAY	69.82	286.5	11	18	4	20	12	-11				
ANDIJAN	70.22	309.7	11	16	-1	20	26	-2				
WARSAK DAM	70.59	302.5	11	17	-2							
KHOROG	70.70	306.2	11	26	6							
COLLEGE	71.56	24.6	11	23	-2				11	38	12	2
TASHKENT	72.59	310.2				20	50	-5				
AMDERMA	78.33	339.4	12	2A	-1	21	52	-7				
SVERDLOVSK	78.52	326.1	12	3K	-2	22	4	3				
KHEYS	79.72	350.4	12	11A	0							
WILKES	80.10	193.3	12	23	10	22	16	-1		27	21	SS
ASHKABAD	81.13	307.0	12	20	2							
VANNOVSKAYA	81.32	307.0	12	19	-1							
KIZYL-ARVAT	82.61	308.4	12	33	7							
MIRNY	85.00	198.4	12	36	-2							
CALISTOGA	85.97	51.6	12	45	2							
PENTICTON	86.21	40.7	12	44	0							
BERKELEY	86.34	52.4	12	47K	2	23	15	-5				
MINERAL	86.43	49.8	12	46K	1							
ALERT	86.88	3.4	12	47	-1							
LICK	86.92	52.8	12	49K	1							
TEHERAN	86.96	305.6	12	48	0	23	39	13				
PRIEST	87.91	53.8	12	55K	2							
RENO	87.93	50.4	12	54	1							
RESOLUTE	88.12	13.3	12	54	0							
BANFF	88.38	38.4	12	56	1							
SCOTT BASE	88.52	175.4	12	55	-1							
MAKHACH-KALA	88.54	313.2	12	58	2							
APATITY	88.80	339.0	12	54K	-3	23	33	-10		13	2	PCP
KEVO	89.93	342.1	13	1	-1							
HUNGRY HORSE	90.02	40.9	13	3	0				13	13		
GORIS	90.15	310.1	13	11	8	24	9	13				
PASADENA	90.30	55.4	13	4	0				13	16	13	22 *SP
TIFLIS	90.77	312.5	13	13	7							
EUREKA	90.84	49.8	13	6	0							
SODANKYLA	91.23	340.0	13	7	-1							
THULE	91.64	7.4	13	11	1							
TROMSOE	92.36	343.5	13	11	-2							
KAJAANI	92.45	336.9	13	12	-2						16	58 PP
BOULDER CITY	92.55	53.0	13	15	1							
BOZEMAN	92.72	42.9	13	11	-4							
KIRUNA	92.98	341.7				23	57	-24				
SALT LAKE C.	93.56	47.7	13	24	5							
FLAMING GRGE	95.30	47.0	13	27	0							
UMEA	95.38	338.5	13	25	-2							
NURMIJARVI	95.46	334.5	13	24	-4						17	18 PP
LARAMIE	97.90	45.7	13	48	9							
SKALSTUGAN	98.28	340.5	13	40	0							
KSARA	99.78	306.9									18	4 PP
SOUTH POLE	99.87	180.0	13	46	-2							
BYRD STATION	100.72	169.8	13	52	1							
JERUSALEM	100.97	305.1	17	53	240							
LWOW	101.25	325.4	13	56	2							
WICHITA MTS.	105.50	49.8	14	24	777	25	1	8			18	33 PP
COLLMBERG	106.15	330.8	18	27	777						18	44 PP
PRUHONICE	106.22	329.1	18	46	777							
JENA	107.07	331.1	18	49	777						19	58
KASPERSKE H.	107.25	328.8									17	53 PP
LJUBLJANA	108.66	325.8	19	1	777							
STUTTGART	109.63	330.5									19	10 PP
BESANCON	112.28	331.0									19	23
CHIAVARI	112.59	326.9									19	47 PP
PARIS	112.72	334.0									19	25
GARCHY	113.61	332.5									19	23
LWIRO	115.92	272.3	19	37	52						20	4 PP
BULAWAYO	117.79	252.5	18	58	10							
PALISADES	118.05	32.4				26	5	22				

GRANADA	124.51	329.4	18	53A	-8					21	6
CHINCHINA	137.17	71.6	19	42	17						
HUANCAYO	140.65	96.9	19	49	18						
ST. VINCENT	145.46	48.8	19	40	U						
TRINIDAD	146.93	52.5	19	45	3						
LA PAZ	147.39	105.0	19	47	4					19	55 PKP2
M.BOUR	149.78	322.8	20	9	22						

APRIL 7 23.H 4.M 12.S EPICENTRE 15.03 -60.61 DEPTH= 56.KM

A= 0.47412 B=-0.84188 C= 0.25778 D=-0.8713 E=-0.4907
G= 0.1265 H=-0.2246 K=-0.9662 HT= 5.7

DEPTH OF FOCUS= 0.004R

SE= 2.65

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
FORT FRANCE	0.60	239.8									0	14	P*
ST. CLAUDE	1.44	313.5	0	25	1	0	43	0					
ST. VINCENT	1.96	199.0	0	30K	-1								
BARBADOS	2.14	152.6	0	34	0								
ANTIGUA	2.40	330.8	0	38K	0								
ST. KITTS	3.06	318.7	0	47K	0	1	23	0					
GRENADA	3.16	200.2	0	48K	0								
TRINIDAD	4.43	190.1	1	5K	-1								
SAN JUAN	6.24	303.0	1	32	1	2	44	2					
FUQUENE	16.02	235.0	3	43K	0	6	40	2					
CHINCHINA	17.83	237.4	4	16K	11	7	33	14	4	29	7	55	*S
COLUMBIA	26.39	319.3	5	35	2								
CHAPEL HILL	26.55	324.9	5	24	-10								
PALISADES	28.35	338.5	6	6	16	10	32	1					
MORGANTOWN	29.79	329.0	6	4K	1								
HUANCAYO	30.60	209.2	6	10	0								
LA PAZ	32.20	193.6	6	25	1	11	33	1					
BREBEUF	32.29	342.8	6	25	0				6	45			
LONDON ONT.	33.01	331.8	6	31	-1								
SHAWINIGAN	33.03	344.5	6	32	0								
AREQUIPA	33.08	199.4	6	30	-2								
BLOOMINGTON	33.10	321.6	6	33	1	11	49	3	6	52			
C. GIRARDEAU	33.92	316.3	6	40	1								
ST. LOUIS 1	35.10	317.7	7	6	17								
FAYETTEVILLE	36.56	311.2	7	1A	-1				7	17			
WICHITA MTS.	39.33	306.9	7	24	-1	13	21	-1			17	27	SCS
MANHATTEN	39.65	314.3	7	27A	-1								
LUBBOCK	41.54	303.9	7	42	-1								
M.BOUR	42.17	85.1				14	5	1			17	24	SS
ALBUQUERQUE	45.58	304.4	8	15	-1								
LARAMIE	46.80	313.1	8	25	0								
TUCSON TELE.	48.56	300.0	8	39	0								
TUCSON	48.64	299.8	8	40	0				9	6			
FLAMING GRGE	49.41	311.4	8	44	-2								
SALT LAKE C.	51.16	310.5	9	0	1								
BOULDER CITY	52.48	303.9	9	9	U								
EUREKA	53.96	308.1	9	20	0								
HUNGRY HORSE	54.82	319.1	9	25	-1								
TOLEDO	54.95	51.7	9	29	2								
PASADENA	54.98	301.3	9	26	-1	16	6	-57					
ALMERIA	55.74	55.5	9	39A	6						11	39	PP
BANFF	56.65	321.9	10	6	27								
SIDA	56.83	21.0	10	28	47								
RENO	56.90	307.5	9	51	10								
PRIEST	57.19	303.4	9	43K	0								
LICK	58.08	304.8	9	51A	2								
MINERAL	58.37	308.3	10	0A	8								
BAGNERES	58.59	48.5	9	53	U								
BERKELEY	58.62	305.3	9	53A	U								
PENTICTON	58.63	318.9	9	52A	-1								
CALISTOGA	58.94	306.2	9	55A	0								
FOLINIERE	59.23	41.9	9	58	1								
VICTORIA	60.91	317.4	10	7	-2								
CLERMONT-FD.	61.09	45.8	10	7	-3						11	3	
PARIS	61.16	42.3	10	10	-1								
GARCHY	61.29	44.1	10	10	-2						10	30	
THULE	61.53	357.9	10	11	-2				10	26			
ALBERNI	61.96	318.1	10	15	-1								

RESOLUTE	62.56	350.3	10 18A	-2			
DOURBES	62.74	41.1	10 7	-14		10 34	
ROSELEND	64.21	46.5	10 26	-5			
BERGEN	65.19	30.0	10 42	5			
STUTTGART	65.60	43.0	10 38	-2		11 9	
JENA	67.26	40.8	10 49	-1		11 33	
ALERT	67.50	359.7	10 50A	-2			
HALLE	67.53	40.2	10 51	-1		12 2	
ROME	67.59	50.6				19 48	PS
COLLMBERG	68.17	40.5	10 55A	-1	11 12	11 20	*SP
MOULD BAY	68.26	347.3	10 55A	-2			
KASPERSKE H.	68.45	42.8	10 56A	-2		11 38	
SKALSTUGAN	69.04	27.2	11 1	0	11 17		
LJUBLJANA	69.05	46.1	11 1K	0		11 30	
PRUHONICE	69.11	41.9	11 1A	-1			
KARLSKRONA	69.97	35.3			11 24		
BRATISLAVA	70.78	43.8	11 12A	0		11 54	
UPPSALA	71.22	31.5	11 13	-2	11 30		
TROMSOE	72.37	21.2	11 21	0			
UMEA	72.59	27.3	11 22	-1	11 39		
KIRUNA	72.81	23.1	11 23	-1	11 40		
SKALNATE PL.	72.83	42.7	11 23	-1			
NURMIJARVI	74.73	30.7	11 34	-1		11 51	PCP
HELSINKI	74.90	31.1	11 36	0		11 52	PCP
SODANKYLA	75.19	23.6	11 37	-1		11 54	PCP
KEVO	75.19	21.1	11 37	-1		11 54	PCP
COLLEGE	75.33	333.8	11 37	-2	11 56		
SOFIA	75.56	49.2	11 42	2			
KAJAANI	75.88	26.9	11 40	-2			
ATHENS	76.51	54.0	11 47K	2			
APATITY	77.77	23.1	11 52K	0			
KSARA	87.03	55.9	12 42K	2			
JERUSALEM	87.05	58.0	12 42	2			
LWIRO	90.01	92.3	12 56K	2			
BROKEN HILL	92.81	104.1	13 9	2			
SHILLONG	131.55	33.9	19 8A	2			
RABAUL	145.99	285.1	19 35K	3			
BRISBANE	146.64	242.9	19 46	13			
CANBERRA	146.65	227.3	19 38A	5			
MANILA	150.44	356.7	19 49	10			
ADELAIDE	153.62	217.7	19 54	10			
CHARTERS TS.	153.91	255.0	19 56	12			

APRIL 9 8.H 54.M 27.S EPICENTRE -8.94 124.15 DEPTH= 57.KM

A=-0.55465 B= 0.81765 C=-0.15430 D= 0.8276 E= 0.5614
G= 0.0866 H=-0.1277 K=-0.9880 HT= 6.7

DEPTH OF FOCUS= 0.004R

SE= 1.75

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
DARWIN	7.40	118.1	1 46	-2					
LEMBANG	16.51	276.1	3 49	0	6 59	9			
DJAKARTA	17.39	277.8	4 0A	0				8 8	
TANGERANG	17.58	277.8	4 3	1	7 27	13			
PORT MORESBY	22.71	93.0	5 1	3					
CHARTERS TS.	24.07	119.9			9 30	9			
MUNDARING	24.08	196.7	5 10K	-1	9 18	-3			
PERTH	24.17	197.5			10 2	39		5 54	
BAGUIO CITY	25.44	352.0	5 28	4	10 26	42			
NHATRANG	25.73	324.5	5 28	1					
RABAUL	28.22	82.2	5 46	-3				13 53	
MEDAN	28.27	295.0	5 49K	-1				6 25	
ADELAIDE	29.15	154.9	5 57	-1				11 19	
HONG KONG	32.55	342.6	6 28	0	11 36	-2	6 46	16 52	SCS
BRISBANE	32.68	127.9	6 31A	2	12 12	32			
CANTON	33.54	341.8	6 37A	1	11 50	-3			
MELBOURNE	34.36	150.1	6 44	1					
CANBERRA	34.72	142.9	6 46K	0				13 58	
RIVERVIEW	35.08	138.9	6 50K	1	12 22	5		8 31	PPP
HONIARA	35.33	93.7	6 54	2	13 0	39			
MOORLANDS	39.03	152.6	7 25A	2				8 53	PP
FORT NELSON	39.49	152.9	7 28	2				8 54	
KUNMING	39.76	328.8	7 31	2	13 27	-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.

KOUMAC	40.38	111.2	7	34A	0					
NANKING	41.08	353.1	7	41	1	13	46	-2		
NOUMEA	42.69	113.2	7	52A	-1					
PORT VILA	43.77	106.2	8	1A	-1					
CHENGTU	43.86	334.6	8	1	-1	14	23	-6		
SIAN	45.31	342.2	8	14A	0	14	47	-3		
SHILLONG	46.51	318.3	8	22A	-1	15	1	-6	10	12 PP
HOWRAH	47.02	312.3	8	31	4	15	15	1		
LANCHOW	48.67	338.0	8	40	0					
PEKING	49.27	351.9	8	43	-2	15	42	-4		
BOKARO	49.64	311.8	8	47A	-1	15	46	-5	10	47
LHASA	49.87	321.5	8	50A	1	15	50	-4		
VLADIVOSTOK	52.28	7.2	9	8A	0					
CHANGCHUN	52.52	1.1	9	7	-3					
ROXBURGH	53.15	141.4	9	12	-2					
KAIMATA	53.16	137.3	9	15	1					
COBB RIVER	53.48	135.1	9	17	0					
KARAPIRO	54.41	130.5	9	23	0					
TONGARIRO	54.81	132.0	9	26	0					
WELLINGTON	54.98	134.7	9	26	-2					
TUAI	55.88	131.1	9	33	-1					
ULAN-BATOR	58.63	346.5	9	58K	4	17	51	-1		
NEW DELHI	58.68	311.2	9	50A	-4					
DEHRA DUN	59.01	313.4	9	53	-3					
AFIAMALU	62.84	101.0	10	22	0					
WARSAK DAM	65.63	313.6	10	39	-1	19	16	-4		
QUETTA	67.28	307.9	10	47	-4					
KHOROG	67.44	316.8	10	52	0	19	40	-2		
ANDIJAN	68.65	320.1	11	0A	1	19	54	-2		
DUZHANBE	69.87	316.6	11	7	0	20	8	-3		
YAKUTSK	70.87	2.8	11	11	-2	20	18	-4		
TASHKENT	70.93	319.3	11	13	0	20	21	-2		
MAWSON	71.06	200.8	11	12K	-2					
SAMARKAND	71.62	316.9	11	16	-1	20	27	-4		
ASHKABAD	76.96	312.3	11	49	1					
KIZYL-ARVAT	78.93	312.8	11	58	-1					
SOUTH POLE	81.12	180.0	12	11	0	22	13	-1		
TEHERAN	81.46	308.2	12	13	1					
SVERDLOVSK	83.50	330.3	12	21K	-2					
BYRD STATION	85.67	171.0	12	34	0				12	57
GORIS	86.36	310.7	12	38A	1					
CHANGALANE	87.84	243.9	12	47K	3					
TIFLIS	88.03	312.6	12	46A	1	23	22	0		
AMDERMA	89.19	342.0	12	48	-3					
BULAWAYO	92.11	249.4	13	5A	1					
BROKEN HILL	93.24	254.9	13	11A	2					
MOSCOW	95.35	325.5							17	11 PP
COLLEGE	97.18	25.5	13	23	-4					
UZHGOROD	104.48	317.9							18	22 PP
PRUHONICE	109.38	319.9							18	54 PP
COLLMBERG	110.12	321.4	18	56	31					
HUNGRY HORSE	117.55	39.7	18	40	1					
CHINA LAKE	118.03	54.2	18	44	4				19	7
EUREKA	118.60	49.8	18	45	4					
FLAMING GRGE	123.06	46.6	18	28	-22					
WICHITA MTS.	133.25	50.1	19	3	-7				22	30 SKP
FAYETTEVILLE	135.90	46.2							19	7 PPP
BREBEUF	140.48	19.7	19	20	-3					
PALISADES	144.27	23.7	19	41	11					
COLUMBIA	145.97	39.2	19	37	5					
AREQUIPA	150.40	148.4	19	49	10					
HUANCAYO	151.55	136.8	19	53	12					
LA PAZ	151.96	154.3	19	52	10				20	12 PKP2

APRIL 10 4.H 36.M 26.S EPICENTRE -28.56 -69.39 DEPTH= 103.KM

A= 0.30959 B=-0.82336 C=-0.47565 D=-0.9360 E=-0.3519
G=-0.1674 H= 0.4452 K=-0.8796 HI= 2.3

DEPTH OF FOCUS= 0.011R

SE= 2.02

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ANTOFAGASTA	4.93	349.0	1	12	-1							

SANTIAGO	4.97	192.2	1 17	3	1 54	-16		
SANTA LUCIA	4.98	192.1	1 10A	-4	1 44	-27		
LA PAZ	12.06	5.8	2 50	1	5 12	10		
HUANCAYO	17.34	340.2	4 1	4	6 42	-22		
BOGOTA	33.30	351.5	6 36	6	11 49	7	7 16	
CHINCHINA	33.87	348.8	6 35A	0	11 55	5		
FUQUENE	34.09	352.3	6 35	-2	11 54	0		
TRINIDAD	39.74	12.3	7 24	0	13 24	4		
GRENADA	41.05	11.5	7 36	1				
ST. VINCENT	42.22	11.8	7 43	-1				
FORT FRANCE	43.77	11.6	7 56	-1				
ST. KITTS	46.08	8.9	8 16	1				
SAN JUAN	46.77	4.3	8 19	-2				
BYRD STATION	55.48	189.4	9 24	-2			9 56	
SOUTH POLE	61.60	180.0	10 8	-1			10 39	
COLUMBIA	63.19	349.2	10 17	-2				
CHAPEL HILL	64.78	351.3	10 29	-1				
M.BOUR	66.27	57.0	10 39	0	19 22	3		
C. GIRARDEAU	68.21	342.8	10 50	-1	19 40	-2		
FAYETTEVILLE	68.42	338.6	10 51A	-2				13 16 PP
MORGANTOWN	68.55	351.3	10 54K	0				
WICHITA MTS.	68.72	334.5	10 53	-2	19 47	-1	11 25	13 33 PP
SCOTT BASE	68.84	190.9	10 54	-1				
LUBBOCK	69.04	331.3	10 55	-1				
BLOOMINGTON	69.27	345.9	10 55	-3	19 51	-4		
PALISADES	69.35	356.3	10 58	0	19 58	3		
ROLLA	69.40	341.1	10 58	-1	19 56	0		
PENNSYLVANIA	69.46	353.1	10 57A	-2				
ST. LOUIS 1	69.63	342.7	10 59	-1	19 57	-2	11 31	
FLORISSANT	69.82	342.7	10 59	-2			11 32	
LAWRENCE	71.39	339.0	11 23	12				
CAPE HALLETT	71.53	196.1	11 11	-1				
MANHATTEN	72.03	338.1	11 14	-1	20 22	-4		
LONDON ONT.	72.07	350.9	11 13	-2				
TUCSON	72.17	323.9	11 16	1				11 55
TUCSON TELE.	72.18	324.0	11 16	1				
ALBUQUERQUE	72.22	328.7	11 16	0				
HALIFAX	73.02	4.3	11 20A	0				
DUBUQUE	73.39	343.7	11 15	-7	20 41	-1		
BREBEUF	73.81	356.9	11 25K	0			11 58	
SHAWINIGAN	74.82	357.6	11 31A	0				
GLEN CANYON	76.28	326.4	12 40	61				
BOULDER CITY	77.15	323.6	11 44	0				
LARAMIE	77.17	332.9	11 45	1				12 19
PASADENA	77.59	320.3	11 48	2	21 35	7		12 22
MAWSON	77.73	163.1	11 46A	-1				
FLAMING GRGE	78.45	330.2	11 51	0			12 23	
RAPID CITY	78.64	335.9	11 52	0			12 24	
SALT LAKE C.	79.43	328.6	11 57	1				
KIMBERLEY	80.13	117.3	11 59	-1				
EUREKA	80.40	325.2	12 2	0				
PRIEST	80.43	320.2	12 4	2				
LICK	81.84	320.5	12 9A	0				
RENO	82.42	323.0	12 14	2				
BERKELEY	82.56	320.5	12 14A	1				12 59 *SP
BOZEMAN	83.01	332.0	12 16	1				
CALISTOGA	83.28	320.9	12 17A	1				
BUTTE	83.92	331.3	12 18	-2				
MINERAL	83.96	322.6	12 19A	-1				
MIRNY	84.24	173.0	12 20	-1				12 53
HUNGRY HORSE	86.38	332.0	12 32	0			13 1	13 17 *SP
CHANGALANE	87.08	118.3	12 36	1				13 16
BULAWAYO	87.26	111.3	12 36	0				
TUAI	88.67	225.8	12 45	2			13 19	
ROXBURGH	89.05	217.0	12 45	0			13 19	
MALAGA	89.11	46.7	12 52A	7				13 29
BANFF	89.19	333.0	12 43A	-2				
TONGARIRO	89.44	224.7	12 48	2			13 21	
PENTICTON	89.51	329.8	12 46A	-1				
BROKEN HILL	89.92	106.3	12 51	2				
COBB RIVER	89.98	221.9	12 52	3			13 26	
KARAPIRO	90.20	225.7	12 51	1			13 24	
BANGUI	90.33	85.2	12 51	0			13 26	
VICTORIA	90.67	327.4	12 52	0				
ALBERNI	91.86	327.3	12 58	0				
LWIRO	96.13	95.9	13 20K	3				
FOLINIFRE	98.47	38.6	13 28	0				
ROSELEND	101.49	44.4	13 41	0				
BENSBERG	103.84	39.3	18 8	256				

STUTTGART	104.03	42.0	13 54	1								
KASPERSKE H.	106.74	42.9	17 45	777							19 14	PP
COLLMBERG	107.29	40.7	18 17	777			18 51					
PRUHONICE	107.66	42.4	18 35	777							19 3	
COLLEGE	110.78	333.4	14 20	-241								
UMEA	115.07	29.3	18 29	0			19 4					
NURMIJARVI	116.37	33.4	18 32	1			19 6					
HELSINKI	116.45	33.8	18 32	0								
SODANKYLA	118.31	25.9	18 36	1			19 9					
KAJAANI	118.36	29.7	18 36	1								
CHARTERS TS.	120.62	219.5	18 41	1								
APATITY	120.94	25.9	18 40	0								
MOSCOW	122.54	39.9	18 45	2			19 19					
KHEYS	123.84	9.0	18 48	2			19 19					
RABAUL	128.45	237.7	18 54	-1								
SHIRAZ	129.71	73.8	19 0	3							19 33	
DARWIN	134.84	208.4	18 57	-10								
SVERDLOVSK	135.10	36.5	19 ?	0							21 42	PP
TIKSI	135.72	351.8									22 39	PKS
ASHKABAD	135.80	63.7	19 10	1								
QUETTA	142.09	76.6	19 19	-1			19 43				25 40	PPP
DUZHANBE	144.01	62.8	19 24	1								
TASHKENT	144.14	58.1	19 22	-2			19 57					
YAKUTSK	144.23	344.7	19 22	-2							22 38	PP
LEMBANG	144.70	174.9	19 25A	0							20 8	
POONA	144.98	98.4	19 26K	1								
TANGERANG	145.26	173.1	19 5	-21								
KHOROG	146.25	64.5	19 30	3								
WARSAK DAM	146.33	70.8	19 30	3								
SEMIPALATNSK	148.35	38.0	19 33	2								
NEW DELHI	150.71	81.8	19 37K	3								
MEDAN	152.68	153.3	19 40	3							20 27	
IRKUTSK	155.86	9.5	19 43	2								
VLADIVOSTOK	157.53	315.9	19 43	-1			20 18					
ESEN BULAK	158.92	28.5	20 21	36								
ULAN-BATOR	160.46	7.5	19 49	2								
LHASA	162.86	81.7	19 51	2			20 26				24 29	PP
SHILLONG	163.05	95.8	19 52K	2							20 27	
PEKING	167.68	339.6	19 54	0			20 29				24 50	PP
ZO-SE	170.48	298.0	19 57	2			20 32				25 2	PP
LANCHOW	170.59	35.8	19 57	2			20 32				25 2	PP
NANKING	172.12	298.3	19 58	2			20 33				25 14	PP
CHENGTU	173.89	68.4	19 59	2			20 33				25 20	PP
CANTON	174.02	204.9	19 59	2			20 34				25 27	PP
SIAN	174.15	13.8	19 59	2			20 33				25 22	PP

APRIL 10 10.H 32.M 4.S EPICENTRE 50.99 157.61 DEPTH= 69.KM

A=-0.58440 B= 0.24078 C= 0.77492 D= 0.3809 E= 0.9246
G=-0.7165 H= 0.2952 K=-0.6321 HT= -5.8

DEPTH OF FOCUS= 0.006R

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	
PETROPAVLOVK	2.14	17.2	0	35K	0	1	0	-1					
OKHA	9.36	291.6	2	15	0						4	17	
MAGADAN	9.41	338.3	2	16	0						4	58	
UGLEGORSK	10.18	265.2	2	30	4						4	41	
YAKUTSK	18.77	316.7	4	16	0						7	52	*SS
VLADIVOSTOK	19.13	255.7	4	19	-1								
ABUYAMA	22.67	233.2	3	58K	-59								
TIKSI	24.40	338.3	5	13	0						7	35	
COLLEGE	31.00	42.5	6	13	0								
ULAN-BATOR	32.58	284.8	6	28	1								
ESEN BULAK	39.73	288.2	7	16	-12								
KHEYS	41.65	345.9									10	0	PPP
ALERT	45.22	6.9	8	12A	0								
RESOLUTE	45.85	20.7	8	18A	1								
SEMIPALATNSK	46.84	301.1	8	25	0								
ALBERNI	47.57	60.1	8	32A	1								
THULE	49.53	12.9	8	53	7								
PENTICTON	50.36	57.5	8	52A	0								
BANFF	51.40	53.6	8	57A	-3								
SVERDLOVSK	52.76	316.7	9	9K	-2								

HUNGRY HORSE	53.89	55.6	9	18	-1	
MINERAL	54.76	67.5	9	26A	1	
NHATRANG	55.02	247.1	9	30	3	
RABAUL	55.17	186.6	9	28	0	
SHILLONG	55.44	268.9	9	36A	6	
RENO	56.33	67.1	9	37K	1	
SODANKYLA	56.35	339.5	9	37	0	
KIRUNA	57.25	342.1	9	42K	-1	
EUREKA	58.58	64.8	9	52	0	
KAJAANI	58.81	336.8	9	55	1	
KHOROG	59.74	293.2	10	3	3	
SALT LAKE C.	60.03	61.2	10	3	1	
UMEA	60.78	339.9	10	6	-1	
PASADENA	60.94	70.7	10	9	0	
FLAMING GRGE	61.27	59.6	10	10	-1	10 52 PCP
BOULDER CITY	61.64	67.1	10	13	0	
WARSAK DAM	62.13	290.4	10	16	-1	
RAPID CITY	62.33	53.5	10	18	0	
NEW DELHI	62.52	282.2	10	17K	-2	
SKALSTUGAN	62.58	343.3	10	17	-3	
NURMIJARVI	62.59	335.9	10	19	-1	
HELSINKI	62.80	335.6	10	19	-2	
LARAMIE	63.06	57.0	10	24	1	
UPPSALA	64.87	339.0	10	34K	-1	
TUCSON TELE.	66.61	67.2	10	46	0	
TUCSON	66.61	67.3	10	46	0	
ALBUQUERQUE	67.15	62.5	10	49	0	
QUETTA	67.58	290.5	10	53	1	
GOTEBORG	68.06	340.9	10	54	-1	
MANHATTEN	69.27	53.1	11	1A	-1	
TIFLIS	70.71	313.0	11	12	1	
CHARTERS TS.	71.47	191.2	11	16	1	
WICHITA MTS.	71.63	57.4	11	17A	1	12 51
POONA	71.94	277.2	11	18A	0	
TEHERAN	72.12	304.8	11	20	1	
ROLLA	72.60	50.9	11	21	-1	
FLORISSANT	72.64	49.4	11	22A	0	
ST. LOUIS 1	72.83	49.4	11	23A	0	
FAYETTEVILLE	72.87	53.6	11	23A	-1	
SHAWINIGAN	73.59	33.7	11	27A	-1	
UZHGOROD	73.64	330.9	11	28	0	
COLLMBERG	73.76	337.7	11	28A	-1	11 47 PCP
BLOOMINGTON	74.15	46.6	11	31K	0	
BREBEUF	74.19	34.7	11	31K	0	
C. GIRARDEAU	74.21	49.8	11	31	-1	
JENA	74.44	338.5	11	32	-1	12 23
PRUHONICE	74.59	336.3	11	32	-2	
RENSBERG	75.37	341.2	11	38	0	
KASPERSKE H.	75.62	336.5	11	40A	0	12 12
KEW	76.22	346.0	11	44A	1	
SHIRAZ	76.22	300.1	11	44	1	
MORGANTOWN	76.68	42.1	11	46K	0	
DOURBES	76.69	342.5	11	47	1	
STUTTGART	76.99	339.1	11	48	1	
HALIFAX	78.30	28.7	11	55A	0	
PARIS	78.32	343.5	11	56	1	12 21
SOFIA	78.56	327.4	11	56	0	12 28
FOLINIERE	78.86	345.4	11	58	0	
GARCHY	79.69	342.7	12	3A	1	
ROSELEND	80.45	339.1	12	8	2	
ATHENS	82.62	324.9	12	7K	-10	
BAGNERES	84.29	349.6	12	34	8	
GRANADA	90.67	345.1	12	41K	-16	
BROKEN HILL	125.35	292.9	18	56	2	
LA PAZ	129.94	63.6	19	6	4	
BYRD STATION	138.53	164.8	19	10	-8	
SOUTH POLE	140.80	180.0	19	16	-7	

APRIL 10 21.H 37.M 7.5 EPICENTRE 37.79 20.11 DEPTH= 0.KM

A= 0.74397 B= 0.27241 C= 0.61017 D= 0.3438 E=-0.9390
G= 0.5730 H= 0.2098 K=-0.7923 HT= -0.9

SE= 2.53

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

ATHENS	2.86	85.3	0	50A	2	1	29	5	1	36 S*
TARANTO	3.48	321.2	0	59	2					
REGGIO CALA.	3.54	276.4	0	57K	-1	1	39	-2	2	10
MESSINA	3.63	277.9	0	58K	-1	1	44	1	1	13 PG
TITOGRAD	4.68	352.3	1	14	0	2	10	0	1	29 PG
SOFIA	5.49	25.6	1	18	-7				3	19 SG
BELGRADE	7.03	2.0	1	46A	-1	3	18	9	3	46
ROME	7.16	307.3	1	50K	1	3	25	13	2	3 PP
ISTANBUL UN.	7.60	62.0	1	56	1	3	18	-5		
TIMISOARA	8.00	5.6	2	4	3	3	39	6	2	47 PG
BUCHAREST	8.02	32.4	2	2A	1	3	34	0	2	41 PG
CAMPULUNG	8.33	24.7	2	6	1				2	58 PG
SZEGED	8.46	0.1	1	42	-25	3	8	-36	2	20 PG
ZAGREB	8.60	340.3	2	7A	-2	3	43	-5	2	46 PG
KALOCSA	8.78	354.9	2	3	-9	4	3	11	3	15 PG
FLORENCE X.	9.00	314.5	2	11	-4	3	46	-12		
KECSKEMET	9.13	358.2	2	24	8	4	5	4	3	1 PG
TRIESTE	9.18	330.8	2	13	-4	3	58	-4	2	59
LJUBLJANA	9.24	335.0	2	17K	-1	4	1	-3	3	13
CUGLIERI	9.30	288.4				4	23	18		
BOLOGNA	9.42	318.1	2	29	9	4	21	13	5	25
FOCSANI	9.51	31.6	2	27	5					
BUDAPEST	9.72	355.6	2	5	-20	4	2	-14	2	29 PPP
PADOVA	9.80	323.6	2	24	-2	4	12	-6	4	24 SS
BACAU	10.11	27.7	2	37	7					
HURBANOVO	10.17	352.7	2	35	4	4	21	-6	3	23 PG
CHIAVARI	10.43	312.1	2	33A	-1	4	35	2	5	33 SG
RAKHOV	10.56	15.1	2	37	1					
BRATISLAVA	10.60	349.1	2	35	1				5	34 SG
VIENNA-H.	10.81	346.6	2	38	-2				3	29 PG
IASI	10.89	27.9	2	42	1					
UZHGOROD	10.95	7.7	2	42	0				6	6
PAVIA	11.03	315.5	2	53	10	4	48	0	4	13
KISHINEV	11.25	32.1	2	45	-1	4	56	3		
MONACO	11.30	305.7	2	47A	1	4	47	-7		
SKALNATE PL.	11.39	0.5	2	47	0	4	58	1	6	3 SG
ISOLA	11.75	307.0	2	53	1	5	3	-2		
CHUR	11.96	322.5	2	55	0				7	51
ROSELEND	12.09	313.5	3	6	9					
KASPERSKE H.	12.28	339.4	2	57A	-3	5	18	0	3	45
RACIBORZ	12.36	354.2	3	0	-1	5	17	-3	3	10 PP
RAVENSBURG	12.60	325.7	3	3	-1					
SIMFEROPOL	12.71	51.4	3	6A	1					
PRUHONICE	12.82	343.6	3	5A	-2	5	27	-5		
PRAGUE	12.94	343.4	3	10	2				4	7
EBINGEN	13.19	325.5	3	15	3				4	29
NEUCHATEL	13.37	317.6	3	13	-1					
BASLE	13.39	320.6	3	15A	1	5	57	12	8	16
KSARA	13.40	102.4	3	9	-5	5	25	-20		
TURINGEN	13.41	326.7	3	15	0					
STUTTGART	13.50	327.8	3	15	-1					
JERUSALEM	13.78	111.3	3	17	-3	5	42	-12		
STRASBOURG	14.03	324.2	3	23	0				4	40
BESANCON	14.05	316.8	3	20	-3					
KARLSRUHE	14.06	326.6	3	22	-1	6	23	22		
HEIDELBERG	14.22	328.3	3	23	-2					
COLLMBERG	14.42	341.8	3	26	-2	6	31	21	3	37 PP
WARSAW	14.46	2.2	3	28	0	6	4	-6	3	38 PP
JENA	14.47	337.9	3	26	-3	6	3	-8	3	36 PP
WELSCHBRUCH	14.60	321.0	3	23	-7	6	14	0	3	45 PP
HALLE	14.87	339.8	3	33	-1	6	41	21		
CLERMONT-FD.	14.96	307.6	3	37K	2	6	29	7		
FELDBERG	14.97	329.8	3	13	-22				5	57
TORTOSA	15.48	287.4	3	39	-3	6	48	13		
GARCHY	15.71	312.5	3	43K	-2				6	55
SOTCHI	15.95	62.6	3	47	-1				3	54 PP
RENSBERG	16.06	329.2	3	50	1	6	35	-13	4	5 PP
ALICANTE	16.23	278.3	3	49	-2	7	1	9	4	4 PP
DOURBES	16.58	322.9	3	57	1	6	55	-5		
PARIS	16.86	316.4	4	1	2	7	6	-1	4	24
UCCLE	17.17	324.3	4	6	3	7	13	-1		
WITTEVEEN	17.71	332.4	4	12	2					
DE BILT	17.74	328.6	4	13A	3	7	41	14		
ALMERIA	17.98	273.9	4	11K	-2	7	59	27	4	26 PP
FOLINIERE	18.52	312.9	4	18	-2					
KARLSKRONA	18.63	352.1	4	16A	-5	7	46	-1	6	31
COPENHAGEN	18.63	346.3	4	21A	0	7	54	7		
GRANADA	18.82	275.4	4	29A	5	8	35	44	5	8 PP
TOLEDO	18.93	283.8	4	24K	-1	7	55	1	4	41 PP

TIFLIS	19.36	70.6	4	31A	1	8	10	7			4	46 PP
MALAGA	19.53	274.4	4	29	-3	8	3	-4			4	49 PP
JERSEY	19.65	312.5	4	32	-1	8	25	15				
KEW	19.87	320.0	4	36A	0	8	13	-2				
GORIS	20.53	77.1	4	43A	0						9	29 SSS
GOTEBORG	20.63	347.6	4	44A	0	8	40	10				
MOSCOW	21.48	27.7	4	52	-1	8	46	-1			5	18 PP
UPPSALA	22.14	356.7	4	59A	0	9	0	1			6	26
COIMBRA	22.28	285.1	5	0A	-1	9	0	-2				
SERRA PILAR	22.37	287.6	5	1K	-1	9	0	-3			5	29 PP
HELSINKI	22.61	6.3	5	4A	0	9	12	4				
NURMIJARVI	22.92	5.8	5	6A	-1	9	14	0				
PULKOVO	22.95	13.3	5	7A	0	9	13	-1				
LISBON	22.96	281.4	5	7K	0	9	12	-2			5	34 PP
EDINBURGH	23.94	326.7	5	19	2	9	38	7			6	10 PP
ABERDEEN	24.32	330.0	5	22K	1	9	38	0			5	43
BERGEN	24.50	342.2	5	25	3	9	55	14				
TEHERAN	25.09	85.1	5	29	1	9	50	-1				
UMFA	26.07	0.1	5	36A	-1	10	2	-5				
SKALSTUGAN	26.26	352.1	5	40A	1	10	23	13			6	29 PP
KAJAANI	26.72	7.4	5	42A	-1	10	19	1				
SHIRAZ	28.05	97.1	5	56A	1	10	38	-1			6	56 PPP
SODANKYLA	29.86	5.1	6	11A	-1						13	27
ASHKABAD	30.05	77.7	6	11	-2	11	6	-5			7	24 PPP
KIRUNA	30.09	0.2	6	13A	-1	11	10	-2			12	27 SS
APATITY	30.74	10.0	6	19A	0	11	22	0			11	46
TROMSOE	31.91	359.2	6	28	-2							
KEVO	32.25	4.5	6	32	-1							
SVERDLOVSK	32.78	41.3	6	36K	-1	11	49	-5				
BANGUI	33.28	182.7	6	41	-1	11	57	-5				
SIDA	34.58	331.1	6	54K	1							
PONTA DELGDA	35.92	284.4	7	5	2	12	45	2	7	18	15	11
REYKJAVIK	36.24	330.2	7	9A	1							
TASHKENT	37.67	68.8	7	19A	0	13	10	0			9	0 PPP
DUZHANBE	37.90	73.4	7	21	0						16	5 SS
AYDERMA	38.90	21.6	7	29A	0	13	26	-2				
QUETTA	39.24	86.8	7	33	1	13	32	-2				
SCORESBY SD.	39.43	339.2	7	35	1	13	43	7				
M.BOUR	40.26	244.7	7	42	1	13	51	2				
KHOROG	40.29	74.1									13	22 PCS
LWIRO	40.64	166.6	7	45A	1	13	59	4			9	42 PP
FRUNSE	41.26	65.3	7	48A	-1							
WARSAK DAM	41.42	79.1	7	49	-1	13	59	-7				
SEMIPALATNSK	43.84	53.3	8	9	-1	14	37	-5			9	53 PP
LAHORE	44.51	81.1	8	15	0							
KHEYS	45.22	8.2				15	3	2			10	14 PP
LUANDA	46.84	189.3	8	37K	3							
DEHRA DUN	47.92	80.9	8	45	3	15	43	3				
BOMBAY	49.39	97.2	8	54	0	16	3	2			10	49 PP
POONA	50.41	96.9	9	1A	-1	16	17	2			10	53 PP
ALERT	51.80	350.4	9	12A	0							
BROKEN HILL	52.55	169.8	9	17	-1							
BANDEIRA	52.79	188.3	9	19A	-2				9	24		
THULE	53.27	342.9	9	29	6							
HYDERABAD	54.64	94.9	9	29A	-4	17	10	-3			11	43 PP
ESEN BULAK	55.12	55.0	9	37K	0	17	18	-1				
BOKARO	57.06	84.0									11	50 PCP
IRKUTSK	57.96	46.2	9	55A	-1	17	51	-6				
BULAWAYO	58.17	170.6	9	58A	0							
LHASA	58.29	75.3	9	58A	-1	17	56	-5			12	10 PP
VISHAKHAPTNM	58.32	91.5	10	3	3	18	2	1			10	46 PCP
MADRAS	58.55	98.1	10	3	2	18	3	-1			12	9 PP
HOWRAH	59.70	83.8	10	11	2							
CALCUTTA	59.75	83.8	10	7	-2	18	4	-16				
RESOLUTE	60.06	343.9	10	11A	-1							
WINDHOEK	60.10	183.2	10	12	0							
TIKSI	60.14	20.3									12	30 PP
HALIFAX	60.72	305.5	10	16K	0							
SHILLONG	60.93	78.9	10	16A	-1	18	31	-4			10	45 PCP
ULAN-BATOR	61.23	50.0	10	20	0	18	43	4				
TANANARIVE	62.03	150.4	10	28	3						10	48
CHITTAGONG	62.55	82.1	10	28	0	18	55	-1	10	40	11	12 PCP
SHAWINIGAN	65.54	310.8	10	47	-1							
YAKUTSK	65.63	29.2				19	27	-7			20	33 SCS
KIMBERLEY	66.33	175.5	10	52	-1							
BREBEUF	66.58	310.1	10	55A	0	19	47	2	11	5	20	57 SCS
CHENGTU	67.53	68.0	11	0	-1	19	56	-1			11	13 *SP
PALISADES	69.10	306.1	11	13	3	20	17	2				

FORDHAM	69.16	305.9	11	12	1	20	19	3				
SIAN	69.18	67.4	11	11A	0	20	17	1			11	25 *SP
PORT BLAIR	69.23	91.2	11	2?	18							
KUNMING	69.53	73.7	11	12	-1	20	15	-6			11	26 *SP
PEKING	70.93	53.9	11	21	-1	20	36	-1			15	45 PPP
PENNSYLVANIA	71.72	307.6	11	25A	-1							
GEORGETOWN	72.28	305.6	11	30	0	20	53	1				
WASHINGTON	72.28	305.6	11	28	-2							
LONDON ONT.	72.47	311.1	11	34	3							
MAGADAN	74.81	23.6	11	44	0							
CHAPEL HILL	75.29	304.1	11	48	1							
SAN JUAN	76.07	282.5	11	50	-2							
GRENADA	76.32	274.7	11	53	0							
TRINIDAD	76.88	273.4	11	54	-2							
NANKING	77.24	59.4	11	57	-1	21	46	-2			14	54 PP
COLLEGE	77.24	354.7	11	58	0	21	49	1			15	6 PP
COLUMBIA	77.73	303.5	12	2	1							
BLOOMINGTON	78.00	310.4	12	2	0				12	5		
DUBUQUE	78.30	315.1	12	4	0	22	3	4				
VLADIVOSTOK	78.45	43.9				21	58	-3				
CANTON	78.65	69.7	12	6	0	22	3	0			12	20 *SP
ZO-SF	79.45	58.9	12	9	-1	22	8	-3			15	14 PP
HONG KONG	79.73	69.9	12	11	-1	22	17	3			25	23
FLORISSANT	80.55	312.1	12	16	0	22	22	-1				
ST. LOUIS !	80.57	311.9	12	16	0	22	21	-2				
Y.-SAKHLINSK	81.21	35.7				22	31	1				
NHATRANG	81.92	80.9	12	22	-1							
ROLLA	82.05	312.2	12	24A	0	22	35	-3				
PETROPAVLOVK	82.67	23.8				22	39	-6			17	30 PPP
LAWRENCE	83.24	314.8	12	44	14							
RAPID CITY	83.72	322.7	12	34	1							
MANHATTEN	83.83	315.7	12	33	0	22	59	3				
FAYETTEVILLE	84.62	312.1	12	37A	0							
HUNGRY HORSE	85.04	331.3	12	39	0				12	49	21	58
BOZEMAN	86.02	328.0	12	46	2							
PENTICTON	86.23	334.9	12	46A	1							
BUTTE	86.37	329.1	12	48	2							
LARAMIE	86.96	322.2	12	51	2							
TUKUBASAN	87.78	44.5	12	53K	0							
BAGUIO CITY	88.09	70.8	12	57	3	23	6	-31				
WICHITA MTS.	88.14	313.7	12	55A	1	23	45	7			16	24 PP
VICTORIA	88.16	336.7	12	57	3							
FLAMING GRGE	89.06	324.2	12	58	-1							
FUQUENE	89.72	276.6	13	3	1							
SALT LAKE C.	90.31	325.6	12	55	-10							
LUBBOCK	90.81	314.9	13	10	3							
TANGERANG	90.99	97.0	13	8A	0	24	5	1				
DJAKARTA	91.16	96.9	13	4	-4	24	4	-1				
CHINCHINA	91.51	277.4	13	14	4							
LEMBANG	92.17	96.9	13	14	1	24	15	1				
ALBUQUERQUE	92.28	318.7	13	14	0							
EUREKA	93.17	327.5	13	18	0							
MINERAL	94.69	331.6	13	25A	0							
RENO	94.70	330.0	13	27	2							
BOULDER CITY	95.57	324.8	13	28	-1							
TUCSON TELE.	96.53	319.9	13	35	2							
BERKELEY	97.10	330.9	13	35A	-1							
LICK	97.32	330.2	13	59A	22							
PASADENA	98.60	326.1									17	46 PP
SOUTH POLE	130.60	180.0	19	9	1						21	16
CHARTERS TS.	130.36	84.9	19	17	4						21	36
ADELAIDE	131.28	106.4	19	18A	3						22	38 SKP
CANBERRA	139.28	102.6	19	33	3							
RIVERVIEW	140.46	99.5	19	34	2							
AFIAMALU	153.97	27.1	20	4	10							
ROXBURGH	155.85	118.3									20	35 PKP2
KARAPIRO	160.61	98.0									20	46 PKP2
CHATEAU	160.73	101.8									20	46 PKP2

APRIL 10 22.H 10.M 51.S EPICENTRE 37.87 20.21 DEPTH= 0.KM

A= 0.74265 B= 0.27345 C= 0.61131 D= 0.3455 E=-0.9384
G= 0.5737 H= 0.2112 K=-0.7914 HT= -0.9

SE= 5.58

	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	
ATHENS	2.77	86.9	0	45A	-1						1	36	SG
TARANTO	3.47	319.3	1	5	9								
REGGIO CALA.	3.61	275.0	0	52	-6	1	33	-9					
MESSINA	3.70	276.5	0	52K	-8	1	35	-9					
TITOGRAD	4.61	351.2	1	8	-5	2	6	-2			1	24	PG
SOFIA	5.38	25.3	1	22	-1								
BELGRADE	6.94	1.4	1	37K	-8						3	38	SG
ROME	7.18	306.5									2	17	
ISTANBUL UN.	7.49	62.3	1	49	-4								
ZAGREB	8.55	339.7	2	0A	-8								
FLORENCE X.	9.00	313.8	2	21	7								
TRIESTE	9.15	330.2				3	47	-14			4	25	
LJUBLJANA	9.20	334.4	2	9	-8	3	53	-9					
MONACO	11.31	305.2	2	45	-1								
ROSELEND	12.09	313.0	3	5	9								
KASPERSKE H.	12.23	339.0	2	51	-7						4	38	
RACIBORZ	12.29	353.9									3	2	PP
PRUHONICE	12.77	343.2	2	59	-7						3	30	
KSARA	13.34	102.9	3	4	-9						4	20	
STUTTGART	13.47	327.4	3	9	-6								
JERUSALEM	13.74	111.8	3	12	-6								
STRASBOURG	14.01	323.8	3	18	-4						3	40	
HEIDELBERG	14.19	327.9	3	20	-4								
COLLMBERG	14.37	341.5	3	31K	4						8	32	
JENA	14.43	337.6	3	23	-4						3	32	PP
WELSCHBRUCH	14.58	320.6	3	18	-11								
HALLE	14.82	339.4	3	36	3	6	50	31					
CLERMONT-FD.	14.97	307.2	3	33	-2								
GARCHY	15.71	312.2	3	42	-2								
BENSBERG	16.03	328.9	3	49	1								
BAGNERES	16.12	295.1	3	57	8								
DOURBES	16.56	322.5	3	53	-2								
PARIS	16.86	316.1	3	58	-1								
ALMERIA	18.06	273.7	4	7	-7								
FOLINIERE	18.52	312.6	4	12	-8								
KARLSKRONA	18.56	351.9	4	12	-8								
GRANADA	18.90	275.2	4	33K	9								
TOLEDO	18.99	283.6	4	20	-5								
MALAGA	19.61	274.2									5	15	
KEW	19.86	319.8	4	30	-5								
GOTEBORG	20.57	347.4	4	37	-6								
UPPSALA	22.06	356.5	4	53	-5						5	15	PP
COIMBRA	22.33	284.9	4	53	-8								
SERRA PILAR	22.43	287.4	4	57K	-5	8	59	-5			5	25	PP
HELSINKI	22.52	6.2	4	57	-6								
NURMIJARVI	22.83	5.7	5	1	-5								
TEHERAN	25.00	85.3	5	25	-2								
UMEA	25.98	0.0	5	33	-3						6	4	PP
SKALSTUGAN	26.18	352.0	5	32	-6								
KAJAANI	26.63	7.4	5	37	-5								
SODANKYLA	29.77	5.0	6	6	-4								
KIRUNA	30.01	0.2	6	7	-6								
APATITY	30.65	9.9	6	14	-4								
BANGUI	33.37	182.9	6	35	-7								
QUETTA	39.16	87.0	7	35	4								
SCORESBY SD.	39.38	339.2	7	35	2								
LWIRO	40.70	166.8	7	39A	-5								
BROKEN HILL	52.62	169.9									10	12	
BANDEIRA	52.89	188.4	9	13K	-7				9	18			
THULE	53.21	342.8	9	24	2								
BULAWAYO	58.24	170.7	9	52	-6								
HALIFAX	60.74	305.5	10	15	-1								
SHAWINIGAN	65.55	310.8	10	47	0								
COLLEGE	77.16	354.8	11	50	-7								
BLOOMINGTON	78.00	310.5	11	58	-4				12	3			
HONG KONG	79.63	69.9									12	53	
ST. LOUIS 1	80.58	311.9	12	16	0								
MANHATTEN	83.82	315.8	12	28	-5								
HUNGRY HORSE	85.00	331.3	12	34	-4								
PENTICTON	86.19	335.0	12	41	-3								
WICHITA MTS.	88.14	313.8	12	50	-4						16	14	PP

APRIL 10 23.H 54.M 14.S EPICENTRE 37.46 135.41 DEPTH= 365.KM

A=-0.56664 B= 0.55863 C= 0.60568 D= 0.7021 E= 0.7121
G=-0.4313 H= 0.4252 K=-0.7957 HT= -0.8

DEPTH OF FOCUS= 0.052R

SE= 1.49

	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
WAZIMA	1.19	93.6	0	51	2	1	28	1				
HUKUI	1.56	154.7	0	51	0	1	31	0				
TOYAMA	1.62	117.5	0	52	1	1	32	1				
TSURUGA	1.89	163.4	0	52	-1	1	33	-1				
TOTTORI	2.19	207.3	0	55	0	1	37	-1				
HIKONE	2.29	162.5	0	57	1	1	37	-2				
AIKAWA	2.32	75.3	0	58	2							
GIHU	2.33	151.5	0	56	0	1	37	-3				
MATUMOTO	2.39	119.8	0	57	1							
ABUYAMA	2.59	177.1	0	58A	0	1	41	-2				
NAGOYA	2.61	150.7	0	57	-1	1	41	-3				
KAMEYAMA	2.75	161.5	0	59	0	1	43	-3				
IIDA	2.75	134.1	1	0	1	1	46	0				
OSAKA	2.81	177.9	0	59A	-1	1	46	0				
KOHU	3.11	124.3	1	2	0	1	50	-1				
MAEBASI	3.12	108.8	1	2	0							
SUMOTO	3.14	187.5	1	2	-1	1	49	-3				
WAKAYAMA	3.23	183.5	1	2	-2	1	51	-2				
TITIBU	3.30	115.6	1	4	0	1	52	-2				
HAMAMATU	3.32	145.0	1	4K	0	1	54	0				
TAKAMATU	3.33	199.8	1	4	0	1	54	-1				
KUMAGAYA	3.45	111.2	1	6	0	1	56	-1				
OWASE	3.45	169.0	1	6	0	1	57	0				
SHIZUOKA	3.47	134.9	1	6	0	1	56	-1				
UTUNOMIYA	3.69	103.0	1	7	-1	2	1	0				
MISIMA	3.70	128.2	1	7	-1	1	58	-3				
SAKATA	3.77	66.3	1	10	1							
AJIRO	3.83	127.8	1	8K	-1	2	2	-1				
SHIRAKAWA	3.85	93.7	1	9	0	2	2	-2				
TOKYO C.M.O.	3.92	115.7	1	11	1	2	3	-2				
TUKUBASAN	3.96	106.8	1	8K	-2	2	1	-4				
YOKOHAMA	3.98	119.4	1	15	4	2	4	-2				
YAMAGATA	3.99	77.2	1	10K	-1	2	5	-1				
SIOMISAKI	4.02	175.7	1	11	0	2	4	-2				
KAKIOKA	4.02	106.4	1	9	-2	2	1	-5				
HUKUSIMA	4.03	84.4	1	10K	-1	2	6	-1				
OSIMA	4.19	128.7	1	15	2	2	6	-4				
KOTI	4.20	202.0	1	13A	0	2	9	-1				
MITO	4.20	103.4	1	11K	-2	2	6	-4				
MATUYAMA	4.20	211.4	1	14	1	2	11	1				
AKITA	4.31	57.1	1	15	1	2	13	1				
MERA	4.39	124.1	1	13	-2	2	11	-2				
ONAHAMA	4.41	95.0	1	14K	-1	2	10	-4				
SENDAI	4.42	77.8	1	15	0	2	10	-4				
TYOSI	4.71	110.0	1	17K	-1	2	16	-3				
ISINOMAKI	4.77	76.5	1	17K	-2	2	16	-4				
MIZUSAWA	4.80	68.0	1	18	-1	2	18	-3				
MORIOKA	5.04	61.9	1	21K	-1	2	22	-3				
OOITA	5.24	217.3	1	21	-3	2	30	1				
AOMORI	5.35	49.6	1	27	2	2	34	2				
MIYAKO	5.59	65.0	1	27	-1	2	32	-4				
HATIDYOZIMA	5.64	139.3									1	44
HUKUOKA	5.64	228.1	1	30	2	2	38	0				
HATINOHE	5.67	55.4	1	28	-1	2	33	-5				
SAGA	5.92	226.3				2	46	4				
HAKODATE	5.99	41.9	1	24	-8	2	44	0				
KUMAMOTO	6.03	221.2				2	46	2				
MORI	6.10	39.0				2	47	1				
MUROPAN	6.47	39.7				2	53	-1				
SAPPORO	7.21	37.2	1	49	3	3	7	-3				
URAKAWA	7.35	48.2	1	50	2	3	9	-4				
HIROO	7.75	49.2	1	51	-2	3	14	-7				
TORISIMA	8.06	148.3				3	26	-2				
OBIHIRO	8.08	45.2				3	25	-3				
KUSIRO	8.81	48.5	2	5	U	3	36	-8				
NEMURO	9.72	49.8									3	57
ZO-SE	13.36	245.8	2	58K	-1	5	23	2				
NANKING	14.69	253.4	3	13K	U							
PEKING	15.23	285.6	3	18K	-1	6	1	2				

SIAN	21.68	269.5	4 23	-1						
CANTON	23.76	239.2	4 44	1						
LANCHOW	25.28	276.5	4 55K	-2						
GUAM	25.31	158.3	5 0	3						
CHENGTU	26.80	264.7	5 10	0						
KUNMING	30.35	255.5	5 41	0						
LHASA	37.51	271.4	6 42	0						
SHILLONG	38.65	264.9	6 51	0						
DEHRA DUN	47.52	279.1	7 4	-58					8 47	
COLLEGE	51.29	32.2	8 30	0						
CHARTERS TS.	58.15	168.0	9 18	-1						
SODANKYLA	62.65	335.6	9 49	0						
RESOLUTE	63.34	13.2	9 53A	0						
KAJAANI	64.04	332.2	9 58	0						
KIRUNA	64.35	337.6	10 0	0						
UMEA	66.88	334.1	10 15	-1						
NURMIJARVI	67.24	329.9	10 17	-1						
HELSINKI	67.32	329.5	10 18	-1						
SKALSTUGAN	69.69	336.5	10 33	0						
UPPSALA	70.39	331.7	10 36	-1						
CANBERRA	73.51	168.4	10 56	0						
BUCHAREST	76.47	315.9							20 55	
KSARA	76.94	302.6	11 16	1						
COLLMBERG	78.25	327.2	11 22K	0						
PRUHONICE	78.52	325.6	11 23K	0						
JENA	79.13	327.6	11 26	-1						
EUREKA	79.23	48.3	11 28	1						
KASPERSKE H.	79.57	325.4	11 29K	0						
KARAPIRO	83.67	149.1	11 51	1						
PARIS	84.48	330.9	11 55	1						
CHATEAU	84.75	149.8	11 55	0						
LA PAZ	150.55	51.2	19 21	18						

APRIL 11 10.H 47.M 30.S EPICENTRE 37.67 20.11 DEPTH= 0.KM

A= 0.74509 B= 0.27287 C= 0.60859 D= 0.3439 E=-0.9390
G= 0.5715 H= 0.2093 K=-0.7935 HT= -0.8

SE= 4.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ATHENS	2.87	83.0	0 46	-2	1 32	9		1 38	SG
REGGIO CALA.	3.56	278.2	0 53K	-4	1 33	-8		2 3	
TARANTO	3.57	322.3	0 54	-4				1 40	
MESSINA	3.65	279.7	0 55K	-4	1 37	-6		1 6	PG
SKOPJE	4.41	13.0	1 5	-4				1 23	PG
TITOGRAD	4.79	352.4	1 14	-1				1 24	P*
SOFIA	5.59	25.1	1 24	-2	2 49	17		1 48	PG
BELGRADE	7.14	1.9	1 43A	-5				3 14	
ROME	7.23	308.0	1 46	-3	3 25	12		4 1	S*
TIMISOARA	8.11	5.5						4 35	SG
BUCHAREST	8.11	32.0	2 0K	-2	3 42	7		4 49	SG
CAMPULUNG	8.44	24.4	2 11	5				4 53	SG
SZEGED	8.57	0.1	2 12	4	3 47	1		2 59	PG
ZAGREB	8.70	340.5	2 3	-7					
KASTAMONU	9.02	62.6	2 16	2				3 33	
KECSKEMET	9.24	358.2			4 7	4		4 58	SG
TRIESTE	9.28	331.2	2 13	-5	3 51	-13		4 51	SGSG
CUGLIERI	9.34	289.1						5 0	
LJUBLJANA	9.35	335.3	2 12A	-7	3 51	-15		4 47	SGSG
BOLOGNA	9.51	318.6	2 26	5				4 51	
FOCSANI	9.61	31.2	2 33	11					
BUDAPEST	9.83	355.7	2 24	-1	4 8	-10		3 14	PG
PADOVA	9.89	324.0	2 20	-6	4 5	-14			
HURBANOVO	10.29	352.8						5 25	SG
CHIAVARI	10.51	312.5	2 42	7	4 32	-2		3 1	PG
BRATISLAVA	10.72	349.1	2 34	-4				4 2	
VIENNA-H.	10.92	346.7	2 37	-3				5 49	SGSG
IASI	10.99	27.7	2 41	0					
UZHGOROD	11.07	7.6	2 40	-2					
PAVIA	11.12	315.9			5 27	38		4 2	
MONACO	11.36	306.1	2 42	-4					
SKALNATE PL.	11.50	0.4	2 47	-1	4 56	-3		5 15	S*
ISOLA	11.82	307.4	2 44	-9					
CHUR	12.05	322.9	2 52	-4	5 4	-8			

ROSELEND	12.17	313.8	3	2	5	5	13	-2			
KASPERSKE H.	12.39	339.6	2	54	-6	5	7	-13	3	44	
LWOW	12.46	11.8	2	58	-3	5	21	-1			
RACIBORZ	12.48	354.3	2	57	-4	5	11	-11	3	9	PP
RAVENSBURG	12.70	326.0	2	59	-5				5	14	
SIMFEROPOL	12.78	51.0	3	3	-3						
PRAGUE	13.05	343.6	3	12	3	5	54	18	3	58	
EBINGEN	13.28	325.7							5	26	
KSARA	13.37	102.0	3	7	-6	5	23	-21	3	15	PP
NEUCHATEL	13.46	318.0	3	10	-4						
BASLE	13.48	320.9	3	13K	-2	5	30	-17			
TUBINGEN	13.50	327.0	3	12	-3						
CHEB	13.59	338.3							3	59	
STUTTGART	13.60	328.1	3	11	-5				5	40	
JERUSALEM	13.74	110.9	3	11	-7						
STRASBOURG	14.12	324.4	3	20A	-3	6	13	11	3	53	
KARLSRUHE	14.15	326.9				5	57	-6	3	17	PG
HEIDELBERG	14.32	328.5	3	22	-4						
COLLMBERG	14.53	341.9	3	25	-4	6	24	13	3	35	PP
WARSAW	14.57	2.2				6	6	-6			
JENA	14.58	338.1	3	22	-7	6	12	-1	3	34	PP
WELSCHBRUCH	14.69	321.3	3	18	-13						
HALLE	14.98	339.9	3	32	-2	6	31	9			
CLERMONT-FD.	15.03	307.9	3	29	-6						
FELDBERG	15.07	330.0	3	5	-31				5	35	
TORTOSA	15.52	287.8	3	38	-3	6	27	-8			
GARCHY	15.79	312.8	3	40	-5						
BAGNERES	16.13	295.8	3	49	0	6	59	10			
BENSBERG	16.16	329.4	3	48	-2	6	37	-13	3	59	PP
ALICANTE	16.25	278.7	3	49	-2	6	57	5	4	0	PP
DOURBES	16.67	323.1	3	54	-2	7	6	4			
PARIS	16.95	316.6	3	58	-2						
UCCLE	17.26	324.5	4	4	0						
WITTEVEEN	17.81	332.5	4	11	0						
DE BILT	17.84	328.7	4	12	1	7	39	11			
ALMERIA	17.99	274.3	4	10A	-3	7	37	5	4	17	PP
FOLINIERE	18.60	313.1	4	15	-5						
KARLSKRONA	18.74	352.1	4	16	-6						
COPENHAGEN	18.74	346.4	4	20K	-2	7	50	1			
GRANADA	18.84	275.8	4	25K	2				5	2	PP
TOLEDO	18.96	284.2	4	20K	-5	7	52	-2	4	43	PP
TIFLIS	19.40	70.3	4	26A	-4				4	45	PP
MALAGA	19.54	274.7	4	27A	-4						
JERSEY	19.73	312.7							8	12	
KEW	19.96	320.2	4	33	-3	8	4	-12			
GORIS	20.55	76.8	4	37K	-5				8	40	PCP
GOTEBORG	20.74	347.6	4	40	-4				5	6	
MOSCOW	21.58	27.6	4	49	-4				8	50	PCP
UPPSALA	22.25	356.7	4	55	-5	8	55	-5			
COIMBRA	22.31	285.4	4	56	-4						
SERRA PILAR	22.41	287.8	4	56K	-5				5	25	PP
HELSINKI	22.73	6.3	5	1	-3	9	8	-1			
LISBON	22.98	281.7	5	2	-5						
NURMIJARVI	23.04	5.8	5	3K	-4	9	14	-1			
PULKOVO	23.06	13.2	5	4A	-4	9	10	-5			
ABERDEEN	24.42	330.1	5	6K	-15	9	40	1	12	1	
BERGEN	24.61	342.3	5	1	-22						
TEHERAN	25.09	84.8	5	24	-3	10	0	10			
UMEA	26.18	0.1	5	33	-5				6	29	
SKALSTUGAN	26.37	352.1	5	35	-4				6	0	
KAJAANI	26.83	7.4	5	38	-6	10	20	1			
SHIRAZ	28.03	96.9	5	51K	-3	10	34	-4			
SODANKYLA	29.97	5.0	6	7K	-5						
ASHKABAD	30.07	77.6	6	6	-7				9	0	PCP
KIRUNA	30.21	0.2	6	9	-5	11	8	-5	6	45	
APATITY	30.85	9.9	6	16K	-4	11	24	1			
TROMSOE	32.02	359.2	6	25	-5						
KEVO	32.36	4.5	6	29	-4				7	5	
SVERDLOVSK	32.86	41.2	6	32K	-5	11	50	-5			
BANGUI	33.17	182.7	6	36	-4	11	55	-4			
TASHKENT	37.71	68.7	7	14	-5	13	6	-4			
DUZHANBE	37.93	73.2	7	16	-5				13	25	PCS
QUETTA	39.25	86.7	7	28	-4						
SCORESBY SD.	39.54	339.3	7	32	-2						
M.BOUR	40.22	244.8	7	37	-3	13	47	0			
LWIRO	40.53	166.6	7	39A	-3						
FRUNSE	41.31	65.1	7	45	-4						
WARSAK DAM	41.44	79.0	7	48	-2						

SEMIPALATNSK	43.90	53.2	8 5	-5			
DEHRA DUN	47.94	80.8	8 38	-4			
POONA	50.39	96.8	8 57	-4			
ALERT	51.91	350.4	9 8A	-4			
BROKEN HILL	52.44	169.8	9 14	-2			
CHATRA	56.66	80.1	9 43	-4			
BULAWAYO	58.06	170.6	9 52	-5			
VISHAKHAPTNM	58.31	91.5	9 34	-25	17 34	-26	17 52 PS
RESOLUTE	60.17	343.9	10 8	-4			
TIKSI	60.25	20.2	10 7A	-5	18 23	-2	
HALIFAX	60.79	305.6	10 12K	-4			
SHILLONG	60.95	78.9	10 1K	-16			
MOULD BAY	63.48	350.0	10 28	-6			
LANCHOW	64.73	63.0	10 36	-6			
SHAWINIGAN	65.62	310.8	10 45	-3			
YAKUTSK	65.73	29.2	10 43	-5			
BREBEUF	66.65	310.1	10 52	-2			
PAOTOW	66.72	56.0	10 51	-4	19 44	-2	
CHENGTU	67.57	68.0	10 57	-3	19 54	-2	
PALISADES	69.17	306.1			20 14	-1	
SIAN	69.23	62.3	11 6	-4			
KUNMING	69.56	73.6	11 8	-4	20 16	-4	
PEKING	71.00	53.9	11 17	-4	20 33	-4	
PENNSYLVANIA	71.79	307.7	11 23K	-3			
WASHINGTON	72.35	305.7	11 27	-2			11 47
LONDON ONT.	72.55	311.1	11 27	-3			
NANKING	77.29	59.4	11 53	-5			
COLLEGE	77.35	354.8	11 54	-4	22 20	32	
COLUMBIA	77.80	303.5	11 58	-2			
BLOOMINGTON	78.07	310.4	11 58	-4	21 50	-6	
DUBUQUE	78.38	315.1			21 54	-5	
ZO-SE	79.50	58.9	12 6	-4			
FLORISSANT	80.63	312.1	12 13	-3	22 18	-5	
ST. LOUIS 1	80.65	311.9	12 14	-2	22 18	-5	
ROLLA	82.13	312.2	12 22	-2	22 34	-4	
LAWRENCE	83.33	314.8	12 40	10			
BANFF	83.36	333.7	12 23	-7			
RAPID CITY	83.81	322.7	12 30	-2			
MANHATTEN	83.91	315.7	12 30	-3			
FAYETTEVILLE	84.70	312.2	12 35A	-2			
HUNGRY HORSE	85.14	331.3	12 36	-3			
BOZEMAN	86.12	328.1	12 41	-3			
PENTICTON	86.33	334.9	12 42	-3			
BUTTE	86.47	329.1	12 42	-3			
LARAMIE	87.05	322.2	12 47	-1			
BAGUIO CITY	88.13	70.8	12 36	-18			
WICHITA MTS.	88.22	313.7	12 52	-2			16 22 PP
VICTORIA	88.26	336.7	12 52	-2			
FLAMING GRGE	89.16	324.2	12 54	-4			
LEMBANG	92.16	96.9	13 14A	2			
EUREKA	93.27	327.5	13 15	-2			
MINERAL	94.79	331.6	13 22A	-2			
CHINA LAKE	97.04	326.6	13 32	-3			
SOUTH POLE	127.49	180.0	19 4	-3			
KARAPIRO	160.59	98.3					20 42 PKP2
CHATEAU	160.70	102.1					20 41 PKP2
TUAI	161.93	100.6					21 0

APRIL 12 0.H 52.M 43.5 EPICENTRE 38.10 142.51 DEPTH= 33.KM
A=-0.62606 B= 0.48015 C= 0.61441 D= 0.6086 E= 0.7935
G=-0.4875 H= 0.3739 K=-0.7890 HT= -1.0

SE= 2.63

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ISINOMAKI	1.00	289.9	0 19K	1	0 36	5		
SENDAI	1.28	278.2	0 23K	1	0 41	3		
MIZUSAWA	1.50	314.0	0 26	1	0 48	5		
MIYAKO	1.61	344.9	0 27A	1	0 46	0		
HUKUSIMA	1.65	258.5	0 28K	1	0 46	-1		
YAMAGATA	1.71	275.8	0 29K	1	0 51	2		
ONAHAMA	1.72	228.8	0 28A	0	0 50	1		
MORIOKA	1.91	327.2	0 33A	2	0 58	4		
SHIRAKAWA	2.07	242.5	0 33K	0	0 51	-7		
SAKATA	2.25	291.7	0 39A	4	1 9	7		

MITO	2.37	224.2	0	36A	-1	1	4	-1			
AKITA	2.48	311.5	0	41	2	1	16	8			
HATINOHE	2.55	342.9	0	39A	-1	1	10	0			
UTUNOMIYA	2.61	234.6	0	41A	0	1	11	-1			
KAKIOKA	2.64	225.7	0	40A	-1	1	12	0			
TUKUBASAN	2.69	226.6	0	39A	-3						
TYOSI	2.72	209.8	0	42	0	1	18	4			
NIIGATA	2.74	267.4	0	45A	3	1	21	6			
AOMORI	3.03	334.3	0	48	1	1	23	1			
KUMAGAYA	3.17	233.1	0	49	0	1	37	11			
MAEBASI	3.23	239.4	0	50A	1	1	26	-1			
HONGO	3.24	223.5	0	50	0	1	31	3			
TOKYO C.M.O.	3.28	223.4	0	49A	-1	1	31	3			
AIKAWA	3.37	270.0	0	53A	2	1	38	7			
TITIBU	3.47	233.5	0	52	-1	1	49	16			
YOKOHAMA	3.52	221.7	0	54A	0	1	34	-1			
TAKADA	3.53	254.9	0	55A	1	1	39	4			
OIWAKE	3.62	242.1	0	57	2	1	43	6			
NAGANO	3.72	248.8	0	59A	3	1	47	7			
MERA	3.84	215.1	0	57	-1						
HAKODATE	3.95	340.6	1	0A	0	1	47	2			
HUNATU	3.97	230.4	1	0	0	1	47	1			
KOHU	3.99	239.8	1	0A	0	1	49	2			
URAKAWA	4.05	2.8	1	1	0	1	52	4			
MATUMOTO	4.07	244.5	1	4	3	2	3	14			
AJIRO	4.10	223.1	1	0A	-2	1	49	0			
OSIMA	4.17	218.2	1	0A	-3	1	41	-10			
HIROO	4.22	8.1	1	3	-1	1	48	-4			
MORI	4.27	340.2	1	6A	2	2	6	12			
MURORAN	4.38	344.9	1	7	1	2	2	6			
TOYAMA	4.45	253.4	1	9A	2	2	17	19			
WAZIMA	4.51	262.6	1	10K	2						
SHIZUOKA	4.55	228.0	1	0A	-8	2	2	1			
IIDA	4.55	237.0	1	4A	-4	2	2	1			
NAGATURO	4.57	221.4	1	10	1	2	3	2			
TOMAKOMAI	4.58	351.3	1	11	2	2	11	9			
TAKAYAMA	4.63	246.8	1	11	2	2	11	8			
OBIHIRO	4.85	6.0	1	13	1	2	11	3			
OMAESAKI	4.92	226.1	1	11	-2	2	13	3			
KANAZAWA	4.93	253.3	1	18A	4	2	19	9			
SUTTSU	5.01	340.4	1	15	0	2	16	4			
SAPPORO	5.05	350.3	1	14A	-1	2	10	-3			
KUSIRO	5.09	15.8	1	13	-3	2	10	-4			
HAMAMATU	5.13	230.4	1	18K	2	2	22	7			
NAGOYA	5.33	238.4	1	20A	1	2	25	5			
GIHU	5.34	241.5	1	20A	1	2	30	9			
HUKUI	5.42	249.8	1	22A	2	2	31	8			
HATIDYOZIMA	5.46	204.8	1	22	1	2	27	4			
ASAHIGAWA	5.68	358.9	1	23	-1	2	48	19			
TSURUGA	5.71	246.7	1	26	1	2	46	16			
NEMURO	5.72	23.0	1	22A	-3	2	24	-6			
HIKONE	5.77	242.6	1	27K	2	2	29	-2			
KAMEYAMA	5.85	238.2	1	27A	1	2	27	-6			
RUMOE	5.89	353.7	1	27	0	2	33	-1			
TU	5.90	236.8	1	25	-2	2	43	8			
ABASHIRI	6.07	12.1	1	27K	-2	2	29	-10			
KYOTO	6.26	242.7	1	33A	1	3	2	18			
MAIZURU	6.29	247.5	1	34A	1	2	47	3			
NARA	6.38	239.7	1	39	5				4	4	
ABUYAMA	6.45	242.2	1	34A	-1	2	54	6			
OWASE	6.50	233.7	1	36K	0	3	11	21			
OSAKA	6.60	240.7	1	36A	-1	3	15	23			
TOYOOKA	6.68	249.8	1	39A	1	2	58	4			
KOBE	6.83	242.3	1	40	0	3	26	28			
WAKAYAMA	7.08	239.2	1	46A	2	3	42	38			
SIOMISAKI	7.18	231.8	1	43A	-2				2	8	
SUMOTO	7.20	240.9	1	44	-1	3	27	20			
WAKKANAI	7.34	355.4	1	50	3	3	22	11			
HIMEJI	7.47	243.7	1	46	-3	3	21	7			
SAIGO	7.57	258.3	1	54	3	2	35	-41			
TOKUSIMA	7.58	240.4	1	52	1	3	33	17			
OKAYAMA	7.72	246.4	1	55	2	3	31	11			
TAKAMATU	7.81	243.7	1	51	-3	3	20	-2			
TORISIMA	7.82	194.2	1	52	-2	3	20	-2			
MATSUE	8.03	253.7	1	59	2	3	46	18			
TSURUGISAN	8.09	241.0	2	0	2	3	52	23			
MUROTO	8.33	237.0	1	38	-23				3	57	
KOTI	8.59	240.8	2	3	-2	3	47	5			
HIROSIMA	8.95	248.5	2	10	0	3	54	3			

MATUYAMA	8.96	244.6	2 11	1	4 21	30		
HAMADA	8.99	252.4	2 2	-8	3 34	-18		
SIMIDU	9.42	238.6	2 13	-3	4 20	18		
VLADIVOSTOK	9.50	305.2	2 17A	0	4 7	3		
OOITA	10.10	244.6	2 25A	-1	4 22	3		
SIMONOSEKI	10.25	249.7	2 35	7	4 47	24		
ASOSAN	10.67	244.4	2 42	9	5 5	32		
HUKUOKA	10.83	249.1	2 29	-7	4 41	4		
KUMAMOTO	10.98	244.9	2 36	-2	5 1	21		
MIYAZAKI	10.98	239.2	2 37A	-1	5 5	25		
UGLEGORSK	10.98	358.5	2 34	-4				5 4
SAGA	11.05	247.7	2 37	-2				6 17
UNZENDAKE	11.35	245.5	2 37	-6	5 2	13		
ITUHARA	11.38	254.0	2 43	0	5 1	11		
NAGASAKI	11.61	246.3	2 46A	0	5 37	41		
KAGOSIMA	11.78	240.0	2 49	0	5 29	29		
YAKUSIMA	12.52	236.0	2 57A	-1	5 24	6		
CHANGCHUN	14.20	299.2	3 20	-1	6 5	7		
MAWASHI	17.22	230.9	3 56	-3	7 21	13		
PETROPAVLOVK	18.65	31.7	4 17A	0				4 42 PP
ZO-SE	18.88	254.7	4 16A	-4	7 47	1		4 32 PP
NANKING	20.31	259.9	4 32A	-4				
PEKING	20.53	283.6	4 34	-4	8 22	1		
TAIPEI	22.07	239.9	4 51	-2	9 3	13		
ILAN	22.08	239.0	5 2	8	9 11	21		
MAGADAN	22.12	11.2	4 55A	1	8 55	4		9 47 SSS
HSINCHU	22.59	240.3	5 3	4				
HWALIEN	22.71	237.7	5 3	3	9 32	31		
TAICHUNG	23.22	239.5	5 24	19				
HSINKONG	23.47	236.5	5 8	1				
YUSHAN	23.49	237.9	5 13	6	9 32	17		
ALISHAN	23.56	238.2	5 5	-3				
TAITUNG	23.86	236.2	5 13	2	9 33	11		
TAINAN	24.31	238.1	5 20	5	9 38	9		
TAWU	24.31	235.9	5 14	-1	9 43	14		
KAOHSIUNG	24.53	237.4	5 34	16				
GUAM	24.62	174.8	5 19	1	9 52	17		
HENGCHUN	24.65	235.6	5 20	1	9 41	6		
PAOTOW	25.17	285.9	5 22	-2	9 50	6		
YAKUTSK	25.22	345.8	5 24	0	9 50	5		
SIAN	27.30	272.3	5 42A	-1				
ULAN-BATOR	27.61	302.3	5 45A	-1	10 33	9		
BAGUIO CITY	28.95	227.8	5 57	-1				
HONG KONG	28.97	245.2	5 57	-1	10 58	12		
CANTON	29.08	247.5	5 59	0	10 55	8		7 0 PP
IRKUTSK	30.03	310.6	6 8A	0	11 7	4		7 13 PP
MANILA	30.07	224.9	6 9	1				7 16
LANCHOW	30.79	278.3	6 13A	-2				
CHENGTU	32.46	268.5	6 27A	-2	11 40	-1		
ESEN BULAK	34.82	298.9	6 50A	0	12 29	12		
KUNMING	35.99	260.7	6 59A	-1				8 28 PP
TOCKLAI	41.46	268.6	7 50	5	13 56	-2		
RABAUL	43.03	165.8	7 54K	-4				
LHASA	43.10	274.6	7 59A	0	14 30	8		
SHILLONG	44.31	268.9	8 6K	-2	14 40	0		9 51 PP
SEMIPALATNSK	45.00	306.8	8 13A	-1	14 52	2		
CHITTAGONG	45.97	265.1	8 22A	0	15 12	9		15 27
CHATRA	47.41	273.3	8 32	-1	15 28	4		10 19 PP
COLLEGE	47.73	32.8	8 35A	0	15 27	-1	8 53	18 21 SCS
CALCUTTA	48.60	267.5	8 44	2	15 55	14		10 8 PCP
BOKARO	49.96	270.6	8 52A	-1	16 3	3		10 38 PP
HONIARA	50.01	157.3	8 52	-1	15 54	-6		
FRUNSE	50.61	298.1	8 58A	0	16 20	11		
PORT BLAIR	51.51	252.9	9 4A	0	16 28	7		11 2 PP
MEDAN	52.69	240.4	9 13	0	16 39	2		
DEHRA DUN	52.94	282.1	9 15	0	16 50	9		11 20 PP
KIPAPA	53.38	90.3	9 16	-2			9 29	
HONOLULU	53.38	90.5	9 19	1	16 39	-8	9 30	
NEW DELHI	54.39	280.6	9 28A	2	17 17	17		11 34 PP
KHOROG	54.78	293.0	9 30	1				17 16 PS
TASHKENT	54.86	298.1	9 28A	-1				17 32
SVERDLOVSK	54.94	318.3	9 30	0				
SITKA	55.02	41.4	9 32	2				
DJAKARTA	55.15	225.0	9 29A	-2	17 17	7		
VISHAKHAPTNM	55.20	265.7	9 31K	-1	17 22	11		11 37 PP
LAHORE	55.23	285.2	9 32	0				
LEMBANG	55.25	223.7	9 37K	5	17 19	7		
MOULD BAY	55.27	16.8	9 31A	-1				

WARSAK DAM	56.24	289.1	9	39	0					17	48 *SS
DUZHANBE	56.32	295.3	9	40	0	17	33	7			
HAWAII V.OB.	56.62	90.6	9	43	1						
SEHORE	57.16	275.0	9	45	-1	17	55	18			
CHARTERS TS.	57.98	175.8	9	50	-2	17	46	-2			
ALERT	59.02	3.7	9	56	-3	18	1	0			
HYDERABAD	59.18	268.6	9	59A	-1	18	15	11		11	32 PP
MADRAS	60.37	263.3	10	6A	-2	18	27	8		12	19 PP
PORT VILA	60.59	151.6	10	9	-1	18	22	0			
RESOLUTE	61.36	14.8	10	13A	-2						
QUETTA	61.47	287.4	10	15	-1	18	36	3	10 28	12	44 PP
KOUMAC	61.83	156.8	10	16	-2	18	41	4			
APATITY	62.08	335.7	10	18A	-2	18	43	2		12	35 PP
POONA	62.20	272.4	10	19A	-1	18	55	11		12	46 PP
KEVO	62.76	339.3	10	23	-1					12	51 PP
BOMBAY	62.80	273.4	10	25	1	19	1	11		12	28 PP
ALBERNI	63.88	46.8	10	33	1						
ASHKABAD	63.92	298.9	10	31	-1						
THULE	64.09	7.7	10	39K	6					13	32 PP
KARACHI	64.13	282.2	10	31	-2						
KODAIKANAL	64.15	262.6	10	29	-4	19	9	3		13	13 PP
NOUMEA	64.15	155.3	10	34	1	19	15	9			
SODANKYLA	64.33	337.3	10	32A	-2	19	15	6		12	56 PP
TROMSOE	64.99	341.2	10	38	-1						
VICTORIA	65.06	47.0	10	39	0						
SUVA	65.33	142.1	10	52	11	19	22	1			
KIRUNA	65.83	339.4	10	43A	-1	19	32	5		13	20 PP
BRISBANE	65.85	170.0	10	46	2	19	25	-2			
KAJAANI	66.02	334.1	10	44A	-1	19	31	2		39	50 PKPPKP
SEATTLE	66.14	47.4	10	48	2	19	29	-2			
PENTICTON	66.80	44.8	10	49	-1						
MOSCOW	66.92	323.5	10	50A	-1	19	37	-3		13	23 PP
PULKOVO	67.72	329.6	10	55A	-1	19	51	1		13	25 PP
BANFF	68.00	41.6	10	32	-26						
UMEA	68.67	336.3	11	0A	-2	19	52	-9		13	47 PP
NURMIJARVI	69.42	332.1	11	5A	-2	20	14	4		13	37 PP
HELSINKI	69.53	331.8	11	7A	0	20	15	4			
TEHERAN	69.84	299.9	11	9	0	20	39	24			
UKIAH	70.09	55.6	12	9	58						
HUNGRY HORSE	70.41	43.5	11	13	0	20	23	1	11 25		
MINERAL	70.46	53.8	11	13A	0						
CALISTOGA	70.78	55.7	11	16A	1						
TIFLIS	70.85	308.2	11	15A	0	20	36	9		15	46 PPP
GORIS	71.13	305.6	11	17A	0					20	49
SCORESBY SD.	71.15	354.5	11	17	0						
SKALSTUGAN	71.25	338.9	11	16A	-2					11	22
BERKELEY	71.42	56.3	11	19K	0	20	27	-6	11 30	14	1 PP
RIVERVIEW	72.01	172.4	11	24	2	20	43	3	11 34	14	5 PP
RENO	72.06	53.7	11	21	-1				11 34		
LICK	72.12	56.4	11	23A	0						
UPPSALA	72.39	334.2	11	23	-1	20	43	-2	11 36		
SHIRAZ	72.39	294.0	11	24A	0	20	47	2	11 30	14	10 PP
BUTTE	72.59	44.9	11	26	0	20	48	1			
ADELAIDE	72.78	183.3	11	27K	0	20	51	2		11	43 PCP
CANBERRA	73.29	174.5	11	31	1	20	56	1		11	40 PCP
PRIEST	73.45	57.0	11	33	2						
BOZEMAN	73.65	44.5	11	33	1						
MUNDARING	73.89	203.1	11	31A	-2	21	1	-1			
PERTH	73.99	203.4	11	39	5	21	7	4		14	45 PP
EUREKA	74.50	51.9	11	35A	-2	21	5	-3	11 46		
SIMFEROPOL	75.18	315.8	11	41A	0						
MELBOURNE	75.59	178.0								19	5 PP
BERGEN	75.77	339.6	11	51	7	21	25	3		26	27 SS
KARLSKRONA	75.87	332.5	11	40A	-5					14	31 PP
GOTEBORG	75.94	335.1	11	45A	0					14	38 PP
SALT LAKE C.	76.22	48.9	11	49	2						
PASADENA	76.27	57.4	11	47	0	21	32	4			
WARSAW	76.65	327.4	11	50A	1	21	32	0	11 55	14	40 PP
IASI	77.14	320.6	11	52	0	22	6	29			
SIDA	77.30	351.3	11	55	2						
BOULDER CITY	77.34	54.2	11	53	0						
COPENHAGEN	77.37	333.6	11	53A	0	21	41	1			
REYKJAVIK	77.37	353.1	11	54A	1						
FLAMING GRGE	77.57	47.5	11	53	-1						
BACAU	77.91	320.5	11	57	1	22	13	27		21	49 SKS
FOCSANI	78.35	319.7	12	6	7	22	19	29			
KRAKOW	78.71	326.4	12	1	1	21	54	0		15	3 PP
GLEN CANYON	78.76	51.8								13	5

RAPID CITY	78.93	42.0	12	3	1					
SKALNATE PL.	79.21	325.6	12	3	0	22	10	11	15	12 PP
RACIBORZ	79.43	327.2	12	6	2				15	13 PP
LARAMIE	79.50	45.3	12	7	2					
CAMPULUNG	79.75	320.5	12	10	4	22	40	35	15	28 PP
BUCHAREST	79.80	319.3	12	7A	1	22	35	29	22	16 SKS
TARRALEAH	80.10	177.0	12	11	3					
MOORLANDS	80.27	176.5	12	13	4					
ABERDEEN	80.51	341.3	12	13A	3	22	18	5	15	18 PP
COLLMBERG	80.61	330.6	12	10A	-1	22	22	8	15	21 PP
FORT NELSON	80.77	176.4	12	13K	1	22	15	-1		
HALLE	80.86	331.3	12	12	0	22	23	6		
PRAGUE	81.01	329.1	12	13K	0	22	41	23	15	24 PP
BUDAPEST	81.02	325.1	12	13	0	22	29	11	15	35 PP
PRUHONICE	81.03	329.0	12	13	0	22	28	10		
HURBANOVO	81.09	325.7	12	17	4	22	49	30	15	51 PP
KECSKEMET	81.13	324.3	12	19	6	22	25	6	12	39 PP
KSARA	81.24	306.2	12	14A	0	22	18	-3	15	18 PP
TIMISOARA	81.27	322.7	12	23	9	22	46	25		
BRATISLAVA	81.35	326.5	12	14	-1	22	32	10	15	18 PP
SZEGED	81.42	323.7	11	42	-33	22	2	-20	14	42 PP
JENA	81.45	331.1	12	14	-1	22	22	-1	15	23 PP
KARAPIRO	81.55	154.2	12	15	-1				15	28 PP
VIENNA-H.	81.61	326.9	12	16A	0	22	34	10	15	14 PP
WITTEVEEN	81.68	334.7	12	18	2					
KALOCSA	81.75	324.4							12	17 PCP
EDINBURGH	81.90	341.3	12	17	0	22	21	-6	15	20 PP
KASPERSKE H.	82.09	328.9	12	18A	0				15	32 PP
TUCSON	82.26	55.0	12	23	4					
BELGRADE	82.33	322.5	12	21K	1	22	40	8	15	31 PP
SOFIA	82.44	319.5	12	24	4	22	47	14	15	39 PP
CHATEAU	82.69	154.7	12	24	2				15	42 PP
DE BILT	82.78	335.1	12	22	0	22	45	9	15	51 PP
TUAI	82.89	153.4	12	21	-2				15	51 PP
JERUSALEM	82.98	305.0	12	23A	0	23	2	24		
BENSBERG	83.05	333.4	12	23A	0	22	40	1	15	32 PP
FELDBERG	83.20	332.3	12	36A	12					
ALBUQUERQUE	83.23	50.5	12	24A	0	22	29	-12		
COBB RIVER	83.50	157.5	12	30	4					
ZAGREB	83.64	325.6	12	23A	-3	22	54	9	15	48 PP
HEIDELBERG	83.77	331.7	12	27A	0					
SKOPJE	83.93	320.0	12	12	-16	22	54	6	16	2 PP
STUTTGART	84.08	331.0	12	30A	1	22	52	3	15	48 PP
LJUBLJANA	84.11	326.5	12	28A	-1	22	51	1	15	53 PP
KARLSRUHE	84.21	331.6	12	29	0	22	56	5		
WELLINGTON	84.31	156.2	12	39	9					
TUBINGEN	84.35	331.0	12	30A	0					
DOURBES	84.67	334.3	12	31	-1	22	57	2		
EBINGEN	84.68	330.8	12	33	1					
TITOGRAD	84.68	321.6	12	33	1	22	54	-1	15	58 PP
RAVENSBURG	84.75	330.3	12	31A	-1					
TRIESTE	84.76	326.7	12	32A	0	22	59	3	15	57 PP
STRASBOURG	84.81	331.7	12	32	0	23	0	3	15	50 PP
KEW	85.06	337.7	12	33A	0	22	49	-10	15	49 PP
WELSCHBRUCH	85.47	332.4	12	34	-1				12	54
CHUR	85.55	329.8	12	36	0	22	55	-9		
ATHENS	85.64	316.0	12	36A	0	22	59	-6	16	1 PP
BASLE	85.75	331.2	12	37A	0	23	6	0		
PADOVA	85.75	327.6	12	35	-2	23	7	1	12	35 PP
MANHATTEN	85.88	41.9	12	38	1	23	0	-7		
DUBUQUE	86.32	36.4	12	34A	-6	22	57	-14		
NEUCHATEL	86.43	331.3	12	40	0	23	12	0		
PARIS	86.48	334.8	12	42	2	22	50	-23	14	17
ROXBURGH	86.63	161.5	12	42	1	23	9	-5	29	17 SS
BOLOGNA	86.71	327.4	12	53	11	23	15	0		
LUBBOCK	86.95	48.9	12	44	1					
PAVIA	87.06	329.0	12	46	3	23	24	6	18	27 PPP
TARANTO	87.15	321.4	13	5	21	23	30	11		
FLORENCE X.	87.32	327.0	12	37A	-8	23	0	-21	16	7 PP
FOLINIERE	87.49	336.5	12	45	0					
GARCHY	87.60	333.7	12	46A	0	22	35	-48	16	7 PP
CHIAVARI	87.70	328.4	12	52	6	24	2	38	16	2 PP
CHIHUAHUA	87.72	55.0							22	10
WICHITA MTS.	88.03	46.2	12	47	-1	23	30	3	16	10 PP
CHICAGO USA.	88.20	35.0	12	49	0					
ROME	88.29	325.1	12	49A	0	23	39	9	16	13 PP
CLERMONT-FD.	88.88	332.9	12	52	0	23	40	5		
MONACO	88.96	329.2	12	51	-1				16	22 PP
ROLLA	89.28	40.0	12	54	0	23	13	-26		

FLORISSANT	89.35	38.5	12	54	0	23	47	7					
FAYETTEVILLE	89.46	42.6	12	54A	-1	23	43	2			14	0	PCP
ST. LOUIS 1	89.54	38.6	12	55	0	23	44	3	13	7			
MESSINA	89.74	321.0	12	54A	-2	23	51	8			16	36	PP
REGGIO CALA.	89.77	320.9	12	54	-2						23	47	
SHAWINIGAN	89.99	23.5	12	58	1								
DALLAS	90.43	46.4	12	59	0								
BREBEUF	90.65	24.5	13	0	0	23	52	1			29	49	SS
BLOOMINGTON	90.89	35.9	13	2	1	23	33	-21					
CLEVELAND	91.19	31.5	13	2A	-1	23	38	-18					
MAZATLAN	91.19	59.2									42	53	
CUGLIERI	91.41	326.5				24	7	9					
BAGNERES	92.28	333.4	13	7	-1	23	22	-44			24	59	SP
PENNSYLVANIA	93.23	29.5									14	13	
MORGANTOWN	93.39	31.5	13	14K	1	24	13	-3					
TORTOSA	94.12	332.1	13	12	-4	23	55	-27					
HALIFAX	94.35	18.4	13	31K	14								
PALISADES	94.52	26.8	13	17A	-1	23	53	-32					
GUADALAJARA	94.98	59.0									17	22	PP
WASHINGTON	95.18	30.0	13	20	-1								
GEORGETOWN	95.18	30.0	13	21	0	24	20	27					
MANZANILLO	95.40	60.9									44	29	
TOLEDO	96.56	334.7	13	30A	3	23	29	-31			17	25	PP
ALICANTE	96.65	331.5	13	35	7	24	7	6			17	31	PP
SERRA PILAR	96.85	338.4	13	26	-3	24	37	35			17	24	PP
COLUMBIA	97.65	35.3	13	44	12	24	57	51			17	46	PP
COIMBRA	97.66	338.0	13	33	1	24	10	4			17	33	PP
TACUBAYA	98.63	57.2	13	40	3	25	2	51			17	36	PP
ALMERIA	98.71	332.2	13	37A	0	24	17	6			17	47	PP
GRANADA	98.82	333.2	13	42	4	25	17	65			17	47	PP
LISBON	99.24	337.9	13	41	2	24	22	8	13	52	17	43	PP
MALAGA	99.52	333.6	13	39K	-2	24	33	18			17	52	PP
VERA CRUZ	100.79	55.2	13	56	9	25	6	44			17	59	PP
ANGRA DO HO.	103.05	351.8				24	57	25					
MERIDA	103.55	49.4				24	41	6			18	25	PP
PONTA DELGDA	103.77	350.4	14	3A	3	24	43	7			18	19	PP
TANANARIVE	105.23	257.8									18	37	PP
COMITAN	105.53	54.4									26	24	
WILKES	106.98	192.9									19	5	PP
LWIRO	109.94	283.3	14	27	777	25	12	9			19	0	PP
MIRNY	110.99	199.0									19	29	
CAPE HALLETT	111.80	171.2	18	33	2								
BANGUI	113.09	295.9	18	36	2						19	27	PP
SCOTT BASE	116.62	174.4	18	41	0								
BROKEN HILL	117.63	273.0	18	43	0								
BULAWAYO	120.71	267.6	18	50	1						20	17	PP
MAWSON	120.87	206.1	18	48	-1						20	45	PP
FORT FRANCE	122.95	27.6									19	42	
LOME	123.17	312.0									19	43	PP
M.BOUR	124.36	335.7				26	6	*11			19	46	PP
CHINCHINA	124.43	48.2	19	0	4	26	10	15			38	0	SS
FUQUENE	125.12	46.0	19	2	5								
BOGOTA	125.62	47.0	19	4	6	26	17	19			21	3	PP
LUANDA	125.99	289.0									21	1	PP
TRINIDAD	126.60	29.8	18	31	-29						20	59	PP
SOUTH POLE	127.91	180.0	19	1	-2								
KIMBERLEY	128.05	260.8	19	9	6								
BYRD STATION	128.61	167.2									21	14	PP
BANDEIRA	129.73	283.1	19	7K	1						21	27	PP
WINDHOEK	131.08	272.1	19	12	3								
HERMANUS	134.72	256.6									21	54	PP
HUANCAYO	137.47	62.6	19	18	-2								
LA PAZ	145.55	59.8	19	37	2						23	24	PKS
SANTA LUCIA	152.79	90.3	19	53	7								

APRIL 12 5.H 16.M 6.5 EPICENTRE 37.87 142.54 DEPTH= 47.KM

A=-0.62820 B= 0.48127 C= 0.61134 D= 0.6082 E= 0.7938
G=-0.4853 H= 0.3718 K=-0.7914 HT= -0.9

DEPTH OF FOCUS= 0.002R

SE= 2.74

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

ISINOMAKI	1.11	300.3	0	20K	0	0	35	0		
SENDAI	1.36	287.5	0	24K	0	0	41	0		
ONAHAMA	1.60	235.3	0	26A	-1	0	46	-1		
HUKUSIMA	1.65	266.3	0	28K	0	0	50	2		
MIZUSAWA	1.67	318.9	0	28	0	0	53	4		
YAMAGATA	1.77	282.9	0	29K	0	0	51	0		
MIYAKO	1.83	346.0	0	28A	-2	0	51	-1		
SHIRAKAWA	2.00	248.6	0	32A	0	0	56	-1		
MORIOKA	2.12	329.9	0	34A	0	1	2	2		
MITO	2.23	228.7	0	33A	-3	1	4	2		
SAKATA	2.37	296.5	0	39A	1	1	10	4		
KAKIOKA	2.50	229.8	0	37A	-3	1	6	-3		
UTUNOMIYA	2.51	239.1	0	38A	-2	1	10	0		
TYOSI	2.54	212.8	0	40	0	1	15	5		
TUKUBASAN	2.56	230.6	0	38K	-2					
AKITA	2.65	314.7	0	45	3	1	22	9		
HATINOHE	2.77	343.8	0	41	-2	1	17	1		
KUMAGAYA	3.06	236.8	0	47	-1	1	36	13		
HONGO	3.10	226.7	0	48	0				1	29
TOKYO C.M.O.	3.13	226.5	0	47A	-2	1	28	3		
MAEBASI	3.14	243.1	0	48A	-1	1	26	1		
AOMORI	3.24	335.6	0	50	0	1	31	3		
TITIBU	3.36	236.8	0	50	-2	1	39	8		
YOKOHAMA	3.37	224.5	0	51	-1	1	39	8		
AIKAWA	3.40	273.8	0	53	1	1	52	20		
TAKADA	3.50	258.6	0	52	-2	1	31	-4		
OIWAKE	3.55	245.5	0	55	1	1	36	0		
NAGANO	3.67	252.2	0	57	1	1	55	16		
MERA	3.67	217.4	0	55	-1					
HUNATU	3.85	233.1	1	0	1	1	47	4		
KOHU	3.88	236.7	0	59A	0	1	46	2		
AJIRO	3.96	225.6	0	58A	-2	1	44	-2		
MISIMA	3.99	227.6	0	59	-2	1	52	5		
MATUMOTO	4.00	247.5	1	1	0	1	58	11		
OSIMA	4.01	220.5	1	0	-1					
HAKODATE	4.16	341.3	1	4	1	1	54	3		
URAKAWA	4.28	2.4	1	7	2	1	56	2		
TOYAMA	4.42	256.3	1	8	1	2	9	11		
SHIZUOKA	4.42	230.3	1	4	-3	2	7	9		
HIROO	4.44	7.5	1	4	-3	1	54	-4		
IIDA	4.46	239.6	1	5A	-2	2	0	1		
MORI	4.49	340.9	1	10	2	2	8	9		
WAZIMA	4.51	265.4	1	8	0	2	7	7		
TAKAYAMA	4.57	249.5	1	10	1	2	9	8		
MURORAN	4.60	345.4	1	9	0	2	2	0		
OMAESAKI	4.78	228.2	1	19	7					
TOMAKOMAI	4.81	351.5	1	22	10					
KANAZAWA	4.89	255.9	1	20	7	2	24	15		
HAMAMATU	5.01	232.5	1	15K	0	2	20	8		
OBIHIRO	5.07	5.5	1	24	8	2	17	3		
SUTTSU	5.23	341.0	1	21	3				2	48
NAGOYA	5.24	240.7	1	18	0	2	20	2		
GIHU	5.26	243.7	1	18	0					
HATIDYOZIMA	5.27	206.1	1	21	2	2	14	-5		
SAPPORO	5.27	350.4	1	17	-2	2	15	-4		
KUSIRO	5.29	14.9	1	15	-4	2	13	-7		
HUKUI	5.37	252.1	1	20	0	2	34	12		
TSURUGA	5.65	248.8	1	25	1	2	41	13		
HIKONE	5.69	244.7	1	26	1	2	32	3		
KAMEYAMA	5.76	240.2	1	26	1	2	37	6		
TU	5.80	238.8	1	28	2					
ASAHIGAWA	5.90	358.8	1	25A	-2					
NEMURO	5.92	22.0	1	22	-6	2	24	-11		
RUMOE	6.11	353.7				2	48	11		
KYOTO	6.19	244.6	1	30	-1	2	48	6		
MAIZURU	6.23	249.5	1	33	1	2	43	0		
ABASHIRI	6.28	11.5	1	35	2	3	20	36		
ABUYAMA	6.37	244.1	1	33A	-1					
OWASE	6.39	235.5	1	27	-7	2	57	10		
OSAKA	6.52	242.5	1	39	3	3	9	19		
TOYOOKA	6.63	251.7	1	39	1	2	59	6		
KOBE	6.75	244.0	1	39	0	3	22	26		
WAKAYAMA	6.99	240.9	1	52	9					
SIOMISAKI	7.06	233.3	2	18	34	3	17	13		
SUMOTO	7.11	242.6	1	59	15	3	14	9		
TOTTORI	7.12	253.2	1	44	-1	2	13	-52		
TOKUSIMA	7.49	241.9				3	18	3		
SAIGO	7.56	260.0	1	48	-3	3	23	7		
WAKKANAI	7.57	355.4	2	7	16	3	20	4		

MATSUE	7.99	255.2	1	57	0						
MUROTO	8.23	238.4	1	58	-2	3	48	16			
KOTI	8.50	242.2	2	3	-1	3	30	-9			
MATUYAMA	8.89	246.0	2	3	-6				4	56	
HIROSIMA	8.90	249.9	2	21	12						
Y.-SAKHLINSK	9.14	0.8	2	8	-4	3	49	-6			
SIMIDU	9.33	239.8	2	10	-5				4	18	
VLADIVOSTOK	9.65	306.2	2	18A	-1						
OOITA	10.03	245.8	2	31	6	4	32	15			
HUKUOKA	10.77	250.2	2	34	-1	4	51	16			
KUMAMOTO	10.90	246.0	2	34	-3						
NAGASAKI	11.55	247.4	2	59	14	5	30	36			
CHANGCHUN	14.33	299.9	3	20	-2	6	7	7			
PETROPAVLOVK	18.83	31.3							4	26	PP
ZO-SE	18.84	255.4	4	15	-4	7	44	0	4	33	PP
NANKING	20.30	260.5	4	31	-4						
PEKING	20.60	284.2	4	34	-4	8	23	2			
MAGADAN	22.33	11.1	4	54	-1				9	3	PCP
GUAM	24.39	174.8	5	3	-12						
PAOTOW	25.26	286.4	5	21	-3						
YAKUTSK	25.44	345.9	5	24	-1	9	50	3			
SIAN	27.34	272.7	5	42A	-1	10	23	6			
ULAN-BATOR	27.75	302.7	6	47	60	10	40	16			
HONG KONG	28.90	245.6	5	55A	-2	10	49	6	14	41	
CANTON	29.02	247.9	5	58A	0	10	51	7			
MANILA	29.93	225.2	6	5	-1				7	43	
IRKUTSK	30.19	310.9	6	8A	0	10	54	-9			
LANCHOW	30.84	278.6	6	13A	-1	11	25	12			
CHENGTU	32.48	268.9	6	27	-1	11	44	5			
ESEN BULAK	34.94	299.1	6	50A	0	12	25	8			
KUNMING	35.98	261.0	6	58A	-1						
LHASA	43.14	274.9	7	58A	0	14	24	3			
SHILLONG	44.33	269.2	8	8A	1	14	56	18			
SEMIPALATNSK	45.15	306.9	8	13A	-1	14	52	2			
CHITTAGONG	45.97	265.3	8	21	0	15	6	5	8	29	10 0 PCP
COLLEGE	47.90	32.7	8	35	-1						9 54 PP
FRUNSE	50.74	298.3	8	58	0						16 21 PS
DARWIN	51.18	194.8	9	7	6						
MEDAN	52.60	240.5	9	13	1						
DEHRA DUN	53.01	282.3	9	15	0						
KHOROG	54.88	293.1									17 10 PS
TASHKENT	54.99	298.3	9	29A	0						17 27 PS
TANGERANG	55.11	225.3	9	35	5						9 59
SVERDLOVSK	55.12	318.4	9	29K	-1						
MOULD BAY	55.48	16.7	9	31	-2						
WARSAK DAM	56.33	289.3	9	39	0						
DUZHANBE	56.43	295.4	9	39	-1						17 49 PS
ALERT	59.24	3.7	9	58	-1						
QUETTA	61.56	287.5	10	15	0						
RESOLUTE	61.57	14.8	10	14A	-1						
POONA	62.23	272.5	10	19A	0						
APATITY	62.29	335.8	10	18A	-2	18	44	3			
KEVO	62.97	339.4	10	24	0						
ASHKABAD	64.04	299.0	10	34	3						
THULE	64.31	7.7	10	39	6						
SODANKYLA	64.54	337.3	10	34A	-1						
VICTORIA	65.19	46.9	9	45	-54						
TROMSOE	65.21	341.3	10	38	-1						
KIRUNA	66.05	339.4	10	43A	-1						
KAJAANI	66.23	334.2	10	45A	-1						13 4 PP
PENTICTON	66.94	44.8	10	51	1						
MOSCOW	67.11	323.6	10	50A	-1						11 18 PCP
PULKOVO	67.92	329.6	10	56	0						13 17 PP
UMEA	68.88	336.3	11	1A	-1						
NURMIJARVI	69.63	332.2	11	6A	-1						13 40 PP
HELSINKI	69.74	331.8	11	6A	-1						
TEHERAN	69.97	300.0	11	10	1						
HUNGRY HORSE	70.56	43.5	11	12	0						
MINERAL	70.58	53.7	11	10A	-2						
CALISTOGA	70.88	55.7	11	12A	-2						
TIFLIS	71.01	308.3	11	15A	0	20	31	5			
SKALSTUGAN	71.46	338.9	11	17A	-1						
RENO	72.17	53.6	11	34	12						
LICK	72.22	56.4	11	24K	2						
SHIRAZ	72.51	294.1	11	24A	0	20	48	5			14 10 PP
UPPSALA	72.60	334.3	11	24A	0						
PRIEST	73.55	56.9	11	38A	8						
EUREKA	74.62	51.9	11	37	1						

SIMFEROPOL	75.35	315.9	11	41A	0					
SALT LAKE C.	76.35	48.8	11	39	-7					
PASADENA	76.37	57.4	11	54	8					
LWOW	77.23	324.3	11	54	3					
FLAMING GRGE	77.70	47.5	11	54	0					
KRAKOW	78.91	326.4	12	1	1				12 11	PCP
RAPID CITY	79.08	42.0	12	1	0				12 28	
RACIBORZ	79.63	327.3	12	6	2				12 15	PCP
LARAMIE	79.64	45.3	12	5	1					
COLLMBERG	80.82	330.6	12	11A	0				15 20	PP
HALLE	81.07	331.3	12	11	-1					
PRUHONICE	81.24	329.0	12	13	0	22 20	2			
KARAPIRO	81.34	154.2	12	30	17					
KSARA	81.39	306.2	12	15	1	22 23	3			
JENA	81.66	331.1	12	13	-2				14 28	
VIENNA-H.	81.81	327.0	12	16	0					
KASPERSKE H.	82.29	329.0	12	19A	1				15 24	PP
TUCSON	82.37	55.0	12	20	1					
JERUSALEM	83.12	305.0	12	23A	0					
BENSBERG	83.26	333.4	12	23	0					
ALBUQUERQUE	83.36	50.5	12	25	1					
STUTTGART	84.28	331.0	12	28	0					
DOURBES	84.88	334.3	12	32	1					
STRASBOURG	85.01	331.8	12	33	1					
KEW	85.28	337.7	12	33	0					
WELSCHBRUCH	85.68	332.4	12	33	-2					
MANHATTEN	86.03	42.0	12	37	0	23 10	4			
ROSELEND	87.62	330.1	12	46	1					
FOLINIERE	87.70	336.5	12	45	0					
GARCHY	87.81	333.7	12	51A	5				16 4	
WICHITA MTS.	88.17	46.2	12	47	0				16 15	PP
ROLLA	89.43	40.1	12	54	1	23 40	2			
BREBEUF	90.85	24.5	13	OK	0					
SOUTH POLE	127.69	180.0	19	0	-1					
LA PAZ	145.64	60.1	19	36	2					

APRIL 13 18.H 35.M 58.S EPICENTRE 49.17 87.25 DEPTH= 30.KM

A= 0.03154 B= 0.65561 C= 0.75444 D= 0.9988 E=-0.0481
G= 0.0363 H= 0.7536 K=-0.6564 HT= -5.1

SE= 2.11

	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	
SEMIPALATNSK	4.70	287.9	1	12A	1	2	6	1					
ESEN BULAK	6.67	111.1	1	39	0	3	23	28					
KURMENTY	8.76	228.6	2	6	-2	3	43	-4					
ALMATA-2	9.03	232.9	2	10	-2								
PRZHEVALSK	9.10	226.0	2	14	1	3	53	-2					
FRUNSE	10.82	238.9	2	36	0						5	13	
KYAKHTA	12.48	77.2	3	0	1								
KABANSK	12.65	69.5	3	5	4						7	34	
ULAN-BATOR	13.08	88.0	3	2	-5	5	48	16					
FERGANA	14.04	237.1	3	20	0						5	31	
TASHKENT	14.87	244.9	3	27	-3						6	32	SSS
KHOROG	16.31	230.1	3	51	2						7	2	SS
SVERDLOVSK	17.67	305.8	4	6	0						7	26	SS
LANCHOW	17.86	131.0	4	7A	-1	7	29	5			4	13	*SP
PAOTOW	18.24	109.5	4	12	-1	7	40	8					
WARSAK DAM	19.11	223.4	4	21	-3	7	54	2					
LHASA	19.72	170.2	4	31	1	8	16	11			4	38	*SP
DEHRA DUN	20.08	203.7	4	32	-2	8	14	1					
LAHORE	20.11	213.7	4	31	-4								
SIAN	21.89	124.9	4	52	-1	8	55	7			4	59	*SP
NEW DELHI	21.96	204.2	4	50A	-3								
CHATRA	22.30	180.2	5	2K	5								
PEKING	22.42	103.1	4	59	1	9	9	12					
CHENGTU	22.43	139.3	4	59	1	9	7	9					
ASHKABAD	23.61	252.5	5	12	2	9	27	8			6	12	PPP
SHILLONG	23.83	169.6	5	12A	0	9	30	7					
QUETTA	24.43	226.6	5	18	0								
BOKARO	25.31	183.1	5	29	3								
CHANGCHUN	26.54	87.0	5	38	1								
YAKUTSK	26.67	45.2	5	38	-1	10	13	3					
KUNMING	26.89	147.6	5	42	1								

CHITTAGONG	27.00	170.6	5 42	0					
TEHERAN	29.37	256.3	6 4	1					
TIKSI	29.42	25.4	6 2A	-1				15 22	
TIFLIS	30.37	272.1	6 12	0				12 51	SCP
MOSCOW	30.38	301.6	6 11	-1				6 53	
GORIS	30.49	267.1	6 14	1				13 17	
VLADIVOSTOK	31.16	84.0	6 16	-3					
APATITY	32.28	324.5	6 32	3					
POONA	32.42	204.2	6 30	0					
SHIRAZ	32.76	264.4	6 34A	1				9 11	
PULKOVO	33.70	310.2	6 40	-1	12 2	1			
KAJAANI	34.52	318.0	6 46	-2				8 8	PP
KEVO	34.85	328.1	6 53	2					
SODANKYLA	34.89	323.9	6 52	1				8 12	PP
SIMFEROPOL	35.82	283.9	6 59K	0				19 54	
HELSINKI	36.29	311.6	7 3	0					
NURMIJARVI	36.38	312.2	7 3A	-1	12 43	0		8 29	PP
Y.-SAKHLINSK	36.41	71.7	7 6	2					
KIRUNA	37.24	324.8	7 12	1					
TROMSOE	37.66	327.8	7 17	2					
UMEA	37.82	318.3	7 16A	0					
UPPSALA	39.94	312.5	7 33A	-1				8 3	
KSARA	40.61	267.5	7 41	2				9 29	
SKALSTUGAN	41.33	319.1	7 45	0					
KARLSKRONA	42.19	307.8	7 50A	-2					
KRAKOW	42.27	297.8	7 53	0					
JERUSALEM	42.32	265.6	7 54A	1				9 47	PP
PETROPAVLOVK	43.31	56.6	8 0	-1				13 12	
GOTEBORG	43.44	311.0	8 0	-2					
BUDAPEST	43.99	294.9						9 44	PP
VIENNA-H.	45.18	297.1	8 18	2				10 0	PCP
PRUHONICE	45.40	300.0	8 18A	0				10 2	PP
COLLMBERG	45.64	302.3	8 20A	0				10 9	PP
ATHENS	46.09	280.9	8 23	-1					
HALLE	46.13	303.0	8 27	3				10 16	PP
KASPERSKE H.	46.36	299.4	8 26A	0				10 12	PP
JENA	46.61	302.5	8 27	-1				10 15	PP
LJUBLJANA	47.38	295.3	8 33A	-1					
ALERT	47.68	354.8	8 40	4					
MUNSTER	48.25	305.3	8 42	1					
STUTTGART	48.98	301.0	8 46	0					
ROSELEND	51.72	298.2	9 10	3					
ISOLA	52.82	297.1	9 13	-2					
MONACO	52.86	296.5	9 15	-1					
GARCHY	53.28	302.3	9 17	-2					
THULE	53.71	353.0	9 21	-1					
MOULD BAY	53.71	7.6	9 16	-6					
FOLINIERE	54.34	305.5	9 26	-1					
RESOLUTE	56.43	0.7	9 41	-1				10 38	
BAGNERES	57.47	299.8	9 44	-5					
COLLEGE	58.55	24.2	9 57	0					
LWIRO	71.71	243.7	11 21	0					
BANGUI	72.80	256.4	11 26	-2					
PENTICTON	79.20	17.5	12 4A	0					
HUNGRY HORSE	81.14	14.2	12 15	0					
BROKEN HILL	81.80	236.8	12 18A	0					
SHAWINIGAN	83.09	346.3	12 25	0					
BOZEMAN	84.21	12.8	12 31	1					
MUNDARING	84.80	155.6	12 32A	-1					
CHARTERS TS.	86.56	126.2	12 42	0					
CALISTOGA	88.67	22.9	12 24A	-28					
FLAMING GRGE	89.09	12.5	12 45	-9					
EUREKA	89.38	17.8	12 57	2					
BERKELEY	89.48	22.9	12 30K	-26					
LICK	90.14	22.6	13 0	1					
PRIEST	91.52	22.3	13 8A	3					
WOODY	92.38	21.0	13 10	1					
ADELAIDE	95.43	139.8	13 23K	0					
WICHITA MTS.	96.32	4.8	13 29	2				17 19	PP
LA PAZ	141.75	319.8	19 33	4					
BYRD STATION	147.68	171.5	19 41	2					

APRIL 14 16.H 50.M 3.S EPICENTRE 38.06 143.01 DEPTH= 29.KM

A=-0.63047 B= 0.47495 C= 0.61394 D= 0.6017 E= 0.7987
G=-0.4904 H= 0.3694 K=-0.7894 HT= -1.0

SE= 3.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ISINOMAKI	1.38	286.0	0	20K	-3	0	36	-5				
SENDAI	1.67	277.8	0	24K	-4	0	45	-3				
MIYAKO	1.78	333.2	0	27A	-2	0	47	-4				
MIZUSAWA	1.82	306.5	0	27	-3	0	48	-4				
ONAHAMA	2.01	237.1	0	30K	-3	0	43	-14				
HUKUSIMA	2.03	262.0	0	30K	-3	0	54	-4				
YAMAGATA	2.10	275.9	0	30	-4	0	57	-2				
MORIOKA	2.18	319.3	0	36	1	1	1	0				
SHIRAKAWA	2.41	247.8	0	35	-3	1	4	-3				
SAKATA	2.63	289.5	0	42	1	1	13	0				
MITO	2.63	231.1	0	39K	-2	1	13	0				
HATINOHE	2.72	335.5	0	44	1	1	14	-1				
AKITA	2.81	307.0	0	55	11	1	28	11				
KAKIOKA	2.91	231.9	0	43K	-2	1	22	2				
TYOSI	2.91	217.2	0	43	-2	1	24	4				
UTUNOMIYA	2.92	239.9	0	43	-3	1	17	-3				
TUKUBASAN	2.96	232.5	0	43A	-3							
NIIGATA	3.13	268.6	0	48	-1	1	25	0				
AOMORI	3.25	328.6	0	56	6	1	22	-6				
KUMAGAYA	3.47	237.8	0	52	-1	1	44	10				
HONGO	3.50	228.9	0	53	-1							
TOKYO C.M.O.	3.53	228.7	0	52A	-2	1	38	2				
MAEBASI	3.55	243.4	0	52K	-3	1	35	-1				
AIKAWA	3.76	270.8	0	55	-2	1	46	5				
YOKOHAMA	3.76	226.8	0	56	-2	1	52	10				
TITIBU	3.77	237.7	0	56	-2	1	47	5				
TAKADA	3.90	257.2				1	51	7			2	26
OIWAKE	3.96	245.4	1	2	2	1	57	11				
MERA	4.05	220.2	0	59	-3	2	8	19				
NAGANO	4.07	251.5	1	3	1	2	1	12				
URAKAWA	4.09	357.6	1	0	-2	1	52	2				
HAKODATE	4.12	335.9	1	4	1	1	49	-2				
HIROO	4.22	3.1	1	1	-3	2	11	18				
HUNATU	4.26	234.4	1	8	3	2	0	6				
KOHU	4.29	237.6	1	5	0	1	58	3				
AJIRO	4.35	227.5	1	3	-3	1	49	-7				
MISIMA	4.39	229.3	1	6	0							
OSIMA	4.40	222.8	1	4	-3							
MATUMOTO	4.41	247.3	1	7	0							
MORI	4.45	335.9	1	12	5	2	5	6				
MURORAN	4.53	340.6				1	54	7				
TOMAKOMAI	4.69	347.0	1	36	25							
TOYAMA	4.82	255.4	1	11	-2	2	31	23				
SHIZUOKA	4.83	231.6	1	11	-2	2	13	5				
OBIHIRO	4.85	1.7	1	28	15							
IIDA	4.87	240.2	1	13	0						5	58
WAZIMA	4.89	263.9	1	19	5							
KUSIRO	5.03	11.7	1	13	-2	2	8	-5				
SAPPORO	5.16	346.4	1	15	-2	2	15	-2				
OMAESAKI	5.18	229.6	1	22	4							
SUTTSU	5.19	336.8				2	12	-5				
HAMAMATU	5.41	233.6	1	31	10							
NEMURO	5.61	19.6	1	21	-3	2	22	-6				
NAGOYA	5.65	241.1	1	22	-2	2	37	8				
GIHU	5.67	244.0	1	24	0	2	44	14				
ASAHIGAWA	5.73	355.4	1	25	0	2	17	-14				
HUKUI	5.78	251.7	1	34	8							
ABASHIRI	6.03	8.8				3	7	28			2	43
TSURUGA	6.06	248.7	1	29	-1							
HIKONE	6.10	244.9	1	30	-1	2	51	11				
KAMEYAMA	6.17	240.7	1	36	5	2	50	8				
KYOTO	6.60	244.8	1	37	-1	3	11	18				
NARA	6.70	241.9	1	42	3							
ABUYAMA	6.79	244.3	1	39K	-1							
OWASE	6.80	236.2	1	45	5	3	7	9				
OSAKA	6.93	242.8	1	53	11	3	25	24				
TOYOOKA	7.04	251.4	1	41	-3							
SUMOTO	7.53	242.9									3	41
TAKAMATU	8.15	245.4	2	9	10							
MATSUE	8.39	254.9	2	2	-1							

KOTI	8.92	242.5	2	18	8	4	26	36			
Y.-SAKHLINSK	8.95	358.7	2	9K	-1						
VLADIVOSTOK	9.84	304.4	2	22	-1	4	12	-1			
OOITA	10.44	245.9	2	33	2	4	36	8			
HUKUOKA	11.18	250.2	2	41	0				5	5	
KUMAMOTO	11.32	246.2	1	59	-44						
NAGASAKI	11.96	247.5	3	5	14				5	33	
CHANGCHUN	14.55	298.9	3	26	0	6	16	9			
PETROPAVLOVK	18.48	30.9	4	13	-3						
ZO-SE	19.25	255.4	4	20	-5						
NANKING	20.69	260.5	4	35	-5						
PEKING	20.91	283.8	4	37	-5	8	23	-6			
MAGADAN	22.08	10.6	4	54	0						
PAOTOW	25.56	286.0	5	27	-1	9	54	3			
SIAN	27.69	272.6	5	45	-3						
ULAN-BATOR	27.96	302.3	5	46	-4						
MANILA	30.32	225.7	6	11	0						
IRKUTSK	30.35	310.5	6	23A	12				9	50	
LANCHOW	31.18	278.5	6	16	-3	11	20	-2			
TIKSI	34.42	352.1	6	49	2						
KUNMING	36.37	261.1	7	2	-1						
SEMIPALATNSK	45.33	306.9	8	20	3						
COLLEGE	47.55	32.7	8	36	1				9	6	
CHATRA	47.80	273.6	8	36A	-1						
DARWIN	51.46	195.3	8	59	-6						
NEW DELHI	54.78	280.9	9	26K	-3						
KHOROG	55.15	293.2	9	36	4						
MOULD BAY	55.19	16.8	9	32	0						
SVERDLOVSK	55.22	318.4	9	31	-2						
WARSAK DAM	56.62	289.4	9	41	-2						
DUZHANBE	56.68	295.5	9	40	-3						
SAMARKAND	57.49	297.4	9	55	6						
ALERT	59.03	3.8	9	59	-1						
RESOLUTE	61.29	14.9	10	14A	-1				10	45	
QUETTA	61.85	287.6	10	19	0						
APATITY	62.27	335.9	10	20K	-2						
THULE	64.08	7.8	10	32	-1						
VANNOVSKAYA	64.45	299.2	10	34	-2						
SODANKYLA	64.51	337.4	10	33	-3						
KAJAANI	66.22	334.3	10	46	-1						
PENTICTON	66.55	45.0	10	50	1						
MOSCOW	67.18	323.7	10	53	0						
UMEA	68.86	336.4	11	2	-2				11	23	
NURMIJARVI	69.63	332.3	11	7K	-2						
HELSINKI	69.75	331.9	11	9	0						
MINERAL	70.17	54.0	11	3A	-9						
SKALSTUGAN	71.42	339.0	11	20	1						
SHIRAZ	72.76	294.3	11	26K	-1	20	48	-2			
EUREKA	74.22	52.1	11	37	1						
WOODY	74.59	56.7	11	40	2						
FLAMING GRGE	77.30	47.8	11	44	-9						
COLLMBERG	80.84	330.9	12	12	-1				13	22	
KARAPIRO	81.35	154.5	12	25	10						
KASPERSKE H.	82.32	329.2	12	19	-1				12	53	
ALBUQUERQUE	82.95	50.8	12	25	1						
WICHITA MTS.	87.78	46.5	12	48	1						
GARCHY	87.81	334.0	12	47	-1						
FAYETTEVILLE	89.22	42.9	12	55K	1						

APRIL 14 18.H 43.M 0.S EPICENTRE 37.14 142.76 DEPTH= 89.KM
A=-0.63616 B= 0.48358 C= 0.60121 D= 0.6052 E= 0.7961
G=-0.4786 H= 0.3638 K=-0.7991 HT= -0.6

DEPTH OF FOCUS= 0.009R

SE= 4.42

	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
ONAHAMA	1.50	263.2	0	24K	-3	0	49	2				
ISINOMAKI	1.72	318.9	0	21A	-9	0	46	-5				
SENDAI	1.86	307.9	0	24	-7	0	43	-11				
HUKUSIMA	1.92	289.1	0	27A	-5							
MITO	1.99	248.2	0	31K	-2	1	4	7				
SHIRAKAWA	2.03	270.1	0	31	-3	1	3	5				
TYOSI	2.09	227.9	0	33	-2							

YAMAGATA	2.21	300.8	0	28	-8						
KAKIOKA	2.26	247.1	0	35	-2						
TUKUBASAN	2.33	247.5	0	35K	-3						
MIZUSAWA	2.36	327.6	0	28	-10	1	5	-2			
UTUNOMIYA	2.39	256.6	0	37	-2	1	17	10			
MIYAKO	2.58	346.3	0	29	-12	0	53	-19			
TOKYO C.M.O.	2.83	239.9	0	44	-1	1	40	22			
MORIOKA	2.84	334.4	0	36	-9	1	14	-4			
KUMAGAYA	2.89	251.0	0	44	-2	1	33	13			
SAKATA	2.90	308.1	0	46	0						
YOKOHAMA	3.04	236.7	0	57K	9	1	42	19			
NIIGATA	3.05	285.9	0	59	11	1	37	14			
MAEBASI	3.05	257.1	0	47	-1	1	39	15			
TITIBU	3.18	249.7	0	48	-2	1	40	13			
MERA	3.25	227.8	1	0	9						
AKITA	3.31	321.8	0	56	5	1	37	7			
OIWAKE	3.48	257.8	0	55	1	1	59	25			
HATINOHE	3.52	344.5	0	49	-5	1	27	-8			
TAKADA	3.60	270.7	0	38	-17	1	23	-14			
HUNATU	3.61	244.2	1	6	10	1	37	0			
OSIMA	3.62	230.2	0	59	3						
AJIRO	3.62	235.9	0	54	-2	1	39	1			
NAGANO	3.68	264.0	0	57	0	2	2	23			
MISIMA	3.68	237.9	0	58	1						
AIKAWA	3.69	285.1	0	52	-5	2	2	23			
KOHU	3.69	247.8	0	58	1	1	56	17			
MATUMOTO	3.95	258.4	1	1	1						
AOMORI	3.98	337.8	1	5	4	1	57	11			
SHIZUOKA	4.14	239.8	1	11	8						
IIDA	4.30	249.3	1	5	0	2	10	16			
HAKODATE	4.91	342.3	1	19	6				2	24	
URAKAWA	5.00	0.2	1	28	13	1	58	-14			
NAGOYA	5.08	248.9	1	21	5	2	34	20			
HIROO	5.15	4.6	1	16	-1						
MORI	5.23	341.8	1	14	-4	2	22	4			
MURORAN	5.35	345.7				2	21	1			
HUKUI	5.37	260.2	1	19	-1						
TOMAKOMAI	5.56	351.0							2	1	
HIKONE	5.58	252.4	1	23	0						
KAMEYAMA	5.59	247.7	1	39	16	2	43	17			
TSURUGA	5.60	256.6	1	26	3						
OBIHIRO	5.78	3.2	1	32	7						
KUSIRO	5.96	11.7	1	21	-7	2	14	-21			
SAPPORO	6.02	350.1				3	7	30	2	18	
KYOTO	6.07	251.7	1	36	7	3	13	35			
ABUYAMA	6.25	250.9	1	30A	-2						
OSAKA	6.37	249.2				3	23	38	1	50	
NEMURO	6.55	18.4							2	26	
ASAHIGAWA	6.64	357.6				3	35	43	2	26	
OOITA	9.92	250.1	2	23	1	4	22	10			
CHANGCHUN	14.85	302.1	3	22	-5						
ZO-SE	18.84	257.7	4	24	8						
PEKING	20.96	286.1	4	35	-3	8	23	2			
YAKUTSK	26.19	346.1	5	24	-4	9	52	0			
ULAN-BATOR	28.30	303.8	5	46	-2						
LANCHOW	31.13	279.9	6	14	1						
TIKSI	35.30	352.4	6	46	-3						
ESEN BULAK	35.45	300.1	6	56	6						
KUNMING	36.04	262.2	6	57	2						
SHILLONG	44.49	270.0	8	6	1						
COLLEGE	48.43	32.3	8	33	-2						
DARWIN	50.52	195.2	3	48	-4						
NAMANGAN	53.93	297.6	9	33	16						
NEW DELHI	54.77	281.4	9	22A	-1						
KHOROG	55.33	293.7	9	30	3						
TASHKENT	55.49	298.8	9	27	-1						
SVERDLOVSK	55.78	318.8	9	29	-1						
MOULD BAY	56.13	16.6	9	30	-3						
WARSAK DAM	56.74	289.8	9	38	1						
DUZHANBE	56.90	295.9	9	38	0						
SAMARKAND	57.74	297.8	10	12	28				10	54	
QUETTA	61.94	288.0	10	14	1						
RESOLUTE	62.23	14.7	10	12	-3				10	54	
VANNOVSKAYA	64.72	299.5	10	32	1						
SODANKYLA	65.28	337.5	10	33	-2						
KAJAANI	66.96	334.4	10	44K	-2						
MOSCOW	67.80	323.9	10	50	-1						
UMEA	69.62	336.5	11	0	-2						

NURMIJARVI	70.35	332.4	11	5K	-1					
HELSINKI	70.46	332.0	11	2	-5					
TIFLIS	71.59	308.6	11	15	1					
GORIS	71.84	306.0	11	16	1					
SHIRAZ	72.96	294.4	11	22A	0			11	31	11 45
EUREKA	74.94	51.8	11	36	3					
FLAMING GRGE	78.07	47.5	11	33	-18					
COLLMBERG	81.54	330.8	12	9	-1					12 19 PCP
WICHITA MTS.	88.55	46.3	12	50	6					

APRIL 15 7.H 32.M 13.S EPICENTRE 36.42 140.73 DEPTH= 51.KM

A=-0.62451 B= 0.51054 C= 0.59105 D= 0.6329 E= 0.7742
G=-0.4576 H= 0.3741 K=-0.8066 HT= -0.4

DEPTH OF FOCUS= 0.003R

SE= 4.18

	DELTA	AZ.	P	O-C	S	O-C	*PP	SUPP.
	DEG.	DEG.	M S	S	M S	S	M S	M S
MITO	0.22	260.5	0 7K	-3	0 12	-5		
KAKIOKA	0.48	247.7	0 8K	-4	0 18	-4		
TUKUBASAN	0.55	249.3	0 9A	-4	0 18	-5		
ONAHAMA	0.55	14.0	0 10	-3	0 19	-4		
TYOSI	0.70	172.3	0 7A	-8	0 14	-12		
UTUNOMIYA	0.71	281.1	0 13K	-2	0 25	-1		
SHIRAKAWA	0.82	329.7	0 15K	-1	0 28	0		
HONGO	1.05	228.2	0 16	-3	0 31	-2		
TOKYO C.M.O.	1.08	227.7	0 16K	-3	0 32	-2		
KUMAGAYA	1.13	256.8	0 18K	-2	0 40	5		
YOKOHAMA	1.32	222.1	0 21	-1	0 39	0		
MAEBASI	1.34	269.8	0 22K	-1	0 41	1		
HUKUSIMA	1.35	351.1	0 23K	0	0 42	2		
TITIBU	1.41	252.5	0 22	-2	0 40	-2		
MERA	1.66	206.5	0 25	-2	0 51	3		
OIWAKE	1.76	267.9	0 29	0	0 52	2		
HUNATU	1.84	240.7	0 29	-1	0 55	3		
SENDAI	1.86	4.0	0 29K	-1	0 52	0		
YAMAGATA	1.86	350.6	0 30	0	0 54	2		
AJIRO	1.90	224.8	0 28K	-2	0 59	5		
KOHU	1.91	247.7	0 29	-2	1 4	10		
MISIMA	1.94	228.8	0 32	1				
OSIMA	1.98	214.3	0 28	-3	0 51	-4		
NIIGATA	2.02	318.6	0 35	3	1 4	8		
NAGANO	2.06	277.8	0 33K	0	1 5	8		
ISINOMAKI	2.06	12.9	1 31K	58	1 56	58		
TAKADA	2.11	289.6	0 29	-4	0 59	0		
MATUMOTO	2.24	266.6	0 35K	0	1 10	8		
SHIZUOKA	2.39	233.5	0 36	-1	1 9	3		
IIDA	2.52	250.1	0 40K	1	1 18	9		
AIKAWA	2.55	309.7	0 40	0				
SAKATA	2.58	344.1	0 42	2	1 7	-4		
MIZUSAWA	2.73	6.5	0 47	5	1 15	1		
OMAESAKI	2.74	229.3	0 49	7				
TOYAMA	2.86	276.7	0 43	-1	1 28	10		
HAMAMATU	2.98	236.3	0 48K	2	1 29	8		
WAZIMA	3.22	288.5	0 53	4				
MORIOKA	3.30	5.9	0 49	-1	1 28	-1		
NAGOYA	3.30	249.0	0 49	-1	1 31	2		
AKITA	3.34	351.6	0 55	4	1 41	11		
MIYAKO	3.37	16.4	0 50	-1	1 29	-1		
GIHU	3.37	253.7	0 51	0	1 42	11		
HATIDYOZIMA	3.45	195.8	0 56	3				
HUKUI	3.66	265.6	0 47	-8				1 53
KAMEYAMA	3.81	247.0	1 0	3	1 51	10		
HIKONE	3.82	253.9	0 58	1	1 52	10		
TU	3.84	244.7	1 4	6				
TSUPUGA	3.86	259.9	0 58	0				
HATINOHE	4.15	8.4	0 56	-6	1 52	2		
KYOTO	4.30	252.6	1 3	-1	2 13	19		
NARA	4.36	248.0	1 8	3				
AOMORI	4.40	0.5	1 4	-2	2 0	4		
ABUYAMA	4.48	251.4	1 5	-2				
OSAKA	4.60	249.0	1 22	14	2 25	24		
KOBE	4.85	250.7	1 16	4	2 7	-1		
TOYOOKA	4.88	261.3	1 22	10				2 56

SIOMISAKI	5.04	235.5			2 32	19	
SUMOTO	5.19	248.2	1 16	-1	2 42	26	
HAKODATE	5.39	0.2	1 19	0	2 30	9	
TOTTORI	5.39	262.3	1 19	0	2 51	30	
TOKUSIMA	5.55	246.9			2 31	6	
MORI	5.68	358.8	1 31	8	2 38	10	
TAKAMATU	5.85	251.0	1 39	13	3 3	31	
URAKAWA	5.94	14.9	1 27	0	2 31	-4	
HIROO	6.19	18.1	1 27	-4	2 34	-7	
TOMAKOMAI	6.24	5.8					2 4
MATSUE	6.29	263.4					2 19
KOTI	6.57	246.3	1 28	-8	3 8	18	
SAPPORO	6.66	3.9	1 55	18	2 52	-1	
OBIHIRO	6.77	15.6	1 49	10	2 52	-3	
MATUYAMA	7.01	250.8	1 53	11	3 35	34	
KUSIRO	7.14	22.2	1 36	-8	2 53	-11	
ASAHIGAWA	7.46	9.2	4 44	-4			2 2
NEMURO	7.84	26.8					3 9
HUKUOKA	8.95	254.6	2 9	0	4 17	28	
KUMAMOTO	9.01	249.5	2 21	11			
VLADIVOSTOK	9.54	317.3	2 18	1			
NAGASAKI	9.67	250.8	2 19	0	4 31	24	
Y.-SAKHLINSK	10.70	7.3	2 27A	-6			
ZO-SE	17.10	257.6	3 53	-3			
PEKING	19.62	288.0	4 22	-4	8 9	10	
YAKUTSK	26.54	348.4	5 32	-2	10 0	-3	
LANCHOW	29.66	280.4	5 59	-3			
KUNMING	34.33	261.7	6 40	-3			
SHILLONG	42.86	269.6	7 52A	-2			
SEMIPALATNSK	44.89	307.9	8 9	-2			
CHATRA	46.10	273.9	8 19K	-1			
ALMATA-2	48.10	298.7	8 36	0			
DARWIN	49.42	192.8	8 42	-4			
COLLEGE	49.91	32.0	8 48	-2			
DEHRA DUN	51.91	282.5	8 57	-8			
NAMANGAN	52.82	297.4	9 11	-1			
LEMBANG	53.05	222.7	9 8K	-6			
KHOROG	54.13	293.4	9 22	0			
DUZHANBE	55.75	295.6	9 38	5			
SAMARKAND	56.63	297.5	9 38	-2			
MOULD BAY	57.28	16.3	9 41	-3			
QUETTA	60.61	287.4	10 4	-3			
ALERT	60.78	3.4	10 6	-3			
APATITY	63.03	335.7	10 21A	-3			
RESOLUTE	63.34	14.2	10 22A	-4			11 12
VANNOVSKAYA	63.66	299.0	10 26	-2			
SODANKYLA	65.32	337.1	10 36	-2			
KAJAANI	66.91	333.9	10 46	-3			13 8 PP
MOSCOW	67.42	323.4	10 50	-2			
PENTICTON	68.99	43.7	11 5	3			
UMEA	69.63	335.9	11 3A	-2			
NURMIJARVI	70.23	331.8	11 7K	-2			
HELSINKI	70.33	331.4	11 7	-3			
KIROVOBAD	70.34	306.3	11 7	-3			
SKALSTUGAN	72.29	338.4	11 22	1			
CALISTOGA	72.90	54.5	11 36A	11			
UPPSALA	73.27	333.8	11 24	-3			
RENO	74.20	52.4	11 45	12			
LICK	74.24	55.2	11 44A	11			
BUTTE	74.79	43.8	11 47	11			
PRIEST	75.56	55.7	11 53K	13			
EUREKA	76.66	50.7	11 44	-3			
GOTEBORG	76.85	334.5	11 45	-3			
WOODY	77.01	55.2	11 46	-3	12 0		
UZHGOROD	79.20	323.6	11 59	-2			
FLAMING GRGE	79.75	46.4	12 1	-3			
COLLMBERG	81.37	329.9	12 10A	-2			15 7
PRUHONICE	81.73	328.2	12 12	-2			
JENA	82.22	330.3	12 14	-3			
KASPERSKE H.	82.78	328.1	12 18A	-1			
STUTTGART	84.84	330.1	12 28	-2			
ALBUQUERQUE	85.40	49.4	12 31	-2			
ROSELEND	88.15	329.1	12 45	-1			14 33
GARCHY	88.46	332.7	12 46	-1			
WICHITA MTS.	90.22	45.1	13 3	7			
FAYETTEVILLE	91.65	41.5	13 12	10			
LA PAZ	147.62	59.9	19 39	3	19 53		

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APRIL 15 18.H 8.M 23.S EPICENTRE -2.79 -12.01 DEPTH= 0.KM

A= 0.97697 B=-0.20780 C=-0.04843 D=-0.2080 E=-0.9781
G=-0.0474 H= 0.0101 K=-0.9988 HT= 7.1

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	
M.BOUR	17.76	344.0	4	10	0	7	35	9					
BANDEIRA	27.71	117.2	5	53A	1						10	48	
BANGUI	31.42	77.0	6	19	-6						7	26	PP
MALAGA	39.95	9.5	7	44K	7	13	45	2			9	21	PP
ALMERIA	40.43	11.8	7	42	1						9	28	PP
GRANADA	40.53	10.4	7	45K	3	14	6	14			9	45	PP
LWIRO	40.77	90.2	7	44A	0	14	0	4			9	27	PP
LISBON	41.39	3.4	7	49	0	14	1	-4	8	0			
BROKEN HILL	41.58	108.6	7	51	0								
ALICANTE	42.30	13.5	8	7	10	14	27	9					
COIMBRA	42.91	4.0	9	3	61								
TOLEDO	43.09	9.0	8	4A	1	14	38	8			9	43	PP
BULAWAYO	43.20	116.7	8	3	-1								
KIMBERLEY	43.48	130.2	8	5A	-1								
SERRA PILAR	43.83	3.7	8	9K	0	14	37	-4			9	53	PP
TORTOSA	44.89	13.5	8	32	14								
BAGNERES	46.95	12.2	8	35	1						9	23	
MESSINA	48.10	29.3	8	43	0	15	48	6			10	37	PP
MONACO	49.50	18.5	8	51	-3						10	49	
ROME	49.73	23.9	8	58A	2	16	16	11	9	10	10	52	PP
ISOLA	49.79	17.9	8	49	-7								
CLERMONT-FD.	50.18	13.8	9	2	3						10	55	
CHIAVARI	50.64	19.7				15	57	-20			11	37	PP
FLORENCE X.	50.85	21.6	8	57A	-7	16	15	-5	9	16	10	53	PP
ROSELEND	51.15	17.7	9	5	-1								
PAVIA	51.36	19.1	9	6	-2						16	14	
GARCHY	51.60	13.1	9	9	-1								
NEUCHATEL	52.32	16.3	9	15	0								
ATHENS	52.33	35.7	9	16K	1	16	42	2					
FOLINIERE	52.33	9.6	9	15	0								
PADOVA	52.48	21.1	9	27	10						9	57	
PARIS	52.92	12.0	9	20	0						11	20	PP
BASLE	52.98	16.5	9	21A	1								
WELSCHBRUCH	53.45	15.1	9	24	0								
RAVENSBURG	53.81	17.9	9	25	-1								
STRASBOURG	53.99	16.1	9	28	0	17	12	9			10	45	
LJUBLJANA	54.01	22.6	9	28	0						9	53	
STUTTGART	54.59	17.1	9	28	-4						10	21	PCP
DOURBES	54.59	13.1	9	32	0	17	16	5					
KEW	54.97	8.9	9	34	-1								
HEIDELBERG	55.00	16.4	9	33	-2								
SOFIA	55.39	31.2	9	39	1						11	48	PP
BELGRADE	55.54	27.6	9	40A	1						11	58	PP
FELDBERG	55.66	15.8	9	23	-17								
BENSBERG	56.01	14.5	9	43A	1						11	46	PP
KASPERSKE H.	56.27	19.9	9	43K	-1						11	48	PP
JERUSALEM	56.48	48.6	9	46	0								
VIENNA-H.	56.54	22.4	9	45	-1						11	51	PP
BRATISLAVA	56.76	22.9	9	47	-1						11	58	PP
LA PAZ	56.78	252.2	9	47	-1	17	42	2					
BUDAPEST	56.98	24.6	9	48K	-1	17	0	-43			11	46	PP
JENA	57.20	17.5	9	49	-2						11	51	PP
PRUHONICE	57.33	20.1	9	49	-3	17	49	2					
ISTANBUL UN.	57.41	36.1	9	53	1	17	53	4					
HALLE	57.81	17.5	9	55	0						11	55	PP
KSARA	57.94	46.8	9	57	1	18	12	16			13	43	PPP
COLLMBERG	57.95	18.2	9	55A	-1						12	2	PP
BUCHAREST	58.03	31.4	9	57A	0	18	5	8					
RACIBORZ	58.73	22.3	10	5	3				10	11	10	50	PCP
SKALNATE PL.	58.82	24.2	9	57	-5						11	4	PCP
UZHGOROD	59.26	25.8	10	4	-1								
KRAKOW	59.38	23.3	10	8	2	18	22	8					
AREQUIPA	59.98	252.7	10	9	-1								
TANANARIVE	60.35	110.1	10	16	3								
IASI	60.69	29.9	10	15	0								
LWOW	60.90	25.9	10	16	-1	18	39	5					
KISHINEV	61.20	30.7	10	17A	-2								
WARSAW	61.52	22.4				18	47	5					
FUQUENE	62.19	277.6	10	22	-3	19	6	16					
BOGOTA	62.45	276.6	10	25	-2	18	57	4					

SANTA LUCIA	62.53	293.6	10	26	-1	19	11	17			14	28 PPP
SIMFEROPOL	62.78	35.1	10	28	-1	19	2	4				
KARLSKRONA	62.93	16.9	10	31A	1							
GOTEBORG	63.31	14.1	10	32	-1							
CHINCHINA	64.02	276.9	10	43A	6							
BERGEN	64.44	9.4	10	39	-1							
SOTCHI	65.40	38.9	10	45	-1	19	33	3				
HALIFAX	65.84	322.2	10	55K	6							
UPPSALA	66.64	15.8	10	52	-2							
TIFLIS	67.84	42.6	11	2	0	20	10	10				
GORIS	67.98	45.3	11	3	0							
SKALSTUGAN	68.66	11.4	11	5	-2							
HELSINKI	69.08	18.8	11	8	-2							
NURMIJARVI	69.25	18.4	11	9	-1							
MAKHACH-KALA	70.18	42.2	11	17A	1							
TEHERAN	70.38	50.6	11	18	1	20	35	5				
UMEA	70.65	14.5	11	18A	-1							
MOSCOW	70.97	27.1	11	19A	-2							
SHAWINIGAN	72.44	320.8	11	31	1							
BREBEUF	72.57	319.6	11	36K	5							
KAJAANI	72.89	17.1	11	33	1							
SCORESBY SD.	73.44	356.5	11	36	0							
KIRUNA	74.03	12.2	11	39	0							
SODANKYLA	75.09	14.5	11	44	-1							
KIZYL-ARVAT	75.12	48.3	11	46	1	21	32	8				
ASHKABAD	76.36	50.0	11	53	1	21	46	9				
BLOOMINGTON	79.80	310.5	12	12K	1	23	19	65			12	17
MAWSON	81.69	158.0	12	20A	-1						12	27
C. GIRARDEAU	81.79	308.1	12	20	-2							
QUETTA	81.87	59.2	12	26	4							
ST. LOUIS 1	82.56	309.4	12	24	-2						12	31
FLORISSANT	82.69	309.5	12	25	-1						12	31
SVERDLOVSK	82.91	31.9	12	28	0							
SAMARKAND	83.31	49.7	12	30	0							
ROLLA	83.74	308.4	12	32	0	22	51	-3				
DUZHANBE	84.52	51.0	12	39	3							
THULE	85.19	348.6	12	39	0							
TASHKENT	85.29	48.3	12	42	2							
FAYETTEVILLE	85.32	306.4	12	37	-3							
WARSAK DAM	86.21	55.8	12	44	0							
POONA	86.95	71.4	12	49	1							
NAMANGAN	87.04	48.9	12	50A	2	23	36	9				
SOUTH POLE	87.22	180.0	13	4	15							
MANHATTEN	87.54	309.3	12	50K	-1							
ANDIJAN	87.54	49.2	12	53A	2							
LAHORE	88.32	58.5	13	15	21							
WICHITA MTS.	88.76	304.7	12	55	-2	23	49	6			16	26 PP
FRUNSE	89.40	47.3	13	0	0							
BYRD STATION	90.27	189.6	13	6	2							
NEW DELHI	90.62	61.6				23	35	-25				
RESOLUTE	90.79	344.7	13	6	0							
DEHRA DUN	91.44	59.9	13	1	-8							
SEMIPALATNSK	93.58	39.8	13	20	1							
LARAMIE	94.52	311.0	13	25	2							
ALBUQUERQUE	95.24	304.7	13	26	0							
MOULD BAY	96.79	346.7	13	34	0							
EUREKA	102.54	309.7	14	1	2						18	12 PP
ESEN BULAK	104.57	42.8									18	22
COLLEGE	110.47	341.5	19	6	32							
ULAN-BATOR	111.14	39.1	19	20	45							
BRISBANE	146.60	154.9	19	45	3						20	31
CHARTERS TS.	148.82	137.8	19	52	7							

APRIL 15 18.H 45.M 13.S EPICENTRE -2.95 -12.03 DEPTH= 0.KM

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G=-0.0499 H= 0.0106 K=-0.9987 HT= 7.1

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	
LOME	16.01	55.8	3	44	-4						5	36	
M.BOUR	17.90	344.2	4	12	0	7	33	3					
LUANDA	25.79	104.2	5	38K	3								
BANDEIRA	27.66	117.0	5	53	1	10	43	10			8	35	
BANGUI	31.48	76.8	6	23	-3						7	25	PP

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MALAGA	40.10	9.5	7	45	6	13	51	5			9	21 PP
ALMERIA	40.58	11.8	7	41K	-2						9	27 PP
GRANADA	40.68	10.3	7	48A	4	14	5	10			9	43 PP
LWIRO	40.79	90.0	7	46K	1	14	1	4			9	18
LISBON	41.54	3.4	7	52	1	14	11	3				
BROKEN HILL	41.55	108.5	7	51	0							
ALICANTE	42.46	13.5	7	58	-1	14	40	19			13	44
HERMANUS	42.74	140.8									14	31 PPS
COIMBRA	43.06	4.0	8	5A	1							
BULAWAYO	43.15	116.5	8	3	-1							
TOLEDO	43.24	9.0	8	7	2	14	38	5			9	45 PP
KIMBERLEY	43.40	130.0	8	5	-1							
SERRA PILAR	43.98	3.7	8	12K	1	14	42	-1			9	52 PP
TORTOSA	45.04	13.5	8	32	13							
BAGNERES	47.11	12.2	8	36	0						10	19
MESSINA	48.24	29.3	8	46	1	15	51	7			10	41 PP
MONACO	49.65	18.5	8	57	1							
ROME	49.88	23.9	9	0A	3	16	17	10	9	12	10	53 PP
ISOLA	49.94	17.9	8	58	0							
CHIAVARI	50.79	19.7	9	17	13	16	42	22			11	27 PP
TARANTO	50.84	28.8									18	55
TRINIDAD	50.96	286.2	9	6	0	16	23	1				
FLORENCE X.	51.00	21.6	9	5K	-1	16	23	0	9	24	10	50 PP
GARCHY	51.75	13.1	9	13	1				9	19	11	12 PP
ATHENS	52.46	35.6	9	25A	8	16	51	8				
NEUCHATEL	52.47	16.3	9	18	1							
FOLINIERE	52.48	9.6	9	17	0							
PADOVA	52.63	21.0									10	57 PP
PARIS	53.07	12.0	9	23	1						11	20 PP
BASLE	53.13	16.5	9	23	1							
TRIESTE	53.53	22.3	9	26K	1	16	59	2				
WELSCHBRUCH	53.60	15.1	9	27	2							
RAVENSBURG	53.96	17.9	9	27	-1							
EBINGEN	54.12	17.2	9	29	0							
STRASBOURG	54.14	16.1	9	29	0	17	3	-3			12	47 PPP
LJUBLJANA	54.16	22.6	9	28	-1						9	53
ZAGREB	54.54	23.8	9	35	3							
STUTTGART	54.74	17.1	9	33	-1	17	10	-4				
DOURBES	54.75	13.0	9	35	1	17	17	3				
KEW	55.12	8.9	9	36	-1							
HEIDELBERG	55.15	16.4	9	35	-2							
SOFIA	55.53	31.2	9	39	-1	17	32	8			10	40 PCP
FELDBERG	55.81	15.8	9	25	-17							
BENSBERG	56.16	14.5	9	45A	1				11	53		
KASPERSKE H.	56.42	19.9	9	44	-2						11	50 PP
JERUSALEM	56.59	48.5	9	48	1							
VIENNA-H.	56.69	22.4	9	46	-2						11	56 PP
LA PAZ	56.72	252.3				17	37	-3				
TIMISOARA	56.75	27.3	10	0	12	17	57	17				
CHEB	56.85	18.5	9	48	-1						11	49 PP
BRATISLAVA	56.90	22.9	9	47	-2						12	2 PP
BUDAPEST	57.12	24.6	9	50	-1	17	17	-28			11	33 PP
MUNSTER	57.20	14.3	9	52	1							
JENA	57.35	17.5	9	52	-1						11	55 PP
PRUHONICE	57.48	20.0	9	52	-1	17	47	-3				
ISTANBUL UN.	57.55	36.0	9	55	1						13	34 PPP
HALLE	57.96	17.4	9	52	-5						11	53 PP
KSARA	58.06	46.7	9	59	1	18	10	12			12	13 PP
COLLMBERG	58.10	18.2	9	57A	-1						12	6 PP
BUCHAREST	58.18	31.4	9	59A	1	18	3	4			14	45
RACIBORZ	58.88	22.3	10	6	3						10	55 PCP
SKALNATE PL.	58.97	24.1	9	59	-5	18	0	-10			12	11 PP
UZHGOROD	59.41	25.8	10	6	-1							
KRAKOW	59.52	23.3	10	10	2	18	20	3				
AREQUIPA	59.91	252.8	10	11	1							
BACAU	60.06	30.0									10	33
TANANARIVE	60.32	110.0	10	15	2						11	50
ABERDEEN	60.46	6.2				18	24	-5			22	44 SS
IASI	60.83	29.9	10	9	-8							
KISHINEV	61.34	30.7	10	19A	-1	18	38	-2				
WARSAW	61.67	22.4				18	43	-1				
FUQUENE	62.19	277.7	10	25	-1	19	12	21				
BOGOTA	62.44	276.7	10	24	-4	18	54	0				
SIMFEROPOL	62.91	35.1	10	29	-2							
KARLSKRONA	63.08	16.9	10	33	1							
HUANCAYO	63.28	258.1	10	32	-1							
GOTEBORG	63.46	14.1	10	35K	1							
CHINCHINA	64.01	276.9	10	46A	8							
SOTCHI	65.53	38.8	10	47A	-1	19	30	-2				

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
HALIFAX	65.95	322.2	10 52K	2				
UPPSALA	66.80	15.8	10 54	-2	19 44	-4		13 20 PP
TIFLIS	67.96	42.5	11 4A	1	20 8	6		
GORIS	68.10	45.2	11 4	0				
SKALSTUGAN	68.81	11.4	11 8	0				
HELSINKI	69.23	18.8	11 10	-1				
NURMIJARVI	69.40	18.4	11 10	-2				
MAKHACH-KALA	70.30	42.2	11 18A	0	20 30	1		
TEHERAN	70.50	50.5	11 19	0	20 35	3		
PULKOVO	70.77	21.2	11 19	-1	20 29	-6		
UMEA	70.80	14.5	11 19K	-2	20 34	-1		12 53
MOSCOW	71.12	27.1	11 23A	0	20 37	-2		
PALISADES	71.16	315.2	11 23	0	20 40	1		
SHAWINIGAN	72.54	320.9	11 33	2				
BREBEUF	72.67	319.6	11 23	-9				
KAJAANI	73.04	17.1	11 36	2				13 8
CHAPEL HILL	73.34	308.7	11 37	1				
SCORESBY SD.	73.58	356.5	11 37	0				
PENNSYLVANIA	73.91	313.9	11 39A	0				
KIRUNA	74.18	12.2	11 40K	-1				
SODANKYLA	75.24	14.5	11 46	-1				13 23
VANNOVSKAYA	76.29	49.9	11 53	0				
ASHKABAD	76.48	50.0	11 55	1				
KEVO	77.17	13.0	11 57	-1				
BLOOMINGTON	79.88	310.5	12 14K	2	22 19	3		
HAWSON	81.56	158.0	12 19A	-2				12 26
C. GIRARDEAU	81.86	308.2	12 22	-1				
QUETTA	81.97	59.1	12 28	5				
ST. LOUIS 1	82.63	309.4	12 25	-2				
FLORISSANT	82.77	309.5	12 26	-2				
SVERDLOVSK	83.05	31.9	12 30K	1				
SAMARKAND	83.43	49.7	12 32	1				
ROLLA	83.81	308.4	12 33	0				
DUZHANBE	84.64	51.0	12 40	3				
THULE	85.33	348.6	12 38	-2				
TASHKENT	85.41	48.3	12 40	-1				
WARSAK DAM	86.31	55.8	12 45	0				
KHOROG	86.67	52.4	12 54	7				
POONA	87.02	71.4	12 51A	2				
NAMANGAN	87.16	48.9	12 52A	3				
MANHATTEN	87.62	309.3	12 51	-1				
ANDIJAN	87.66	49.2	12 53A	1	23 40	7		
ALERT	88.09	354.2	12 55	1				
WICHITA MTS.	88.83	304.7	12 56	-1	23 50	6		16 29 PP
FRUNSE	89.52	47.3	13 0	-1				
BYRD STATION	90.12	189.6	13 4	0				
NEW DELHI	90.72	61.6	12 56K	-10				13 39
RESOLUTE	90.93	344.7	13 8	1				
DEHRA DUN	91.54	59.9	13 3	-7				
RAPID CITY	92.87	313.8	13 17	1				
SEMIPALATNSK	93.71	39.9	13 22	2				
LARAMIE	94.60	311.0	13 25	1				14 58
ALBUQUERQUE	95.31	304.7	13 28	1				17 17 PP
FLAMING GRGE	97.48	310.7	13 38	1				
EUREKA	102.62	309.7	14 2	2				18 12 PP
ESEN BULAK	104.69	42.8						18 22
COLLEGE	110.60	341.5	18 4	-31				
ULAN-BATOR	111.27	39.2						19 21 PP
BRISBANE	146.47	155.1	19 45	3				
CHARTERS TS.	148.72	138.0	19 51	5				

APRIL 16 0.H 15.M 22.S EPICENTRE 37.80 20.63 DEPTH= 103.KM

A= 0.74130 B= 0.27915 C= 0.61037 D= 0.3524 E=-0.9358
G= 0.5712 H= 0.2151 K=-0.7921 HT= -0.9

DEPTH OF FOCUS= 0.011R

SE= 4.38

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ATHENS	2.45	85.2	0 39A	-1	1 13	4		1 23 SG
REGGIO CALA.	3.95	275.8	0 44	-16	1 23	-23		
MESSINA	4.04	277.2	0 46K	-15	1 25	-23		0 56 PG
SKOPJE	4.21	8.2	0 47	-17				1 15
TITOGRAD	4.74	347.6	1 2	-9	1 56	-9		1 8 P*

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.

SOFIA	5.31	22.0	1	16	-3	2	12	-7	2 26	S*
BELGRADE	7.01	358.9	1	47	5				2 17	
ROME	7.49	305.7				3	19	7	3 39	S*
BUCHAREST	7.79	30.2	1	50K	-3	3	36	16	4 8	S*
TIMISOARA	7.95	3.0							2 32	PG
CAMPULUNG	8.15	22.4							2 45	
SZEGED	8.45	357.6							2 13	P*
ZAGREB	8.73	338.0	1	57	-8				3 44	S*
KALOCSA	8.81	352.5							3 19	
FLORENCE X.	9.29	312.9							3 5	
TRIESTE	9.37	328.9				3	43	-15	4 16	S*
LJUBLJANA	9.41	333.0	2	10	-4	3	42	-17	4 45	
BOLOGNA	9.69	316.6							5 30	
BUDAPEST	9.74	353.5	2	16	-3				6 8	
PADOVA	10.04	322.0				3	51	-23		
HURBANOVO	10.22	350.7							6 18	
UZHGORÐD	10.89	5.9	2	30	-4					
VIENNA-H.	10.90	344.8	2	42	8					
KISHINEV	11.02	30.7	2	33	-3	5	3	25		
PAVIA	11.32	314.2							6 22	
SKALNATE PL.	11.38	358.7	2	44	3				7 54	
MONACO	11.63	304.7	2	33	-11					
ISOLA	12.07	306.1	2	37	-13					
KRAKOW	12.25	357.9	2	46	-6					
LWOW	12.26	10.4	2	53	1	5	26	19		
ROSELEND	12.38	312.4	2	58	4				5 59	
SIMFEROPOL	12.38	50.6	2	51	-3					
RACIBORZ	12.40	352.7				5	1	-9		
KASPERSKE H.	12.42	338.0	2	44	-11	4	56	-15		
RAVENSBURG	12.83	324.5	2	54	-6					
PRUHONICE	12.93	342.2	2	52	-9				7 8	
KSARA	13.00	103.2	3	0	-2	5	24	-1		
JERUSALEM	13.40	112.3	3	2	-5	5	29	-5		
CHEB	13.63	336.9				5	55	15	7 50	
BASLE	13.65	319.6	3	24	13				7 23	
STUTTGART	13.71	326.7	3	5	-6				5 51	
STRASBOURG	14.26	323.1	3	1	-17				8 13	
HEIDELBERG	14.43	327.2	3	22	1					
COLLMBERG	14.54	340.6	3	24K	2				5 0	
JENA	14.62	336.8	3	21	-2	6	1	-2	4 34	
WELSCHBRUCH	14.85	320.1	3	33	7					
HALLE	15.01	338.6	3	29	1	6	26	14		
FELDBERG	15.17	328.8	3	2	-28					
SOTCHI	15.57	62.3	3	37K	2					
GARCHY	16.01	311.8	3	41	0				4 36	
BENSBERG	16.26	328.3	3	40	-4	6	33	-7	4 25	
BAGNERES	16.45	295.1	3	48	2					
DOURBES	16.82	322.1	3	46	-5	6	49	-4		
MUNSTER	16.86	331.3	3	49	-2					
PARIS	17.14	315.7	3	50	-5					
FOLINIERE	18.81	312.4	4	5	-9					
TIFLIS	18.97	70.5	4	17A	1	8	7	27		
GRANADA	19.23	275.6	4	20K	1					
TOLEDO	19.33	283.8	3	39A	-41				4 7	PP
GROZNY	19.83	66.0	4	26A	1	8	23	25		
GORIS	20.12	77.2	4	29	1	8	34	31		
GOTEBORG	20.71	346.8	4	31	-3				4 48	PP
MAKHACH-KALA	21.06	67.4	4	40	2					
UPPSALA	22.15	356.0	4	45	-3	8	42	1	5 10	PP
HELSINKI	22.56	5.7	4	51	-1	8	58	10		
COIMBRA	22.67	285.1	4	46	-7					
SERRA P:LAR	22.76	287.6	4	47K	-7	8	47	-5	5 18	PP
PULKOVO	22.84	12.7	4	54	-1	9	7	14		
NURMIJARVI	22.87	5.1	4	53	-2	9	3	10		
BERGEN	24.62	341.6	5	10	-2					
TEHERAN	24.67	85.3	5	16	3	9	47	23		
UMEA	26.05	359.6	5	26	0					
SKALSTUGAN	26.30	351.6	5	25	-3					
KAJAANI	26.65	6.9	5	30	-1					
KIZYL-ARVAT	27.82	76.0	5	44	2					
ASHKABAD	29.64	77.9	5	58	0					
SODANKYLA	29.81	4.7	5	58	-2					
KIRUNA	30.08	359.8	6	0	-2				6 56	PP
APATITY	30.66	9.6	6	13K	6					
SVERDLOVSK	32.49	41.1	6	24K	1					
BANGUI	33.32	183.7	6	27	-3				6 40	*SP
SAMARKAND	35.89	72.3	6	54	2					
DUZHANBE	37.50	73.5	7	9	3					
QUETTA	38.83	87.2	7	23	6					

KHOROG	39.89	74.3	7 29	4
LWIRO	40.56	167.4	7 31A	0
WARSAK DAM	41.01	79.4	7 35	0
ALMATA	42.46	64.2	7 50	3
KHEYS	45.15	8.1	7 59K	-9
DEHRA DUN	47.51	81.1	8 18	-9
NEW DELHI	47.60	83.7	8 28A	0
BROKEN HILL	52.49	170.4	9 5	0
THULE	53.38	342.9	9 9	-2
RESOLUTE	60.16	343.9	9 58	-1
MOULD BAY	63.43	350.1	10 20	-1
YAKUTSK	65.41	29.4	10 35A	1
COLLEGE	77.26	355.0	11 45	0
MANHATTEN	84.10	316.0	12 19	-2
PENTICTON	86.39	335.2	12 33	1
WICHITA MTS.	88.42	314.0	12 40	-2

13 21

APRIL 16 13.H 20.M 10.S EPICENTRE 30.32 140.97 DEPTH= 121.KM

A=-0.67173 B= 0.54454 C= 0.50225 D= 0.6297 E= 0.7768
G=-0.3902 H= 0.3163 K=-0.8647 HT= 1.7

DEPTH OF FOCUS= 0.014R

SE= 2.47

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TORISIMA	0.60	285.8	0 19A	-2	0 31	-5		
HATIDYOZIMA	2.95	340.4	0 47	0	1 20	-2		
OSIMA	4.64	343.6	1 9A	-1	1 59	-4		
MERA	4.69	348.5	1 9	-1	1 59	-5		
OMAESAKI	4.86	332.2	1 17	4				
AJIRO	4.98	342.0	1 14	0	2 8	-3		
MISIMA	5.08	341.0	1 14A	-2	2 8	-6		
SHIZUOKA	5.12	335.6	1 13	-3	2 14	-1		
HAMAMATU	5.18	328.8	1 19K	2	2 16	0		
YOKOHAMA	5.22	348.1	1 17A	-1	2 13	-4		
TYOSI	5.39	359.0	1 19	-1	2 17	-4		
SIOMISAKI	5.41	306.6	1 21	1	2 22	0		
TOKYO C.M.O.	5.45	349.5	1 19	-2	2 18	-5		
HONGO	5.47	349.7	1 22	1	2 19	-4		
HUNATU	5.49	340.9	1 22	1	2 19	-5		
OWASE	5.51	314.0	1 20	-1	2 21	-3		
KOHU	5.71	339.9	1 26	2	2 28	-1		
TU	5.76	320.5	1 30	5				
IIDA	5.82	333.9	1 27K	1	2 35	3		
TITIBU	5.87	344.8	1 27	1	2 30	-3		
NAGOYA	5.90	326.2	1 28A	1	2 32	-2		
KAMEYAMA	5.90	321.1	1 28K	1	2 35	1		
TUKUBASAN	5.93	353.2	1 24	-3	2 29	-5		
KAKIOKA	5.93	353.8	1 25K	-2	2 29	-5		
KUMAGAYA	5.97	347.5	1 28	0	2 32	-3		
MITO	6.06	356.2	1 27	-2	2 33	-5		
NARA	6.15	316.4	1 33	3				
GIHU	6.18	326.2	1 33	3	2 42	2		
MAEBASI	6.27	345.8	1 29	-3				
UTUNOMIYA	6.28	351.9	1 32	0	2 37	-6		
OSAKA	6.31	314.6	1 35	3	2 55	11		
OIWAKE	6.33	342.0	1 33	0	2 44	0		
HIKONE	6.34	322.4	1 36	3	2 49	5		
MATUMOTO	6.43	337.8	1 37	3	2 47	1		
ABUYAMA	6.43	316.3	1 35	1				
KYOTO	6.44	318.1	1 36	2	2 45	-2		
MUROTO	6.48	298.6	1 9	-26	1 37	-71		
SUMOTO	6.51	309.6	1 36	1	2 45	-3		
KOBE	6.54	313.2	1 39	4	2 52	3		
TOKUSIMA	6.58	306.3	1 39	3				
TAKAYAMA	6.60	332.8	1 47	11				
OMAHAMA	6.62	359.5	1 33	-3	2 43	-8		
MATUSIRO	6.62	340.3	1 36	-1	2 49	-2		
TSURUGA	6.72	323.5	2 40	62				
NAGANO	6.74	340.7	1 41	3				
SHIRAKAWA	6.81	354.9	1 38	-1	2 48	-8		
HUKUI	6.96	326.5	1 43	2				
TAKAMATU	7.09	306.1	1 45	2	3 5	3		
KOTI	7.10	298.9	1 46	3	3 6	3		

TOYAMA	7.10	334.7	1	54	11	3	7	4			
TAKADA	7.13	342.2	1	36	-8						
KANAZAWA	7.17	330.9	1	44	0	3	20	16			
SIMIDU	7.26	291.8	1	46	1	3	9	2			
TOYOOKA	7.33	316.8	1	48	2	3	10	2			
HUKUSIMA	7.43	356.9	1	45	-2	3	6	-5			
TOTTORI	7.71	314.0	1	51	0	3	17	0			
NIIGATA	7.75	348.7	1	51K	-1	3	19	1			
MATUYAMA	7.79	298.9	1	55	3	3	22	3			
WAZIMA	7.81	335.4	1	54	1						
YAMAGATA	7.93	356.5	1	51A	-3	3	14	-9			
SENDAI	7.93	359.6	1	51A	-3	3	13	-10			
AIKAWA	8.01	344.4	1	59	4	3	19	-6			
ISINOMAKI	8.10	2.0	1	53A	-4	3	16	-11			
HIROSIMA	8.28	301.4	2	0	1	3	33	2			
MIYAZAKI	8.34	283.5	2	2	2	3	36	3			
MATSUE	8.38	309.7	2	4	4	3	39	5			
OOITA	8.47	292.4	2	4	2	3	31	-5			
SAKATA	8.61	354.1	2	4	1	3	38	-1			
HAMADA	8.79	303.6	2	3	-3	3	39	-5			
MIZUSAWA	8.79	0.8	2	5	-1	3	34	-10			
ASOSAN	8.83	289.5	2	10	4	3	52	7			
KAGOSIMA	9.04	280.6	2	14	5	3	3	-47	15	10	SCS
YAKUSIMA	9.05	273.5	2	10	1	3	56	6			
KUMAMOTO	9.11	288.5	2	12	2	3	57	6			
SIMONOSEKI	9.25	295.6	2	14	2						
MIYAKO	9.35	4.8	2	10	-3	3	44	-13			
MORIOKA	9.36	0.9	2	10	-3	3	48	-9			
AKITA	9.41	355.9	2	14K	0	3	50	-8			
SAGA	9.54	290.6	2	21	5				3	10	
HUKUOKA	9.57	292.6	2	19A	3	4	7	5			
NAGASAKI	9.77	287.1	2	21	2				5	43	
HATINOHE	10.20	2.4	2	18	-7	4	7	-10			
AOMORI	10.48	359.2	2	27K	-1	4	16	-8			
HAKODATE	11.47	359.2	2	39K	-2	4	39	-9			
MORI	11.76	358.5	2	44	-1	4	46	-9			
URAKAWA	11.90	6.5	2	46	-1	4	49	-9			
MURORAN	11.98	0.0							4	51	
HIROO	12.09	8.4	2	46	-4	4	50	-12			
TOMAKOMAI	12.30	2.1	3	6	14						
SUTTSU	12.47	357.5	2	54	-1	5	32	21			
OBIHIRO	12.70	7.5	2	56	-2	5	9	-8			
SAPPORO	12.73	1.3	2	55K	-3	5	8	-9			
KUSIRO	12.93	11.3	2	58A	-3	5	12	-10			
ASAHIGAWA	13.48	4.4	3	5K	-3	5	27	-8			
NEMURO	13.50	14.6	3	5	-3	5	24	-11			
ABASHIRI	13.93	10.0	3	13	0						
VLADIVOSTOK	14.69	332.9	3	22	-1	6	0	-3			
WAKKANAI	15.09	1.9	3	23	-5	6	5	-7			
Y.-SAKHLINSK	16.73	4.2	3	47	-2	6	54	5			
ZO-SE	17.04	277.7	3	52A	0	7	2	6	7	44	*SS
GUAM	17.13	167.5	3	52	-2	7	3	5			
ILAN	17.91	256.7	3	59	-4						
TAIPEI	18.01	257.7	4	3	-1	7	23	5			
HWALIEN	18.33	254.5	4	6	-2	7	40	15			
CHANGCHUN	18.34	321.6	4	5A	-3	7	23	-2	4	26	PP
HSINKONG	18.91	252.3	4	13	-1						
TAICHUNG	19.05	256.1	3	47	-28						
NANKING	19.06	280.9	4	14A	-2	7	43	3	4	36	PP
ALISHAN	19.20	254.2	4	20	3						
TAITUNG	19.25	251.7	4	15	-3	7	51	7			
TAWU	19.64	250.9	4	16	-6						
TAINAN	19.91	253.5	4	19	-5						
HENGCHUN	19.93	250.2	4	28	3						
PEKING	22.41	302.3	4	47A	-2	8	41	-1	5	12	15 53 SCS
MANILA	24.03	234.0	5	4	-1	9	9	-1			
HONG KONG	25.27	258.0	5	7A	-10	9	27	-4			10 26 *SS
CANTON	25.67	260.4	5	19	-2				5	44	10 28 *SS
PETROPAVLOVK	26.11	24.6	5	25K	0	9	50	5	5	47	
PAOTOW	27.08	300.7	5	31	-3	10	0	-1			
SIAN	27.32	286.7	5	32	-4	10	3	-2	5	58	6 18 *SP
MAGADAN	29.98	10.0	5	59K	0	10	51	4			16 26 SCS
ULAN-BATOR	31.41	313.7	6	9A	-3	11	7	-2			
LANCHOW	31.47	290.4	6	10	-3	11	5	-5	6	35	11 50 *SS
CHENGTU	31.76	280.2	6	12	-3	11	9	-6	6	37	12 52 *SS
YAKUTSK	32.55	350.2	6	21K	-1	11	25	-2	6	44	7 30 PP
KUNMING	34.13	270.8	6	33A	-2	11	48	-4	6	59	12 47 SCP
IRKUTSK	34.66	319.8	6	40A	0	12	3	3			

RABAUL	35.96	160.7	6	50	-1					12	18	
ESEN BULAK	38.02	307.8	7	8A	0	12	52	1				
TOCKLAI	40.53	276.7								13	19	
TIKSI	41.89	354.3	7	40K	0	13	49	0				
LHASA	42.97	282.2	7	48A	-1	14	2	-2	8 14	14	53	*SS
SHILLONG	43.37	276.2	7	52A	0	14	10	0		9	36	PP
CHATRA	47.01	279.7	8	20A	-1	14	59	-3		15	54	*SS
MEDAN	47.96	244.7	8	24	-5	15	17	1				
PORT BLAIR	48.32	258.1	8	31	0	15	21	0				
LEMBANG	48.86	226.5	8	34	-1					10	27	
SEMIPALATNSK	48.96	312.3	8	35A	-1	15	37	7		18	12	SCS
BOKARO	49.15	276.4	8	36A	-2	15	29	-3		16	30	*SS
CHARTERS TS.	50.37	173.5	8	47	0	15	47	-2				
VISHAKHAPTNM	53.65	270.4	9	11	0	16	37	3				
DEHRA DUN	53.65	287.1	9	9	-3	16	35	1		14	4	PCS
NEW DELHI	54.89	285.3	9	16A	-5	16	45	-6	9 54	11	5	PP
HONOLULU	55.03	84.1	9	25	3							
COLLEGE	55.03	29.6	9	22	0	16	56	4	10 1	39	18	PKPPKP
KIPAPA	55.05	83.9	9	24	2				10 5			
LAHORE	56.34	289.7	9	27	-4	17	5	-5				
KHOROG	56.91	297.2	9	34	-1	17	19	2				
TASHKENT	57.66	302.2	9	40A	0	17	28	1				
WARSAK DAM	57.85	293.3	9	40A	-2	17	29	-1				
HAWAII V.OB.	58.20	84.8	9	46	2	17	28	-6				
MADRAS	58.43	266.9	9	45	-1	17	40	3		13	27	
BRISBANE	58.48	167.7	9	46	0	17	36	-2				
DUZHANBE	58.73	299.2	9	47	-1	17	40	-1				
KHEYS	59.14	349.1	9	52A	1	17	49	3	10 19			
SVERDLOVSK	60.05	321.3	9	57K	0	17	58	0		18	36	PS
POONA	61.47	275.7	10	3A	-3							
SITKA	61.81	38.0	10	9	0							
BOMBAY	62.20	276.6	9	32	-39					19	50	
QUETTA	62.78	290.6	10	14	-1	18	33	0		19	52	*SS
MOULD BAY	63.08	15.4	10	17K	0							
RIVERVIEW	64.52	170.6	10	26	0	18	59	5		19	45	PS
CANBERRA	65.72	172.8	10	33A	-1	19	9	0	11 19	13	5	PP
MUNDARING	66.25	202.9	10	36K	-2							
ASHKABAD	66.71	301.4	10	41	1	19	23	2				
ALERT	66.84	3.3	11	42K	61							
APATITY	68.68	336.9	10	52A	-1	19	45	1	11 20	11	26	PCP
RESOLUTE	69.20	13.6	10	56K	0							
KEVO	69.60	340.2	10	59	1							
ALBERNI	70.25	44.0	11	4	2							
SODANKYLA	71.02	338.1	11	7	0	20	13	1		12	3	
VICTORIA	71.40	44.3	11	10	1							
TROMSOE	71.95	341.8	11	12	0							
THULE	71.95	7.0	11	12	0					11	42	PCP
TARRALEAH	72.43	175.7	11	15	0				11 58			
MOSCOW	72.46	324.7	11	15	0	20	28	0	11 40	21	8	*SS
KAJAANI	72.48	334.9	11	16A	1	20	30	2		13	56	PP
MOORLANDS	72.62	175.2	11	16	0				11 58			
KIRUNA	72.67	340.0	11	17	0	20	34	4	11 58	21	18	*SS
TEHERAN	72.71	301.6	11	17	0	20	35	4				
FORT NELSON	73.12	175.1	11	18K	-1	20	37	2				
PENTICTON	73.30	42.4	10	53	-27							
PULKOVO	73.81	330.5	11	23A	0	20	42	-1		14	17	PP
GORIS	74.69	306.9	11	28A	0	20	55	2		11	40	PCP
TIFLIS	74.73	309.5	11	30A	1	20	55	2				
BANFF	74.74	39.4	11	29	0							
KARAPIRO	75.19	152.3	11	31	0				12 3			
UMEA	75.28	336.8	11	31	-1	21	1	2		12	1	
NURMIJARVI	75.71	332.8	11	34A	0	21	4	0		21	31	
HELSINKI	75.79	332.4	11	35A	0							
MINERAL	76.21	51.3	11	38K	1							
CHATEAU	76.28	153.0	11	37	0				12 7			
CALISTOGA	76.33	53.2	11	39K	1							
TUAI	76.59	151.7	11	38	-1				12 11			
COBB RIVER	76.88	155.9	11	44	3				12 14			
BERKELEY	76.92	53.8	11	43K	2	21	20	3				
LICK	77.60	54.0	11	47K	2							
WELLINGTON	77.79	154.6	11	45	-1				12 15			
RENO	77.80	51.3	11	48K	2							
SKALSTUGAN	78.03	339.1	11	47	0				12 26	14	43	PP
SCORESBY SD.	78.75	354.2	11	53	2	21	43	6				
UPPSALA	78.83	334.5	11	51	0	21	35	-3		14	52	PP
PRIEST	78.87	54.7	11	54K	2							
BUTTE	79.08	42.9	11	55	2	21	46	6				
ROXBURGH	79.72	160.2	11	56	0				12 24			

SIMFEROPOL	79.88	316.3	11	57A	0	21	50	1			
BOZEMAN	80.16	42.6	12	2	3						
EUREKA	80.40	49.9	12	2	2						
PASADENA	81.63	55.4	12	8	2	22	13	6		15	28 PP
KARLSKRONA	82.17	332.6	12	8	-1				12 43		
SALT LAKE C.	82.37	47.1	12	12	2						
GOTEBORG	82.44	335.1	12	10	0				12 44		
WARSAW	82.50	327.5	12	12	1					22	16 SCS
BERGEN	82.59	339.5	12	12	1						
LWOW	82.59	324.4	12	11K	0						
BOULDER CITY	83.01	52.4	12	15	2						
COPENHAGEN	83.75	333.5	12	18K	1	22	29	1			
FLAMING GRGE	83.83	45.9	12	20	3						
KRAKOW	84.46	326.3	12	22	1						
GLEN CANYON	84.65	50.1	12	23	1						
KSARA	84.79	306.2	12	23A	1	22	44	6	12 56	15	42 PP
BUCHAREST	84.85	319.2				22	44	5			
SKALNATE PL.	84.89	325.5	12	24	1					15	45 PP
RACIBORZ	85.26	327.1	12	26	1						
RAPID CITY	85.60	40.6	12	28	2						
MACQUARIE I.	85.88	169.6	12	29	1						
JERUSALEM	86.37	304.8	12	31A	1						
BUDAPEST	86.64	324.8				22	48	-8		24	38
COLLMBERG	86.74	330.3	12	32	0	23	0	3	13 4	15	57 PP
PRUHONICE	87.01	328.7	12	34	1	23	2	2			
HALLE	87.04	330.9	12	34	1	23	1	1			
BRATISLAVA	87.10	326.2	12	35	1	23	3	2	13 15	13	39 *SP
VIENNA-H.	87.40	326.6	12	36K	1						
ABERDEEN	87.44	340.9	12	38	3	23	18	14		16	38 PP
JENA	87.61	330.7	12	37	1	23	5	0	13 12	16	4 PP
TUCSON	87.83	53.7	12	40	3						
TUCSON TELE.	87.86	53.5	12	38	1						
KASPERSKE H.	88.06	328.5	12	38A	0					16	6 PP
MUNSTER	88.43	333.3	12	40	0						
ALBUQUERQUE	89.21	49.3	12	45	1						
ZAGREB	89.30	325.0				24	27	66			
BENSBERG	89.40	332.8	12	44A	0				13 31	16	6 PP
FELDBERG	89.46	331.7	12	55	10						
LJUBLJANA	89.85	325.9	12	46A	-1					16	22 PP
HEIDELBERG	89.98	331.1	12	47	0						
STUTTGART	90.22	330.4	12	48	0	23	29	0	13 32	16	24 PP
TRIESTE	90.51	326.0	12	49	-1						
RAVENSBURG	90.83	329.6	12	51	0						
STRASBOURG	91.01	331.0	12	53	1	23	38	2		29	50
DOURBES	91.08	333.6	12	52	0	23	38	1			
WELSCHBRUCH	91.73	331.7	12	53	-2						
KEW	91.73	337.0	12	57	2	23	43	0			
BASLE	91.90	330.5	12	57K	1					13	52
TARANTO	92.38	320.6								16	58 PP
MANHATTEN	92.54	41.0	13	0K	1	23	21	-29			
PARIS	92.93	334.0	13	2	1					13	48
LUBBOCK	93.05	48.0	13	4	3						
FLORENCE X.	93.09	326.1								16	58 PP
DUBUQUE	93.36	35.5				23	24	-33			
ROSELEND	93.47	329.2	13	4	1					16	55 PP
ROME	93.88	324.1								16	55 PP
GARCHY	93.96	332.8	13	6	1					16	51 PP
FOLINIERE	94.06	335.6	13	7	1						
WICHITA MTS.	94.37	45.4	13	9	2	24	9	3	13 45	16	56 PP
MESSINA	94.91	319.9								24	18
CLERMONT-FD.	95.17	331.9	13	14	3						
FAYETTEVILLE	96.06	42.0	13	8K	-7					17	4 PP
ROLLA	96.07	39.4	13	17	2	23	43	4			
FLORISSANT	96.24	37.9	13	18	2	24	24	44			
ST. LOUIS 1	96.43	37.9	13	17	0						
BLOOMINGTON	97.94	35.3	13	26	2	24	48	59			
BREBEUF	98.26	23.8	13	27A	2						
PALISADES	102.04	26.3				24	13	4			
LWIRO	110.22	279.5								18	56
BANGUI	115.04	291.6	18	29	2				19 21		
BROKEN HILL	116.43	268.2	18	32K	2						
BULAWAYO	118.75	262.4	18	36	2						
SOUTH POLE	120.15	180.0	18	37	0						
BYRD STATION	121.30	168.4	18	41	2					28	44
KIMBERLEY	125.13	254.5	18	48K	1						
BANDEIRA	129.73	275.7	18	58	3					22	8 SKP
HUANCAYO	141.81	69.5	19	17	-1						
LA PAZ	150.07	69.2	19	37	6				20 18		
ANTOFAGASTA	151.33	84.3	19	44	11						

APRIL 17 10.H 3.M 42.5 EPICENTRE 42.12 17.20 DEPTH= 0.KM

A= 0.71073 B= 0.22000 C= 0.66817 D= 0.2957 E=-0.9553
G= 0.6383 H= 0.1976 K=-0.7440 HT= -2.5

SE= 3.38

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TITOGRAD	1.56	77.8				0	43	-7			0	32	PG
SKOPJE	3.16	91.3	1	0	8						1	59	SG
ROME	3.52	268.0	0	56	-1	1	35	-5			1	29	
BELGRADE	3.59	40.1	1	OK	2						1	7	P*
ZAGREB	3.80	347.0	1	2	1	1	51	4			1	18	PG
MESSINA	4.11	198.4	1	10	5	1	58	3			1	24	PG
REGGIO CALA.	4.19	197.0	1	12	5	1	51	-6					
TRIESTE	4.32	325.9	1	10A	2	1	58	-2			2	24	SGSG
LJUBLJANA	4.38	334.8	1	10A	1	1	51	-11			1	20	PG
SOFIA	4.58	80.7	0	54	-18	1	40	-27			1	9	PG
KALOCSA	4.59	15.5	1	12	0						1	23	S*
SZEGED	4.64	26.0	1	7	-6	1	56	-12			1	17	P*
TIMISOARA	4.65	37.3				2	10	1			1	38	PG
FLORENCE X.	4.67	292.8	1	10	-3								
PRATO	4.81	293.5	0	48	-27	1	33	-40					
PADOVA	5.07	312.3	1	21	2	2	14	-5			2	24	SS
KECSKEMET	5.12	19.6									1	45	PG
HURBANOVO	5.79	6.7	1	38	9	2	38	1			2	6	PG
BRATISLAVA	6.05	359.4	1	32	-1	2	41	-3			1	44	P*
VIENNA-H.	6.16	354.8	1	33	-1						3	5	S*
CHIAVARI	6.16	293.6	1	28	-6						3	38	
CAMPULUNG	6.49	58.3	2	3	24	3	33	38					
ATHENS	6.49	127.5	1	38K	-1						2	44	SG
BUCHAREST	6.89	67.5	1	42K	-3	3	32	27					
CHUR	7.24	313.4	1	54	4								
SKALNATE PL.	7.38	15.8	1	55	3	3	21	4			2	6	P*
UZHGOROD	7.43	27.1	1	56	4								
KASPERSKE H.	7.46	341.4	1	52A	-1						3	38	
RAVENSBURG	7.80	319.1	1	58	0						3	38	
RACIBORZ	7.99	4.6	2	11	11	3	30	-2			2	23	P*
PRUHONICE	8.08	347.7	2	1	0	3	45	11					
KRAKOW	8.16	12.5	2	10	8	3	32	-4			4	8	S*
PRAGUE	8.18	347.4				3	51	14			3	17	PG
EBINGEN	8.40	319.0	2	3	-3						4	46	
TUBINGEN	8.59	321.0	2	7	-2						4	52	
CHEB	8.64	338.9	2	14	5						4	41	SG
STUTTGART	8.67	322.8	2	8	-2						2	58	PG
BASLE	8.71	311.6	2	11K	1	3	51	1					
NEUCHATEL	8.79	307.2	2	9	-2								
LWOW	9.05	29.3	2	20K	5	4	11	12					
KARLSRUHE	9.24	321.2	2	13	-4	5	5	62					
STRASBOURG	9.26	317.5	2	16	-2	4	16	12			5	55	
HEIDELBERG	9.38	323.8	2	18	-1						4	0	
JENA	9.62	338.2	2	24	1	4	6	-7			3	6	PG
COLLMBERG	9.62	344.0	2	21	-2	4	11	-2			3	15	PG
KISHINEV	9.64	55.5	2	24	1	4	13	0					
WELSCHBRUCH	9.90	313.1	2	17	-10								
HALLE	10.05	340.9	2	36	7	4	20	-3					
WARSAW	10.44	13.1				5	3	30					
CLERMONT-FD.	10.79	294.5	2	50	11								
BENSBERG	11.21	325.5	2	44	-1	4	40	-12			5	31	
GARCHY	11.30	302.0	2	42	-4	5	42	48					
MUNSTER	11.81	329.8	2	59	6								
DOURBES	11.83	316.7	2	56	3	5	3	-4					
SIMFEROPOL	12.60	71.3	3	17	14								
FOLINIERE	14.06	304.2	3	21	-2								
KARLSKRONA	14.09	356.3	3	27	4								
KEW	15.18	314.0	3	45	8								
GOTEBORG	15.95	349.8	3	49	2								
TOLEDO	16.20	269.2	3	54K	4								
SOTCHI	16.58	77.3	3	55A	0	7	2	2					
GRANADA	16.75	259.8	4	2	5						4	32	PP
KSARA	16.88	113.3	3	23	-36								
JERUSALEM	17.68	119.9	4	6	-3								
UPPSALA	17.76	0.7	4	12K	2	7	30	3					
HELSINKI	18.70	12.2	4	22	0						4	45	
NURMIJARVI	18.97	11.4	4	24	-1	7	58	4			11	5	
MOSCOW	19.02	37.3	4	25	-1	7	56	1					
PULKOVO	19.44	20.2	4	30	-1	8	7	2					
BERGEN	19.70	342.3	4	32	-2								

TIFLIS	20.51	81.8	4 42	0				
SKALSTUGAN	21.69	354.0	4 53	-1				
UMEA	21.81	3.6	4 54A	-2	8 56	3		
GORIS	22.16	87.0	5 0	1	9 6	7		
MAKHACH-KALA	22.29	77.5	5 0	0	9 2	1		
KAJAANI	22.83	11.9	5 7	1				
SODANKYLA	25.82	8.4	5 33	-1				
KIRUNA	25.83	2.8	5 34A	-1				6 0 PP
APATITY	26.96	13.7	5 44K	-1				
TEHERAN	27.22	92.1	5 48	1				
SHIRAZ	30.99	102.2	6 18	-3				
SVERDLOVSK	31.22	46.8	6 22K	-1				
VANNOVSKAYA	31.38	83.8	6 24	-1				
AMDERMA	35.80	24.6	7 1A	-2	12 36	-5		
BANGUI	37.60	177.7	7 17	-1			7 27	
KHEYS	41.28	9.4	7 49A	0				
KHOROG	41.41	77.7	7 52	2				
FRUNSE	41.64	68.9	7 53A	1				
WARSAK DAM	42.93	82.4	8 1	-1				
ALMATA	43.10	67.4	8 2	-2				
ALMATA-2	43.39	67.3	8 6	0				
LWIRO	45.40	163.6	8 22K	0				
THULE	48.47	341.7	8 44	-2				
DEHRA DUN	49.54	83.0	8 53	-1				
NEW DELHI	49.82	85.5	8 55A	-2				
POONA	53.19	98.1	9 21	-1				
RESOLUTE	55.27	342.6	9 37A	0				
HALIFAX	56.45	302.2	9 45K	-1				
TIKSI	56.87	20.6	9 48A	-1				
CHATRA	58.15	81.2	8 57A	-61				
MOULD BAY	58.71	348.9	10 0	-2				
BREBEUF	62.13	307.3	10 24	-1				
SHILLONG	62.32	79.6	10 25A	-1				
YAKUTSK	62.95	29.3	10 28K	-3				
PENNSYLVANIA	67.36	305.0	10 59K	0				
KIMBERLEY	70.86	173.0	11 20A	-1				
COLLEGE	72.71	353.4	11 32	0				11 44 PCP
BLOOMINGTON	73.53	308.1	11 37A	1				
FLORISSANT	76.03	309.9	11 51	0				
ST. LOUIS 1	76.06	309.7	11 50	-1				
C. GIRARDEAU	76.55	308.3	11 53	-1				
ROLLA	77.52	310.0	11 58	-1				
LAWRENCE	78.64	312.7	12 17	12				
RAPID CITY	78.94	320.7	12 7	0				
MANHATTEN	79.19	313.6	12 8A	0				
BOZEMAN	81.18	326.1	12 21	2				
PENTICTON	81.36	333.1	12 21A	1				
LARAMIE	82.19	320.3	12 25	1				
ALBERNI	83.06	336.0	12 30	1				
VICTORIA	83.30	334.9	12 31	1				
WICHITA MTS.	83.56	311.7	12 32	1				15 52 PP
FLAMING GRGE	84.26	322.3	12 35	0				
ALBUQUERQUE	87.58	316.8	12 52	1				
EUREKA	88.33	325.6	12 55	0				
MINERAL	89.82	329.8	13 3K	1				
TUCSON TELE.	91.80	318.1	13 11	0				
TUCSON	91.92	318.1	13 13	1				

APRIL 17 11.H 33.M 51.S EPICENTRE 37.72 19.95 DEPTH= 0.KM

A= 0.74539 B= 0.27062 C= 0.60923 D= 0.3413 E=-0.9400
G= 0.5727 H= 0.2079 K=-0.7930 HT= -0.8

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
ATHENS	2.99	84.1	0 49A	0	1 25	-1		0 53 P*
REGGIO CALA.	3.42	277.7	0 54	-1	1 33	-4		
TARANTO	3.46	323.4	0 54	-2				
MESSINA	3.51	279.2	0 57	0	1 37	-2		1 1 P*
SKOPJE	4.40	14.6	1 6	-3				1 23 PG
TITOGRAD	4.73	353.8	1 16	2				1 36 PG
SOFIA	5.60	26.4	1 4	-22				1 19 PG
BELGRADE	7.10	2.9			3 17	7		2 14
ROME	7.11	308.3			3 25	15		3 54 S*
TIMISOARA	8.08	6.3						2 41

BUCHAREST	8.14	32.8	2	6K	4	3	41	5			
ZAGREB	8.62	341.1	1	59	-10				4	4	SG
KALOCSA	8.83	355.6							4	23	S*
TRIESTE	9.18	331.6	2	14	-2	3	51	-11	2	57	
LJUBLJANA	9.25	335.8	2	13	-4	3	56	-7	2	57	
BUDAPEST	9.78	356.3							3	13	PG
PADOVA	9.78	324.3							4	9	
HURBANOVO	10.23	353.3							5	26	
BRATISLAVA	10.65	349.6	2	59	22				5	39	SG
UZHGOROD	11.04	8.2	2	38	-4						
KISHINEV	11.37	32.4	2	44	-2	4	52	-3			
NIEDZIKA	11.70	1.2	2	48	-3				4	4	
KASPERSKE H.	12.30	340.0	2	54	-5						
KRAKOW	12.33	359.9							4	4	
LWOW	12.45	12.3	3	1	0	5	19	-3			
SIMFEROPOL	12.85	51.4	3	5	-1						
PRUHONICE	12.86	344.1	3	3	-3	5	56	25			
PRAGUE	12.97	344.0	2	34K	-34				7	13	
STUTTGART	13.49	328.3	3	13	-2						
CHEB	13.50	338.7	3	25	10						
JERUSALEM	13.87	110.7	3	12	-8	5	39	-17			
STRASBOURG	14.01	324.6	3	20	-2				6	29	
KARLSRUHE	14.05	327.1	3	28	6						
COLLMBERG	14.44	342.3	3	26	-1				7	45	
JENA	14.49	338.4	3	35	7	6	19	9	7	24	
WELSCHBRUCH	14.57	321.5	3	20	-9						
HALLE	14.90	340.2	3	38	5	5	49	-31			
GARCHY	15.66	312.9	3	47	4						
BENSBERG	16.05	329.6	3	53	5				4	12	
SOTCHI	16.09	62.5	3	48	-1	6	44	-4			
DOURBES	16.56	323.2	3	55	0				7	8	55
DE BILT	17.73	328.9	4	10	1				7	40	
FOLINIERE	18.47	313.2	4	16	-3						
COPENHAGEN	18.67	346.6	4	21	0						
KARLSKRONA	18.68	352.4	4	17	-4						
GRANADA	18.70	275.6	4	26K	5						
TOLEDO	18.82	284.0	4	21K	-2	7	51	0	4	52	
TIFLIS	19.50	70.4	4	28	-3	8	8	2			
KEW	19.84	320.3	4	34	-1	8	6	-7			
GORIS	20.67	76.9	4	40	-4	8	26	-4			
GOTEBORG	20.67	347.8	4	41K	-3						
MAKHACH-KALA	21.59	67.3	4	51	-2	8	41	-7			
MOSCOW	21.60	27.8	4	53	0	8	47	-1			
UPPSALA	22.20	356.9	4	54K	-5	9	3	4			
SERRA PILAR	22.28	287.7	5	0K	0	9	54	53	5	23	PP
HELSINKI	22.70	6.5	5	0	-4						
NURMIJARVI	23.01	6.0	5	3	-4	9	21	7			
PULKOVO	23.05	13.4	5	1	-6	9	9	-6			
BERGEN	24.53	342.4	5	19	-3						
TEHERAN	25.22	84.8	5	26	-2						
UMEA	26.13	0.3	5	36	-1						
SKALSTUGAN	26.31	352.3	5	34	-5						
KAJAANI	26.80	7.6	5	39	-4						
SHIRAZ	28.16	96.9	5	52	-4	10	35	-5	12	43	PCS
SODANKYLA	29.94	5.2	6	7	-5						
VANNOVSKAYA	29.99	77.7	6	9	-3						
KIRUNA	30.16	0.4	6	11	-3						
APATITY	30.83	10.1	6	16	-3						
BANGUI	33.21	182.4	6	37	-3				6	50	*SP
DUZHANBE	38.04	73.2	7	26	5						
AMDERMA	39.01	21.6	7	25	-4						
QUETTA	39.37	86.7	7	35	3						
LWIRO	40.61	166.3	7	42	-1						
FRUNSE	41.41	65.2	7	50	1						
WARSAK DAM	41.55	79.0	7	54	4						
KHEYS	45.30	8.2	8	18K	-3						
NEW DELHI	48.14	83.3	8	39	-4						
BROKEN HILL	52.50	169.6	9	54	37						
BANDEIRA	52.71	188.1	9	19K	1						
WINDHOEK	60.03	183.0							10	12	PCP
RESOLUTE	60.09	343.8	10	7	-4						
TIKSI	60.25	20.2	10	8	-4						
HALIFAX	60.66	305.5	10	17K	2						
SHILLONG	61.06	78.8	10	13	-5						
MOULD BAY	63.42	349.9	10	28	-5						
SHAWINIGAN	65.49	310.7	10	45	-2						
YAKUTSK	65.75	29.1	10	44	-4						
PALISADES	69.04	306.0				20	13	-1			
COLLEGE	77.29	354.7	11	55	-3						

BLOOMINGTON	77.94	310.3	12	0	-1					
FLORISSANT	80.50	312.0	12	14	-1					
ST. LOUIS 1	80.53	311.8	12	14	-1					
ROLLA	82.00	312.1	12	21	-2					
LAWRENCE	83.20	314.7	12	39	10					
RAPID CITY	83.70	322.6	12	29	-3				15	20
MANHATTEN	83.79	315.6	12	31A	1					
PENTICTON	86.23	334.8	12	43	-1					
WICHITA MTS.	88.09	313.6	12	53	0				13	47
ALBUQUERQUE	92.25	318.6	13	12	-1				14	44
EUREKA	93.16	327.4	13	28	11					
MAWSON	109.89	163.9	14	41	777					
SOUTH POLE	127.53	180.0	20	2	55					
SCOTT BASE	137.40	170.2	18	42	-44					

APRIL 17 20.H 54.M 12.S EPICENTRE 38.26 142.14 DEPTH= 61.KM

A=-0.62151 B= 0.48311 C= 0.61671 D= 0.6137 E= 0.7895
G=-0.4869 H= 0.3785 K=-0.7872 HT= -1.0

DEPTH OF FOCUS= 0.004R

SE= 3.26

	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
ISINOMAKI	0.67	284.6	0	15K	-1	0	29	1				
SENDAI	0.98	270.7	0	19K	0	0	37	4				
MIZUSAWA	1.17	317.8	0	22	0	0	44	6				
MIYAKO	1.39	354.5	0	20	-5	0	39	-4				
YAMAGATA	1.41	270.0	0	24K	-1	0	48	5				
HUKUSIMA	1.42	249.3	0	23	-2	0	46	3				
MORIOKA	1.62	332.5	0	29A	1	0	53	5				
ONAHAMA	1.64	217.3	0	24A	-4	0	45	-4				
SHIRAKAWA	1.90	233.7	0	29	-3	0	53	-2				
SAKATA	1.92	290.0	0	35A	3	1	2	7				
AKITA	2.16	313.1	0	37K	2	1	17	16				
MITO	2.30	215.8	0	32A	-5	0	59	-6				
HATINOHE	2.31	348.4	0	35	-2	1	7	2				
NIIGATA	2.46	262.9	1	45	66	2	25	76				
UTUNOMIYA	2.49	227.3	0	36	-4	1	9	0				
KAKIOKA	2.56	218.2	0	36K	-5	0	58	-13				
TUKUBASAN	2.61	219.2	0	36K	-5						1	41
TYOSI	2.74	202.5	0	39K	-4	1	12	-4				
AOMORI	2.76	338.0	0	43	-1	1	22	6				
KUMAGAYA	3.05	227.1	0	45	-3	0	57	-26				
MAEBASI	3.07	233.7	0	46A	-2	1	24	0				
AIKAWA	3.08	266.7	0	49	1	1	41	17				
HONGO	3.18	217.4	0	50	1						1	33
TOKYO C.M.O.	3.21	217.3	0	50	0	1	24	-3				
TAKADA	3.30	250.6	0	29	-22	1	14	-16				
TITIBU	3.34	228.0	0	50	-2	1	28	-3				
OIWAKE	3.45	237.1	0	52	-1	2	5	32				
YOKOHAMA	3.46	216.0	0	51	-2	1	42	8				
NAGANO	3.52	244.3	0	56	2	1	52	17				
MATUSIRO	3.57	242.4	0	53K	-2	1	39	3				
HAKODATE	3.70	343.8	0	57	0	1	52	12				
MERA	3.82	209.8	0	54	-4	2	12	29				
HUNATU	3.86	225.4	0	59	0	1	44	0				
KOHU	3.86	229.0	0	58	-1	1	49	5				
MATUMOTO	3.89	240.1	1	2	3	2	2	18				
URAKAWA	3.91	7.0	0	59	-1	1	46	1				
MORI	4.02	343.1	1	4	3	1	51	3				
AJIRO	4.03	218.2	0	57	-4	1	43	-5				
MISIMA	4.05	220.2	1	1	-1	1	57	9				
HIROO	4.11	12.3	0	58	-5	1	47	-3				
OSIMA	4.14	213.4	1	2	-1	2	2	11				
MURORAN	4.15	348.0				1	45	-6				
TOYAMA	4.23	249.8	1	3	-1	2	5	12				
WAZIMA	4.24	259.6	1	9	5							
TOMAKOMAI	4.38	354.6	1	28	22	2	3	6				
IIDA	4.41	232.9	1	5	-2	2	0	3				
SHIZUOKA	4.46	223.6	1	5	-2	1	54	-5				
KANAZAWA	4.70	250.1	1	31	20							
OBIHIRO	4.72	9.5	1	16	5	2	6	1				
SUTTSU	4.76	342.8	1	14	2	2	20	14				

OMAESAKI	4.83	222.0	1	24	11					
SAPPORO	4.84	353.1	1	13A	0	2	8	0		
KUSIRO	5.01	19.3	1	8	-7	2	4	-9		
HAMAMATU	5.02	226.5	1	13	-2	2	18	5		
GIHU	5.17	238.1	1	18	1					
NAGOYA	5.18	234.9	1	13	-4	2	21	4		
HUKUI	5.21	246.7	1	19	1					
HATIDYOZIMA	5.50	201.1	1	21	-1					
ASAHIGAWA	5.51	1.7	1	19A	-3	2	25	0		
TSURUGA	5.52	243.6	1	18	-4					
HIKONE	5.59	239.5	1	25	2	2	34	7		
NEMURO	5.69	26.2	1	17	-8	2	17	-12		
RUMOE	5.69	356.2	1	33	8					
KAMEYAMA	5.70	235.0	1	31	6					
TU	5.76	233.6	1	41	16					
KYOTO	6.09	239.8	1	31	1	2	57	18		
NARA	6.22	236.8	1	45	13					
ABUYAMA	6.28	239.4	1	31A	-2					
OWASE	6.37	230.7	1	39	5	3	5	19		
OSAKA	6.43	237.9	1	54	19	3	24	36		
TOTTORI	6.95	249.1	1	42	0	3	3	3		
SUMOTO	7.03	238.3							2	14
SIOMISAKI	7.06	229.0				3	20	18		
WAKKANAI	7.16	357.4	1	49	4	3	16	10		
TAKAMATU	7.63	241.4	1	51	0	3	55	38		
KURILSK	8.17	29.8	1	53	-6	3	21	-10		
KOTI	8.42	238.6	2	14	12	3	58	21		
Y.-SAKHLINSK	8.76	2.6	2	2	-5	3	40	-5		
MATUYAMA	8.77	242.6	2	9	2	4	37	52		
VLADIVOSTOK	9.16	305.2	2	14	1	4	7	12		
OOITA	9.91	242.7	3	27	64	4	43	29		
CHANGCHUN	13.86	299.0	3	17	2	5	56	8		
ZO-SE	18.64	253.8	4	14	-2					
PETROPAVLOVK	18.66	32.4	4	12	-4	7	43	5	4	39 PP
NANKING	20.05	259.1	4	28	-3					
PEKING	20.20	283.2	4	29	-4	8	18	7		
MAGADAN	22.01	11.8	4	50A	-1	8	54	9		
PAOTOW	24.84	285.5	5	17	-2					
YAKUTSK	24.99	346.1	5	19A	-1	9	43	6		
SIAN	27.00	271.7	5	39A	0					
HONG KONG	28.77	244.5				10	56	18		
IRKUTSK	29.70	310.5	6	3A	0	11	0	7		
MANILA	29.98	224.1	6	4	-1	10	42	-16		
LANCHOW	30.47	277.8	6	9	-1					
CHENGTU	32.17	268.0	6	23	-2					
TIKSI	34.12	352.5	6	39A	-2					
ESEN BULAK	34.48	298.6	6	45	0					
KUNMING	35.73	260.2	6	55A	0					
LHASA	42.80	274.2	7	55	1	14	21	8		
SHILLONG	44.02	268.5	8	3A	-1					
SEMIPALATNSK	44.66	306.6	8	9A	0					
CHATRA	47.11	272.9	8	29K	1					
COLLEGE	47.75	32.8	8	31	-2					
FRUNSE	50.27	297.9	8	53K	0					
KHEYS	51.56	348.0	9	1K	-1					
DEHRA DUN	52.61	281.8	9	11	1					
KHOROG	54.44	292.7	9	24	0				17	24 PS
TASHKENT	54.52	297.9	9	25A	1				17	22 PS
TANGERANG	55.16	224.7	9	25K	-4					
LEMBANG	55.17	223.3	9	26	-3					
MOULD BAY	55.19	16.8	9	26	-3					
WARSAK DAM	55.90	288.9	9	34	0					
CHARTERS TS.	58.17	175.4	9	56	6					
ALERT	58.87	3.7	9	53A	-2					
QUETTA	61.14	287.1	10	10	-1				18	52 *SS
RESOLUTE	61.27	14.7	10	9A	-3				10	41
APATITY	61.81	335.6	10	13A	-2					
ASHKABAD	63.58	298.6	10	27	0					
THULE	63.97	7.7	10	25	-5					
ALBERNI	63.98	46.7	10	35	5					
SODANKYLA	64.06	337.1	10	29A	-1					
TROMSOE	64.74	341.1	10	32	-3					
VICTORIA	65.16	46.9	10	40	3					
KIRUNA	65.57	339.2	10	39A	-1					
KAJAANI	65.74	334.0	10	40A	-1					
MOSCOW	66.61	323.4	10	45A	-2				13	11 PP
PENTICTON	66.89	44.8	10	44	-4					
PULKOVO	67.43	329.4	10	51	-1					
UMEA	68.40	336.1	10	57A	-1					

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NURMIJARVI	69.13	332.0	11	2A	0				13	31	PP
HELSINKI	69.24	331.6	11	2	-1						
TEHERAN	69.50	299.7	11	5	0						
TIFLIS	70.51	308.0	11	12	1						
GORIS	70.79	305.4	11	11A	-1						
SCORESBY SD.	70.95	354.4	11	12	-1						
SKALSTUGAN	70.98	338.7	11	12	-2						
SHIRAZ	72.06	293.8	11	19	-1	20	28	-8	13	58	
UPPSALA	72.11	334.1	11	19A	-1				13	59	PP
ADELAIDE	72.93	182.9	11	26	1						
CANBERRA	73.49	174.2	11	35	7						
EUREKA	74.63	51.8	11	32	-3						
SIMFEROPOL	74.85	315.6	11	36	0				11	48	PCP
WOODY	75.05	56.3	11	36	-1						
BERGEN	75.51	339.5	11	39	-1						
GOTEBORG	75.66	334.9	11	39A	-2						
LWOW	76.73	324.1	11	47	0						
IASI	76.83	320.4	11	59	12						
COPENHAGEN	77.07	333.4	11	49	0						
FLAMING GRGE	77.67	47.4	11	50	-2						
KRAKOW	78.41	326.2	11	56	0				12	8	PCP
RAPID CITY	79.00	41.9	11	58	-1						
RACIBORZ	79.14	327.0	12	1	1				12	12	PCP
BUCHAREST	79.48	319.1	12	3	1						
COLLMBERG	80.32	330.4	12	6A	-1	12	38		15	9	PP
HALLE	80.57	331.1	12	7	-1				12	29	
PRAGUE	80.72	328.9							15	24	
PRUHONICE	80.74	328.8	12	7A	-2						
KSARA	80.90	306.0	12	11	1						
BRATISLAVA	81.05	326.3	12	11	1	12	23				
JENA	81.17	330.9	12	10	-1				12	42	
VIENNA-H.	81.31	326.7	12	12	0						
CHEB	81.53	330.0	12	25	12						
KASPERSKE H.	81.80	328.7	12	14A	0				14	26	
KARAPIRO	81.83	153.9	12	11	-3						
JERUSALEM	82.64	304.8	12	19	0						
BENSBERG	82.77	333.2	12	19	0						
CHATEAU	82.97	154.5	12	27	7						
ALBUQUERQUE	83.35	50.4	12	20	-2						
LJUBLJANA	83.81	326.3	12	23A	-2				13	23	
DOURBES	84.39	334.1	12	28	1						
KEW	84.79	337.5	12	29	0						
WELSCHBRUCH	85.19	332.2	12	30	-1						
MANHATTEN	85.95	41.7	12	43	8						
PARIS	86.21	334.6	12	37	1						
FLORENCE X.	87.02	326.7	12	23	-17						
FOLINIERE	87.21	336.3	12	41	0						
GARCHY	87.32	333.5	12	43	1				12	54	
WICHITA MTS.	88.13	46.0	12	43	-3	23	23	0	13 14	16	1 PP
ROLLA	89.34	39.8	12	49	-2						
FLORISSANT	89.40	38.3	13	1	9						
ST. LOUIS 1	89.59	38.3	13	1	8						
SHAWINIGAN	89.96	23.3	12	53	-1						
BREBEUF	90.62	24.3	12	56	-1						
MAWSON	120.89	206.0	14	41K	-245						
SOUTH POLE	128.08	180.0	18	57	-3						
LA PAZ	145.72	59.2	19	34	2						

APRIL 17 22.H 34.M 54.S EPICENTRE -1.32 -15.05 DEPTH= 0.KM

A= 0.96544 B=-0.25962 C=-0.02287 D=-0.2597 E=-0.9657
G=-0.0221 H= 0.0059 K=-0.9997 HT= 7.2

SE= 2.65

	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	
M.BOUR	15.71	353.1	3	41	-3	5	52	-48					
LOME	17.85	65.4	4	10	-1	7	13	-16					
LUANDA	29.13	105.8	6	4K	-1								
BANDEIRA	31.09	117.2	6	23K	1								
BANGUI	34.12	80.3	6	48	-1	12	14	-1					
WINDHOEK	37.71	126.5	7	19A	0								
MALAGA	39.12	13.6				13	34	3			10	0	PP
GRANADA	39.75	14.4				13	50	9			16	44	SS
PONTA DELGDA	40.08	346.9									16	42	SS

LISBON	40.21	7.2	7	41	1	13	41	-7			
COIMBRA	41.76	7.6	7	56A	3	14	15	4	9	27	PP
TOLEDO	42.22	12.6	7	56A	0	14	19	1	9	43	PP
SERRA PILAR	42.66	7.2	7	59K	-1	14	21	-3	9	42	PP
LWIRO	43.84	91.9	8	10K	0	14	45	4	8	49	
BROKEN HILL	44.93	109.2	8	19	1						
HERMANUS	45.91	139.6							15	9	PS
BAGNERES	46.26	15.4	8	30	1				10	16	
BULAWAYO	46.58	116.7	8	30	-1						
KIMBERLEY	46.76	129.5	8	31A	-2						
TRINIDAD	47.61	285.6	8	40	0	15	42	7	10	32	PP
PRETORIA	48.18	124.0	8	43	-1						
MESSINA	48.40	32.4	8	53A	7	15	55	9	10	44	PP
ROME	49.71	26.9	9	8	12	16	5	0	11	4	PP
CHIAVARI	50.38	22.6	8	56	-5	16	8	-6	11	0	PP
FLORENCE X.	50.70	24.5	9	26	23	16	55	37			
GARCHY	50.94	15.8	9	4	-1						
FOLINIERE	51.46	12.3	8	38	-31						
NEUCHATEL	51.85	19.0	9	11	-1						
PARIS	52.19	14.6	9	14	-1						
WELSCHBRUCH	52.91	17.7	9	20	0						
ATHENS	52.99	38.3	9	20A	-1	16	52	2	11	26	PP
TRIESTE	53.26	24.9	9	21	-2	16	55	2			
TITOGRAD	53.42	31.3	9	29	5	17	2	6	11	29	PP
RAVENSBURG	53.43	20.5	9	26	2						
STRASBOURG	53.50	18.7	9	22	-2	17	0	3	17	34	
EBINGEN	53.55	19.8	9	23	-2						
SAN JUAN	53.89	293.9	9	28	1						
LJUBLJANA	53.90	25.2	9	27A	0				11	24	PP
DOURBES	53.93	15.5	9	25	-3	17	0	-2			
KEW	54.06	11.3	9	28	-1	17	4	0			
STUTTGART	54.16	19.6	9	26	-3	17	7	1	9	56	PCP
ZAGREB	54.36	26.3	9	20	-11						
LA PAZ	54.37	250.7	9	28	-3	17	6	-2			
HEIDELBERG	54.52	18.9	9	31	-1						
BENSBERG	55.42	16.9	9	38A	0				11	54	PP
BELGRADE	55.72	30.0	9	41A	0				11	49	PP
SOFIA	55.79	33.6	9	22	-19						
DE BILT	55.90	14.9	9	45	3	17	32	3	11	36	
KASPERSKE H.	56.00	22.3	9	40	-3				11	47	
CHEB	56.35	20.9	9	43	-2						
VIENNA-H.	56.41	24.7	9	44	-2						
BRATISLAVA	56.66	25.2	9	46	-1				11	45	PP
JENA	56.78	19.8	9	47	-1	17	42	1	11	51	PP
WITTEVEEN	56.94	15.5	9	52	3						
PRUHONICE	57.06	22.3	9	47	-3	17	43	-1			
PRAGUE	57.09	22.2	9	50A	0	17	50	5	11	55	PP
HALLE	57.39	19.7	9	47	-6				11	53	PP
AREQUIPA	57.54	251.4	9	50	-4						
COLLMBERG	57.58	20.5	9	52A	-2				11	59	PP
JERUSALEM	57.85	50.7	10	0	4						
BUCHAREST	58.43	33.6	10	2A	2	18	4	2	13	34	PP
RACIBORZ	58.59	24.5	10	3	2				10	9	10 45 PCP
FUQUENE	58.99	277.1	10	4	0						
KSARA	59.21	48.8	10	7A	2	18	19	7	12	19	PP
ABERDEEN	59.23	8.2				18	9	-4	30	14	
KRAKOW	59.30	25.5	10	8	2	18	14	0			
UZHGOROD	59.33	27.9	10	5	-1						
HUANCAYO	60.68	257.0	10	13	-2						
CHINCHINA	60.83	276.4	10	26	10	18	40	7	25	28	SSS
LWOW	60.97	27.8	10	16	-1	18	36	1			
SANTA LUCIA	60.99	232.1	10	13	-4	18	40	5			
COPENHAGEN	61.09	17.4	10	20A	2	18	41	4			
KISHINEV	61.55	32.6	10	19	-2	18	45	3			
KARLSKRONA	62.47	18.8	10	29	2						
GOTEBORG	62.69	15.9	10	27A	-2						
HALIFAX	62.83	323.0	10	31	1						
SIMFEROPOL	63.38	36.9	10	33	0	19	10	4			
BERGEN	63.55	11.1	10	36	1						
TANANARIVE	63.71	110.4	10	38	2				11	2	
SIDA	64.98	358.5	10	47	3						
UPPSALA	66.11	17.3	10	48A	-3	19	34	-5	20	53	SCS
SOTCHI	66.21	40.4	10	51	-1	19	38	-2			
SKALSTUGAN	67.86	12.8	11	1	-1						
PALISADES	67.89	315.6	11	4	1	20	4	3			
HELSINKI	68.72	20.2	11	6	-2						
TIFLIS	68.85	44.0	11	11A	3	20	18	6			
NURMIJARVI	68.86	19.8	11	6	-2						

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GORIS	69.14	46.6	11	11A	1	20	22	6						
SHAWINIGAN	69.39	321.4	11	14	2									
GEORGETOWN	69.41	312.6	11	13	1									
BREBEUF	69.49	320.2	11	14	2									
UMEA	70.03	15.8	11	14A	-2	20	24	-2						
PULKOVO	70.39	22.5	11	14	-4									
PENNSYLVANIA	70.62	314.3	11	18K	-1									
COLUMBIA	71.01	306.6	11	24	2									
MOSCOW	71.10	28.4	11	20K	-2									
SHIRAZ	71.29	58.2	11	17	-6	20	42	1	11	46	21	51		
SCORESBY SD.	71.82	357.6	11	26	0	20	55	8						
TEHERAN	71.83	51.7	11	27	0						15	56	PPP	
KAJAANI	72.42	18.2	11	28	-2									
KIRUNA	73.27	13.3	11	33A	-2	21	8	5						
TROMSOE	74.40	11.7	11	43	1									
SODANKYLA	74.46	15.5	11	41	-1									
KEVO	76.30	13.9	11	56	4									
APATITY	76.50	17.2	11	53	-1	21	46	7			26	36	SS	
BLOOMINGTON	76.54	310.7	11	55	1	21	38	-2						
ASHKABAD	77.77	50.8	11	59	-2									
CHICAGO USA.	78.00	313.3	12	2	0									
ST. LOUIS 1	79.28	309.6	12	10	1	22	8	-1						
FLORISSANT	79.41	309.7	12	11	1	22	8	-2						
DUBUQUE	80.32	313.4	12	14	0	22	16	-4						
ROLLA	80.45	308.6	12	11	-4									
THULE	83.16	349.0	12	28	-1									
QUETTA	83.74	59.6	12	34	2									
MAWSON	84.19	157.9	12	34A	-1									
MANHATTEN	84.26	309.4	12	36	1	22	27	-33						
WICHITA MTS.	85.43	304.8	12	39	-2						16	18	PP	
ALERT	86.18	354.4	12	47	3									
TASHKENT	86.60	48.7	12	48A	2									
WARSAK DAM	87.91	56.1	12	53	0									
KHOROG	88.08	52.6	13	0	6									
BOMBAY	88.41	71.2	13	0	5	23	46	6			16	30	PP	
RESOLUTE	88.58	344.8	12	59	3									
SOUTH POLE	88.69	180.0	12	56	-1									
POONA	89.37	71.6	13	1	1	23	53	4						
RAPID CITY	89.57	313.9	13	4	3									
NEW DELHI	92.60	61.6	13	16K	1						16	58	PP	
DEHRA DUN	93.34	59.9	13	19	1									
FLAMING GRGE	94.14	310.8	13	24	2									
MOULD BAY	94.66	346.5	13	23	-1									
EUREKA	99.27	309.6	13	46	1									
RENO	102.21	310.1	18	10	252									
LICK	103.96	308.1	18	24	258									
ESEN BULAK	105.54	42.0	17	41	777									
PETROPAVLOVK	128.21	4.8	19	12	3									
ADELAIDE	136.34	148.3	19	24	0									
CANBERRA	140.62	159.3	19	26	-6									
BRISBANE	149.15	158.6	19	55	9									
CHARTERS TS.	151.92	140.2	19	59	9									
AFIAMALU	152.42	236.0	20	OK	9						26	24		

APRIL 18 19.H 14.M 39.S EPICENTRE -9.86 -78.97 DEPTH= 43.KM

A= 0.18859 B=-0.96720 C=-0.17016 D=-0.9815 E=-0.1914
G=-0.0326 H= 0.1670 K=-0.9854 HT= 6.6

DEPTH OF FOCUS= 0.002R

SE= 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	
HUANCAYO	4.18	121.7	1	4	1	1	59	7					
LA PAZ	12.44	123.2	2	55	-2	5	6	-9					
CHINCHINA	15.11	12.9	3	38A	6	6	37	18			4	8	PP
FUQUENE	16.10	19.1	3	44	-1	6	45	3					
BALBOA HTS.	18.71	358.2	4	17	0	7	45	4					
GALERAZAMBA	20.83	10.3	4	51	10	8	45	19					
SANTA LUCIA	24.69	163.1	5	16K	-2								
SANTIAGO MA.	25.04	337.7									5	38	
SAN SALVADOR	25.50	336.4	5	31	5								
TRINIDAD	26.84	41.1	5	37	-2	10	13	3			6	50	
GRENADA	27.70	38.6	5	44	-2						6	5	
ST. VINCENT	28.85	37.9	5	56	-1								

COMITAN	29.03	333.2				10	53	8				6	29		
BARBADOS	29.85	40.5	6	9	3										
FORT FRANCE	30.15	36.1	6	5	-3	11	2	-1							
SAN JUAN	30.79	24.4	6	12	-2	11	11	-2				7	8		
ST. CLAUDE	30.89	33.8	6	11	-4	11	5	-10							
ST. KITTS	31.43	30.8	6	18	-2							7	39	PP	
ANTIGUA	31.72	32.4	6	23	1										
MERIDA	32.36	341.2	6	27	-1	11	45	7				16	0		
VERA CRUZ	33.47	329.6	6	41	4	11	57	2				8	25	PPP	
TACUBAYA	35.26	325.6	6	53	0	12	45	22				15	13	SS	
GUADALAJARA	38.66	321.8	7	25	4							16	33		
COLUMBIA	43.66	357.5	8	1	-1	14	21	-8							
CHIHUAHUA	46.37	326.4	8	27	3	15	15	7							
FAYETTEVILLE	47.90	343.3	8	35	-1	15	33	4				10	24	PP	
C. GIRARDEAU	47.97	348.7	8	35	-2	15	32	2							
WICHITA MTS.	48.08	338.2	8	35	-3							10	30	PP	
WASHINGTON	48.54	2.0	8	41	0	15	49	11				10	57	PP	
GEORGETOWN	48.54	2.0	8	40	-1	15	38	0							
ROLLA	49.03	346.4	8	43	-2	15	45	0							
BLOOMINGTON	49.30	352.3	8	45	-2	15	45	-4							
ST. LOUIS 1	49.38	348.4	8	25	-23	15	49	-1	9	0					
FLORISSANT	49.56	348.3	8	47	-2	15	53	0							
FORDHAM	50.67	5.0	8	59	2	16	6	-2							
PALISADES	50.83	4.9	8	57A	-2	16	5	-5	9	40					
CLEVELAND	51.14	357.5	9	1K	0				9	13					
MANHATTEN	51.49	342.5	9	3K	-1	16	21	2							
ALBUQUERQUE	51.61	331.1	9	4A	0	16	9	-12							
TUCSON	51.77	325.3	9	6A	0	16	26	3				11	12	PP	
TUCSON TELE.	51.78	325.5	9	5	-1										
BREBEUF	55.31	4.6	9	30K	-2	17	12	1	9	45		11	36	PP	
GLEN CANYON	55.75	328.5	9	35	0										
HALIFAX	55.98	13.2	9	37K	0										
SHAWINIGAN	56.43	5.1	9	38	-2										
BOULDER CITY	56.76	325.4	9	42	0										
PASADENA	57.44	321.5	9	47	0	17	42	3	10	1		10	36	PCP	
FLAMING GRGE	57.81	333.0	9	48	-2	17	47	3							
RAPID CITY	58.02	339.6	9	50	-1										
SALT LAKE C.	58.81	331.2	9	55	-2										
EUREKA	59.91	327.4	10	2A	-2							19	32		
PRIEST	60.28	321.7	10	7K	0										
LICK	61.66	322.1	10	16A	0										
RENO	62.06	325.1	10	20	1							19	48		
BOZEMAN	62.35	335.1	10	20	-1										
BERKELEY	62.38	322.2	10	16K	-5	18	43	0							
CALISTOGA	63.07	322.7	10	25K	-1										
BUTTE	63.26	334.4	10	25	-2										
MINERAL	63.62	324.7	10	28A	-1										
UKIAH	63.77	322.8	10	31	1										
HUNGRY HORSE	65.71	335.1	10	42	-1										
M.BOUR	66.02	69.5	10	44	-1	19	33	5							
ANGRA DO HO.	68.16	41.5	11	3A	5	20	1	7	11	15		25	7	SS	
PENTICTON	68.87	332.8	11	1A	-1										
VICTORIA	70.09	330.3	11	9A	-1										
ALBERNI	71.28	330.2	11	18	1										
BYRD STATION	72.65	186.8										33	59		
SOUTH POLE	80.20	180.0	12	6	-2	22	41	33				38	56		
LISBON	80.79	48.1	12	9	-2	22	18	4				15	16	PP	
LOME	81.43	82.3	12	29	15										
COIMBRA	81.83	46.9	12	16K	0	22	27	2	12	30		15	23	PP	
SERRA PILAR	82.03	45.9	12	17K	0	22	29	2				13	28	PP	
KIPAPA	83.54	293.0	12	29	4										
HONOLULU	83.58	292.8	12	29	4	22	56	13							
MALAGA	83.72	51.2	12	28A	2	22	45	1				15	49	PP	
GRANADA	84.47	50.9	12	33A	3	22	51	0				28	6	SS	
TOLEDO	84.91	48.2	12	32A	0	22	55	-1	12	46		15	50	PP	
RESOLUTE	84.96	355.8	12	30	-2										
ALMERIA	85.24	51.5	12	35K	1	23	4	5	12	49		15	54	PP	
REYKJAVIK	85.29	21.7	12	37	3										
SCOTT BASE	85.39	191.2	12	33	-1										
SIDA	86.54	22.9	12	42	2										
CAPE HALLETT	86.85	196.6	12	41	0										
BAGNERES	88.82	46.0	12	52	1							13	26		
SCORESBY SD.	88.85	16.4	12	50	-1	23	35	2							
JERSEY	88.94	39.7				23	16	-18							
MOULD BAY	89.16	351.1	12	50	-3										
BANDEIRA	89.68	105.0	12	57A	2	23	47	6	13	12		16	42	PP	
FOLINIERE	89.85	40.4	12	54	-2										
COLLEGE	90.12	336.5	12	55A	-2	23	25	-20				16	30	PP	

EDINBURGH	90.25	33.1	13	1	3	23	26	-20			24	47 PS
AFIAMALU	90.36	255.9	13	1K	3						24	33
KEW	90.65	37.8	13	0A	0	23	50	0			24	52 PS
HERMANUS	91.17	125.1	13	6	4	24	1	7			24	20 PS
ABERDEEN	91.19	32.0				23	30	-24			25	11 PS
CLERMONT-FD.	91.52	43.9	13	15	11	23	37	-20				
PARIS	91.77	40.8	13	5	0	23	59	-1			16	56 PP
WINDHOEK	91.80	113.1	13	4	-1							
GARCHY	91.81	42.4	13	3	-2						16	44 PP
ALERT	92.54	2.2	13	7	-1							
DOURBES	93.39	39.9	13	11	-1	23	41	-33				
DE BILT	94.12	38.0	13	18	3	23	50	-30				
WELSCHBRUCH	94.20	41.7	13	18	2							
BASLE	94.87	42.8	13	34A	15	24	19	-7				
WITTEVEEN	95.15	37.4	13	21	1							
BENSBERG	95.15	39.3	13	20	0	23	53	2	13	35	14	9
STRASBOURG	95.16	41.7	13	21	1	23	54	3			31	1 SS
MUNSTER	95.59	38.4	13	23	1							
CHATEAU	95.59	228.8	13	28	6							
BERGEN	95.67	29.8	13	27	5							
FELDBERG	95.85	40.2	13	40	17							
EBINGEN	95.89	42.3	13	38	15							
HEIDELBERG	95.90	41.0	13	23	-1							
KARAPIRO	95.97	230.0	13	24	0						30	13 PKKP
STUTTGART	96.18	41.7	13	23	-2	23	56	0			25	54 PPS
RAVENSBURG	96.27	42.7	13	40	15							
FLORENCE X.	96.89	46.9	13	52	24	24	14	14				
KIMBERLEY	97.13	120.7	13	30A	1							
PADOVA	97.52	45.3	13	49	18	24	11	7				
ROME	97.57	48.8	13	43	12	24	7	3			17	24 PP
ROXBURGH	97.79	221.3				24	35	30			26	39 SP
JENA	97.91	39.7	13	33	0	24	6	0			17	43 PP
MAWSON	98.04	166.2	13	34	1							
BANGUI	98.20	87.0	13	33	-1						17	30 PP
HALLE	98.20	39.2	13	35	1	24	10	3				
GOTEBORG	98.76	32.9	13	38	2							
COLLMBERG	98.84	39.4	13	37	0	24	14	4			17	4 PP
COPENHAGEN	98.86	35.0	13	38	1	25	6	56				
TRIESTE	98.86	45.2	13	52	15	24	14	4				
KASPERSKE H.	99.04	41.6	13	38	0						17	39 PP
SKALSTUGAN	99.31	27.0	13	43	4						17	51
LJUBLJANA	99.43	44.8	13	39	-1						17	14
MESSINA	99.55	52.8				24	10	-4			17	42 PP
PRAGUE	99.66	40.7	13	42A	1	24	21	7			17	22 PP
PRUHONICE	99.73	40.8	13	40	-1	25	6	51				
ZAGREB	100.43	45.1									17	1
KARLSKRONA	100.65	34.6	13	50	5							
VIENNA-H.	100.83	42.7	13	53	7	25	22	62				
TARANTO	101.04	50.6				24	21	0				
BRATISLAVA	101.31	42.8	13	48	0						17	53 PP
UPPSALA	101.77	30.8	13	50	0	24	18	-7			17	57 PP
BUDAPEST	102.59	43.5									18	19 PS
KIRUNA	102.62	22.6	13	53	-1	24	28	-1			18	10 PP
BULAWAYO	102.79	113.3	13	53	-2							
UMEA	102.85	26.7	13	53	-2	24	28	-2			18	8 PP
BELGRADE	103.55	46.2	14	14A	16	25	8	35			18	13 PKP
WILKES	103.68	183.9				24	49	13			35	30
WARSAW	103.84	38.6	14	2	3	24	38	4				
BROKEN HILL	104.11	107.6	14	4	4							
CHANGALANE	104.14	120.3	14	5	4							
SODANKYLA	105.04	22.7	14	18	777						18	36 PP
NURMIJARVI	105.23	29.9	14	6	777	24	37	-4			18	32 PP
HELSINKI	105.43	30.2	14	9	777						18	29 PP
SOFIA	105.65	48.4	17	55	777						19	7
LWOW	105.85	41.0	14	12	777	24	45	2			18	44 PP
ATHENS	105.98	53.3	18	31K	777	24	45	1				
KAJAANI	106.09	26.0	14	9	777						18	34 PP
KHEYS	106.63	6.7	14	13	777	24	49	2			18	22 PP
LWIRO	107.09	95.4	14	16A	777	24	56	7			18	46 PP
APATITY	107.54	21.9	18	37	777	24	51	0			27	58 SKKS
BUCHAREST	107.59	46.5	14	35K	777	24	51	0			18	55 PKP
PULKOVO	108.15	30.2				24	54	1			18	58 PP
ISTANBUL UN.	109.94	50.0	14	31	777	25	3	2				
MOSCOW	112.95	33.3	18	49	16	25	17	4			19	33 PP
SIMFEROPOL	113.22	45.3	18	50	17	25	17	3				
RIVERVIEW	115.58	225.1				25	28	5			19	42 PP
JERUSALEM	115.66	59.5	18	40	2							
TIKSI	115.96	350.5	18	35	-4	25	26	2			19	42 PP
KSARA	116.04	57.2	18	41	2	25	28	3			19	58 PP

CANBERRA	116.21	222.6	18	42	3					20	12	PP
PETROPAVLOVK	117.03	325.1	18	41	0					29	29	PS
BRISBANE	117.69	232.0								19	52	PP
HONIARA	118.31	253.7								20	3	PP
TANANARIVE	120.02	118.5	18	52	6					20	31	
TIFLIS	121.52	46.9	18	50	1	25	47	3				
GORIS	123.25	49.0	18	54	1					20	46	PP
SVERDLOVSK	123.69	25.4	18	54	1	25	51	0		20	43	PP
YAKUTSK	123.90	344.2	18	53	-1					20	34	PP
CHARTERS TS.	126.46	236.1	19	0	1	25	57	-2				
Y.-SAKHLINSK	128.87	324.2	19	5	2					21	17	PP
ASHKABAD	132.60	46.7	19	10	-1					22	36	SKP
MUNDARING	135.94	198.7	19	6	-11							
TUKUBASAN	135.95	312.9	19	9A	-8					21	56	PP
PERTH	136.08	198.2								22	11	
SEMIPALATNSK	136.08	19.1	19	18	1					22	49	SKP
MATUSIRO	137.16	314.3	19	6	-13					22	1	PP
VLADIVOSTOK	137.33	326.3	19	16	-3					28	37	SKKS
IRKUTSK	137.63	357.0	19	21	1					22	15	PP
TASHKENT	137.99	36.3	19	23	3					29	3	SKKS
FRUNSE	139.86	30.5	19	25	1	26	33	5		22	21	PP
CHANGCHUN	140.13	332.3								23	1	PKS
ULAN-BATOR	141.75	353.6	19	24K	-3							
KHOROG	141.76	39.3								23	11	PKS
QUETTA	142.36	52.6	19	27	-1	26	37	5		22	59	PKS
ESEN BULAK	143.36	5.5	19	28	-2							
WARSAK DAM	143.84	43.9	19	29	-2					23	4	PKS
PEKING	147.08	338.4	19	40A	4				19 54	23	7	PP
PAOTOW	148.38	346.9	19	41	2				19 58	23	10	PP
DEHRA DUN	150.45	43.2	19	43	1					39	24	SSS
NEW DELHI	150.90	46.9	19	43K	1					20	40	PP
BOMBAY	151.27	68.6	19	50	7					23	26	PP
ZO-SE	151.77	321.4	19	46A	2					23	32	PP
POONA	152.31	68.9	19	47A	3					30	21	
NANKING	152.47	325.9	19	46A	1					23	36	PP
LANCHOW	153.81	354.9	19	47	0					30	30	SKKS
SIAN	154.67	344.6	19	52A	4				20 7	23	48	PP
HYDERABAD	156.82	68.6								30	45	PP
LHASA	158.22	24.0	19	56	4				20 10	24	9	PP
CHATRA	158.63	36.0	19	56A	3					30	55	
CHENGTU	159.12	352.8	19	57A	4				20 11	24	12	PP
MANILA	159.84	285.7								20	26	PKP2
BOKARO	159.89	44.4	19	57	3					31	3	
VISHAKHAPTNM	161.10	63.7	20	7	11					31	10	
SHILLONG	162.12	27.9	19	54	-3					30	11	
LEMBANG	162.17	201.8	20	OK	3					23	52	
CANTON	162.35	319.7	20	1A	4				20 16	24	31	PP
HONG KONG	162.35	316.0	20	0	3							
CALCUTTA	162.51	42.4	20	2	5					30	18	
DJAKARTA	163.05	200.1								20	53	
TANGERANG	163.13	199.5	20	OK	2							
KUNMING	164.74	354.1	20	2A	3				20 17	24	41	PP
PORT BLAIR	171.64	76.8	20	9	5					23	2	PP

APRIL 19 2.H 5.M 54.S EPICENTRE 37.62 20.17 DEP...= 29.KM

A= 0.74532 B= 0.27385 C= 0.60787 D= 0.3449 E=-0.9386
G= 0.5706 H= 0.2096 K=-0.7940 HT= -0.8

SE= 3.42

	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	
ATHENS	2.83	81.9	0	46A	2						1	38	SG
REGGIO CALA.	3.61	279.0	0	56	0	1	34	-4					
TARANTO	3.64	322.2	0	56	0								
MESSINA	3.70	280.4	0	55	-2	1	36	-4			1	9	PG
SKOPJE	4.45	12.3	1	12	5	2	3	4			2	33	
TITOGRAD	4.85	352.0				2	16	7			2	42	SG
SOFIA	5.62	24.5	1	16	-8	2	34	6			3	13	SG
BELGRADE	7.19	1.6	2	1	15						4	13	
ISTANBUL UN.	7.64	60.7	2	12	20								
BUCHAREST	8.13	31.5	1	59	0								
TIMISOARA	8.16	5.2									2	35	
SZEGED	8.62	359.8									4	32	SG
ZAGREB	8.77	340.4	2	6	-2								

FLORENCE X.	9.15	315.0							4	56	
TRIESTE	9.35	331.1	2	32	16	3	52	-9	4	53	SGSG
LJUBLJANA	9.42	335.2	2	12A	-5	3	52	-11	3	37	
BUDAPEST	9.89	355.4							3	18	
PADOVA	9.96	324.0							5	10	
CHIAVARI	10.58	312.6				4	14	-18	3	15	
VIENNA-H.	10.98	346.5	2	34	-4						
UZHGOROD	11.11	7.3	2	36	-4						
MONACO	11.43	306.2	2	47	2						
KASPERSKE H.	12.46	339.5	2	52	-6				7	47	
LWOW	12.51	11.6							3	44	
SIMFEROPOL	12.78	50.7	3	13	10						
PRUHONICE	13.00	343.7	3	0	-6						
KSARA	13.31	101.8	3	5	-5	5	24	-14	5	41	SSS
STUTTGART	13.67	328.0	3	13	-1						
JERUSALEM	13.68	110.8	3	10	-4						
STRASBOURG	14.19	324.4	3	19	-2				4	14	
HEIDELBERG	14.39	328.5	3	21	-3						
COLLMBERG	14.59	341.9	3	32	6				7	3	
JENA	14.64	338.0	3	28	1				4	32	
HALLE	15.05	339.9	3	35	3	6	23	4			
GARCHY	15.86	312.9	3	43	0				5	17	
BAGNERES	16.20	295.9	3	51	4						
BENSBERG	16.23	329.4	3	50	2						
DOURBES	16.74	323.1	3	50	-4						
PARIS	17.02	316.7	3	59	1						
UCCLE	17.33	324.5	4	3	1				9	36	
FOLINIERE	18.67	313.2	4	15	-3						
KARLSKRONA	18.80	352.0	4	19	-1						
TIFLIS	19.37	70.1	4	25	-1	8	18	20			
KEW	20.03	320.3	4	31	-3						
GROZNY	20.23	65.6	4	34	-2	8	32	16			
GORIS	20.52	76.7	4	39	0						
GOTEBORG	20.80	347.6	4	43	1						
MOSCOW	21.60	27.4	4	46	-4	8	52	10			
UPPSALA	22.31	356.6	4	53A	-4						
COIMBRA	22.37	285.5	4	55	-2						
HELSINKI	22.77	6.2	4	59	-2						
NURMIJARVI	23.08	5.7	5	1	-3				5	39	
PULKOVO	23.10	13.1	5	1	-4						
BERGEN	24.68	342.2	5	21	1						
UMEA	26.23	0.1	5	34	0				6	27	
SKALSTUGAN	26.43	352.1	5	33	-3						
KAJAANI	26.88	7.3	5	41	1						
SODANKYLA	30.02	5.0	6	17	8						
KIRUNA	30.26	0.2	6	14	3						
APATITY	30.90	9.9	6	13	-3						
SVERDLOVSK	32.87	41.1	6	31K	-3						
BANGUI	33.12	182.8	6	35	-1						
SCORESBY SD.	39.60	339.3	7	30	-1						
LWIRO	40.47	166.7	7	39A	1						
NEW DELHI	47.98	83.3	8	37A	-1						
BROKEN HILL	52.38	169.8	9	12	0						
BULAWAYO	58.00	170.6	9	53	0						
RESOLUTE	60.23	343.9	10	6	-2						
HALIFAX	60.86	305.6	10	16	4						
MOULD BAY	63.54	350.0	10	28	-2						
BREBEUF	66.72	310.2	10	51	0						
COLLEGE	77.41	354.8	11	53	-1						
FAYETTEVILLE	84.77	312.2	12	38	5						
PENTICTON	86.40	335.0	12	46	5						
WICHITA MTS.	88.29	313.7	12	50	0				16	14	PP

APRIL 19 22.H 15.M 24.S EPICENTRE -15.92 167.92 DEPTH= 223.KM

A=-0.94081 B= 0.20133 C=-0.27266 D= 0.2093 E= 0.9779
G= 0.2666 H=-0.0571 K=-0.9621 RT= 5.6

DEPTH OF FOCUS= 0.030R

SE= 2.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT VILA	1.84	168.0	0	37	-2	1	6	-3				
KOUMAC	5.76	216.3	1	25K	0	2	33	2				
NOUMEA	6.49	192.1	1	34K	0	2	51	3				

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

HONIARA	10.10	308.8	2	20	-1	4	14	3				
SUVA	10.29	103.9	2	26	3	4	21	6				
BRISBANE	18.10	228.4	3	56	-1	7	13	5				
RABAUL	19.38	305.3	4	6	-4							
AFIAMALU	19.72	86.9	4	12K	-2	7	33	-6				
ONERAHI	20.59	164.9	4	25	3	8	7	13				
CHARTERS TS.	21.01	255.4	4	27	1	8	13	11				
PORT MORESBY	21.27	285.3	4	31A	2				5	11		
KARAPIRO	22.93	164.4	4	45	0							
RIVERVIEW	23.38	217.3	4	52A	3	8	49	6	5	27	10 0	55
CHATEAU	24.13	165.4	4	57	1	9	6	11				
COBB RIVER	25.41	171.5	5	13	5	9	34	18				
CANBERRA	25.68	217.7	5	11A	0	3	25	4	5	51	10 46	55
WELLINGTON	25.95	168.1	5	12	-1	9	27	2				
KAIMATA	26.67	174.2	5	24	4							
GEBBIES PASS	27.98	172.7	5	29	-3							
ROXBURGH	29.49	178.0	5	43	-2	10	24	2				
MELBOURNE	29.77	218.5	5	47	0	10	28	2				
DARWIN	36.11	270.7	6	44	2							
MACQUARIE I.	39.12	188.3	7	8	1							
MUNDARING	49.43	241.4	8	28	-1							
PERTH	49.75	241.5				15	27	5			20 18	
DUMONT	53.93	193.3	8	59	-3							
MANILA	55.37	300.9	9	14	2	16	14	-24				
CAPE HALLETT	56.39	179.2	9	19	-1	16	56	5				
BAGUIO CITY	56.69	302.4	9	21	-1	16	36	-19				
MATUSIRO	59.25	332.3	9	37	-3	17	30	2				
LEMBANG	59.63	271.4	9	44	2						10 32	
TANGERANG	60.75	271.8	9	47	-3							
SCOTT BASE	61.95	180.3	9	57	-1							
WILKES	62.70	202.5	9	57	-6	18	14	2				
NHATRANG	64.46	292.2	10	14	0							
ZO-SE	64.82	316.3	10	13	-3	18	36	-2			11 4	*SP
CANTON	65.98	304.8	10	26	2	18	56	4			11 15	*SP
NANKING	67.02	315.8	10	29	-1	19	6	1			11 29	*SP
VLADIVOSTOK	67.41	332.2	10	32	-1	19	11	2				
MIRNY	69.51	204.4	10	44	-2	19	37	3				
CHANGCHUN	71.08	328.8	10	54	-1	19	54	2			11 44	*SP
BYRD STATION	71.41	169.9	10	56	-1	20	3	7				
PEKING	73.58	321.0	11	11	1	20	24	4			12 1	*SP
SIAN	75.07	312.7	11	20	2	20	39	2			12 10	*SP
KUNMING	75.46	301.8	11	23	2	20	48	7			12 13	*SP
CHENGTU	76.92	307.4	11	30	1	20	57	0			12 20	*SP
PAOTOW	77.71	318.7	11	35	2	21	11	6			12 25	*SP
LANCHOW	79.58	312.2	11	43	0	21	28	3			12 33	*SP
MAWSON	81.02	202.0	11	48K	-3							
YAKUTSK	83.33	342.9	12	2	-1	21	57	-6				
ULAN-BATOR	83.58	323.7	12	6A	2	22	6	1				
CHITTAGONG	83.64	295.3	12	7	3				12	58		
BERKELEY	84.49	48.3	12	11A	3							
SHILLONG	84.70	298.3	12	9A	0	21	54	-22	13	3	23 50	
LICK	84.72	49.0	12	9	-1							
PASADENA	86.06	53.0	12	15	-1							
LHASA	86.79	301.9	12	22K	2	22	42	6			13 12	*SP
COLLEGE	87.27	17.4	12	19	-3							
CHATRA	89.10	298.1	12	31A	0	22	40	-18			15 49	PP
ESEN BULAK	89.28	318.9	12	34A	3	22	39	-20				
EUREKA	89.65	48.7	12	32	-1				13	24		
PENTICTON	90.94	38.6	12	55K	16							
TIKSI	91.24	348.5	12	40	-1	23	20	3				
MADRAS	91.37	283.0				22	55	-23			23 26	
SHAWINIGAN	121.49	44.9	18	25	-1							
SODANKYLA	122.82	343.3	18	29	0							
KIMBERLEY	123.06	218.9	18	29A	0							
KIRUNA	124.07	345.7	18	31	0							
GORIS	124.24	307.1	18	32	0							
KAJAANI	124.74	340.0	18	33	0							
TIFLIS	125.05	310.0	18	35	2							
PULKOVO	126.49	334.9	18	37	1							
UMEA	127.23	342.7	18	40	3						21 39	SKP
NURMIJARVI	128.20	337.9	18	39	0							
HELSINKI	128.32	337.4	18	41	1							
SKALSTUGAN	129.49	346.2									21 42	SKP
BROKEN HILL	129.84	235.1	18	45	3						21 46	PP
UPPSALA	131.09	340.6									21 49	SKP
KSARA	133.43	301.6									21 23	PP
GOTEBORG	134.57	342.1									22 4	SKP
LWIRO	135.75	249.6	18	56K	2						22 8	

UZHGOROD	136.95	326.7	18	54	-2							22	11		
BUDAPEST	139.39	327.4	19	31	31							22	19	SKP	
COLLMBERG	139.40	335.9	18	58	-2							22	19	PP	
PRUHONICE	139.77	333.4	19	1	0										
BRATISLAVA	139.90	329.6	19	1	0				20	1					
JENA	140.25	336.6	19	1	-1							22	21	PP	
KASPERSKE H.	140.83	333.2	18	59	-4							22	22	PP	
LJUBLJANA	142.64	329.1	19	3	-3							22	27	PP	
STUTTGART	142.87	336.5	19	4	-3							22	27	PP	
TRIESTE	143.30	329.2	19	5	-2										
DOURBES	143.33	342.0	19	5	-2										
STRASBOURG	143.59	337.7	19	6	-2										
BASLE	144.54	336.9	19	9A	-1										
PARIS	145.10	343.1	19	12	1							20	14		
FOLINIERE	145.89	346.3	19	12	0										
GARCHY	146.31	341.3	19	15	2				20	6		20	54		
ROME	146.58	325.7	19	16	3							20	13		
CLERMONT-FD.	147.63	340.0	19	19	4										
BANGUI	147.73	252.5	19	20	5				20	12					
BAGNERES	150.99	341.3	19	28	8										

APRIL 19 23.H 16.M 4.S EPICENTRE 69.80 138.98 DEPTH= 0.KM

A=-0.26204 B= 0.22792 C= 0.93776 D= 0.6563 E= 0.7545
G=-0.7076 H= 0.6154 K=-0.3473 HT=-11.7

SE= 2.05

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
TIKSI	3.82	303.4	1	1A	0						14	16	
YAKUTSK	8.67	210.2	2	6A	-4								
MAGADAN	11.44	148.3	2	48A	0						5	50	SS
PETROPAVLOVK	19.12	141.6	4	28A	1	8	1	4			4	49	PP
UGLEGORSK	20.84	174.3	4	46	0	8	44	10					
KHEYS	20.93	333.0	4	47K	0	8	39	3			5	10	PP
Y.-SAKHLINSK	22.93	173.4	5	10	3	9	18	5					
KABANSK	23.25	236.8	5	11	1								
IRKUTSK	23.75	240.2	5	11A	-4						5	46	PP
KYAKHTA	24.80	235.2	5	25	0	9	48	3					
AMDERMA	25.08	306.8	5	27	0	9	49	-1					
MOULD BAY	26.67	31.5	5	43A	1								
ULAN-BATOR	26.90	232.2	5	47	3	10	37	17					
CHANGCHUN	26.96	202.2	5	43	-2	10	16	-5					
VLADIVOSTOK	27.00	191.5	5	44	-1	10	18	-4			14	5	
COLLEGE	27.02	64.1	5	47	1						10	20	
ALERT	27.50	6.0	5	51	1								
ESEN BULAK	31.41	244.3	6	25	0	11	29	-3					
RESOLUTE	31.83	24.0	6	28A	-1								
PEKING	32.16	214.0	6	31	0	11	44	0					
PAOTOW	32.95	222.7	6	39	1	11	59	3					
SEMIPALATNSK	33.29	265.3	6	40	-1	11	57	-5					
KEVO	33.50	324.2	6	44	1								
APATITY	33.89	318.4	6	46A	-1	12	8	-3					
SVERDLOVSK	34.72	289.1	6	53K	-1	12	23	-1			8	14	PP
ABUYAMA	35.04	184.9	6	55A	-1								
TROMSOE	35.17	328.2	6	58	1								
SODANKYLA	35.55	322.0	6	59	-2						8	30	PP
KIRUNA	36.43	325.8	7	7A	-1	12	51	1			8	29	PP
KAJAANI	38.10	318.4	7	22	0						8	47	PP
LANCHOW	38.78	228.2	7	28	0	13	20	-6			9	4	PP
SIAN	39.26	221.0	7	32	0								
SCORESBY SD.	39.39	350.0	7	35	2						9	10	
NANKING	39.46	207.5	7	34	0	13	35	-1			8	7	PP
UMEA	39.97	322.7	7	37A	-1						9	10	PP
ZO-SE	40.04	204.1	7	37	-1	13	39	-6					
ALMATA	40.59	262.6									13	55	
PULKOVO	41.18	313.3	7	48	0	14	1	-1			9	24	PP
SKALSTUGAN	41.77	327.4	7	52A	-1						9	31	PP
FRUNSE	41.78	264.6	7	54A	1	14	8	-3			9	30	PP
NURMIJARVI	41.91	317.6	7	52	-2						9	33	PP
HELSINKI	42.14	317.1	7	55	-1						9	32	PP
CHENGTU	43.86	225.5	8	9	-1	14	40	-1			9	51	PP
UPPSALA	44.09	321.7	8	10A	-1						9	54	PP
ANDIJAN	44.40	265.3	8	15A	1						17	56	SS
NAMANGAN	44.44	266.2	8	16	2						10	14	PP

TASHKENT	44.96	268.7	8	20A	1	14	48	-9			
BERGEN	45.98	330.0	8	26	-1						
ALBERNI	46.84	63.2	8	34	1						
SAMARKAND	47.23	269.8	8	37	1	15	27	-3		10	26 PP
GOTEBORG	47.24	324.3	8	35	-2					10	31 PP
KHOROG	47.61	264.1	8	40	1					15	34 *SS
KARLSKRONA	47.91	321.0	8	40A	-2					10	32 PP
VICTORIA	47.94	62.6	8	44A	2						
PENTICTON	48.38	59.1	8	45A	9						
LHASA	48.40	239.8	8	46	0	15	43	-3			
CANTON	49.16	211.8	8	51	0	15	54	-3		10	49 PP
KUNMING	49.47	224.8	8	52	-2	16	1	0		19	48 SS
HONG KONG	49.78	210.6	8	58	2	16	1	-4		10	53
WARSAW	50.27	315.1	9	1	1	16	14	2		10	59 PP
WARSAK DAM	50.75	262.2	9	1	-3						
HUNGRY HORSE	50.88	55.3	9	4	-1						
MAKHACH-KALA	50.93	289.1	9	7	2					16	29 *SS
GROZNY	51.19	290.7	9	8A	1	16	25	0		12	6 PPP
KIZYL-ARVAT	51.35	279.3	9	10A	2					19	38 SS
LWOW	51.72	311.6	9	10	-1					11	22 PP
ASHKABAD	51.76	276.7	9	11	0	16	31	-2		22	30
DEHRA DUN	51.91	253.8	9	9	-3	16	33	-2		21	48 SSS
SHILLONG	51.98	237.1	9	12K	-1	16	36	0			
LAHORE	52.03	258.1	9	12	-1						
CHATRA	52.21	242.7	9	13K	-2	16	38	-1		10	28 PCP
KRAKOW	52.54	314.8	9	16	-1						
WITTEVEEN	52.89	325.8	9	19	-1						
TIFLIS	52.93	290.7	9	20	0	16	50	1		24	0
RACIBORZ	52.94	316.1	9	19	-1					11	23 PP
COLLMBERG	53.00	320.5	9	19A	-2	16	53	3		11	25 PP
HALLE	53.04	321.4	9	19	-2					9	50
IASI	53.17	307.5	9	21	-1						
SKALNATE PL.	53.27	314.1	9	22	-1					11	21 PP
SIMFEROPOL	53.34	301.2	9	22	-1					11	22 PP
BUTTE	53.41	55.4	9	24	0						
JENA	53.66	321.4	9	23	-2	16	59	0		11	20 PP
NEW DELHI	53.79	253.8	9	25A	-1	16	54	-7			
PRAGUE	53.83	318.9	9	29A	2	16	28	-33		11	32 PP
DE BILT	53.86	326.5	9	29	2	17	7	6			
PRUHONICE	53.89	318.8	9	26A	-1	16	58	-4			
BACAU	53.93	307.7	9	30	3						
BOZEMAN	54.17	54.4	9	30	1						
CHEB	54.28	320.4	9	30	0						
GORIS	54.43	288.2	9	31A	0	17	10	1			
BENSBERG	54.55	324.6	9	27	-5					11	46 PP
FOCSANI	54.65	307.1	9	40	7						
KASPERSKE H.	54.91	319.1	9	33A	-2					10	12
BRATISLAVA	54.98	316.0	9	33A	-2					10	36 PCP
FELDBERG	54.99	323.4	9	50	15						
HURBANOVO	54.99	315.1	9	39	4					10	33 PCP
CHITTAGONG	55.02	235.9	9	35	0	17	17	0			
VIENNA-H.	55.08	316.6	9	34A	-2					11	54 PP
BUDAPEST	55.15	314.3	9	37	1					15	16
UCCLE	55.26	326.7	9	39	2	17	18	-2			
BOKARO	55.44	242.9	9	39A	1	17	22	-1			
KEW	55.46	330.3	9	39	0	17	31	8		10	39
CAMPULUNG	55.64	308.6	9	45	5						
HEIDELBERG	55.71	322.9	9	39	-1						
QUETTA	55.82	264.7	9	40	-1	17	27	-1	11 51		
MINERAL	55.85	65.6	9	42A	1						
CALCUTTA	55.87	239.7				17	31	3		29	41
DOURBES	55.88	326.2	9	41	-1	17	23	-5			
BUCHAREST	56.13	307.3	9	43	0	18	6	34		14	58
TEHERAN	56.14	281.8	9	43	-1	17	33	1			
STUTTGART	56.19	322.2	9	42	-2	17	33	0		22	56 SSS
TIMISOARA	56.20	311.8	9	52	8						
MANILA	56.23	201.0	9	47	3					15	7
TUBINGEN	56.46	322.3	9	46	0						
STRASBOURG	56.69	323.3	9	17	-30					10	19
EBINGEN	56.82	322.2	9	48	0						
CALISTOGA	57.09	67.3	9	52A	2						
RENO	57.15	64.5	9	51	0						
BELGRADE	57.27	312.0	9	51	-1					11	59 PP
ZAGREB	57.45	315.9	9	56	3						
PARIS	57.51	327.3	10	52	59					13	16 PP
LJUBLJANA	57.58	317.1	9	52A	-2					12	8 PP
BASLE	57.73	323.0	9	56A	1						
BERKELEY	57.90	67.4	9	26A	-30						
FOLINIERE	58.09	329.6	9	56	-1						

TRIESTE	58.14	317.6	9	57A	-1					12	11	PP
NEUCHATEL	58.36	323.3	9	59	0							
EUREKA	58.39	61.4	10	1	2							
ISTANBUL UN.	58.43	303.5	10	0	0	18	1	-1				
LICK	58.58	67.1	10	2A	1							
PADOVA	58.80	319.0	10	6	4					12	6	
LARAMIE	59.71	52.0	10	8	-1							
PRIEST	59.99	66.9	10	13A	2							
CLERMONT-FD.	60.31	325.9	10	14A	1							
CHIAVARI	60.41	320.5				18	26	-2		23	56	SS
FLORENCE X.	60.49	318.8	10	24	10	18	48	19				
KIPAPA	60.83	108.1	10	17	1							
HONOLULU	60.92	108.2	10	18	1							
ISOLA	61.03	322.3								12	18	
SHIRAZ	61.30	277.9	10	18	-1	18	53	14		12	18	
SHAWINIGAN	61.65	24.4	10	21A	-1							
VISHAKHAPTNM	61.95	243.1	10	26K	2	18	50	3				
BOULDER CITY	61.97	61.9	10	32	8							
ROME	61.99	317.2	10	24A	0	18	48	0				
GLEN CANYON	62.03	58.8	10	23	-1							
DUBUQUE	62.28	39.5	10	25	-1							
BREBEUF	62.56	25.3	10	27	-1					11	10	PCP
PASADENA	62.62	65.6	10	29	1							
ATHENS	62.78	306.5	10	30K	1							
KSARA	63.00	294.5	10	30	-1					12	51	PP
BAGNERES	63.48	327.4	10	34	0					12	49	
HAWAII V.OB.	63.59	106.1	10	38	3							
MANHATTEN	64.04	45.5	10	36A	-2							
BOMBAY	64.23	254.1	10	42	3	19	13	-3		33	4	
POONA	64.23	252.9	10	37	-2	19	13	-3		19	32	PS
LAWRENCE	64.59	44.5	10	39	-2							
HALIFAX	64.70	17.7	10	42K	0							
PORT BLAIR	64.93	231.4	10	41	-2	19	15	-10				
JERUSALEM	65.10	294.2	10	45A	0							
CLEVELAND	65.14	32.5	10	44A	-1	19	24	-3				
ALBUQUERQUE	65.40	55.3	10	45	-2				11 16			
FLORISSANT	65.89	40.5	10	48A	-2							
ST. LOUIS 1	66.08	40.4	10	49	-2							
BLOOMINGTON	66.36	37.2	10	51	-2							
ROLLA	66.40	42.1	10	51A	-2	19	38	-5	10 57			
PENNSYLVANIA	66.46	29.8	10	52A	-1							
SERRA PILAR	66.86	333.9	10	54A	-2					13	27	PP
PALISADES	66.90	26.5	10	55	-1	19	47	-2				
TOLEDO	67.33	329.9	11	0K	1	20	10	16		13	26	PP
MADRAS	67.36	244.6	11	1	2							
C. GIRARDEAU	67.50	40.3	10	58A	-2							
FAYETTEVILLE	67.58	44.5	10	58	-2					11	30	
COIMBRA	67.74	333.5	11	2A	1							
WICHITA MTS.	67.77	48.7	11	0A	-2	20	2	3		13	36	PP
LUBBOCK	67.98	51.8	10	59	-4							
WASHINGTON	68.45	29.6	11	7	1							
GEORGETOWN	68.45	29.6	11	9	3							
GRANADA	69.88	328.9	11	17K	2					13	41	PP
MALAGA	70.47	329.4	11	20A	2					13	58	PP
KODAIKANAL	70.82	246.3								38	23	
MEDAN	71.19	223.0	11	20	-3					12	2	
COLUMBIA	72.48	34.1	11	29	-1							
PORT MORESBY	79.22	171.8	12	9	1							
LEMBANG	79.42	211.7	12	10	1							
CHARTERS TS.	89.79	173.2	13	0	-2							
AFIAMALU	90.22	132.7	13	5	1							
BANGUI	95.96	300.1	13	28	-2					17	20	PP
TRINIDAD	98.50	20.3	13	48	7							
LWIRO	98.99	288.3	13	45K	1	24	26	4		17	43	PP
CHINCHINA	101.78	35.3	13	59	3					18	6	PP
BOGOTA	102.42	33.8								18	13	PP
BULAWAYO	115.76	282.0	18	44	0							
WINDHOEK	121.83	292.5	18	57	1							
LA PAZ	124.14	31.9	19	3	2					42	38	SSS
KIMBERLEY	125.01	282.1	19	2	0							
MAWSON	146.53	222.4	19	42	0							
SCOTT BASE	148.36	169.2	19	48	3							
BYRD STATION	159.30	151.1	19	58	-2					24	20	

APRIL 20 5.H 47.M 52.S EPICENTRE 20.50 -72.14 DEPTH= 0.KM

A= 0.28754 B=-0.89224 C= 0.34818 D=-0.9518 E=-0.3067
G= 0.1068 H=-0.3314 K=-0.9374 HT= 4.6

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	#PP M	#PP S	SUPP. M	SUPP. S
CIUD. TRUJL.	2.92	133.9	0	11	-38	0	43	-42				
SAN JUAN	6.06	109.4	1	33A	0	2	0	-44				
ST. KITTS	9.44	107.9	2	20	0							
GALERAZAMBA	10.13	197.8	2	32	2	4	38	13				
ANTIGUA	10.31	107.2	2	31	-1	4	22	-8				
ST. CLAUDE	10.87	112.5	2	31	-9	4	34	-9				
CARACAS	11.14	152.5	2	42	-2	4	36	-14				
FORT FRANCE	11.94	117.0	2	52	-3	5	24	14				
ST. VINCENT	12.70	123.3	3	2	-3	5	19	-9				
GRENADA	13.05	128.5	3	6K	-3	5	18	-19				
BALBOA HTS.	13.53	213.1	3	14	-2	5	39	-9				
BARBADOS	14.06	119.5	3	23	0	6	5	4				
TRINIDAD	14.24	131.9	3	26	1	5	52	-13				
FUQUENE	15.02	186.1	3	35	0							
COLUMBIA	15.59	331.4	3	37	-6							
CHINCHINA	15.81	192.8	3	49K	4	6	33	-9				
BOGOTA	15.90	187.0	3	50K	3	6	48	4				
MERIDA	16.36	274.6	3	56	3	7	2	7			6	38
CHAPEL HILL	16.51	339.9	3	51	-4							
SANTIAGO MA.	17.10	248.5	4	3	1	7	15	3				
SAN SALVADOR	17.66	250.1	4	5	-4	7	43	19				
WASHINGTON	18.82	348.0	4	21A	-2	7	55	4				
GEORGETOWN	18.82	348.0	4	22	-1	7	30	-21				
COMITAN	19.44	260.7	4	29	-2	8	9	4			8	47 SS
PALISADES	20.50	356.2	4	42K	0	8	31	4				
PENNSYLVANIA	20.81	347.7	4	47K	2							
BLOOMINGTON	22.35	329.5	5	2A	1	8	42	-21				
CLEVELAND	22.38	341.2	5	4K	3	8	59	-4				
C. GIRARDEAU	22.58	321.6	5	4	1	9	8	1				
VERA CRUZ	22.60	270.9	5	8	5	9	12	5			8	52
TERRE HAUTE	22.91	328.4									7	58
OAXACA	23.57	265.7									6	16
ST. LOUIS 1	23.89	323.1	5	17A	4	9	31	1				
FLORISSANT	24.08	323.2	5	19A	1	9	40	7				
ROLLA	24.37	319.6	5	22	1	9	38	0				
FAYETTEVILLE	24.78	313.5	5	26	1	9	47	2			13	16
BREBEUF	24.96	357.5	5	28A	2	9	51	3	5	41	6	8 PP
HALIFAX	25.07	14.5	5	30A	2							
TACUBAYA	25.45	272.2	5	29	-2	10	1	5			13	16
SHAWINIGAN	25.99	359.0	5	37A	1							
DUBUQUE	26.93	328.7	5	44	-1							
WICHITA MTS.	27.28	306.8	5	48A	0	10	28	1			9	7 PCP
MANHATTEN	28.08	316.9	5	54A	-1	10	51	11				
GUADALAJARA	29.17	275.9	6	2	-3						6	56 PPP
LUBBOCK	29.38	302.5	6	7	0							
MANZANILLO	30.30	272.9									12	48
CHIHUAHUA	31.83	291.5	6	19	-10	11	31	-8			12	5 SS
HUANCAYO	32.50	185.8	6	35	1	11	49	0				
ALBUQUERQUE	33.43	302.8	6	42A	-1	12	24	20				
RAPID CITY	34.90	319.5	6	54	-1	12	17	-10			8	40 PP
LA PAZ	36.98	173.6	7	13	0							
FLAMING GRGE	37.57	311.2	7	17	-1	13	4	-4				
GLEN CANYON	37.98	304.2	7	23	2							
SALT LAKE C.	39.27	309.9	7	33A	1							
BOZEMAN	40.56	317.4	7	43A	0						9	44 PP
BUTTE	41.67	317.2	7	52A	0							
EUREKA	41.94	306.7	7	54	0							
ANGRA DO HO.	42.57	54.8	8	10A	11	14	40	17	8	20	9	56 PCP
PASADENA	42.75	298.4	8	1	0	14	26	1			9	36 PCP
HUNGRY HORSE	43.54	319.7	8	7A	0							
PONTA DELGDA	43.60	56.5	8	5	-3	14	25	-13			18	21 SSS
RENO	44.86	305.9	8	17A	-1							
PRIEST	45.01	301.0	8	19A	0							
BANFF	45.63	322.8	8	4A	-20							
LICK	45.93	302.5	8	27A	1						10	4 PP
MINERAL	46.36	306.6	8	29A	-1							
BERKELEY	46.49	303.1	8	32A	1	15	18	-1			10	22 PP
CALISTOGA	46.84	304.1	8	34A	1							
PENTICTON	47.32	319.0	8	36A	-1							
UKIAH	47.40	304.7	8	39A	1							

VICTORIA	49.46	317.0	8	52A	-2	15	58	-3				
ALBERNI	50.56	317.6	9	2A	0							
M.BOUR	52.79	87.2	9	21A	2	16	41	-6				
SANTA LUCIA	53.66	178.4	9	23	-3	16	52	-7				
REYKJAVIK	54.84	24.4	9	35A	1							
RESOLUTE	55.57	352.8	9	38A	-1							
SIDA	56.20	25.7	9	45	1							
LISBON	56.64	56.6	9	47	0	17	38	-1			10	43 PCP
AKUREYRI	56.98	23.6	9	50	0							
SERRA PILAR	57.06	53.7	9	50K	0	17	43	-1			11	58 PP
COIMBRA	57.19	54.8	9	51A	0	17	44	-2			10	38 PCP
SCORESBY SD.	58.02	17.7	9	56	-1	17	56	-1				
SITKA	58.49	325.1	9	59	-1							
MALAGA	60.49	58.7	10	15A	1	18	26	-3			12	27 PP
TOLEDO	60.56	55.1	10	15A	0	18	29	-1			12	33 PP
MOULD BAY	60.62	348.4	10	13A	-2							
GRANADA	61.09	58.1	10	18K	0	18	37	0			12	10 PP
EDINBURGH	61.49	36.7	10	20	-1	18	35	-7			12	36 PP
JERSEY	61.79	44.4	10	23	0	19	20	35				
ALMERIA	62.02	58.4	10	26A	2	18	48	0			12	45 PP
ALERT	62.17	1.4	10	24	-1							
ABERDEEN	62.20	35.4	10	31A	5	18	46	-5			19	8 PS
KEW	62.96	41.9	10	31A	0	18	57	-3			22	53 SS
ALICANTE	63.44	56.5	10	34	0	19	4	-2			12	55 PP
BAGNERES	63.52	51.3	10	33	-1	18	58	-9				
PARIS	64.82	44.8	10	43	0	19	20	-3			19	36 PS
GARCHY	65.29	46.4	10	46	0	19	25	-4			19	51 PS
CLERMONT-FD.	65.44	48.1	10	46A	-1						13	12 PP
COLLEGE	65.55	333.0	10	46	-2	19	30	-2				
UCCLE	65.92	42.5	10	49	-1	19	31	-6				
DOURBES	66.12	43.3	10	50	-1	19	36	-3				
BERGEN	66.20	32.0	10	52	0	19	36	-4			11	23 PCP
DE BILT	66.36	41.1	10	53	0	19	42	0			23	54 SS
WITTEVEEN	67.22	40.2	10	58A	0							
BENSBERG	67.68	42.2	11	0A	-1	19	56	-2			13	35 PP
MUNSTER	67.87	41.1	11	2	0							
NEUCHATEL	67.96	46.5	11	3	0							
BASLE	68.32	45.9	11	6A	1	20	3	-3				
STRASBOURG	68.32	44.7	11	4	-1	20	4	-2			20	25 PS
ISOLA	68.39	49.5	12	7	61							
FELDBERG	68.57	42.9	11	7A	0							
KARLSRUHE	68.69	44.2	11	7	0	21	9	59				
HEIDELBERG	68.84	43.8	11	8A	0							
EBINGEN	69.16	45.0	11	10A	0							
TUBINGEN	69.18	44.7	11	11A	1							
STUTTGART	69.29	44.4	11	10A	-1	20	14	-3			24	51 SS
SKALSTUGAN	69.38	28.4	11	11A	-1	20	17	-1			13	38 PP
RAVENSBURG	69.65	45.4	11	13A	0							
CHUR	69.73	46.4	11	14	0	20	22	0				
PAVIA	69.74	48.2	11	33A	19	20	48	25			27	10
GOTEBORG	69.80	34.7	11	13A	-1						39	13 PKPPKP
CHIAVARI	69.98	49.1	10	55	-20	20	23	-2			15	22 PPP
CUGLIERI	70.14	53.5									12	38
JENA	70.48	41.9	11	18	0	20	26	-5			14	18 PP
HALLE	70.60	41.2	11	19	0	20	30	-3				
COLLMBERG	71.28	41.3	11	23A	0	20	38	-3			14	6 PP
PRATO	71.32	49.3	11	20	-3	20	33	-8				
TROMSOE	71.34	21.7	11	24	0							
BOLOGNA	71.37	48.6	11	29	5	20	39	-3				
FLORENCE X.	71.44	49.4	11	20A	-4	20	55	13	12	6	14	25 PP
PADOVA	71.57	47.6	11	26	1	20	44	0			21	8 PS
KARLSKRONA	71.98	36.0	11	29A	2						39	9 PKPPKP
KASPERSKE H.	72.03	43.5	11	28	0	20	47	-2			21	29 PS
KIRUNA	72.17	23.5	11	28A	-1	20	48	-3			39	2 PKPPKP
UPPSALA	72.39	32.0	11	29A	-1	20	49	-4			21	10 PS
PRAGUE	72.40	42.4	11	30K	0	20	52	-1			14	6 PP
PRUHONICE	72.49	42.5	11	30	0						25	39 SS
ROME	72.70	51.1	11	32A	0	20	55	-2	12	6	14	25 PP
TRIESTE	72.82	47.1	11	33A	1	20	56	-2			14	24 PP
UMEA	72.85	27.6	11	32A	-1	20	56	-3			39	3 PKPPKP
LJUBLJANA	73.27	46.6	11	35A	0	20	58	-5			14	27 PP
VIENNA-H.	74.02	44.0	11	40A	1	21	10	-2			14	23 PP
KEVO	74.06	20.9	11	39	-1							
ZAGREB	74.31	46.6	11	41A	0	21	8	-7				
BRATISLAVA	74.51	44.0	11	41K	-1	21	14	-3			14	32 PP
SODANKYLA	74.59	23.4	11	42A	-1							
RACIBORZ	74.77	41.9	11	45	1	21	19	-1			14	40 PP
HURBANOVO	75.30	44.1	11	49	2						14	25 PP
NURMIJARVI	75.66	30.5	11	49A	0	21	27	-3			14	31 PP

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KRAKOW	75.86	41.6	11	46	-4	21	31	-1			14	44 PP
MESSINA	75.86	54.3	11	41	-9	21	26	-6			14	40 PP
KHEYS	75.86	7.4	11	50K	0	21	29	-3			14	44 PP
HELSINKI	75.90	30.8	11	50A	0						12	3 PCP
BUDAPEST	75.94	44.4	11	49	-1	21	23	-10			14	50 PP
WARSAW	75.95	39.3	11	52K	2	21	33	0			14	40 PP
REGGIO CALA.	75.97	54.4	11	57	6							
KAJAANI	75.98	26.5	11	50	-1	21	29	-4			22	21
SKALNATE PL.	76.28	42.4	11	53	1	21	33	-4			14	54 PP
TARANTO	76.54	51.7	12	1	7						21	48 SCS
SZEGED	77.00	45.4	11	31	-25	21	15	-30			21	27 SKS
APATITY	77.01	22.3	11	56A	0	21	42	-3	12	37	15	1 PP
HAWAII V.OB.	77.24	286.1	11	58	0							
TITOGRAD	77.46	49.3	12	0	1	21	49	0			17	4 PPP
BELGRADE	77.62	46.7	12	1A	1	21	50	-1			14	56 PP
TIMISOARA	77.87	45.6	12	8	7	21	58	4			22	20 PS
LWOW	78.46	41.1									12	16 PCP
PULKOVO	78.58	30.3	12	6	1	21	58	-4			15	0 PP
KIPAPA	79.10	288.8	12	9	1							
HONOLULU	79.21	288.7	12	8	0	22	5	-3				
SOFIA	80.25	48.1	11	20	-54						11	25 PCP
CAMPULUNG	80.56	45.3	12	19	3	22	25	3				
BACAU	81.35	43.6				22	30	0				
IASI	81.55	42.8	12	22	1	22	29	-4				
BUCHAREST	81.57	45.8	12	21A	0	22	51	18			22	28 SKS
ATHENS	82.08	52.5	12	25A	1	22	37	-1				
MOSCOW	83.81	32.4	12	34A	1	22	52	-4			23	11
AMDERMA	84.22	14.6	12	35A	0							
ISTANBUL UN.	84.79	48.2	12	38A	1	23	24	19				
ARGENTINE I.	85.69	176.7	12	41	-1							
SIMFEROPOL	86.63	43.1	12	47A	0	23	22	-1			16	8 PP
TIKSI	86.98	353.5	12	47A	-1						16	4 PP
LUANDA	88.76	99.9	12	59A	2				13	5		
BANGUI	89.19	85.7	12	59	0						16	32 PP
BANDEIRA	90.98	105.4	13	9A	2	24	5	2	13	15	16	44 PP
KSARA	92.78	52.4	13	15A	-1	24	11	-8			16	52 PP
SVERDLOVSK	93.39	23.8	13	18K	0	23	48	-36			17	3 PP
PETROPAVLOVK	94.62	332.0	13	24A	0	23	53	-42			17	12 PP
TIFLIS	95.00	42.1	13	27A	1						26	7 PS
YAKUTSK	95.93	349.8	13	29A	-1	24	1	-5			17	14 PP
WINDHOEK	96.97	111.4	13	35A	0							
GORIS	97.19	43.3	13	36A	0	23	58	-15				
LWIRO	101.03	88.3	13	54	1						18	2 PP
HERMANUS	102.38	122.2				24	39	0			18	22 PP
TEHERAN	102.64	44.0	14	2	2	24	38	-2			17	25 PP
AFIAMALU	103.63	260.1									17	53 PP
SEMIPALATNSK	105.31	17.9	14	12	777	24	49	-3			18	34 PP
KIMBERLEY	105.41	115.3	13	41K	777							
ASHKABAD	105.54	38.6	14	14	777						18	42 PP
Y.-SAKHLINSK	105.81	336.0	14	17	777						18	37 PP
IRKUTSK	107.48	2.3	14	22A	777						18	51 PP
TASHKENT	108.84	29.8	14	29A	777						26	25 SKKKS
FRUNSE	109.93	25.4	14	33	777						28	33 PS
SOUTH POLE	110.38	180.0	14	35	-239						19	36
CHANGALANE	111.20	111.1	18	37	1						19	14 PP
ULAN-BATOR	111.89	0.7	14	42	-235						19	22 PP
ESEN BULAK	112.59	8.7									19	26 PP
VLADIVOSTOK	112.94	341.1				25	18	-6			29	6 PS
CHANGCHUN	114.01	346.3	18	41	0						19	35 PP
WARSAK DAM	115.71	33.1	18	46	2							
TUKUBASAN	115.87	331.4	18	41	-4						19	46 PP
QUETTA	116.06	39.1	18	47	2						20	8 PP
SCOTT BASE	116.29	191.7	18	46	0							
MATUSIRO	116.43	333.0	18	45	-1						29	35 PS
CAPE HALLETT	117.68	197.8	18	40	-8							
PAOTOW	119.20	358.1	18	51	0	26	11	24			20	11 PP
PEKING	119.29	352.7	18	52A	1	26	9	21			20	11 PP
KARAPIRO	119.65	237.3	18	51	-1						29	5 PKKP
CHATEAU	119.72	235.9	18	50	-2						29	3 PKKP
WELLINGTON	120.39	233.5	18	54	0							
DEHRA DUN	121.90	30.4	18	57A	1							
COBB RIVER	121.93	233.7	18	56	0							
GEBBIES PASS	121.96	230.7	18	57	0							
NEW DELHI	122.92	32.3	19	0A	2	26	20	20			20	38 PP
TANANARIVE	123.48	99.6	19	2A	3						20	48 PP
LANCHOW	123.63	3.9	19	2	2						20	42 PP
ROXBURGH	124.23	228.4	19	1	0						28	47 PKKP
MAWSON	125.15	160.6	19	0	-3						30	31 PS

SIAN	125.54	358.9	19	5	2				19	19	20 57	PP
NOUMEA	125.72	256.8	19	0A	-4						20 57	
NANKING	126.70	348.4	19	6A	0				19	21	21 1	PP
ZO-SE	127.12	345.7	19	6	0				19	21	21 6	PP
LHASA	127.58	18.5	19	9A	2						21 10	PP
BOMBAY	127.92	43.6	19	7	-1	26	28	14			21 9	PP
HONIARA	128.68	274.3	19	10	0						22 36	
CHATRA	128.85	23.9	19	11	1						21 17	PP
CHENGTU	129.00	4.3	19	11	1				19	26	21 22	PP
DUMONT	129.45	195.9	19	9	-2							
BOKAPO	130.97	27.1	19	15	1						22 40	
TOCKLAI	131.34	15.7	19	18	3							
SHILLONG	131.64	19.4	19	14	-1						22 42	
HYDERABAD	132.53	39.5	19	17A	u							
MIRNY	132.98	171.9	19	16	-2						21 36	PP
RABAUL	133.98	284.5	19	18	-1						22 54	
WILKES	134.15	181.5	19	21A	1						21 50	PP
KUNMING	134.38	6.5	19	22A	2				19	37	21 50	PP
CHITTAGONG	134.61	21.1	19	11	-10						22 54	PKS
VISHAKHAPTNM	135.02	34.1	19	24	3							
CANTON	136.35	352.7	19	26A	2				19	44	22 0	PP
MADRAS	137.00	41.6	19	27	2						21 58	
HONG KONG	137.02	351.4	19	22	-3						21 55	PP
BRISBANE	138.55	251.5	19	18	-10						28 56	
RIVEPVIEW	139.55	241.6	19	21K	-9						22 23	PP
FORT NELSON	140.14	226.8	19	30	-1						23 8	PKS
PORT MORESBY	140.57	280.3	19	27A	-5						20 11	
CANBERRA	141.05	238.9	19	25K	-7						22 17	PP
MANILA	142.71	338.6	19	36	1						22 16	
MELBOURNE	143.57	233.6	19	21	-16						21 50	PP
CHARTERS TS.	144.04	263.8	19	36	-1						22 53	
MEDAN	154.43	21.7	19	53A	-1						22 48	
TANGERANG	165.70	5.0	20	7A	1						24 1	
DJAKARTA	165.73	4.2	20	6A	0						25 10	
MUNDARING	166.35	211.5	20	7K	0							
LEMBANG	166.41	1.0	20	9	2						24 46	
PERTH	166.55	210.4	20	10	3						21 34	

APRIL 22 2.H 10.M 11.S EPICENTRE -18.83 169.43 DEPTH= 250.KM
A=-0.93105 B= 0.17371 C=-0.32089 D= 0.1834 E= 0.9830
G= 0.3155 H=-0.0589 K=-0.9471 HT= 5.0

DEPTH OF FOCUS= 0.034R

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PORT VILA	1.52	316.0	0	39K	-1	1	1	-9				
NOUMEA	4.44	218.5	1	9A	-1	1	53	-11				
KOUMAC	5.15	249.7	1	20A	1	2	11	-9				
SUVA	8.57	86.9				3	43	6				
HONIARA	13.11	314.2	3	0	1	5	31	11				
ONERAHI	17.43	166.5	3	50	1							
BRISBANE	17.51	237.9	3	48	-2	6	59	5				
AFIAMALU	18.68	77.6	4	1K	-1	7	35	18				
KARAPIRO	19.76	165.6	4	12K	-1							
CHATEAU	20.97	166.6	4	25	0	8	12	13				
TUAI	20.99	169.0	4	25	0	8	9	4				
CHARTERS TS.	21.88	262.9	4	34	0	8	20	6				
RIVERVIEW	22.12	229.9	4	38	2				5	24	9	31
RABAUL	22.27	308.7	4	19	-18						4	53
COBB RIVER	22.35	173.4	4	40	2							
WELLINGTON	22.83	169.6	4	41	-2						8	5
PORT MORESBY	23.53	290.4	4	50	1							
KAIMATA	23.67	176.3	4	52	1	8	33	-12				
CANBERRA	24.43	223.7	4	58	0						5	44 PP
ROXBURGH	26.57	180.2	5	16	-1						11	39
MELBOURNE	28.52	229.4									6	25
DARWIN	37.67	274.1	6	53	0							
MUNDARING	49.38	243.7	8	26	0							
HONOLULU	51.00	40.1	8	39	0							
KIPAPA	51.14	40.1	8	39	-1							
HAWAII V.OB.	51.44	44.2	8	41	-1							
SCOTT BASE	59.07	180.7	9	36	0							
TANGERANG	62.31	272.9	9	57K	-1							

MATUSIRO	62.48	331.9	9	58	-1	18	10	5		
PEKING	76.74	320.8	11	26	0	20	55	5		
KUNMING	78.21	301.7	11	36	2	21	11	5	12	34 *SP
MAWSON	78.87	202.0	11	36	-1					
CHENGTU	79.83	307.2				21	26	3		
PAOTOW	80.84	318.4	11	38	-10	21	39	6		
LANCHOW	82.59	311.9	12	0	3	21	57	6		
BERKELEY	85.36	47.5	12	9K	-2					
CALISTOGA	85.50	46.7	12	12A	1					
LICK	85.55	48.2	12	13A	2					
PRIEST	85.70	49.7	12	14A	2					
PASADENA	86.66	52.4	12	17	0					
MINERAL	86.97	45.6	12	19A	1					
SHILLONG	87.33	298.0	12	20K	0					
RENO	87.83	46.9	12	23A	1					
ALBERNI	89.29	36.7	12	30	1					
COLLEGE	89.61	16.8	12	29	-2					
VICTORIA	89.72	37.8	12	31A	0					
SEATTLE	89.96	38.9	12	32	0					
TUCSON	91.57	56.5	12	41	1					
TUCSON TELE.	91.69	56.5	12	42	2					
PENTICTON	92.31	38.2	12	43A	0					
ALBUQUERQUE	95.92	55.2	13	0	0					
WICHITA MTS.	102.06	57.3	13	27	0				17	40 PP
MOULD BAY	103.80	13.5	13	34	-1					
FLORISSANT	109.35	54.6							26	2
ST. LOUIS 1	109.43	54.8							25	52
BLOOMINGTON	112.39	54.6							25	11
BREBEUF	122.01	47.7	18	24K	-1					
SHIRAZ	122.08	293.6	18	26	1					
SHAWINIGAN	122.48	46.4	18	26	0					
KEVO	124.20	345.1	18	29	0					
BULAWAYO	125.45	226.8	18	33	1					
TROMSOE	126.10	347.7	18	32	-1					
KIRUNA	127.23	345.8	18	35	0					
SAN JUAN	127.54	81.0	18	35	-1					
SCORESBY SD.	127.90	4.8							19	41 PP
KAJAANI	127.95	339.8	18	35	-2					
BROKEN HILL	129.28	232.0	18	41	2					
UMEA	130.42	342.6	18	40	-1					
NURMIJARVI	131.43	337.6	18	44	1					
HELSINKI	131.55	337.2	18	44	1					
JERUSALEM	136.94	296.6	18	56	3					
COLLMBERG	142.63	335.6	19	0	-4				22	19 SKP
HALLE	142.88	336.6	19	2	-2					
PRUHONICE	143.01	332.9	19	2	-3				20	33
VIENNA-H.	143.42	329.5	19	3	-2					
BELGRADE	143.43	322.0	19	2K	-3				23	21 PKS
JENA	143.48	336.4	19	3	-2	20	19			
KASPERSKE H.	144.06	332.8	19	5A	-1				20	8
ATHENS	144.59	309.8	19	7	0					
BENSBERG	144.99	340.4	19	8A	0				20	10
FELDBERG	145.20	338.5	19	14	6					
ZAGREB	145.27	326.7	19	13	5					
LJUBLJANA	145.86	328.3	19	10	1				20	14
UCCLE	145.97	343.0	19	12	2					
STUTTGART	146.10	336.2	19	11	1	20	14			
KEW	146.44	348.4	19	13	3					
TRIESTE	146.52	328.4	19	10	0					
DOURBES	146.53	342.2	19	10	0					
STRASBOURG	146.82	337.6	19	14	3				20	18
BASLE	147.77	336.7	19	9	-3				23	20
BANGUI	148.08	246.9	19	17	4	20	10			
PARIS	148.29	343.5	19	23	10				20	22
BESANCON	148.59	338.1	19	18	5				20	20
FOLINIERE	149.04	347.0	19	19	5					
FLORENCE X.	149.11	328.4	19	11	-3					
ROSELEND	149.43	334.4	19	21	6					
GARCHY	149.51	341.6	19	27	12				19	44 PKP2

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APRIL 22 4.H 29.M 37.S EPICENTRE -44.28 -72.28 DEPTH= 107.KM

A= 0.21860 B=-0.68417 C=-0.69579 D=-0.9526 E=-0.3044
G=-0.2118 H= 0.6628 K=-0.7182 HT= -3.3

DEPTH OF FOCUS= 0.012R

SE= 1.51

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	10.90	7.3	2	33	-1								
AREQUIPA	27.74	1.6	5	42	2								
LA PAZ	27.92	8.5	5	43	1						11	23	SS
HUANCAYO	32.23	354.4	6	22	2								
BOGOTA	48.71	357.6	8	37	2	15	33	5	9	7			
CHINCHINA	49.12	355.6	8	42K	3				9	12			
FUQUENE	49.54	358.1	8	39	-3				9	11			
SCOTT BASE	53.01	193.1	9	10	2								
CARACAS	54.74	6.4	9	18A	-3								
TRINIDAD	55.56	13.0	9	28	2								
GRENADA	56.88	12.3	9	35	-1								
SAN JUAN	62.61	6.6	10	12	-3								
DUMONT	66.64	193.4	10	40	-1								
MIRNY	68.92	173.7	10	54	-1								
M.BOUR	77.03	54.9	11	44	1								
WICHITA MTS.	82.19	338.4	12	10A	0				12	43			
FAYETTEVILLE	82.43	342.2	12	11A	-1								
BULAWAYO	83.65	111.8	12	18	0								
TUCSON	83.89	327.9	12	19	0								
TUCSON TELE.	83.93	328.0	12	20	1								
BLOOMINGTON	84.08	348.9	12	19	-1								
ST. LOUIS I	84.12	346.0	12	20	0				12	52			
FLORISSANT	84.30	345.9	12	20	-1				12	53			
ALBUQUERQUE	84.76	332.4	12	22	-1				12	57	16	51	
FORT NELSON	86.22	208.0	12	31K	0								
BROKEN HILL	87.55	107.7	12	38K	1								
PASADENA	88.52	323.4	12	43	1				13	16	13	31	*SP
BOULDER CITY	88.73	326.7	12	43	0								
CANBERRA	92.35	212.7	12	59	0								
BANGUI	93.67	87.5	13	5	0						13	30	
LWIRO	96.36	99.4	13	20A	2								
STRASBOURG	115.96	46.7	18	23	-7								
STUTTGART	116.87	47.2	18	33	1								
KASPERSKE H.	119.38	48.8	18	37K	0						19	11	
RESOLUTE	119.64	353.2	18	36	-1								
COLLMBERG	120.30	46.4	18	39	0								
COPENHAGEN	122.42	41.9	18	43A	0								
GOTEBORG	123.26	39.7	18	44	0								
JERUSALEM	123.27	76.3	18	45	1								
COLLEGE	123.54	330.3	18	44	-1						21	53	PP
MOULD BAY	123.94	347.8	18	45	-1								
KARLSKRONA	124.18	42.5	18	46A	0								
KSARA	124.88	74.6	18	49	2								
SKALSTUGAN	126.29	33.5	18	45	-5								
UPPSALA	126.87	39.1	18	50	-1								
SIMFEROPOL	129.34	61.7	18	58	2								
UMEA	129.61	35.1	18	56	-1						22	5	SKP
NURMIJARVI	130.36	40.1	18	58	0				19	33	22	8	SKP
HELSINKI	130.38	40.6	18	57	-1						22	7	SKP
KIRUNA	131.04	30.2	18	59	0						22	10	SKP
TROMSOE	131.08	27.7	18	58	-1								
KAJAANI	132.82	36.2	18	57	-6						22	15	SKP
SODANKYLA	133.21	31.6	19	3	0						22	17	SKP
SHIRAZ	134.37	89.4	19	8	3						22	25	
MOSCOW	135.41	49.3	19	7	0								
KHEYS	139.70	11.1	19	9	-6								
VANNOVSKAYA	142.56	82.1	19	17	-3								
ASHKABAD	142.74	82.2	19	19	-2								
PORT BLAIR	145.03	153.7	19	24	-1								
PETROPAVLOVK	145.89	303.2	19	27	1								
SVERDLOVSK	148.22	49.9	19	30	0								
MANILA	148.37	205.2	19	34	4								
WARSAK DAM	150.34	97.8									19	41	PKP2
TIKSI	150.73	346.5	19	39	5								
LAHORE	150.96	104.6	19	36	2								
NEW DELHI	151.08	112.5	19	34K	0								
TASHKENT	151.81	82.5	19	43	8								
KHOROG	151.97	91.4	19	43	7								
MATUSIRO	155.63	262.0	20	9	28						20	42	PKP2

CHATRA	155.97	129.6	19	43A	2									
FRUNSE	156.06	81.8	19	43K	2									
SHILLONG	157.33	140.2	19	45K	2								20	15
ALMATA-2	158.12	82.0	19	45	1									
ESEN BULAK	171.65	71.3	20	19	24									
ULAN-BATOR	176.32	8.6											22	14

APRIL 22 4.H 45.M 26.S EPICENTRE 15.47 -93.08 DEPTH= 113.KM

A=-0.05173 B=-0.96284 C= 0.26507 D=-0.9986 E= 0.0537
G=-0.0142 H=-0.2647 K=-0.9642 HT= 5.7

DEPTH OF FOCUS= 0.013R

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
COMITAN	1.20	49.4	0	32	8							
OAXACA	3.87	294.0	0	55	-4	1	31	-13				
SAN SALVADOR	4.15	114.9	1	0	-3	1	54	3				
VERA CRUZ	4.72	322.3	0	54	-17						1	15
SANTIAGO MA.	4.88	113.2	1	11	-2	2	14	6				
PUEBLA	6.04	306.6	0	58	-30						1	34
MERIDA	6.36	30.6	1	34	1	2	46	1			2	25
TACUBAYA	7.03	304.6	1	37	-5	2	53	-8				
LEON	9.91	305.8									4	49
GUADALAJARA	11.03	299.5	2	40	4						5	10
MANZANILLO	11.32	289.9				4	34	-10				
BALBOA HTS.	14.70	114.5	3	21	-2	6	20	16				
MAZATLAN	14.72	303.4									7	49
DALLAS	17.63	349.7	3	59	-1							
CHIHUAHUA	17.78	319.6	4	4	2	7	10	-3			9	10
WICHITA MTS.	19.80	346.5	4	22	-2	7	54	-1			8	38
CHINCHINA	20.08	119.5	4	35K	8	8	25	24				
FAYETTEVILLE	20.56	357.4	4	30A	-2	9	13	63				
COLUMBIA	21.41	28.3	4	40	0	8	34	8				
FUQUENE	21.44	115.6	4	38	-2	8	42	16				
BOGOTA	21.57	118.0	4	44A	2	8	41	12	4	48	5	24 PP
C. GIRARDEAU	21.99	7.6	4	46A	0	8	48	12				
ROLLA	22.37	2.4	4	50K	1	8	51	8				
ST. LOUIS 1	23.22	5.7	4	57	-1	9	2	4				
TUCSON TELE.	23.23	319.4	4	58	0	9	15	17				
TUCSON	23.24	319.1	5	0	2	9	15	17			6	52 PCP
FLORISSANT	23.36	5.3	4	58	-1	9	5	5				
MANHATTEN	23.84	353.3	5	4A	0	9	15	7				
CHAPEL HILL	23.91	29.0	5	4	0							
BLOOMINGTON	24.32	12.5	5	7	-1	9	30	14				
CARACAS	25.94	97.8	5	20	-4							
SAN JUAN	25.94	79.8	5	22	-2	9	38	-5			8	52 PCP
GLEN CANYON	27.00	325.9	5	58	25							
WASHINGTON	27.25	28.0	5	36	0	10	56	51			8	52 PCP
CLEVELAND	27.78	18.8	5	36A	-4	9	51	-22				
BOULDER CITY	28.18	320.5	5	44	0							
PENNSYLVANIA	28.49	24.7	5	44A	-3							
ST. KITTS	29.16	82.1	5	51	-2							
PASADENA	29.27	314.0	5	54	0	10	46	9			7	44
RAPID CITY	29.79	345.2	5	59	1							
ANTIGUA	30.01	82.5	6	2	2							
SALT LAKE C.	30.03	330.8	6	1	1							
PALISADES	30.40	29.4	6	4	0	10	54	-1	6	18		
GRENADA	30.62	92.4	6	5	-1						8	56 PCP
FORT FRANCE	30.82	87.1	6	8	1							
ST. VINCENT	30.89	90.1	6	10	2							
TRINIDAD	31.21	95.0	6	8	-3	11	13	6			9	3 PCP
PRIEST	32.07	315.1	6	19A	1							
HUANCAYO	32.50	146.3	6	24	2							
LICK	33.38	316.2	6	30A	0							
RENO	33.49	320.9	6	32A	1							
BOZEMAN	33.68	337.0	6	33	1							
BERKELEY	34.08	316.5	6	36K	0	12	2	10				
BREBEUF	34.12	24.7	6	35	-1	11	57	4	6	54	7	47 PP
BUTTE	34.56	335.8	6	40	0							
CALISTOGA	34.71	317.4	6	42A	1							
MINERAL	35.07	320.6	6	45A	1							
SHAWINIGAN	35.32	24.5	6	45K	-1							
HUNGRY HORSE	37.05	336.7	7	2	1							

HALIFAX	38.28	34.6	7	32	21							
BANFF	39.92	338.0	7	24A	-1							
PENTICTON	40.10	333.0	7	26A	0							
SEATTLE	40.16	329.2	7	25	-2							
LA PAZ	40.19	141.2	7	27	0	13	29	4				
VICTORIA	41.30	329.4	7	36A	0							
ALBERNI	42.49	329.3	7	47A	1							
SANTA LUCIA	53.14	156.5	9	26	18							
HAWAII V.OB.	59.19	283.6	9	51	-1							
RESOLUTE	59.22	359.4	9	50A	-2							
COLLEGE	61.49	336.6	10	7	0	18	18	0	10	26		
KIPAPA	61.53	286.2	10	6	-1						10	50 PCP
HONOLULU	61.62	286.1	10	7	-1							
MOULD BAY	62.32	353.1	10	12	-1							
ALERT	68.16	4.2	10	48	-2							
NORD	72.81	8.6	11	15	-3							
MBOUR	73.15	79.4	11	18	-2						21	27
COIMBRA	76.15	51.8	11	37	0				12	0		
DURHAM	78.38	36.3	12	4	14	21	58	24			12	14 PCP
KEW	79.76	39.4	11	56	-1	21	46	-3			12	39
MALAGA	79.88	54.7	11	57K	-1							
FOLINIERE	80.22	42.1	11	58	-2							
GRANADA	80.41	54.1									13	26
BAGNERES	81.92	47.6	12	6	-3						12	51
PARIS	82.12	41.6	12	10	0						12	33
UCCLE	82.77	39.4	12	15	2	22	21	1				
GARCHY	82.89	43.0	13	12	59						16	1
DE BILT	82.92	38.0	12	17	3	22	28	7				
KHEYS	82.94	4.6	12	13K	-1	22	28	6				
SKALSTUGAN	82.94	25.8	12	15	1						12	57
TROMSOE	83.01	19.1	12	15	1							
AFIAMALU	83.10	253.6	12	15	0							
DOURBES	83.12	40.0	12	12	-3	22	11	-12				
CLERMONT-FD.	83.31	44.5	12	15K	-1							
WITTEVEEN	83.59	37.0	12	18	1							
KIRUNA	84.30	20.5	12	22	1	22	36	1			13	2
MUNSTER	84.40	37.6	12	21	0							
BENSBERG	84.44	38.7	12	22	1				12	35	13	4 PP
BESANCON	84.80	42.5	12	22	-1						13	6
GOTEBORG	84.89	31.4	12	23	0						13	6
KEVO	85.40	17.6	12	28	2							
FELDBERG	85.45	39.2	12	28	2							
STRASBOURG	85.54	40.9	12	26	-1	22	41	-6			13	9
COPENHAGEN	85.86	33.2	12	29	1	22	49	-1				
UMEA	86.09	24.1	12	30	1	22	49	-3	12	48	13	11
ROSELEND	86.42	43.8	12	28	-3							
STUTTGART	86.43	40.4	12	30	-1						13	13
SODANKYLA	86.59	19.7	12	32A	0						13	14
UPPSALA	86.75	28.2	12	34A	1	22	47	-12	12	52	13	12
JENA	87.08	37.8	12	35	1	23	14	12			16	16 PP
HALLE	87.10	37.2	12	36	2	22	57	-5				
KARLSKRONA	87.30	32.0	12	36	1						13	18
COLLMBERG	87.78	37.1	12	39	1	23	3	-5			14	26
CHEB	87.87	38.4	12	38	0	23	1	-8				
PETROPAVLOVK	88.36	325.0	12	40	0	23	14	0				
APATITY	88.60	18.0	12	42K	1						16	1 PKS
TIKSI	88.63	347.8	12	42A	0	23	21	5			23	1 SKS
KAJAANI	88.79	22.2	12	41	-1						13	17
KASPERSKE H.	88.95	39.0	12	43A	0						13	53
PRAGUE	89.09	37.9	12	43	-1						16	21
PRUHONICE	89.20	38.0	12	44	0	23	9	-13				
PADOVA	89.26	42.9	13	34	49	23	14	-8			16	34
MAGADAN	89.32	332.8	12	46	1	23	10	-13			16	21 PP
FLORENCE X.	89.43	44.6	12	49	4	23	20	-4				
NURMIJARVI	89.52	26.0	12	46A	0	23	10	-15			13	26
HELSINKI	89.83	26.2	12	47A	0						13	29
TRIESTE	90.39	42.2	12	49	-1	23	17	-15			23	46
LJUBLJANA	90.73	41.6	12	52	1						13	41
ROME	90.96	46.0	12	53	0	23	18	-19			17	43 PPP
VIENNA-H.	91.00	39.1	12	54	1							
ZAGREB	91.76	41.4				23	28	-16				
WARSAW	91.90	34.2				23	23	-23				
PULKOVO	92.29	25.0	13	0	1						23	28 SKKS
MESSINA	94.55	48.5				23	31	-38				
LWOW	94.74	35.3	13	10	0	23	38	-32			13	12 PCP
YAKUTSK	95.74	341.2				23	44	5			24	22 S
MOSCOW	97.88	25.7	13	24K	0	23	56	6				
BACAU	98.08	37.1				23	56	5				

IASI	98.12	36.3				23	48	-3			
FOCSANI	98.72	37.8				24	3	9			
BUCHAREST	98.74	39.3	12	56	-32	23	58	4	26	48	
ATHENS	100.44	45.8							26	34	
SIMFEROPOL	103.14	35.5				24	23	8	24	51	SKKS
SVERDLOVSK	104.70	14.6	13	54	0	24	30	8			
MATUSIRO	109.18	318.3							18	17	PP
KSARA	110.97	43.9	18	9	-11	25	27	38	18	54	PP
TIFLIS	111.08	32.6							18	53	PPP
GORIS	113.49	33.3							19	32	PP
PEKING	118.44	334.7							22	26	PP
RIVERVIEW	119.73	239.7							29	57	PS
ASHKABAD	120.47	26.0	18	42	4	25	33	8	20	10	PP
FRUNSE	120.90	10.5	18	42	3	25	38	12	20	18	PP
TASHKENT	121.18	15.5							20	5	PP
LWIRO	121.27	83.1	18	43A	3				19	5	
KIMBERLEY	121.50	114.4	18	12A	-28						
ZO-SE	123.19	324.8	18	46	2				20	25	PP
CHARTERS TS.	123.55	256.0	18	46	2						
DUZHANBE	123.62	17.1	18	45	1				20	30	PP
BROKEN HILL	123.67	97.2	18	46	1						
NANKING	123.74	327.4	18	47	2				20	18	PP
KHOROG	125.38	15.0	18	54	6						
SIAN	126.31	337.4	18	52	2	19	13		20	45	PP
LANCHOW	126.32	343.0	18	53A	3	19	13		20	44	PP
WARSAK DAM	128.67	16.4	18	57	3				22	19	PKS
CHENGTU	131.28	340.3	19	2	3	19	23		21	22	PP
DEHRA DUN	133.68	10.6	19	6	2				28	23	
CANTON	133.78	325.4	19	8	4	19	29		21	54	PP
HONG KONG	133.94	323.9	19	29	25				22	57	PP
MANILA	134.87	309.9	19	4	-2				22	16	PPP
LHASA	134.98	354.9	19	11	5						
NEW DELHI	135.21	12.2	19	9A	3				21	39	PP
KUNMING	136.81	338.8	19	12	3	19	33		21	55	PP
SHILLONG	138.93	353.2	19	7	-6						
TANANARIVE	142.28	101.0	19	23	4				22	39	PP
BOMBAY	143.13	22.6	19	5	-16				27	43	
POONA	143.84	21.3	19	22K	0				29	23	
VISHAKHAPTNM	146.83	6.3	19	37	10				20	36	
MUNDARING	148.70	233.2	19	32A	2						
MADRAS	150.94	13.6	19	50	17				20	40	
PORT BLAIR	152.43	347.7	19	39	3						
MEDAN	157.78	327.5	19	46	3				20	52	

APRIL 22 18.H 50.M 33.S EPICENTRE 39.97 143.64 DEPTH= 0.KM

A=-0.61884 B= 0.45562 C= 0.63987 D= 0.5929 E= 0.8053
G=-0.5153 H= 0.3794 K=-0.7685 HT= -1.7

SE= 3.52

	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
MIYAKO	1.32	256.5	0	25	-1	0	41	-3				
HATINOHE	1.71	289.7	0	31	0	0	55	1				
MORIOKA	1.92	262.6	0	34	0	0	59	0				
MIZUSAWA	2.11	247.3	0	36	-1	1	12	8				
URAKAWA	2.27	343.7	0	44	5	1	2	-6				
HIROO	2.32	354.2	0	49	9							
AOMORI	2.34	292.1	0	41	1	1	9	-1				
ISINOMAKI	2.37	230.2	0	39A	-2	1	14	3				
SENDAI	2.72	232.3	0	44	-2	1	18	-2				
AKITA	2.74	265.8	0	47	1	1	29	9				
HAKODATE	2.85	311.0	0	48	1	1	32	9				
OBIHIRO	2.96	353.8				1	35	9				
KUSIRO	3.06	10.5	0	51	1	1	27	-1				
TOMAKOMAI	3.07	330.4	1	4	13	1	29	0				
YAMAGATA	3.08	237.1	0	50	-1							
MURORAN	3.09	320.3									1	18
SAKATA	3.14	251.2	0	53	2	1	36	6				
MORI	3.15	313.5	0	57	5							
HUKUSIMA	3.32	229.1	0	53	-1	1	49	14				
SAPPORO	3.54	331.7	1	3	6	1	51	11				
NEMURO	3.66	22.8	0	59	0	1	38	-5				
SUTTSU	3.81	318.9	1	13	12							
SHIRAKAWA	3.91	224.3	1	1	-1	1	48	-2				
NIIGATA	4.12	241.6	1	25	20	2	16	21				

MITO	4.37	215.8	1	8	-1	2	10	9			
UTUNOMIYA	4.52	222.1	1	13	2				1	59	
KAKIOKA	4.63	217.2	1	11	-2						
TUKUBASAN	4.67	217.8	1	9A	-4				2	1	
MAEBASI	5.07	226.7	1	18A	-1	2	16	-3			
KUMAGAYA	5.08	222.7	1	17	-2	2	29	10			
TAKADA	5.11	237.5	1	19	0						
TOKYO C.M.O.	5.28	216.9	1	22	0						
TITIBU	5.37	223.5	1	21	-2						
NAGANO	5.40	234.1	1	22	-2						
OIWAKE	5.41	229.4	1	27	3	3	1	33			
MATUSIRO	5.48	233.0	1	23A	-2	2	47	18			
YOKOHAMA	5.53	216.1	1	36	11	3	0	29			
MATUMOTO	5.81	232.0	1	29	0						
KOHU	5.88	224.7	1	30	0	2	40	1			
HUNATU	5.90	222.3	1	38	7	2	41	1			
TOYAMA	6.02	239.2	1	30	-2						
AJIRO	6.09	217.7	1	30	-3						
MISIMA	6.11	219.0	1	35	1						
IIDA	6.40	227.8	1	41	3	2	50	-2			
SHIZUOKA	6.50	221.5							2	14	
OMAESAKI	6.88	220.5							3	0	
Y.-SAKHLINSK	7.08	354.9	1	47	0						
GIHU	7.10	232.2	1	59	11						
NAGOYA	7.14	229.9	1	50	2	3	20	9			
HIKONE	7.51	233.6	2	12	19						
KAMEYAMA	7.66	230.4							2	23	
KYOTO	7.99	234.3	1	57	-3	3	48	16			
ABUYAMA	8.19	234.1	2	0K	-3						
OSAKA	8.36	233.1	2	18	13						
VLADIVOSTOK	9.35	293.5	2	22	3						
HAMADA	10.50	244.8				3	52	-42	3	3	
CHANGCHUN	14.18	291.7	3	23	-1	6	24	21			
PETROPAVLOVK	16.60	33.2	3	59	4	7	13	13			
ZO-SE	20.27	251.1	3	58	-42	7	33	-49			
PEKING	21.02	279.0	4	44	-3						
YAKUTSK	23.65	343.6	5	15K	2	9	28	2			
ULAN-BATOR	27.41	299.1	5	47	-2						
LANCHOW	31.43	275.7	6	23	-2						
TIKSI	32.60	351.4	6	44	9						
ESEN BULAK	34.72	296.6	6	0	-53						
SHILLONG	45.24	267.8	8	18A	-3						
COLLEGE	45.68	33.7	8	24	0						
CHATRA	48.20	272.2	8	43K	-1						
ALMATA	48.76	296.9	8	46	-2						
AMDERMA	50.41	333.5	9	0A	-1						
SVERDLOVSK	54.13	317.7	9	28A	-1						
NEW DELHI	54.92	279.9	9	32A	-3						
RESOLUTE	59.32	15.3	10	4	-2						
SODANKYLA	62.94	337.2	10	29	-1						
VANNOVSKAYA	63.95	298.7	10	37	0						
KIRUNA	64.39	339.4	10	38	-2						
KAJAANI	64.72	334.1	10	41	-1						
MOSCOW	65.94	323.5	10	49	-1						
UMEA	67.30	336.3	10	57A	-2						
NURMIJARVI	68.17	332.2	11	2	-2						
TIFLIS	70.38	308.2	11	17	-1						
UPPSALA	71.08	334.4	11	20	-2						
WOODY	73.14	57.5	11	34	0						
GOTEBORG	74.60	335.4	10	48	-54						
COLLMBERG	79.41	331.0	11	6A	-63				12	9	
PRUHONICE	79.87	329.4	11	8	-64				12	12	
ALBUQUERQUE	81.37	51.4	12	19	-1						
WICHITA MTS.	86.11	46.9	12	47	3						

APRIL 22 19.H 15.M 31.5 EPICENTRE 32.16 130.45 DEPTH= 171.KM

A=-0.55021 B= 0.64545 C= 0.52978 D= 0.7610 E= 0.6487
G=-0.3437 H= 0.4032 K=-0.8481 HT= 1.1

DEPTH OF FOCUS= 0.022R

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

UNZENDAKE	0.59	343.7	0	27	2	0	32	-12				
KAGOSIMA	0.60	171.5	0	28A	3	0	46	1				
KUMAMOTO	0.69	18.1	0	25K	0	0	43	-2				
NAGASAKI	0.74	319.9	0	28K	2	0	46	0				
MIYAZAKI	0.86	106.1	0	25A	-1	0	45	-2				
ASOSAN	0.90	35.5	0	26	0	0	45	-2				
SAGA	1.09	353.6	0	31A	3	0	53	4				
NOBOEKA	1.13	68.2	0	26	-2	0	44	-6				
HUKUOKA	1.41	357.8	0	31K	0	0	59	4				
OOITA	1.45	42.7	0	30A	-1	0	52	-3				
YAKUSIMA	1.71	178.4	0	33A	-1	0	56	-4				
SIMONOSEKI	1.83	12.7	0	35	0	1	0	-2				
SIMIDU	2.22	73.3	0	37	-2	1	3	-7				
ITUHARA	2.25	334.6	0	43K	3	1	13	3				
MATUYAMA	2.58	48.9	0	42	-2	1	11	-6				
HIROSIMA	2.76	36.5	0	44	-2	1	16	-5				
KOTI	2.94	61.1	0	45A	-3	1	18	-7				
HAMADA	3.05	26.0	0	50	1	1	23	-4				
MUROTO	3.33	70.0	0	49K	-4	1	26	-8				
TSURUGISAN	3.43	59.7	0	52	-2	1	32	-4				
TAKAMATU	3.71	53.6	0	55A	-3	1	36	-6				
OKAYAMA	3.84	48.2	0	57A	-2	1	38	-7				
MATSUE	3.94	33.0	0	54	-7						1	43
TOKUSIMA	3.96	60.2	0	59	-2	1	31	-17				
HIMEJI	4.05	53.8	1	5	3	1	54	4				
SUMOTO	4.32	58.7	1	3	-3	1	49	-7				
WAKAYAMA	4.46	61.2	1	6	-1	1	53	-7				
SIOMISAKI	4.66	72.6	1	7	-3	1	55	-9				
SAIGO	4.68	29.9	1	11	1	2	11	6				
KOBE	4.69	56.4	1	7	-3	1	58	-7				
OSAKA	4.92	58.4	1	15	2	2	4	-6				
ABUYAMA	5.06	56.4	1	12A	-3							
NARA	5.15	59.4	1	21	5	2	13	-3				
OWASE	5.19	67.0	1	14	-3	2	9	-8				
KYOTO	5.25	55.7	1	14	-4	1	58	-20				
MAIZURU	5.27	50.0	1	35	17	2	12	-7				
TU	5.67	61.9	1	26	3	1	31	-57				
KAMEYAMA	5.70	60.3	1	24	0	2	22	-7				
TSURUGA	5.83	51.8	1	22	-3	2	27	-5				
HUKUI	6.17	49.5	1	33	3	2	37	-3				
GIHU	6.18	56.8	1	34	4	2	33	-7				
NAGOYA	6.21	59.4	1	31	1	2	37	-4				
HAMAMATU	6.59	65.3	1	44	9	2	52	2				
KANAZAWA	6.73	48.0									2	3
OMAESAKI	6.94	67.4	2	1	21							
IIDA	7.00	59.4	1	44	3	2	54	-5				
TOYAMA	7.18	49.1	2	7	24	2	37	-27				
SHIZUOKA	7.20	65.0				3	13	9			2	24
MATUMOTO	7.45	54.8	1	54	7	3	9	-1				
KOHU	7.60	60.4	2	2	13	3	27	13				
MISIMA	7.68	65.1	1	45	-5							
HUNATU	7.68	62.1	2	10	20	2	49	-27				
MATUSIRO	7.76	53.7	1	49	-2	3	10	-8				
AJIRO	7.77	65.9	1	48	-3							
NAGANO	7.82	52.8	2	11	19	3	26	7				
OIWAKE	7.89	56.0	2	5	12	3	18	-3				
ZO-SE	7.97	264.8	1	56	2	3	32	9				
TITIBU	8.11	59.7	2	16	21							
MAEBASI	8.29	57.0	2	21	23	3	34	4				
YOKOHAMA	8.32	64.5									3	33
KUMAGAYA	8.40	59.3	1	59	0	3	34	1				
TOKYO C.M.O.	8.49	63.1									3	41
UTUNOMIYA	8.93	58.1	2	19	13						3	56
TUKUBASAN	8.96	60.5	2	5	-2						4	0
KAKIOKA	9.02	60.6	2	13	6							
NIIGATA	9.09	48.5	2	25	17							
MITO	9.30	60.4									4	3
SHIRAKAWA	9.45	55.8									3	33
NANKING	9.90	272.5	2	26	7	4	26	18				
YAMAGATA	10.12	50.4	2	23	1							
VLADIVOSTOK	11.00	5.6	2	35	2							
AOMORI	11.98	41.0	2	58	12							
CHANGCHUN	12.33	342.3	2	55	5	5	19	14			3	36 *SP
PEKING	13.95	308.2	3	15	4	5	57	15	3	45	3	59 *SP
HONG KONG	17.47	239.8	3	55	1	7	13	12			4	47 *SP
CANTON	17.63	243.4	4	0	4	7	19	15	4	39	4	47 *SP
SIAN	18.13	282.4	4	4A	3	7	28	13			4	55 *SP
PAOTOW	18.43	302.8	4	8A	3	7	35	14	4	36	4	57 *SP
LANCHOW	22.35	287.3	4	48A	4	8	47	14	5	22		

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CHENGTU	22.60	273.2	4	49A	3	8	49	12					
ULAN-BATOR	23.79	318.2	4	59A	1	9	10	12					
KUNMING	25.26	261.0	5	23	11	9	39	17					
PETROPAVLOVK	29.11	35.9	5	45	-1								
ESEN BULAK	29.78	308.5	5	55	3								
YAKUTSK	29.87	359.3	5	53	0	10	36	0					
TIKSI	39.53	359.2	7	16K	1	13	5	0					
SEMIPALATNSK	41.01	311.5	7	30	3								
TANGERANG	44.36	215.0	7	55K	0								
AMDERMA	52.88	336.0	8	59A	-1								
SVERDLOVSK	52.88	319.7	9	1K	1								
KHEYS	55.62	349.1	9	17K	-3	16	48	-2	9	57			
COLLEGE	57.92	29.9	9	35	-1						10	10	
ASHKABAD	57.96	297.4	9	39	3						19	1	SCS
APATITY	63.30	334.7	10	11A	-1	18	27	-2					
MOULD BAY	63.63	14.5	10	13A	-2								
KEVO	64.65	338.0	10	20	-1								
ALERT	65.40	1.8	10	25A	-1								
SODANKYLA	65.79	335.7	10	28A	-1						10	56	PCP
GORIS	66.24	302.8	10	32A	1								
TIFLIS	66.46	305.5	10	34	1						19	58	SCS
KAJAANI	66.82	332.2	10	34A	-1				11	19	11	1	PCP
TROMSOE	67.21	339.3	10	36	-2								
PULKOVO	67.57	327.4	10	39	-1								
KIRUNA	67.67	337.3	10	39A	-1								
RESOLUTE	69.38	11.7	10	50A	-1								
NURMIJARVI	69.74	329.5	10	52A	-1				11	37			
HELSINKI	69.78	329.1	10	53A	0								
UMEA	69.83	333.7	10	53A	-1						11	13	
THULE	71.04	4.6	10	59	-2								
SKALSTUGAN	72.86	335.6	11	10A	-2								
UPPSALA	73.06	330.9	11	12A	-1				11	57			
ALBERNI	74.99	41.0	11	23A	-1								
LWOW	75.62	320.1	11	28A	1								
SCORESBY SD.	75.74	350.8	11	28	0								
KARLSKRONA	76.13	328.5	11	30A	0								
VICTORIA	76.17	41.1	11	30A	0								
FORT NELSON	76.32	167.3	11	29A	-2								
GOTEBORG	76.71	331.0	11	32A	-1								
PENTICTON	77.80	39.0	11	38A	-1								
COLLMBERG	80.39	325.6	11	54A	1				12	37	15	1	PP
BELGRADE	80.46	317.3	11	54K	0						12	39	
PRUHONICE	80.48	323.9	11	55A	1						12	37	
HALLE	80.76	326.2	11	56	1						12	42	
JENA	81.31	325.9	11	58	0						12	41	
KARAPIRO	81.42	145.5	11	59	0				12	40			
MINERAL	81.85	47.3	12	0A	-1								
CALISTOGA	82.21	49.1	12	3A	0								
CHATEAU	82.43	146.3	12	3	-1						12	55	
BERKELEY	82.86	49.6	12	7A	1								
TUAI	82.88	145.0	12	5	-1				12	46			
LJUBLJANA	83.00	320.9	12	8A	1				12	51			
BENSBERG	83.33	327.8	12	9A	0						12	18	PCP
RENO	83.43	47.1	12	10	1								
LICK	83.57	49.7	12	11K	1								
TRIESTE	83.67	320.9	12	11	1				12	54			
STUTTGART	83.87	325.3	12	12	1				12	55			
DURHAM	84.10	334.4	12	13	1	22	30	9					
UCCLE	84.70	329.0	12	17	2								
STRASBOURG	84.72	325.8	12	16	0								
PRIEST	84.91	50.3	12	17A	0								
ROXBURGH	84.95	153.7	12	16	-1								
DOURBES	85.10	328.4	12	18	1	22	10	-21					
KEW	86.16	331.7	12	22	-1								
WOODY	86.34	49.7	12	24	0				13	7			
PAVIA	86.38	322.7									18	17	
ROSELEND	86.95	323.7	12	28	2								
PARIS	86.98	328.5	12	27	0								
GARCHY	87.85	327.2	12	31	0						13	4	
FOLINIERE	88.30	330.0	12	33	0								
RAPID CITY	89.72	35.5	12	40	0								
LARAMIE	90.50	38.7	12	44	1								
TUCSON	93.67	48.1	12	59	1						13	41	
TUCSON TELE.	93.68	48.0	12	59	1						13	41	
ALBUQUERQUE	94.49	43.7	13	2	0								
BYRD STATION	124.91	168.5	18	35	-4								
LA PAZ	157.04	51.6	19	38	4								

APRIL 23 3.H 54.M 40.S EPICENTRE 36.13 140.65 DEPTH= 87.KM

A=-0.62597 B= 0.51335 C= 0.58706 D= 0.6341 E= 0.7732
G=-0.4539 H= 0.3723 K=-0.8095 HT= -0.3

DEPTH OF FOCUS= 0.008R

SE= 6.15

	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
MITO	0.28	330.2	0	11A	-4	0	20	-6				
KAKIOKA	0.39	284.6	0	9A	-7	0	18	-9				
TYOSI	0.44	157.9	0	16A	0	0	26	-2				
TUKUBASAN	0.45	281.4	0	8	-8							
UTUNOMIYA	0.75	303.9	0	10A	-8	0	17	-15				
HONGO	0.83	239.6				0	20	-13				
ONAHAMA	0.84	14.0	0	19A	0	0	34	1				
TOKYO C.M.O.	0.86	238.4	0	11A	-8	0	21	-12				
KUMAGAYA	1.02	271.4	0	9K	-12	0	16	-20				
SHIRAKAWA	1.04	341.0	0	17K	-4	0	29	-7				
YOKOHAMA	1.07	229.4	0	15K	-6	0	28	-9				
TITIBU	1.28	263.6	0	12	-12	0	21	-20				
MAEBASI	1.30	282.3	0	11K	-13	0	21	-21				
MERA	1.38	209.0	0	21K	-4	0	37	-7				
HUKUSIMA	1.62	355.1	0	26K	-2	0	47	-2				
HUNATU	1.65	248.1	0	19	-10	0	34	-16				
AJIRO	1.66	229.8	0	21	-8	0	36	-14				
OIWAKE	1.71	277.3	0	17	-12	0	32	-19				
OSIMA	1.71	217.6	0	22K	-7	0	39	-12				
MISIMA	1.71	234.3	0	22	-7	0	34	-17				
KOHU	1.75	255.4	0	19K	-11	0	33	-19				
MATUSIRO	2.01	282.4	0	21K	-12	0	37	-21				
NAGANO	2.04	285.9	0	22K	-12	0	39	-19				
YAMAGATA	2.13	353.7	0	33K	-2	1	1	1				
SENDAI	2.14	5.4	0	34K	-1	1	0	-1				
TAKADA	2.16	297.3	0	25K	-10	0	45	-16				
MATUMOTO	2.17	273.9	0	25	-10	0	43	-18				
SHIZUOKA	2.17	238.3	0	29	-6	0	48	-13				
NIIGATA	2.19	324.9	0	30K	-6	0	55	-7				
ISINOMAKI	2.36	13.0	0	38K	0	1	5	-1				
IIDA	2.37	255.9	0	29K	-9	0	51	-15				
OMAESAKI	2.50	233.1	0	36	-4							
AIKAWA	2.69	315.2	0	32	-11							
TAKAYAMA	2.75	271.4	0	33	-10	1	0	-16				
HAMAMATU	2.77	240.3	0	34	-10							
TOYAMA	2.84	282.5	0	52	7	1	25	7				
SAKATA	2.84	347.0	0	43K	-2							
MIZUSAWA	3.02	7.2	0	48	1	1	24	2				
HATIDYOZIMA	3.11	193.4	0	44	-4	1	20	-5				
NAGOYA	3.14	253.3	0	39	-10	1	12	-14				
GIHU	3.23	258.1	0	41	-9	1	9	-19				
WAZIMA	3.25	293.6	0	42	-8							
HUKUI	3.58	270.0	0	44	-11	1	19	-17				
MORIOKA	3.59	6.5	0	55K	0	1	37	0				
AKITA	3.61	353.3	0	56	1	1	37	0				
KAMEYAMA	3.64	250.6	0	52	-4	1	26	-12				
TU	3.66	248.2	0	53	-3	1	25	-13				
MIYAKO	3.66	16.2	0	56	0	1	42	4				
HIKONE	3.68	257.8	0	46	-10	1	35	-4				
TSURUGA	3.75	264.0	0	47	-10	1	24	-16			1	39
KYOTO	4.16	255.9	0	51	-12	1	35	-16				
OWASE	4.18	241.8	0	54	-9	1	54	3				
NARA	4.19	251.2	0	55	-8	1	51	-1				
MAIZURU	4.32	262.7	0	56	-9	1	52	-3				
ABUYAMA	4.33	254.6	0	53A	-12							
OSAKA	4.43	252.0	1	12	5	1	57	-1				
HATINOHE	4.45	8.7	1	6	-1	2	2	4				
AOMORI	4.68	1.3	1	13	3	2	8	4				
SIOMISAKI	4.82	237.7	1	41	29	2	18	11				
WAKAYAMA	4.87	248.6	1	20	7	2	14	6				
SUMOTO	5.02	250.8	1	6	-9	2	8	-4				
TOKUSIMA	5.38	249.3	1	42	22							
HAKODATE	5.67	0.9	1	28	4	2	43	15				
TAKAMATU	5.69	253.4	1	24	0	2	25	-4				
SAIGO	5.92	272.8	1	19	-8							
MORI	5.96	359.5	1	37	9							
MUROTO	6.05	243.5	1	32	3	2	48	10				
MATSUE	6.19	265.9	1	8	-23	2	7	-34				
URAKAWA	6.23	14.8	1	31	0	2	45	3				

KOTI	6.39	248.3							2	27	
HIROO	6.48	17.9			2	44	-3				
TOMAKOMAI	6.53	6.1							2	27	
MATUYAMA	6.85	252.8	1	35 -5	2	55	-2				
SAPPORO	6.95	4.3	1	44 3	3	9	9				
OBIHIRO	7.06	15.5			2	59	-3				
HAMADA	7.10	262.5	2	2 19	3	22	19				
KUSIRO	7.43	21.8			3	6	-5		6	12	
OOITA	7.98	251.3			3	52	27		3	36	
NEMURO	8.13	26.4			3	24	-4				
HUKUOKA	8.81	256.2			3	55	11				
KUMAMOTO	8.85	251.0			4	18	34				
YAKUTSK	26.80	348.6	5	31 -3	9	54	-8				
TIKSI	36.09	353.7	6	52A -3							
SHILLONG	42.79	269.8	7	43A -8							
DARWIN	49.13	192.7	8	35 -6							
COLLEGE	50.18	31.8	8	51 2							
DEHRA DUN	51.90	282.7	8	55 -7							
AMDERMA	52.82	334.6							14	4	
NEW DELHI	53.30	281.1	9	6A -7							
KHEYS	53.40	348.3							14	8	
TASHKENT	54.48	298.7	9	16 -5							
SVERDLOVSK	55.42	318.9	9	23K -5							
CHARTERS TS.	56.17	173.6	9	35 2							
MOULD BAY	57.57	16.2	9	43 0							
APATITY	63.26	335.7	10	18K -4							
RESOLUTE	63.63	14.2	10	24A 0							
VANNOVSKAYA	63.73	299.1	10	20 -5							
SODANKYLA	65.56	337.2	10	34 -3							
KAJAANI	67.13	333.9	10	43A -4							
KIRUNA	67.14	339.1	10	44 -3							
MOSCOW	67.61	323.4	10	46 -4							
UMEA	69.86	336.0	11	0A -4							
NURMIJARVI	70.45	331.8	11	3A -4							
HELSINKI	70.55	331.5	11	4A -4							
SKALSTUGAN	72.53	338.4	11	16 -4							
MINERAL	72.84	52.4	11	25A 4							
UPPSALA	73.49	333.8	11	22A -3							
EUREKA	76.90	50.6	11	49 4							
KARLSKRONA	76.91	332.0	11	48 3							
GOTEBORG	77.07	334.5	11	42 -4							
WOODY	77.23	55.1	11	51 4							
UZHGOROD	79.38	323.6	11	55 -3							
NIEDZIKA	79.77	325.1	11	58 -2							
KARAPIRO	80.46	152.7	12	7 3				12	27		
COLLMBERG	81.57	329.8	12	7A -3						15	12 PP
CHATEAU	81.58	153.3	12	12K 2							
JERUSALEM	82.86	304.2	12	14 -3							
TUCSON	84.62	53.8	12	30 5							
TUCSON TELE.	84.63	53.7	12	30 5							
STUTTGART	85.05	330.1	11	25 -63							
ALBUQUERQUE	85.64	49.4	12	35 5				12	51		
FOLINIERE	88.67	335.5	12	43 -2							
WICHITA MTS.	90.47	45.1	12	56 3						13	13
FAYETTEVILLE	91.91	41.5	13	2 2							
SAN JUAN	120.16	29.6								21	5
SOUTH POLE	125.95	180.0	18	54 2							
AREQUIPA	145.40	64.0	19	33 5							
LA PAZ	147.83	60.1	19	37 5							

APRIL 23 5.H 58.M 12.S EPICENTRE 42.45 143.83 DEPTH= 66.KM

A=-0.59747 B= 0.43675 C= 0.67251 D= 0.5901 E= 0.8073
G=-0.5429 H= 0.3969 K=-0.7401 HT= -2.6

DEPTH OF FOCUS= 0.005R

SE= 2.95

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
HIROO	0.42	245.6	0	13A	-1	0	21	-3				
OBIHIRO	0.66	315.1	0	16K	0	0	33	5				
KUSIRO	0.67	38.3	0	17K	1	0	28	0				
URAKAWA	0.84	249.1	0	18A	0	0	31	0				
NEMURO	1.55	55.1	0	28K	2	1	6	20				

ABASHIRI	1.60	11.6	0	30A	3						
TOMAKOMAI	1.67	276.8	0	30	2	0	49	0			
ASAHIGAWA	1.70	321.5	0	29K	1	0	53	3			
SAPPORO	1.93	289.4	0	32K	1	0	55	0			
MURORAN	2.12	267.3	0	34A	0	0	58	-2			
RUMOE	2.20	313.5	0	58	23	1	25	23			
HAKODATE	2.37	255.3	0	38A	0	1	6	0			
HATINOHE	2.59	222.8	0	39A	-2	1	10	-1			
SUTTSU	2.68	278.6	0	45	3	1	17	3			
AOMORI	2.81	235.5	0	45A	1	1	21	4			
MIYAKO	3.14	207.3	0	46A	-2	1	21	-4			
WAKKANAI	3.35	333.1	0	55A	4	1	28	-2			
MORIOKA	3.41	217.1	0	51A	-1	1	30	-2			
MIZUSAWA	3.90	212.6	0	59	0	1	51	7			
AKITA	3.93	227.2	1	1	2	1	47	2			
KURILSK	4.03	45.1							2	2	
ISINOMAKI	4.45	206.3	1	4A	-3	1	52	-6			
Y.-SAKHLINSK	4.63	350.5	1	8A	-1	2	1	-1			
SAKATA	4.68	221.9	1	10A	0	2	3	0			
SENDAI	4.74	209.2	1	9	-2	2	1	-4			
YAMAGATA	4.97	213.5	1	13A	-1	2	9	-2			
HUKUSIMA	5.36	209.9	1	17A	-2	2	20	0			
NIIGATA	5.82	220.5	1	26	0	2	38	6			
ONAHAMA	5.94	203.3	1	24K	-3	2	33	-2			
SHIRAKAWA	6.01	208.8	1	26	-2	2	37	0			
MITO	6.60	204.3	1	33A	-4	2	45	-6			
UTUNOMIYA	6.64	208.8	1	35A	-2	2	47	-5			
UGLEGORSK	6.74	350.1	1	39	1						
KAKIOKA	6.83	205.7	1	36K	-4	2	50	-7			
TAKADA	6.86	220.6	1	39	-1	2	53	-5			
TUKUBASAN	6.86	206.1	1	35	-5	2	52	-6			
MAEBASI	7.08	212.9	1	41A	-2	3	13	10			
TYOSI	7.11	200.0	1	41	-3	3	0	-4			
KUMAGAYA	7.18	210.2	1	42K	-3	2	50	-15			
MATUSIRO	7.33	218.2	1	45A	-2	3	15	6			
WAZIMA	7.35	228.7	1	47	0	3	11	1			
OIWAKE	7.36	215.5	1	47	0	3	24	14			
HONGO	7.44	206.5	1	49	1					3	46
TITIBU	7.44	211.3	1	46	-2	3	15	3			
TOKYO C.M.O.	7.47	206.5	1	45K	-4	3	8	-5			
MATUMOTO	7.68	218.2	1	52	1	3	28	10			
TOYAMA	7.70	223.9	1	51	-1	3	21	3			
YOKOHAMA	7.73	206.3	1	51K	-1	3	16	-3			
KOHU	7.92	212.9	1	57K	2	3	22	-2			
HUNATU	7.98	211.2	1	58	2	3	25	0			
TAKAYAMA	8.10	221.2	2	1	4					4	33
KANAZAWA	8.11	225.5	1	58	1	3	28	-1			
MERA	8.15	203.9	1	58	0	3	26	-3			
MISIMA	8.25	209.1	1	58K	-1	3	26	-6			
AJIRO	8.26	208.1	1	56	-3	3	27	-5			
IIDA	8.35	216.0	2	1	0	3	37	3			
OSIMA	8.42	205.9	1	58	-4	3	29	-7			
SHIZUOKA	8.59	211.4	2	2	-2	3	32	-8			
HUKUI	8.70	225.2	2	28	23	4	12	29			
NAGATURO	8.76	208.1	2	35	29	3	43	-1			
VLADIVOSTOK	8.80	278.4	2	6K	-1	3	52	6			
GIHU	8.94	220.3	2	8	-1	3	49	0			
OMAESAKI	8.99	211.1	2	12	3	3	52	2			
NAGOYA	9.03	218.6	2	8K	-2	3	53	2			
HAMAMATU	9.08	213.8	2	12K	1	4	6	14			
TSURUGA	9.09	224.2	2	12	1	3	53	1			
HIKONE	9.33	222.0	2	17	3	3	58	0			
KAMEYAMA	9.53	219.6	2	20K	3	3	12	-51			
MAIZURU	9.58	226.1	2	20K	3	4	5	0			
TU	9.62	218.9	2	23	5	3	3	-63			
KYOTO	9.75	223.1	2	16K	-4	4	9	0			
HATIDYOZIMA	9.87	200.2	2	21	0	4	0	-12			
ABUYAMA	9.95	223.2	2	22K	-1						
NARA	9.97	221.5	2	24	1						
OSAKA	10.14	222.5	2	26K	1	4	27	9			
SAIGO	10.25	235.9	2	29	2	4	22	1			
OWASE	10.29	218.1	2	32K	5	4	31	9			
KOBE	10.30	223.9	2	19	-8	4	21	-1			
WAKAYAMA	10.66	222.4	2	35K	3	4	42	11			
SUMOTO	10.70	223.7	2	33	0	4	29	-3			
HIMEJI	10.84	226.0	2	33	-2	5	6	31			
MATSUE	10.91	233.7	2	34	-2	4	43	6			
OKAYAMA	10.97	228.2	2	42	6	4	56	18			
SIOMISAKI	11.01	217.9	2	39	2						

TOKUSIMA	11.08	224.0	2	40	2						
TAKAMATU	11.17	226.6	2	37	-2	4	41	-2			
TSURUGISAN	11.55	225.2	2	40	-4	4	58	6			
HAMADA	11.88	234.5	2	50	1	5	8	8			
MUROTO	11.93	222.8	2	51	2	5	11	10			
KOTI	12.03	225.8	2	49	-2	5	12	8			
HIROSIMA	12.04	231.6	2	51K	0	5	5	1			
MATUYAMA	12.22	228.9	2	52	-1	5	6	-2			
TORISIMA	12.28	194.5	2	52	-2	5	0	-10			
SIMIDU	12.95	225.2	3	2	-1	5	45	19			
SIMONOSEKI	13.22	234.3	3	2	-4						
OOITA	13.33	230.3	3	9K	1	5	40	5			
CHANGCHUN	13.60	282.1	3	8K	-3	5	38	-3			
HUKUOKA	13.80	234.5	3	15	1	5	48	2			
ASOSAN	13.88	230.8	3	15	0	5	49	1			
ITUHARA	14.07	238.9	3	18	1	5	45	-7			
SAGA	14.08	233.7	3	18	1						
KUMAMOTO	14.15	231.5	3	16K	-2	5	42	-12			
MIYAZAKI	14.42	227.2	3	23	1	6	5	4			
UNZENDAKE	14.48	232.3	3	24	1	6	11	9			
PETROPAVLOVK	14.50	38.1	3	18A	-5					6	33
NAGASAKI	14.70	233.2	3	23K	-3	6	20	13			
KAGOSIMA	15.16	228.6	3	34	2	7	0	42			
YAKUSIMA	16.06	226.1	3	43	0	6	36	-3			
MAGADAN	17.65	11.8	4	0A	-3	7	16	1			
MAWASHI	20.91	224.4	4	41	2	8	41	18			
PEKING	20.91	272.7	4	35	-4	8	18	-5			
YAKUTSK	21.33	341.6	4	37A	-6						
ZO-SE	21.33	245.3	4	40	-3	8	32	1			
NANKING	22.40	250.6	4	51	-3	8	51	0			
ISIGAKIZIMA	24.32	228.2	5	8	-4						
PAOTOW	25.29	277.3	5	21	-1	9	40	0			
TAIPEI	25.30	233.7	5	25	3	9	52	12			
ILAN	25.36	232.9	5	26	4						
HSINCHU	25.80	234.2	5	30	3						
HWALIEN	26.05	232.0	5	26	-3	10	40	47			
TAICHUNG	26.46	233.7	5	40	7						
YUSHAN	26.81	232.3	5	44	8						
HSINKONG	26.86	231.1	5	33	-3						
ALISHAN	26.87	232.6	5	41	5						
TAITUNG	27.26	231.0	6	6	26					12	3
TAINAN	27.61	232.8	5	51	8						
TAWU	27.72	230.9	5	46	2	10	36	16			
KAOHSIUNG	27.87	232.2	5	56	10						
HENGCHUN	28.08	230.6	5	49	2	10	48	22			
IRKUTSK	28.19	304.1	5	46A	-2	10	27	-1			
SIAN	28.42	264.9	5	49K	-1	10	34	3			
GUAM	28.90	178.2	5	53K	-2	11	36	57			
TIKSI	30.17	350.6	6	0A	-6	10	47	-12		14	38
LANCHOW	31.41	271.8	6	16	-1	11	20	1			
CANTON	31.84	242.3	6	20K	-1	11	26	1			
HONG KONG	31.87	240.2	6	21K	0	11	18	-8			
CHENGTU	33.80	262.8	6	36K	-2	11	56	0			
ESEN BULAK	33.81	293.3	6	40	2	11	57	1			
MANILA	33.93	222.1	6	57	18	12	17	19			
KUNMING	37.86	256.1	7	12K	0	13	0	2		8	38 PP
TOCKLAI	42.72	264.7	7	57	5					8	38
COLLEGE	43.55	35.2	7	59A	0	14	30	7			
LHASA	43.90	270.8	8	3	1	14	28	0			
SHILLONG	45.53	265.5	8	13K	-2	14	51	0		10	15 PP
RABAUL	47.05	168.6	8	18	-9						
CHITTAGONG	47.47	261.9	8	29K	-1	15	21	2		10	3 PCP
KHEYS	47.75	347.2	8	27K	-5	15	20	-3		10	17 PP
ALMATA	47.81	295.0	8	35A	2	15	24	1		10	23 PP
AMDERMA	48.27	332.5	8	34A	-2						
CHATRA	48.29	270.2	8	34K	-2	15	28	-2		10	25 PP
FRUNSE	49.55	295.3	8	48A	2	15	49	1		10	45 PP
CALCUTTA	49.90	264.7	8	55	6	16	2	9		10	54 PP
MOULD BAY	50.81	17.9	8	54A	-2						
BOKARO	51.02	267.9	8	58A	1	16	9	1		16	26 PS
SITKA	51.13	43.9	8	59	1	16	16	6		11	4 PP
SVERDLOVSK	52.42	316.5	9	6K	-2						
KIPAPA	52.55	94.3	9	11	2						
HONOLULU	52.56	94.7	9	14	5	16	41	12			
DEHRA DUN	53.11	279.6	9	12	-1	16	38	1		11	24 PP
HONIARA	53.70	160.1	9	16	-1	16	50	5			
TASHKENT	53.78	295.9	9	20A	2	16	45	-1			
PORT BLAIR	53.82	250.8	9	20K	2	16	48	2		11	14 PP

KHOROG	54.09	290.7	9	19	-1	16	52	2		
ALERT	54.61	4.1	9	21	-3					
NEW DELHI	54.68	278.3	9	22K	-2	16	54	-4	11	25 PP
MEDAN	55.76	238.9	9	33	1	17	20	8		
HAWAII V.OB.	55.80	94.4	9	34	1	17	6	-7		
WARSAK DAM	55.85	287.0	9	31	-2	17	11	-2		
VISHAKHAPTNM	56.60	263.7	9	39K	1	17	26	3	11	46 PP
RESOLUTE	56.89	15.7	9	38A	-2					
SEHORE	57.86	273.1	9	46	-1	17	40	0	10	37 PCP
APATITY	58.54	335.0	9	49A	-3	17	49	0	13	22 PPP
DJAKARTA	58.95	224.3	9	55	0	17	50	-4		
TANGERANG	59.05	224.5	9	53K	-2	17	57	2		
KEVO	59.05	338.8	9	53	-2					
LEMBANG	59.10	223.1	9	52	-4				12	10
THULE	59.64	8.4	9	56K	-4	16	55	-68	12	27 PP
ALBERNI	60.21	49.0	10	2A	-1					
HYDERABAD	60.36	266.9	10	4K	0	18	10	-2	11	58 PP
SODANKYLA	60.71	336.8	10	5A	-2	18	13	-4	39	38 PKPPKP
TROMSOE	61.21	340.9	10	8	-2					
VICTORIA	61.40	49.2	10	10A	-1	18	32	7		
MADRAS	61.94	261.8	10	16A	1	18	36	4	12	44 PP
KIRUNA	62.12	339.0	10	13A	-3	18	31	-4	39	28 PKPPKP
CHARTERS TS.	62.27	177.4	10	16K	-1				14	1
KAJAANI	62.56	333.6	10	17	-2	18	39	-1	39	29 PKPPKP
ASHKABAD	62.75	297.6	10	22	1	18	45	3		
PENTICTON	63.04	46.8	10	22A	0					
POONA	63.08	271.0	10	20K	-3	18	45	-2	12	39 PP
BOMBAY	63.61	272.0	10	27	1	18	54	1	12	36 PP
PORT VILA	64.00	153.9	10	31K	2	19	16	18		
MOSCOW	64.04	322.8	10	27	-2	18	57	-2		
BANFF	64.11	43.5	10	28A	-1					
PULKOVO	64.49	329.1	10	29	-3	19	2	-2	12	58 PP
UMEA	65.10	336.0	10	33A	-3	19	9	-3	12	56 PP
KOUMAC	65.48	158.9	10	37K	-1				14	12 PP
KODAIKANAL	65.75	261.5	10	45	5	19	21	1	19	51 PS
NURMIJARVI	66.05	331.8	10	39A	-3	19	18	-5	13	8 PP
HELSINKI	66.18	331.4	10	40A	-3	19	26	1	39	25 PKPPKP
HUNGRY HORSE	66.60	45.3	10	49	4					
UKIAH	66.85	57.6	10	48	1	19	48	15		
SCORESBY SD.	66.91	354.9	10	45	-2	19	38	4		
MINERAL	67.13	55.8	10	48A	-1					
CALISTOGA	67.55	57.7	10	51A	0					
SKALSTUGAN	67.55	338.8	10	49A	-2	19	46	5	39	13 PKPPKP
NOUMEA	67.73	157.4	10	53K	1	19	53	10		
BERKELEY	68.21	58.2	10	55A	0					
SUVA	68.22	144.5	10	55	0	20	38	49		
TEHERAN	68.57	299.2	10	57	-1	19	53	0		
RENO	68.71	55.6	10	49A	-10					
BUTTE	68.83	46.6	11	3	4	20	3	6		
UPPSALA	68.91	334.1	10	57A	-3	19	52	-6	20	31 PS
LICK	68.92	58.4	11	0A	0					
TIFLIS	68.97	307.6	10	59	-1	19	56	-2	13	36 PP
AFIAMALU	69.33	133.5	11	7K	5	19	58	-5		
GORIS	69.43	305.0	11	5A	2	20	8	4		
BOZEMAN	69.87	46.1	11	6A	0				13	36 PP
BRISBANE	69.98	171.5	11	6	0	19	54	-16		
PRIEST	70.28	58.9	11	9A	1					
BERGEN	72.03	339.8	11	17	-2	20	36	2	11	33 PCP
GOTEBORG	72.41	335.2	11	18A	-3	20	33	-5	13	42
KARLSKRONA	72.48	332.6	11	21A	0	20	44	5	14	2 PP
SALT LAKE C.	72.63	50.4	11	22A	0					
SIMFEROPOL	72.77	315.6	11	22	-1	20	44	2	14	8 PP
PASADENA	73.12	59.1	11	25	0	20	52	6	14	12 PP
SIDA	73.14	351.7	11	26	1					
REYKJAVIK	73.16	353.5	11	26A	1	20	21	-26		
WARSAW	73.53	327.4	11	30K	3	20	49	-2	14	14 PP
COPENHAGEN	73.91	333.7	11	28A	-2	20	56	1		
BOULDER CITY	74.02	55.8	11	31A	1					
LWOW	74.09	324.2	11	30	-1	20	58	1		
IASI	74.42	320.6	11	34	1	21	4	3		
RAPID CITY	75.04	43.4	11	36	0	21	12	4		
BACAU	75.19	320.5	11	39	2	21	23	14		
GLEN CANYON	75.31	53.3	12	6A	28					
KRAKOW	75.64	326.5	11	39	-1	21	15	1		
FOCSANI	75.69	319.7	11	50	10	21	26	11		
SKALNATE PL.	76.18	325.7	11	46	3	21	26	6	14	30 PP
RIVERVIEW	76.21	173.7	11	43K	0	21	28	8	12 10	14 32 PP
RACIBORZ	76.32	327.4	11	43	0	21	24	2		11 56 PCP

ABERDEEN	76.70	941.7	11	45	-1	21	27	1	14	36 PP
CAMPULUNG	77.03	320.6	11	53	6	21	31	2		
BUCHAREST	77.16	319.4	11	50A	2	21	34	3	14	42 PP
COLLMBERG	77.31	330.9	11	48A	-1	21	33	1	22	14 PS
HALLE	77.52	331.5	11	49	-1	21	32	-3		
CANBERRA	77.54	175.7	11	50K	0	21	41	6	14	46 PP
PRAGUE	77.79	329.4	11	52K	0	21	40	3	14	17 PP
BUDAPEST	78.02	325.3	11	56	3	21	43	3	14	36 PP
HURBANOVO	78.06	326.0	12	0	7	21	46	6	15	0 PP
EDINBURGH	78.09	341.7	11	45	-8	21	38	-3	14	43 PP
JENA	78.12	331.4	11	52	-1	21	42	1	14	57 PP
WITTEVEEN	78.16	335.1	11	53	-1					
ISTANBUL UN.	78.19	315.5	11	53	-1	21	43	1		
BRATISLAVA	78.27	326.8	11	56	2	21	41	-2	14	40 PP
MUNDARING	78.29	203.7	11	52K	-2					
PERTH	78.38	204.0	11	59	4	21	52	8	15	8 PP
TIMISOARA	78.41	323.0	12	4	9	21	52	8		
VIENNA-H.	78.50	327.2	11	56	0	21	50	5	14	45 PP
SZEGED	78.51	323.9	11	35	-21	21	23	-22	14	35 PP
CHEB	78.54	330.5	11	58	2	21	45	-1		
MUNSTER	78.59	334.1	11	55	-1					
DURHAM	78.75	340.4	12	2K	5	21	53	5	14	59 PP
KALOCSA	78.78	324.7	12	0	3	21	49	1	22	6 PS
TUCSON	78.97	56.4	11	59A	1	21	56	6	15	1 PP
KSARA	79.48	306.3	12	4A	3	21	59	4	25	5 PP
BELGRADE	79.48	322.8	12	4A	3	21	56	1	22	16 SKS
BENSBERG	79.60	333.8	12	0A	-2	21	57	0	14	56 PP
ALBUQUERQUE	79.72	51.8	12	3A	1	22	0	2	32	12 PKKP
SOFIA	79.78	319.8							12	16
FELDBERG	79.81	332.7	12	12	9					
HEIDELBERG	80.41	332.1	12	5A	-1					
ZAGREB	80.61	326.0	12	10	3	22	10	3		
UCCLE	80.64	335.3	12	6	-1	22	8	0		
STUTTGART	80.75	331.5	12	7A	-1	22	13	4	15	13 PP
KARLSRUHE	80.85	332.1	12	7	-1	22	10	0		
LJUBLJANA	81.02	326.9	12	8A	-1	22	13	1	15	18 PP
TUBINGEN	81.03	331.5	12	8	-1					
DOURBES	81.17	334.8	12	11	1	22	14	1		
SKOPJE	81.23	320.4	12	13	3	22	16	2		
JERUSALEM	81.30	305.3	12	10	-1	22	21	7		
EBINGEN	81.36	331.3	12	10	-1				27	24
KEW	81.40	338.3	12	10A	-1	22	18	3	15	16 PP
STRASBOURG	81.44	332.2	12	10	-1	22	18	2	15	11 PP
RAVENSBURG	81.46	330.7	12	10	-1					
TRIESTE	81.66	327.2	12	10A	-2	22	21	3	15	23 PP
TITOGRAD	81.89	322.0	12	16	2	22	27	7	12	48 PP
MANHATTEN	81.99	43.0	12	14A	0	22	24	3		
DUBUQUE	82.24	37.4	12	14A	-1	22	26	2		
CHUR	82.28	330.3	12	15	-1	22	26	2		
BASLE	82.40	331.8	12	14A	-2	22	27	1		
PADOVA	82.60	328.1	12	21A	4	22	30	2	17	36 PPP
ONERAHI	82.70	155.4	12	24	6				12	47
PARIS	82.96	335.4	12	19	0	22	30	-1	14	31 PP
NEUCHATEL	83.08	331.9	12	18	-2	22	34	2		
ATHENS	83.19	316.5	12	23A	3				15	36 PP
BESANCON	83.20	332.6	12	18	-2					
BOLOGNA	83.57	327.9	12	28	6	22	40	3	13	10
PAVIA	83.83	329.6	12	28	5	22	42	2	38	12
FOLINIERE	83.88	337.2	12	22	-2					
JERSEY	83.96	338.3	12	25	1	22	34	-7		
GARCHY	84.13	334.3	12	23	-2	22	44	1	15	42 PP
PRATO	84.18	327.7	12	31	6	21	52	-51		
FLORENCE X.	84.21	327.6				23	3	19	15	28
WICHITA MTS.	84.31	47.2	12	26A	0				15	46 PP
TARANTO	84.36	322.0	12	31	5	22	43	-2	37	48
CHIHUAHUA	84.43	56.1	12	26	0	22	48	2	15	56 PP
KARAPIRO	85.05	155.3	12	31K	1				12	59
FORT NELSON	85.06	177.4	12	30A	0				28	37 SS
ROME	85.27	325.8	12	32K	1	22	53	-1	15	53 PP
ROLLA	85.31	41.0	12	30	-1	22	58	3		
FLORISSANT	85.33	39.5	12	31A	0	22	52	-3		
CLERMONT-FD.	85.45	333.6	12	22	-10	22	56	0		
ISOLA	85.47	330.4	12	31	-1	22	49	-7		
ST. LOUIS 1	85.52	39.5	12	31A	-1	22	53	-4	12	35
FAYETTEVILLE	85.59	43.6	12	32	0	22	53	-4	27	53 SS
SHAWINIGAN	85.61	24.4	12	31	-1					
MONACO	85.72	329.9	12	32	-1				15	58 PP
CHATEAU	86.22	155.8	12	36	1				16	4 PP
BREBEUF	86.28	25.4	12	35A	-1	23	7	3	16	2 PP

TUAI	86.35	154.5	12	35	-1				16	3 PP
DALLAS	86.71	47.3	12	38	0					
BLOOMINGTON	86.78	36.8	12	38A	0	23	2	-7		
C. GIRARDEAU	86.91	39.8	12	43	4	23	2	-8		
CLEVELAND	86.96	32.4	12	35A	-4	22	58	-12		
MESSINA	86.97	321.7	12	40A	1	22	59	-11	16	8 PP
REGGIO CALA.	87.00	321.6							16	10
COBB RIVER	87.16	158.5	12	41	1	23	36	24	23	4 SKS
WELLINGTON	87.91	157.2	12	44	0	23	5	-14	16	16 PP
KAIMATA	88.16	160.0	12	50	5	23	31	9		
CUGLIERI	88.32	327.4							24	28 PPS
BAGNERES	88.82	334.3	12	46	-2	23	39	11	23	15 SKS
PENNSYLVANIA	88.95	30.3	12	49A	1					
GEBBIES PASS	89.58	159.5	12	51	0	23	43	8		
HALIFAX	89.90	19.2	12	52K	-1					
PALISADES	90.19	27.6	12	59A	5	23	44	4	23	21 SKS
FORDHAM	90.34	27.6	12	58	3	23	22	-20		
ROXBURGH	90.45	162.4	12	57	1	23	24	-19	16	34 PP
TORTOSA	90.72	333.0	13	0	3	23	26	-19		
WASHINGTON	90.91	30.7	13	1K	3	22	57	-50	16	5 PP
GUADALAJARA	91.89	59.7				23	36	-19	27	6
MANZANILLO	92.42	61.5							23	6
TOLEDO	93.03	335.8	13	8	1	23	41	-24	16	54 PP
SERRA PILAR	93.15	339.5	13	3A	-5	23	33	-33	16	48 PP
ALICANTE	93.27	332.7	13	8	-1	24	8	1	30	19 SS
COLUMBIA	93.52	36.0	13	12A	2	23	13	-57	16	50 PP
COIMBRA	93.98	339.1	13	11K	-1	24	13	0	17	4 PP
ALMERIA	95.30	333.5	13	17K	-1	23	50	4	17	12 PP
GRANADA	95.36	334.4	13	20A	2	23	52	5	17	16 PP
TACUBAYA	95.44	57.7	13	20	2	23	49	2	17	10 PP
LISBON	95.56	339.1	13	20	1	23	52	4	17	11 PP
MALAGA	96.04	334.8	13	22K	1	24	39	49	17	12 PP
ANGRA DO HO.	98.87	352.9	13	41A	7	24	50	45	17	46 PP
MERIDA	99.96	49.7				24	9	-1	17	48 PP
TANANARIVE	107.06	259.8	14	18	777				18	50 PP
LWIRO	109.83	285.8	14	46	777	25	5	10	19	0 PP
WILKES	111.45	193.8	18	32	6	25	7	5	19	12 PP
BANGUI	111.99	298.5	14	52	-215				19	32 PP
SAN JUAN	113.46	31.1	18	20	-10				19	20 PP
BALBOA HTS.	115.29	48.7	14	52	-222				29	19 PKKP
MIRNY	115.42	200.1	14	42	-232				19	40 PP
ST. KITTS	115.66	28.3							19	24
CAPE HALLETT	115.95	171.3	18	42	7					
GALERAZAMBA	116.06	43.6							19	54 PP
ANTIGUA	116.15	27.5							19	37
ST. CLAUDE	117.23	27.8							19	44 PP
BROKEN HILL	118.29	276.2	18	41	1					
ST. VINCENT	120.04	28.5							19	57
CARACAS	120.24	35.6	18	46	2					
M.BOUR	120.75	338.2	15	14	-211	25	39	3		
CHINCHINA	120.76	47.5	18	53	8	25	44	8	20	22 PP
SCOTT BASE	120.85	174.5	18	47	2					
LOME	120.90	315.3							20	14 PP
GRENADA	120.91	29.5							20	15 PP
FUQUENE	121.35	45.3	18	53	7					
BULAWAYO	121.77	271.1	18	48	1				19	18
BOGOTA	121.89	46.2	18	53	6				20	28 PP
TRINIDAD	122.32	29.7	18	52	4	25	40	-1	20	24 PP
CHANGALANE	122.77	262.9	18	42	-6				20	25 PP
MAWSON	125.21	207.6	18	54	1	25	56	6	30	49 PS
LUANDA	125.37	293.1							21	0 PP
BANDEIRA	129.55	287.6	19	7A	5				21	35
SOUTH POLE	132.26	180.0	18	53	-14				19	13
BYRD STATION	132.62	166.4	18	49	-18					
HERMANUS	136.54	261.6							28	52 PKKP
LA PAZ	142.39	56.3	19	25	0				23	35 PKS

APRIL 24 16.H 6.M 24.S EPICENTRE -2.36 -76.23 DEPTH= 183.KM

A= 0.23786 B=-0.97044 C=-0.04089 D=-0.9713 E=-0.2381
G=-0.0097 H= 0.0397 K=-0.9992 HT= 7.2

DEPTH OF FOCUS= 0.024R

SE= 1.52

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
QUITO	3.11	313.1	0	50	-1	1	45	15					
BOGOTA	7.26	17.3	1	45A	1	3	6	0					
CHINCHINA	7.31	4.8	1	48	3	3	15	8					
FUQUENE	8.17	17.8	1	56	0	3	25	-2					
HUANCAYO	9.67	174.8	2	15	-1	3	56	-6					
GALERAZAMBA	13.09	4.2				5	39	17	3	24			
LA PAZ	16.15	150.9	3	36	-2	6	39	8					
TRINIDAD	19.62	48.5	4	14	-2	7	52	10					
GRENADA	20.31	44.9	4	20	-3						4	54	PP
ST. VINCENT	21.41	43.5	4	33	-1								
ANTOFAGASTA	21.95	165.6	5	24	45								
BARBADOS	22.56	46.6	4	46	1								
SAN JUAN	22.89	25.4	4	47	-1								
ST. KITTS	23.67	33.7	4	54	-2						5	26	PP
ANTIGUA	24.02	35.7	5	0	1						5	30	PP
SANTA LUCIA	31.36	171.0	6	4	-1								
FAYETTEVILLE	41.77	338.0	7	31K	-1	13	2	-33			8	4	PCP
BLOOMINGTON	42.41	348.1	7	36	-2				8	9			
WICHITA MTS.	42.44	332.3	7	37	-1	13	48	3	8	11	9	28	PCP
ROLLA	42.61	341.6	7	37	-2				8	10			
PENNSYLVANIA	42.98	358.2							8	16			
MANHATTEN	45.40	337.7	8	1	-1								
TUCSON TELE.	47.52	319.5	8	18	0								8 54
BREBEUF	47.71	2.5	8	20A	0				8	53			
SHAWINIGAN	48.80	3.2	8	28A	0								
RAPID CITY	52.16	335.5	9	29	36								
BOULDER CITY	52.45	320.3	8	52	-3								
PASADENA	53.59	316.5	9	5	1				9	41			
EUREKA	55.34	323.0	9	17	0								
PRIEST	56.39	317.1	9	25A	1								
BOZEMAN	56.91	331.4	10	4	36								
LICK	57.70	317.8	9	34K	1								
RENO	57.74	320.9	9	34K	1								
BERKELEY	58.40	318.0	9	39K	1								
CALISTOGA	59.03	318.6	9	43K	1								
MINERAL	59.33	320.8	9	30A	-15								
M.BOUR	61.00	72.2	9	56	0	18	3	5					
PENTICTON	63.63	329.9	10	13K	0								
MALAGA	76.94	51.6	11	34K	1								
GRANADA	77.66	51.3	11	39	2								
RESOLUTE	77.75	355.0	11	41	3								
TOLEDO	77.92	48.5	11	39A	0								
THULE	78.81	1.9	11	20	-24								
BYRD STATION	80.38	187.0	11	53	1								
BAGNERES	81.68	46.0	11	54	-5								
MOULD BAY	82.24	350.5	11	57	-5								
FOLINIERE	82.41	40.3	12	3	0								
KEW	83.09	37.7	12	6	0								
CLERMONT-FD.	84.26	43.7	12	12	0								
COLLEGE	84.39	336.0	12	13	0								15 59
GARCHY	84.47	42.2	12	13	0								12 47
ALERT	84.99	1.8	12	54	38								
DOURRES	85.91	39.6	12	20	0								
BESANCON	86.43	42.6	12	21	-1								
ISOLA	86.80	45.7	12	27	3								
MONACO	87.03	46.2	12	26	1								
ROSELEND	87.36	44.4	12	26	-1								
BENSBERG	87.65	39.0	12	28	0								
MUNSTER	88.05	38.0	12	31	1								
NORD	88.05	7.3	12	32	2								
STUTTGART	88.79	41.3	12	33	-1								
JENA	90.43	39.2	12	42	1								
HALLE	90.69	38.7	12	44	1								
SKALSTUGAN	91.43	26.6	12	46	0								
KASPERSKE H.	91.64	41.1	12	48	1								
TRIESTE	91.65	44.6	12	49	2								
LJUBLJANA	92.20	44.2	12	50	0								
PRUHONICE	92.29	40.2	12	51	1								
SCOTT BASE	93.22	190.9	12	55	1								
UMEA	94.97	26.3	13	2	0								
BANGUI	95.01	85.8	13	6	4				13	42			
RIVERVIEW	122.72	226.7	18	31A	-3						22	50	
CANBERRA	123.50	224.1	18	38	3								
CHARTERS TS.	132.73	239.8	18	56	3						19	37	
QUETTA	135.48	47.7	19	3	5						22	20	PP
WARSAK DAM	136.47	40.0	19	3	3						22	21	PP

NEW DELHI	143.65	41.6	19 16K	3
MUNDARING	143.88	198.1	19 14K	1
DARWIN	149.39	240.8	19 25	3
CHATRA	150.92	31.7	19 33A	9
SHILLONG	154.23	25.4	19 33A	4

APRIL 25 4.H 44.M 58.S EPICENTRE 45.61 5.72 DEPTH= 43.KM

A= 0.69843 B= 0.06992 C= 0.71225 D= 0.0996 E=-0.9950
G= 0.7087 H= 0.0710 K=-0.7019 HT= -3.8

DEPTH OF FOCUS= 0.002R

SE= 3.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ROSELEND	1.35	94.5	0	9A	-14	0	26	-14					
NEUCHATEL	1.63	31.2	0	27	1	1	5	18					
BESANCON	1.65	6.2	0	29	2						0	30	PG
ISOLA	1.72	146.0									0	15	PG
CLERMONT-FD.	1.83	275.9	0	23	-6								
MONACO	2.24	146.4	0	25	-10						0	53	SG
BASLE	2.31	33.1	0	37K	1	1	26	22					
PAVIA	2.47	98.8	0	38	0	1	8	0					
GARCHY	2.48	313.3	0	37	-1						0	45	PG
CHIAVARI	2.87	115.5	0	50A	6	1	42	24			1	8	PG
CHUR	2.92	63.6	0	46	1						0	54	PG
STRASBOURG	3.28	24.5	0	48	-2	1	39	11			1	7	PG
EBINGEN	3.40	39.8	0	51	-1						2	2	SG
RAVENSBURG	3.45	49.7	0	52	0						2	2	
TUBINGEN	3.71	36.9	0	54	-2						2	10	
PARIS	3.88	326.7	0	58	0								
STUTTGART-	3.99	36.3	0	58A	-2	1	52	6			1	16	PG
PRATO	4.21	112.4	1	2	-1	2	2	10					
HEIDELBERG	4.30	27.1	1	5	1						1	26	PG
PADOVA	4.33	90.5	1	6	1	2	8	13			2	26	S*
FLORENCE X.	4.35	112.9	1	22	17								
DOURBES	4.55	350.9	1	8	0						2	25	SG
BAGNERES	4.73	239.5	0	57	-13								
FELDBERG	4.96	20.7	0	42	-32						0	53	PG
UCCLE	5.27	350.5	1	17	-1						3	1	SG
FOLINIERE	5.27	309.0	1	14	-4								
BENSBERG	5.44	9.7	1	20	0	2	33	11			1	50	PG
TRIESTE	5.63	86.7	1	20	-3	2	25	-2			1	32	P*
TORTOSA	6.12	220.3	1	17	-13	2	57	18					
ROME	6.14	124.8	1	27	-3	2	42	2			3	11	S*
LJUBLJANA	6.17	82.8	1	28	-2	2	41	0			3	21	SG
CHEB	6.33	42.7									2	6	PG
JERSEY	6.39	306.7				3	28	42			2	45	
KASPERSKE H.	6.39	53.8	1	32	-2	2	51	5			2	3	PG
MUNSTER	6.49	10.5	1	35	0								
DE BILT	6.50	357.1									3	2	
JENA	6.60	34.2	1	41	4	3	5	14			2	16	PG
KEW	7.10	327.8	1	41	-3	2	50	-14			3	41	SG
ZAGREB	7.19	84.7	1	28	-17	3	16	10					
HALLE	7.20	32.8	1	43	-2						4	4	SG
WITTEVEEN	7.24	4.6	1	44	-1								
PRAGUE	7.36	49.6									2	8	PG
PRUHONICE	7.38	50.5	1	45	-2						4	2	SG
COLLMBERG	7.47	37.7				3	13	0			4	12	SG
VIENNA-H.	7.76	66.3	1	50	-3	3	22	2			2	31	PG
BRATISLAVA	8.21	67.8	1	55	-4	3	30	-1			4	35	SG
ALICANTE	8.60	214.6	2	18	14						4	21	
TOLEDO	9.19	234.9	1	59A	-13	3	33	-23			4	22	S*
KALOCSA	9.27	79.6				3	57	0			4	41	
RACIBORZ	9.51	57.5	2	21	4	4	14	11			2	30	PP
SZEGED	10.07	81.2									4	49	
DURHAM	10.29	335.7	2	28	1	4	30	7			5	42	
BELGRADE	10.43	89.1				4	33	7			3	14	
SKALNATE PL.	10.48	64.9									5	12	S*
KRAKOW	10.53	60.0	2	29	-2	4	39	10			2	53	PPP
ALMERIA	10.70	218.0	2	21	-12						4	49	SSS
GRANADA	10.94	222.9									5	55	SG
SERRA PILAR	11.34	251.8	2	30A	-12	4	32	-16			2	40	PP
UZHGOROD	11.69	69.1	2	43	-4								
COIMBRA	11.69	247.5	2	34	-13								

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MALAGA	11.70	224.1							2	51 PPP
KARLSKRONA	12.25	26.9			5	53	43			
GOTEBORG	12.71	15.4	3	13	13					
LWOW	13.02	64.6	3	0	-4					
BUCHAREST	14.47	87.4			6	18	15		4	18
BERGEN	14.82	359.2	3	29	1					
UPPSALA	15.94	22.3	3	44	2				8	42 PCP
KISHINEV	16.02	76.7	3	45	2	6	52	13		
ISTANBUL UN.	17.52	96.8	4	22	20					
SKALSTUGAN	18.38	9.3	4	15	2					
HELSINKI	18.53	31.2	4	15	0					
NURMIJARVI	18.66	30.1	4	16	0					
SIMFEROPOL	19.96	81.7	4	29	-2					
UMEA	19.99	19.0	4	31	0	8	24	15	4	49 PP
KAJAANI	22.21	25.8	4	55	1					
MOSCOW	22.42	51.6	4	56	0					
KIRUNA	23.56	14.0	5	9	2	9	22	7	5	38 PP
SODANKYLA	24.43	19.5	5	16	1					
APATITY	26.33	23.8	5	34	1	10	6	5		
JERUSALEM	26.67	110.9	5	34	-2					
SVERDLOVSK	35.24	51.2	6	51	-1					
AMDERMA	36.44	29.0	7	1	-1					
BANGUI	42.59	160.8	7	46	-7					
YAKUTSK	63.71	25.9	10	9	-20					
SHILLONG	69.62	74.0	11	6A	0					
WICHITA MTS.	74.87	304.2	11	35	-2					

APRIL 25 15.H 47.M 28.S EPICENTRE 38.36 142.72 DEPTH= 39.KM

A=-0.62557 B= 0.47621 C= 0.61797 D= 0.6057 E= 0.7957
G=-0.4917 H= 0.3743 K=-0.7862 HT= -1.1

DEPTH OF FOCUS= 0.001R

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
ISINOMAKI	1.10	274.3	0	19K	0	0	34	1				
MIYAKO	1.42	335.9	0	23A	0	0	42	1				
SENDAI	1.43	267.1	0	23K	-1	0	41	-1				
MIZUSAWA	1.46	302.4	0	26	2	0	44	2				
MORIOKA	1.80	318.5	0	32A	3	0	57	6				
YAMAGATA	1.87	267.5	0	29K	-1	0	52	0				
HUKUSIMA	1.88	251.9	0	30K	0	0	53	0				
ONAHAMA	2.01	226.4	0	30A	-2	0	54	-2				
SAKATA	2.33	284.4	0	37A	1	1	10	6				
SHIRAKAWA	2.33	238.9	0	36	0	1	4	0				
HATINOHE	2.36	337.4	0	35A	-2	1	6	1				
AKITA	2.45	304.5	0	39A	1	1	14	7				
MITO	2.67	222.9	0	39A	-2	1	8	-5				
AOMORI	2.88	329.3	0	45A	1	1	24	6				
UTUNOMIYA	2.90	232.4	0	44	0	1	18	0				
NIIGATA	2.93	262.6	0	46A	1	1	23	4				
TUKUBASAN	2.98	225.2	0	43A	-3	1	20	-1				
TYOSI	3.03	210.2	0	44	-2	1	17	-5				
KUMAGAYA	3.46	231.4	0	52A	0	1	33	0				
MAEBASI	3.50	237.2	0	54A	1	1	38	4				
AIKAWA	3.54	265.9	0	53	0	1	43	8				
HONGO	3.54	222.7	0	54	0						1	42
TOKYO C.M.O.	3.58	222.6	0	52A	-2	1	34	-2				
TITIBU	3.75	231.9	0	55	-2	1	51	11				
TAKADA	3.76	251.9	0	58	1	1	43	3				
HAKODATE	3.76	337.1	0	56A	-1	1	47	7				
URAKAWA	3.79	0.7	0	59	2	1	54	13				
YOKOHAMA	3.82	221.0	0	57	0	1	44	2				
OIWAKE	3.89	239.9	0	59	1	1	53	9				
HIROO	3.95	6.5	0	57	-2	1	52	7				
NAGANO	3.97	246.3	1	1K	1	1	50	4				
MATUSIRO	4.02	244.6	1	0K	0							
MORI	4.09	336.9	1	2	1	2	7	18				
MERA	4.14	215.0	1	3	1	2	5	15				
MURORAN	4.18	342.0	1	3	0	1	56	5				
HUNATU	4.26	229.2	1	3	-1	1	54	1				
KOHU	4.27	232.4	1	4A	0	1	54	1				
MATUMOTO	4.33	242.4	1	6	1	2	3	8				
TOMAKOMAI	4.36	348.9	1	11	6	2	2	7				

AJIRO	4.40	222.5	1	4	-2	1	51	-5			
MISIMA	4.43	224.3	1	4A	-2	1	55	-2			
OSIMA	4.48	217.9	1	4	-3	2	10	12			
OBIHIRO	4.57	4.4	1	18	10	2	15	14			
TOYAMA	4.69	251.0	1	11A	1	2	21	17			
WAZIMA	4.71	259.8	1	11A	1	2	3	-1			
KUSIRO	4.79	14.9	1	9	-2	2	4	-2			
SAPPORO	4.82	348.0	1	9A	-3	2	8	1			
SUTTSU	4.83	337.7	1	10	-2	2	18	11			
IIDA	4.83	235.6	1	11A	-1	2	9	2			
SHIZUOKA	4.84	227.1	1	10	-2	2	10	2			
TAKAYAMA	4.89	244.9	1	14	1	2	15	6			
KANAZAWA	5.16	251.2	1	16	0	2	27	11			
OMAESAKI	5.21	225.4	1	20	3	2	40	23			
HAMAMATU	5.42	229.5	1	18A	-2	2	25	3			
NEMURO	5.42	22.7	1	16	-4	2	15	-7			
ASAHIGAWA	5.43	357.3	1	19K	-1	2	29	7			
NAGOYA	5.60	237.2	1	22A	-1	2	26	-1			
GIHU	5.61	240.1	1	22A	-1	2	29	2			
RUMOE	5.65	351.9	1	24	1	2	34	6			
HATIDYOZIMA	5.76	205.3	1	22	-3	2	33	2			
ABASHIRI	5.78	11.2	1	22A	-3				2	49	
TSURUGA	5.97	245.1	1	28A	0	2	31	-5			
HIKONE	6.03	241.3	1	28A	-1	2	30	-7			
KAMEYAMA	6.12	237.1	1	31K	1	2	38	-2			
TU	6.18	235.7	1	42	11	3	17	36			
KYOTO	6.53	241.5	1	33	-3	2	50	0			
MAIZURU	6.54	246.1	1	37	1	3	0	10			
ABUYAMA	6.72	241.0	1	37A	-1						
OWASE	6.79	232.9	1	34K	-5	3	23	27			
OSAKA	6.87	239.6	1	46	6	3	11	13			
WAKKANAI	7.10	354.1	1	45K	1	3	22	18			
WAKAYAMA	7.36	238.2	1	25	-22				3	16	
SIOMISAKI	7.47	231.1	1	45	-4	3	12	-1			
SUMOTO	7.47	239.9	1	46	-3	3	25	12			
HIMEJI	7.73	242.7	1	49	-3	3	19	-1			
SAIGO	7.79	256.8	1	56	3	3	27	6			
TOKUSIMA	7.85	239.4	2	1	7						
OKAYAMA	7.98	245.3	1	58	2	3	30	4			
TAKAMATU	8.07	242.7	1	57	0	3	42	14			
TORISIMA	8.11	195.0	1	56	-2	3	14	-15			
MATSUE	8.26	252.4	1	35	-25	3	4	-29			
MUROTO	8.60	236.3	1	52	-12	4	7	26			
Y.-SAKHLINSK	8.66	0.0	2	1A	-4	3	42	-1			
KOTI	8.86	240.0	2	13	5	3	55	7			
HIROSIMA	9.20	247.5	2	22	9	4	12	16			
MATUYAMA	9.22	243.7	2	18	5	4	12	15			
HAMADA	9.23	251.3	2	15	2	3	54	-3			
VLADIVOSTOK	9.49	303.5	2	16A	-1	4	10	7			
SIMIDU	9.69	237.9				4	53	45			
OOITA	10.36	243.8	2	33	4	4	28	3			
SIMONOSEKI	10.50	248.8	2	38	8						
ASOSAN	10.93	243.6	2	37	1	4	34	-4			
KUMAMOTO	11.23	244.2	2	44	3	4	53	7			
MIYAZAKI	11.26	238.6	2	49	8	4	58	12			
SAGA	11.30	246.9	2	47	6	5	34	47			
UNZENDAKE	11.60	244.8	2	38	-7	5	6	11			
NAGASAKI	11.87	245.6	2	50	1	5	35	34			
KAGOSIMA	12.06	239.5	3	5	13	5	24	18			
YAKUSIMA	12.80	235.6	2	58	-4	5	26	2			
CHANGCHUN	14.21	298.1	3	18A	-2	5	50	-7			
ZO-SE	19.10	254.2	4	17A	-5	7	44	-6			
NANKING	20.52	259.4	4	32A	-5	9	4	45			
PEKING	20.62	283.0	4	33A	-5						
TAIPEI	22.34	239.7	5	23	28	9	0	7			
ILAN	22.35	238.8				9	5	11		5	44
HWALIEN	22.98	237.5	5	4	2	9	20	15			
ALISHAN	23.84	238.0	5	13	3						
TAITUNG	24.14	236.1	5	14	1	9	21	-4			
TAINAN	24.58	238.0	5	11	-6						
TAWU	24.59	235.8	5	11	-6	9	32	-1			
GUAM	24.86	175.3	5	16	-4	9	42	5			
HENGCHUN	24.93	235.5	5	20	0						
YAKUTSK	25.01	345.5	5	8	-13						
PAOTOW	25.26	285.4	5	21A	-3	9	36	-8			
SIAN	27.45	271.9	5	43A	-1						
ULAN-BATOR	27.61	301.9	5	44A	-1	10	25	2			
HONG KONG	29.22	245.0	6	0A	0	10	48	0	7	9	PP

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CANTON	29.33	247.3	6	0A	-1	10	47	-3				
IRKUTSK	29.99	310.2	6	5A	-1	11	0	0				
MANILA	30.37	224.9	6	9	-1	11	29	23				
LANCHOW	30.91	277.9	6	12	-3							
CHENGTU	32.63	268.2	6	28A	-2	11	35	-7				
TIKSI	34.09	352.2	6	41A	-1	12	5	0				
ESEN BULAK	34.83	298.5	6	50A	1	12	23	7				
KUNMING	36.19	260.5	6	59A	-1	12	35	-2			8	22 PP
NHATRANG	39.57	237.9	7	28	-1							
TOCKLAI	41.62	268.4	7	50	5	13	53	-6				
RABAUL	43.24	166.2	7	54	-5						19	36
LHASA	43.24	274.5	8	0A	1	14	19	-4				
SHILLONG	44.47	268.8	8	7A	-2	14	42	2			9	42 PCP
CHITTAGONG	46.15	265.0	8	18	-4							
COLLEGE	47.42	32.9	8	32	0	15	25	2				
CHATRA	47.56	273.2	8	35K	2	15	29	5			10	25 PP
PORT MORESBY	47.69	174.1	8	34	0							
CALCUTTA	48.77	267.4	8	43	1	15	47	6			9	28 PP
BOKARO	50.12	270.5	8	52A	-1	16	3	3			10	47 PP
HONIARA	50.18	157.6	8	52	-1	15	46	-15				
FRUNSE	50.63	298.0	8	57A	0						16	18 PS
AMDERMA	51.54	334.0	9	2A	-2	16	20	0				
KHEYS	51.57	348.0	9	2K	-2	16	18	-2			11	2 PP
DARWIN	51.68	194.9	9	5	0							
MEDAN	52.96	240.4	9	17A	3	16	45	6				
DEHRA DUN	53.04	282.0	9	15	0	17	0	20			11	15 PP
HONOLULU	53.22	90.8				17	3	20				
NEW DELHI	54.51	280.5	9	25	-1	17	15	15			11	37 PP
KHOROG	54.82	292.9	9	28	0	17	11	7				
SVERDLOVSK	54.85	318.2	9	28K	0	17	9	4				
TASHKENT	54.88	298.0	9	28	0						17	19 PS
MOULD BAY	54.98	16.8	9	28	-1							
LAHORE	55.32	285.2				17	12	1	9	30		
VISHAKHAPTNM	55.38	265.7	9	29K	-3	17	19	7			17	28 PS
DJAKARTA	55.44	225.0	9	31	-1	16	46	-27				
LEMBANG	55.55	223.8	9	31A	-2	17	15	1				
TANGERANG	55.55	225.3	9	31	-2	17	17	3				
WARSAK DAM	56.30	289.1	9	39	0	17	30	6				
DUZHANBE	56.35	295.2	9	38	-1						17	37 PS
CHARTERS TS.	58.23	176.1	9	53	1							
ALERT	58.75	3.8	9	55A	-1							
HYDERABAD	59.35	268.5	9	58A	-2	18	5	1			12	10 PP
NORD	59.80	356.6	10	2A	-1							
MADRAS	60.56	263.3	10	7A	-1	18	25	5	10	38	12	31 PP
RESOLUTE	61.07	14.9	10	10A	-2							
QUETTA	61.55	287.3	10	14	-1						18	37 *SS
APATITY	61.91	335.7	10	15A	-2	18	37	0			20	5
KOUMAC	62.00	157.0	10	18	0							
POONA	62.35	272.4	10	19A	-1	18	44	2			12	45 PP
KEVO	62.57	339.3	10	21	-1							
BOMBAY	62.95	273.4	10	24	0	18	54	4			12	32 PP
ALBERNI	63.59	46.9	10	29	0							
THULE	63.82	7.8	10	28	-2						10	54
ASHKABAD	63.93	298.9	10	30	-1						19	22 PS
SODANKYLA	64.15	337.3	10	31A	-1	19	2	-3			12	54 PP
NOUMEA	64.32	155.6	10	41A	8							
VICTORIA	64.76	47.2	10	37	1							
TROMSOE	64.80	341.2	10	35	-1							
KIRUNA	65.65	339.4	10	41A	-1	19	24	1			20	28 SCS
KAJAANI	65.86	334.1	10	42A	-1	19	29	3			19	43 PS
BRISBANE	66.08	170.2	10	46	1	19	32	4				
PENTICTON	66.50	45.0	10	47	0							
MOSCOW	66.81	323.5	10	49	0	19	39	2			13	9 PP
AFIAMALU	67.20	131.3	10	53	1							
PULKOVO	67.58	329.6	10	54	0	19	49	2			13	22 PP
BANFF	67.70	41.8	10	55	0							
UMEA	68.50	336.3	10	59A	-1	19	55	-2				
NURMIJARVI	69.27	332.2	11	4A	-1	20	7	0			13	42 PP
HELSINKI	69.38	331.8	11	4A	-1							
TEHERAN	69.85	300.0	11	8	0							
MINERAL	70.18	53.9	11	12A	2							
CALISTOGA	70.50	55.9	11	22A	10							
TIFLIS	70.82	308.3	11	14A	0	20	26	1			13	54 PP
SCORESBY SD.	70.90	354.6	11	14	-1	20	30	4				
SKALSTUGAN	71.06	338.9	11	14A	-1						14	8 PP
GORIS	71.11	305.6	11	16A	0	20	34	6				
BERKELEY	71.14	56.4	11	18A	2	20	0	-28				
RENO	71.78	53.8	11	21	1	20	43	7				

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

LICK	71.84	56.6	11	24K	4						
UPPSALA	72.22	334.3	11	21A	-1	20	40	-1		14	2 PP
RIVERVIEW	72.25	172.6				20	42	1		23	20
SHIRAZ	72.44	294.1	11	23	-1	20	44	1		14	6 PP
BOZEMAN	73.35	44.6	11	33	4						
CANBERRA	73.54	174.6	11	29	-1	20	58	2			
EUREKA	74.22	52.1	11	35	1						
SIMFEROPOL	75.11	315.9	11	39A	0	21	17	4		21	51 PS
BERGEN	75.58	339.7	11	38	-4						
KARLSKRONA	75.72	332.6	11	44A	1						
GOTEBORG	75.77	335.2	11	42	-1					14	33 PP
MELBOURNE	75.84	178.2	11	45	2						
PASADENA	75.99	57.6	11	46	2	21	26	3			
WARSAW	76.52	327.4	11	47A	0	21	33	4		14	36 PP
LWOW	76.92	324.3	11	50A	0	21	36	3			
IASI	77.05	320.7	11	51	1	21	37	2			
BOULDER CITY	77.06	54.4	11	46	-4						
REYKJAVIK	77.13	353.1	11	51	0						
COPENHAGEN	77.21	333.7	11	50A	-1	21	39	3			
BACAU	77.81	320.6	11	56	1						
FOCSANI	78.26	319.8	12	3	6						
KRAKOW	78.58	326.4	11	59	0					12	11 PCP
RAPID CITY	78.63	42.2	12	0	1						
SKALNATE PL.	79.09	325.7	12	11	10	22	11	15		15	9 PP
LARAMIE	79.20	45.4	12	2	0						
RACIBORZ	79.30	327.3	12	4	1					12	16 PCP
CAMPULUNG	79.66	320.5	12	30	25						
BUCHAREST	79.71	319.4	12	5K	0	22	28	25		15	9 PP
ABERDEEN	80.32	341.4	12	9	1	22	19	10		15	4 PP
COLLMBERG	80.47	330.7	12	8A	-1	22	11	0		22	26 SCS
ISTANBUL UN.	80.51	315.4	12	9A	0	22	15	4			
HALLE	80.71	331.3	12	10	0	22	14	1			
PRAGUE	80.87	329.2	12	12A	1	22	21	6		15	14 PP
PRUHONICE	80.89	329.1	12	11	0	22	19	4			
BUDAPEST	80.90	325.1	12	14	3	22	5	-10		22	38 SCS
HURBANOVO	80.97	325.8	12	16	4	22	10	-6		15	19 PP
FORT NELSON	81.01	176.6				22	4	-13			
TIMISOARA	81.17	322.8	12	15	2					22	23 PS
KSARA	81.21	306.3	12	13A	0	22	25	6		15	22 PP
BRATISLAVA	81.22	326.6	12	8	-5	22	22	3		23	4 PS
JENA	81.31	331.2	12	12	-1	22	20	0		15	17 PP
VIENNA-H.	81.48	327.0	12	15A	1	22	27	6			
WITTEVEEN	81.51	334.8	12	16	2						
KARAPIRO	81.71	154.3	12	16	1						
MUNSTER	81.89	333.8	12	16	0						
KASPERSKE H.	81.95	329.0	12	16A	-1					15	12 PP
BELGRADE	82.22	322.6	12	18	0	22	39	10		15	31 PP
DURHAM	82.32	340.0	12	21	3	22	34	4			
SOFIA	82.35	319.6	12	19	0	22	39	9		15	36 PP
DE BILT	82.61	335.2				22	38	5			
CHATEAU	82.85	154.9	12	21	0					12	43
BENSBERG	82.89	333.5	12	21A	0	22	38	2	12 34		
JERUSALEM	82.96	305.1	12	23A	1					15	38 PP
TUAI	83.05	153.6	12	21	-1						
FELDBERG	83.05	332.4	12	33	11						
ZAGREB	83.52	325.7	12	27	2						
HEIDELBERG	83.62	331.8	12	25	0						
SKOPJE	83.84	320.1				22	50	5			
STUTTGART	83.93	331.1	12	27	0	22	51	5		15	43 PP
LJUBLJANA	83.98	326.6	12	27A	0					15	32 PP
UCCLE	83.99	334.9	12	28	1	22	48	1			
KARLSRUHE	84.06	331.7	12	31	4	22	56	9			
TUBINGEN	84.21	331.1	12	30	2						
WELLINGTON	84.49	156.3	12	44	15						
DOURBES	84.50	334.4	12	30	0	22	53	1			
EBINGEN	84.53	330.9	12	30	0						
TITOGRAD	84.58	321.7	12	30	0	22	52	-1		23	52 PS
RAVENSBURG	84.61	330.4	12	30	0						
TRIESTE	84.63	326.8	12	30A	0	22	51	-2		23	9 *SS
STRASBOURG	84.65	331.8	12	30	0	22	55	2		23	58 SP
KEW	84.88	337.8	12	31	0	22	48	-8			
CHUR	85.41	329.9	12	55	21					22	57
ATHENS	85.56	316.1	12	35A	0	22	54	-8		22	57 SKS
MANHATTEN	85.58	42.1	12	35	0	24	2	60			
BASLE	85.60	331.4	12	36A	1					24	6
PADOVA	85.62	327.7	12	38	3	22	58	-5		16	8 PP
DUBUQUE	86.02	36.5	12	39	2	24	5	58			
PARIS	86.32	334.9	12	38	-1						
BESANCON	86.43	332.1	12	41	2						

ROXBURGH	86.82	161.6	12	49	8	23	20	6		28	58 SS
PAVIA	86.92	329.1				23	17	2		13	53
TARANTO	87.05	321.5								22	32
FLORENCE X.	87.19	327.1	12	29	-14					24	3 SP
ROSELEND	87.27	330.2	12	44	1						
FOLINIERE	87.31	336.6	12	37	-6						
GARCHY	87.44	333.8	12	44	0						
JERSEY	87.44	337.8				23	23	3			
CHIAVARI	87.56	328.5								16	15 PP
WICHITA MTS.	87.74	46.3	12	45	0	23	32	9		15	41 PP
ROME	88.17	325.2	12	32	-15	23	29	2	12 48	16	17 PP
ISOLA	88.59	329.8	12	49	-1						
CLERMONT-FD.	88.72	333.0	12	50	0						
MONACO	88.82	329.3	12	49	-2						
ROLLA	88.97	40.2	12	51	0	24	3	29			
MESSINA	89.64	321.1	12	54	0	23	41	0		16	30 PP
SHAWINIGAN	89.69	23.6	12	53	-2						
BREBEUF	90.35	24.6	12	58K	0	23	58	11	13 13	29	53 SS
BLOOMINGTON	90.58	36.1	13	1	2	23	50	1			
CLEVELAND	90.88	31.6	13	16K	16					23	50 PS
BAGNERES	92.12	333.5	13	8	2					16	40 PP
PENNSYLVANIA	92.92	29.6	13	11A	1						
TORTOSA	93.97	332.2	13	26	12	23	49	-30			
PALISADES	94.22	26.9	13	15	-1	23	49	-32			
TOLEDO	96.40	334.9	13	22	-3	24	6	8	13 52	17	20 PP
GRANADA	98.67	333.4	14	20K	44	25	10	61		17	39 PP
MALAGA	99.36	333.8	13	42	3	24	12	-1		17	43 PP
WILKES	107.27	193.0								18	4 PP
LWIRO	110.04	283.5								18	53 PP
BANGUI	113.12	296.1	18	35	2					19	25 PP
BROKEN HILL	117.78	273.3	18	43	1						
BULAWAYO	120.88	267.9	18	48	0						
CHINCHINA	124.14	48.3	19	13	19						
MBOUR	124.19	336.0								20	48
FUQUENE	124.82	46.1								20	49 PP
BOGOTA	125.32	47.0								22	35 PKS
TRINIDAD	126.29	29.9	19	0	2						
BYRD STATION	128.83	167.2	19	3	0						
BANDEIRA	129.83	283.4								22	26 SKP
HERMANUS	134.94	256.9								39	52 SS
HUANCAYO	137.21	62.6	19	6	-13						
LA PAZ	145.28	59.7	19	36	3					41	52 SS
SANTA LUCIA	152.63	90.0	19	54	9						

APRIL 25 19.H 49.M 57.S EPICENTRE 38.40 142.39 DEPTH= 71.KM

A=-0.62245 B= 0.47953 C= 0.61856 D= 0.6103 E= 0.7922
G=-0.4900 H= 0.3775 K=-0.7857 HT= -1.1

DEPTH OF FOCUS= 0.006R

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
ISINOMAKI	0.84	272.4	0	15K	-3	0	31	0				
SENDAI	1.18	264.2	0	20A	-2	0	40	2				
MIZUSAWA	1.23	306.9	0	20	-2	0	40	1				
MIYAKO	1.29	345.5	0	19	-4	0	35	-6				
MORIOKA	1.61	324.2	0	27A	-1	0	57	9				
YAMAGATA	1.61	265.3	0	26	-2	0	52	4				
HUKUSIMA	1.65	247.4	0	26A	-2	0	49	0				
ONAHAMA	1.87	219.7	0	30	-1	0	51	-3				
SAKATA	2.07	284.8	0	34	0	1	8	9				
SHIRAKAWA	2.14	234.1	0	32	-3	0	55	-5				
AKITA	2.22	307.2	0	38K	2	1	9	7				
HATINOHE	2.23	342.9	0	34	-2	1	6	3				
MITO	2.53	217.8	0	36K	-4	1	9	-1				
NIIGATA	2.68	260.7	0	47	5	1	23	9				
AOMORI	2.72	333.3	0	46	3	1	26	11				
UTUNOMIYA	2.72	228.1	0	41	-2	1	17	2				
KAKIOKA	2.79	219.8	0	38	-6	0	46	-31				
TUKUBASAN	2.84	220.7	0	40A	-4							
TYOSI	2.94	205.2	0	42	-4	1	18	-2				
AIKAWA	3.28	264.7	0	50	-1	1	40	11				
KUMAGAYA	3.29	227.8	0	50	-1	1	23	-6				

MAEBASI	3.31	234.0	0	51A	0	1	33	3			
TOKYO C.M.O.	3.44	218.7	0	50	-3	1	32	-1			
TAKADA	3.53	249.7	0	54	0						
TITIBU	3.58	228.6	0	54	-1	1	46	10			
HAKODATE	3.63	340.4	0	56	1	1	45	8			
YOKOHAMA	3.69	217.4	0	56	0	1	46	7			
OIWAKE	3.69	237.2	0	57	1	1	54	15			
NAGANO	3.75	243.9	0	58	1	1	45	4			
URAKAWA	3.76	4.4	1	2	5	1	53	12			
MATUSIRO	3.81	242.1	0	57A	-1	1	55	13			
HIROO	3.94	10.1	0	55	-5	2	0	15			
MORI	3.95	339.9	1	7	7	2	3	18			
MERA	4.04	211.4	1	1	0						
MURORAN	4.06	345.1	1	9	8					1	53
HUNATU	4.10	226.2	1	2	0	1	50	1			
KOHU	4.10	229.5	1	2	0	2	5	16			
MATUMOTO	4.12	240.0	1	4	2	2	7	17			
AJIRO	4.26	219.3	1	1	-3	1	49	-4			
TOMAKOMAI	4.27	351.9								1	23
MISIMA	4.28	221.2	1	5	1						
OSIMA	4.36	214.7	1	5	-1						
TOYAMA	4.46	249.2	1	10	3						
WAZIMA	4.46	258.5	1	8	1						
OBIHIRO	4.56	7.5	1	15	7	2	20	19			
IIDA	4.65	233.2	1	8	-2	2	5	2			
SUTTSU	4.69	340.2	1	17	7						
SAPPORO	4.73	350.7	1	8	-3	2	11	6			
KUSIRO	4.82	17.8	1	3	-9	1	57	-10			
OMAESAKI	5.06	222.8	1	20	5						
HAMAMATU	5.25	227.1	1	20	2	2	24	6			
ASAHIGAWA	5.38	359.8	1	17K	-3	2	30	9			
GIHU	5.41	238.1	1	23	3						
NAGOYA	5.41	235.1	1	24	4	2	25	3			
HUKUI	5.45	246.4	1	20	-1	2	44	21			
NEMURO	5.49	25.1	1	13	-8	2	12	-12			
RUMOE	5.58	354.3				2	20	-6			
TSURUGA	5.75	243.4	1	26	1						
ABASHIRI	5.79	13.6				2	21	-11			
HIKONE	5.83	239.5	1	29	3	2	44	12			
KAMEYAMA	5.93	235.1	1	58	31	3	7	32			
KYOTO	6.32	239.8	1	38	5	3	1	17			
NARA	6.45	236.9								1	51
ABUYAMA	6.52	239.4	1	34A	-1						
OSAKA	6.67	238.0								1	58
WAKKANAI	7.04	355.9				3	6	4			
SUMOTO	7.27	238.4				2	55	-13		4	9
MATSUE	8.02	251.3	1	38	-18						
VLADIVOSTOK	9.25	304.0	2	14	1						
KAGOSIMA	11.86	238.5	3	21	33						
CHANGCHUN	13.97	298.3	3	15	-1						
ZO-SE	18.87	253.7	4	15	-2						
NANKING	20.27	259.0	4	30	-2						
PEKING	20.36	282.8	4	30	-3						
YAKUTSK	24.91	345.8	4	58	-20						
SIAN	27.19	271.6	5	39	0						
ULAN-BATOR	27.37	301.9	5	40A	-1	10	26	12			
HONG KONG	29.01	244.6				10	49	9			
CANTON	29.11	246.8	5	59	3						
LANCHOW	30.65	277.7	6	8	-2						
TIKSI	34.02	352.4	6	38	-1						
ESEN BULAK	34.59	298.5	6	58A	14						
KUNMING	35.95	260.2	6	57	1						
SHILLONG	44.21	268.5	8	5A	1						
SEMIPALATNSK	44.74	306.5	8	8	0						
COLLEGE	47.53	32.9	8	29	-1						
FRUNSE	50.38	297.9	8	53A	1						
AMDERMA	51.39	333.9	8	57	-3	16	20	8			
KHEYS	51.47	348.0	9	0	0					11	6 PP
NEW DELHI	54.24	280.3	9	22A	1						
KHOROG	54.57	292.7	9	24	1						
TASHKENT	54.63	297.9	9	23A	-1					17	25 PS
SVERDLOVSK	54.65	318.2	9	22	-2						
LEMBANG	55.40	223.5	9	28K	-1						
WARSAK DAM	56.05	288.9	9	30	-4						
DUZHANBE	56.10	295.0	9	33	-1					17	45 PS
ALERT	58.72	3.7	9	51	-2						
RESOLUTE	61.09	14.8	10	6	-3						
QUETTA	61.29	287.1	10	4	-6						
APATITY	61.77	335.7	10	13	-1						

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
THULE	63.81	7.7	10	24	-3								
SODANKYLA	64.01	337.2	10	28	0								
TROMSOE	64.68	341.1	10	32	-1								
KIRUNA	65.52	339.3	10	36	-2								
KAJAANI	65.71	334.0	10	39	0								
BRISBANE	66.16	169.9	10	48	6								
PENTICTON	66.65	44.9	10	43	-2								
PULKOVO	67.41	329.5	10	49	-1	19	40	1			24	3	SS
UMEA	68.35	336.2	10	55	-1								
NURMIJARVI	69.11	332.0	11	0	-1								
HELSINKI	69.22	331.7	11	0	-1								
GORIS	70.87	305.5	11	13	2	20	51	31					
SKALSTUGAN	70.93	338.8	11	11	-1								
UPPSALA	72.07	334.2	11	17	-2	20	38	5					
SHIRAZ	72.18	293.9	11	19	0								
CANBERRA	73.60	174.4	11	23	-5								
EUREKA	74.39	51.9	11	30	-2				11	41			
WOODY	74.81	56.5	11	32	-2								
KARLSKRONA	75.56	332.4	11	52	13								
GOTEBORG	75.62	335.0	11	38	-1								
COPENHAGEN	77.05	333.5	11	47	0	21	45	16					
ISTANBUL UN.	80.30	315.2	12	5	0	22	21	18					
PRUHONICE	80.72	328.9	12	7	0								
FORT NELSON	81.07	176.3	12	18A	9								
JENA	81.14	331.0	12	9	0								
KASPERSKE H.	81.78	328.9	12	12	-1								
KARAPIRO	81.86	154.1	12	19	6								
CHATEAU	83.00	154.7	12	27	8								
STUTTGART	83.77	330.9	12	23	0								
KEW	84.74	337.6	12	28	0								
PARIS	86.17	334.7	12	35	0								
FOLINIERE	87.17	336.4	12	40	0								
GARCHY	87.29	333.6	12	41	1								
WICHITA MTS.	87.90	46.1	12	42	-1								
LA PAZ	145.48	59.3	19	41	11								

APRIL 26 7.H 26.M 25.S EPICENTRE -17.81-178.81 DEPTH= 552.KM

A=-0.95249 B=-0.01972 C=-0.30393 D=-0.0207 E= 0.9998
G= 0.3039 H= 0.0063 K=-0.9527 HT= 5.2

DEPTH OF FOCUS= 0.082R

SE= 1.83

	DELTA DEG.	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	2.65	262.1	1	18	4	2	13	0			1	42	
APIA	7.85	60.5	1	55	-2	3	32	1					
PORT VILA	12.26	268.4	2	41K	-1	5	2	10					
NOUMEA	14.55	249.7	3	5K	0	5	45	12					
ONERAHI	18.89	197.3	3	53	6	7	4	15					
KARAPIRO	20.65	192.7	4	5	2	7	39	21					
TUAI	21.21	188.7	4	8	0	7	24	-4			6	14	*SP
CHATEAU	21.88	191.8	4	8	-6	7	55	17					
HONIARA	22.24	289.2	4	17	-1	7	55	11					
WELLINGTON	24.04	191.9	4	32	-2	8	12	-1			14	32	SCS
COBB RIVER	24.31	195.7	4	35	-1	8	15	-2					
KAIMATA	26.00	196.6	4	51	0	8	41	-3			14	35	SCS
GEBBIES PASS	26.80	193.8	4	57	-1	8	53	-4			14	43	SCS
BRISBANE	27.85	244.9	5	6	-1	9	9	-4					
ROXBURGH	29.32	197.2	5	18	-2	9	36	0			11	1	PCS
RIVERVIEW	31.24	233.4	5	36K	0	10	8	3			7	10	PP
RABAUL	31.46	292.0	5	35	-3						10	11	
CHARTERS TS.	33.08	260.4	5	52K	0	10	29	-4					
CANBERRA	33.46	232.2	5	55K	0	10	38	-1			11	16	PCS
PORT MORESBY	34.07	279.7	6	1K	1	10	48	-1					
MELBOURNE	37.42	230.4	6	28	0	11	38	0					
FORT NELSON	38.05	221.6	6	33A	0								
MACQUARIE I.	40.43	199.9	6	53	1								
HONOLULU	43.84	28.4	7	19	0								
KIPAPA	43.99	28.4	7	19	-1								
GUAM	47.52	308.4	7	45	-2								
DARWIN	48.81	269.0	7	57	0	14	15	-4					
DUMONT	55.64	198.5	8	45	-1								
MUNDARING	59.82	243.0	9	13K	-1								
SCOTT BASE	60.50	183.5	9	20	1						11	11	

BYRD STATION	67.41	170.7	10	5	2				11	9		
MANILA	67.48	294.7	10	3	0	17	55	-21				
MATUSIRO	67.59	323.6	10	2A	-2	18	18	1				
LEMBANG	72.33	268.4	10	31	-1							
MIRNY	73.11	204.7	10	36	0				12	35	19	57 SCS
PETROPAVLOVK	73.18	346.0	10	35A	-1							
ZO-SE	75.39	309.8	10	48	-1	19	44	0				
VLADIVOSTOK	75.64	325.0	10	51	1							
HONG KONG	76.71	298.8	10	57	1	19	48	-10			11	1 PCP
BERKELEY	76.72	42.7	10	57K	1	20	3	5	12	57	11	9 PCP
PRIEST	76.79	44.9	10	57A	1							
LICK	76.82	43.5	10	57K	0							
CALISTOGA	76.96	41.9	10	58K	1							
PASADENA	77.44	47.8	11	0	0	20	11	5	12	59		
NANKING	77.63	309.6	11	1	0	20	11	3				
CANTON	77.74	299.2	11	3	1	20	12	3				
MINERAL	78.56	41.0	11	6K	0							
RENO	79.24	42.4	11	10A	1							
CHANGCHUN	79.80	322.5	11	13	1	20	33	3				
BOULDER CITY	80.73	47.6	11	35	18							
MAGADAN	80.97	344.9	11	16	-2	20	38	-4				
TUCSON	81.88	52.5	11	25	2				13	24		
TUCSON TELE.	82.01	52.5	11	25	1				13	26		
ALBERNI	82.11	32.3	11	24	0							
VICTORIA	82.37	33.5	11	24A	-2							
PEKING	83.44	315.5	11	31A	0	21	4	-2			21	0 SKS
MAWSON	83.82	199.8	11	32K	-1				12	36		
PENTICTON	84.87	34.4	11	37A	-1							
COLLEGE	85.76	12.7	11	40	-2	21	15	-13	13	52	29	40 PKPPKP
SIAN	85.98	307.7	11	44	1	21	36	6				
KUNMING	87.44	297.2	11	53	3	21	50	6			21	30 SKS
CHENGTU	88.40	302.8	11	57	2	21	58	6			21	33 SKS
LANCHOW	90.52	307.7	12	9	5	22	18	7			21	46 SKS
WICHITA MTS.	92.24	54.3	12	12	0	22	35	9	14	21	15	53 PP
RAPID CITY	92.30	44.3	12	13	0						15	56 PP
ULAN-BATOR	92.94	319.6	12	16	0	22	56	24				
MANHATTEN	95.24	50.6	12	27K	1				12	31		
TIKSI	95.95	345.4	12	27K	-2				14	41	16	25 PP
SHILLONG	96.90	294.5	12	34K	1							
ROLLA	98.36	53.0	12	41	1	23	23	58				
FLORISSANT	99.76	52.4	12	49	3	23	46	75				
MOULD BAY	100.32	12.1	12	47	-2							
DUBUQUE	100.47	48.7				23	42	67				
BLOOMINGTON	102.78	52.8				24	1	75				
RESOLUTE	105.43	15.9	13	10	777						17	19
ALERT	110.92	7.3	17	30	-1							
PALISADES	112.59	52.4				25	28	121				
KHEYS	112.66	351.4				23	29	2			18	31 PP
TASHKENT	117.88	307.8				23	59	12			25	10 SKKS
DUZHANBE	118.26	304.6									19	8 PP
SVERDLOVSK	121.34	326.3	17	50	-1							
KEVO	125.69	349.2	18	0	1							
APATITY	126.16	345.3									17	59 PP
ASHKABAD	126.48	304.3									20	14 PP
SODANKYLA	127.82	347.8	18	3	0						20	34 SKP
KIMBERLEY	128.40	206.6	18	7	3							
KIRUNA	128.50	350.8	18	5	0						20	37 SKP
PRETORIA	129.36	212.0									20	40
KAJAANI	130.36	345.1	18	4	-4						20	43 SKP
REYKJAVIK	131.12	13.2									19	55
SHIRAZ	131.89	294.1	18	14	3						20	45
UMEA	132.21	348.7	17	59	-13						20	48 SKP
SIDA	132.21	11.4									20	51
PULKOVO	133.10	340.3									20	52 PP
MOSCOW	133.17	332.6									20	43 PP
BULAWAYO	133.67	216.7	18	3	-11						20	57
NURMIJARVI	134.15	344.1	18	4	-11						20	55 SKP
HELSINKI	134.35	343.6	18	4	-12						20	56 SKP
TIFLIS	135.88	312.1	18	20	2						21	3 PP
UPPSALA	136.35	348.1	18	7	-12						21	1 SKP
WINDHOEK	136.96	201.8									20	44
BROKEN HILL	138.15	221.7	18	17	-6						21	10
GOTEBORG	139.37	351.1	18	16	-9						21	10 SKP
KARLSKRONA	140.19	347.4	18	22	-5						21	16 SKP
LWOW	143.15	335.2	18	30	-2						21	21
KRAKOW	144.48	339.1	18	34	0							
RACIBORZ	145.02	340.8	18	36	1							
KSARA	145.13	304.0	18	38	3						21	50 PP
HALLE	145.31	348.2	18	38	2						22	3 PP

BANDEIRA	145.37	200.9	18	39K	3			21	27		
MUNSTER	145.53	353.0	18	38	2						
JENA	145.93	348.2	18	38	1					20	55 PP
PRAGUE	146.10	344.7	18	41	4					19	5
PRUHONICE	146.15	344.5	18	37	0					21	28 PP
JERUSALEM	146.27	300.9	18	40	3						
LWIRO	146.27	236.5	18	41A	4						
KEW	146.39	1.7	18	40	3						
BENSBERG	146.58	353.1	18	41	4						
UCCLE	146.99	356.3	18	43	5						
BRATISLAVA	147.04	340.3	18	44	6					21	46
FELDBERG	147.14	351.4	18	45	7						
KASPERSKE H.	147.18	344.9	18	39A	1					21	30
VIENNA-H.	147.20	341.1	18	43	5						
DOURBES	147.67	355.9	18	43	4						
HEIDELBERG	147.90	350.7	18	44	5						
STUTTGART	148.42	349.8	18	41	1					19	21
STRASBOURG	148.84	351.5	18	45	4					19	13
SOFIA	148.86	327.5	18	48	7					22	32 PP
EBINGEN	149.05	349.8	18	47	6						
PARIS	149.06	358.3	18	47	6						
FOLINIERE	149.09	2.1	18	42	1						
RAVENSBURG	149.32	348.8	18	47	6						
LJUBLJANA	149.74	341.4	18	43	1					18	49 PKP2
BASLE	149.89	351.3	18	46A	4					19	41
CHUR	150.23	348.4	18	47	4						
TRIESTE	150.33	342.0								18	50 PKP2
BESANCON	150.37	353.4								18	51 PKP2
NEUCHATEL	150.50	352.0	18	50	7						
GARCHY	150.57	357.4	18	51	8			21	3	23	35 PP
PADOVA	151.07	344.3	19	5	21					20	35
ATHENS	151.85	320.1	18	53K	8						
ROSELEND	151.88	350.4								18	54 PKP2
CLERMONT-FD.	152.07	357.1	18	48	2						
MONACO	153.62	349.8								18	58 PKP2
ROME	154.11	340.4								19	15
BAGNERES	154.80	1.8								18	58 PKP2
SERRA PILAR	155.28	17.9	18	36	-14					19	1 PKP2
MESSINA	156.11	331.1								22	15

APRIL 27 6.H 47.M 25.S EPICENTRE -44.18 -76.09 DEPTH= 0.KM

A= 0.17292 B=-0.69837 C=-0.69453 D=-0.9707 E=-0.2403
G=-0.1669 H= 0.6742 K=-0.7195 HT= -3.2

SE= 2.48

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SANTIAGO	11.54	23.4	2	45	-4							
SAN CRISTBAL	11.57	23.5									3	45
ANTOFAGASTA	20.96	14.7	4	46	-1							
AREQUIPA	27.91	9.5	5	55	1							
LA PAZ	28.41	16.2	5	59	0	10	48	3				
HUANCAYO	32.03	1.4	6	32	1							
BYRD STATION	39.19	190.9	7	32	0							
SOUTH POLE	46.01	180.0	8	25	-2							
BOGOTA	48.61	2.7	8	48K	0	15	54	4				
CHINCHINA	48.93	0.6	8	49K	-1	15	58	4				
FUQUENE	49.47	3.1	8	53	-1							
SCOTT BASE	52.47	193.7	9	15	-2							
BALBOA HTS.	52.98	355.7	9	21	0							
GALERAZAMBA	54.70	1.0	9	45	11						21	12 SS
CARACAS	55.05	11.0	9	37	1	17	19	1				
TRINIDAD	56.18	17.5	9	44	0	17	35	2				
GRENADA	57.47	16.7	9	52	-1							
ANTIGUA	62.40	15.4	10	23	-4							
SAN JUAN	62.92	10.6	10	29	-2							
MAWSON	64.31	163.8	10	37A	-3							
MIRNY	69.28	175.4	11	7	-4							
WILKES	69.69	182.8	11	13	-1						20	22
HERMANUS	70.39	119.1				20	26	-4			20	54
ROXBURGH	73.56	221.8	11	38	1	21	17	10				
HOUSTON	75.64	342.7	11	52	3							
KARAPIRO	75.77	230.7	11	49	-1							
WINDHOEK	76.82	108.6	11	55	-1							

COLUMBIA	77.94	355.8	12	1	-1							
M.BOUR	79.26	57.8	12	18	9	22	15	6				
BANDEIRA	79.36	100.4							12	15		
CHAPEL HILL	79.77	357.6	12	14	2							
WICHITA MTS.	81.15	341.4	12	18	-1	22	35	6			15	23 PP
C. GIRARDEAU	82.03	349.2	12	23	-1	22	41	3				
TUCSON	82.41	330.8	12	27	1							
TUCSON TELE.	82.45	331.0	12	27	1							
GEORGETOWN	82.71	359.2	12	26	-1	22	49	4				
WASHINGTON	82.71	359.2	12	4	-23							
ROLLA	82.95	347.5	12	28	0	22	53	6	12	37		
ALBUQUERQUE	83.46	335.3	12	32	1							
MORGANTOWN	83.50	357.0	12	30K	-1							
BLOOMINGTON	83.52	351.9	12	30	-1	22	53	0				
FLORISSANT	83.60	348.8	12	31	-1	22	56	2				
LAWRENCE	84.56	345.1	12	36	-1							
PENNSYLVANIA	84.61	358.6	12	36K	-1							
FORDHAM	84.67	1.7	12	37	0	23	10	6				
PALISADES	84.83	1.7	12	36K	-2	23	8	2	12	54		
MANHATTEN	85.04	344.2	12	38	-1	23	11	3				
BULAWAYO	86.21	114.4	12	43	-2							
PASADENA	86.86	326.2	12	50	2							
BOULDER CITY	87.19	329.5	12	51	1							
DUBUQUE	87.29	349.3	12	49	-1	23	31	1				
HALIFAX	89.11	8.9	12	59A	0							
LARAMIE	89.14	338.2	12	59	0							
BREBEUF	89.32	1.7	13	0	0	23	55	6			29	41 SS
BROKEN HILL	90.17	110.3	13	4	0							
SHAWINIGAN	90.39	2.3	13	5	0							
EUREKA	90.72	330.2	13	7	1						30	26 PKKP
CANBERRA	90.90	215.4	13	6	-1							
LWIRO	99.07	102.1	13	37	-7	24	31	8			17	46 PP
MALAGA	103.41	51.6									18	25 PP
GRANADA	104.19	51.8									26	34
TOLEDO	105.83	49.5									33	40 SS
MESSINA	116.36	61.5									19	55
ROME	116.66	56.6									20	2 PP
FLORENCE X.	117.04	54.3									29	47 PS
STRASBOURG	117.92	48.4									20	5
PADOVA	118.36	53.1									30	5
STUTTGART	118.84	48.8									20	8 PP
BENSBERG	118.99	45.9									20	9
RESOLUTE	119.24	354.4	18	50	-2							
KASPERSKE H.	121.40	50.3									27	11
COLLEGE	122.12	331.4	18	56	-1						21	4 PP
COLLMBERG	122.24	47.9	18	57	0							
MOULD BAY	123.28	348.7	19	0	1							
KRAKOW	125.42	51.9									20	56 PP
KSARA	127.51	76.7	19	11	3						21	12 PP
LWOW	127.67	53.7	19	9	1						21	11
SKALSTUGAN	127.74	34.4	19	7	-1							
UPPSALA	128.54	40.1									21	16 PP
UMEA	131.12	35.8	19	13	-1						21	30 PP
SIMFEROPOL	131.72	63.2	19	15	-1							
NURMIJARVI	132.06	40.9	19	15	-1						22	42 PKS
HELSINKI	132.11	41.4	19	16	0							
KIRUNA	132.34	30.7	19	15	-2						21	40 PP
KAJAANI	134.37	36.7	19	19	-2						22	51 PKS
SODANKYLA	134.57	32.0	19	20	-1							
SHIRAZ	137.11	92.0	19	25K	-1						19	49 PPP
APATITY	137.19	32.2	19	28K	2							
MOSCOW	137.43	50.0	19	32	6							
TIFLIS	137.48	71.9	19	28	2							
KHEYS	140.11	10.6	19	22	-9							
BOMBAY	143.80	124.1	19	35	-2						30	1
POONA	144.12	125.8	19	35	-3							
MANILA	147.15	211.8	19	49	6							
MAGADAN	148.01	315.4	19	47	2							
TIKSI	149.94	344.5	19	44	-4						29	27 SKKS
SVERDLOVSK	150.24	49.4	19	47	-1							
TUKUBASAN	151.42	266.4	19	53A	3						23	38 PP
MATUSIRO	152.92	265.5	19	59	7						23	47 PP
WARSAK DAM	153.06	101.1	19	55	3							
NEW DELHI	153.61	117.2	19	52	-1							
TASHKENT	154.52	84.3	19	54	0							
KHOROG	154.72	94.1	19	57	3							
DEHRA DUN	155.33	115.4	19	54	-1							
YAKUTSK	156.62	328.8	19	54	-3							

CANTON	157.57	203.3	19	58	0					24	11	PP
CHATRA	158.04	136.5	19	57	-2							
FRUNSE	158.76	83.4	20	0	0							
SHILLONG	159.01	148.3	19	58A	-2							
VLADIVOSTOK	159.75	276.8	19	58	-3					24	18	PP
ALMATA	160.52	83.2	20	6	4							
KUNMING	160.96	176.8	20	2	0	20	19			24	29	PP
ZO-SE	161.14	232.0	20	2	0					24	29	PP
LHASA	162.24	140.5	20	7	4							
SEMIPALATNSK	162.83	60.4	20	3	-1							
NANKING	163.20	228.9	20	4	0	20	22			24	38	PP
CHANGCHUN	164.60	276.2	20	5A	-1					24	49	PP
CHENGTU	166.50	180.4	20	7	0					24	54	PP
SIAN	169.35	203.1	20	10A	1	20	27			25	11	PP
PEKING	169.99	249.7	20	10A	0	20	25			25	19	PP
LANCHOW	171.88	179.6	20	11	0					25	24	PP
IRKUTSK	171.90	358.2	20	7	-4							
ESEN BULAK	174.16	65.0	20	12	0					21	46	PKP2
PAOTOW	174.21	233.7	20	12	0	20	29			25	35	PP
ULAN-BATOR	175.72	331.9	20	13	1					21	53	PKP2

APRIL 28 11.H 18.M 59.S EPICENTRE 36.06 26.79 DEPTH= 51.KM

A= 0.72336 B= 0.36516 C= 0.58600 D= 0.4506 E=-0.8927
G= 0.5231 H= 0.2641 K=-0.8103 HT= -0.3

DEPTH OF FOCUS= 0.003R

SE= 2.45

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.11	308.8	0	48K	0	1	29	5			1	45	SG
SOFIA	7.15	339.1	1	45	v						2	2	P*
SKOPJE	7.22	326.5	1	47	1	3	7	0			1	52	PP
KSARA	7.79	104.0	1	47	-6	3	10	-11					
JERUSALEM	8.20	118.9	1	53	-6	3	22	-9					
BUCHAREST	8.37	356.6	1	59	-2	3	41	5			4	11	S*
TITOGRAD	8.63	319.8	2	7	2	3	51	9			4	53	
TARANTO	8.70	303.3									3	28	
REGGIO CALA.	9.13	286.2	2	12	0						3	49	
MESSINA	9.22	286.7	2	13K	0	3	58	1			2	40	P*
CAMPULUNG	9.30	352.3	2	17	3								
FOCSANI	9.64	1.7	2	29	10								
BELGRADE	9.99	333.1	2	26K	2	4	25	10			5	36	
SIMFEROPOL	10.49	29.9	2	30A	0	4	31	4					
BACAU	10.50	0.4	2	35	4								
TIMISOARA	10.55	338.2	2	31	0	4	26	-3			5	53	
KISHINEV	11.06	7.3	2	35	-3						5	17	
IASI	11.15	2.8	2	33	-6								
SZEGED	11.35	335.9	2	19	-23	4	18	-30			2	33	PPP
KALOCSA	11.99	333.2	2	48	-3	4	22	-42			5	29	SG
KECSKEMET	12.08	336.2									6	3	SSS
SOTCHI	12.45	49.0	2	53	-4								
ROME	12.56	302.0	2	57K	-1	5	31	13			3	41	P*
ZAGREB	12.71	323.4	2	59	-1						6	37	
BUDAPEST	12.79	335.5	2	59	-2	5	38	15			3	17	PP
HURBANOVO	13.41	334.3	3	13	3						6	7	SS
LJUBLJANA	13.60	321.0	3	10	-2	5	47	5			7	39	
TRIESTE	13.74	318.2	3	12A	-2	5	50	4			7	45	
LWOW	13.90	352.6	3	15	-1	5	53	3					
SKALNATE PL.	13.96	342.0	3	18	1						6	21	SSS
BRATISLAVA	14.06	332.4	3	17K	-1						3	44	
NIEDZIKA	14.17	342.5	3	20	1								
FLORENCE X.	14.18	307.7	3	12	-8	5	51	-5			7	18	
PRATO	14.33	307.8	3	22	0	5	25	-35					
VIENNA-H.	14.41	330.9	3	22	-1						3	39	PPP
BOLOGNA	14.48	310.3	3	25	1						8	31	
PADOVA	14.65	314.2	3	26	0	5	51	-16					
KRAKOW	14.85	342.5	3	28	0						3	38	PP
TIFLIS	15.12	62.6	3	31A	-1						6	36	
RACIBORZ	15.34	338.7	3	41	6						3	48	PP
CHIAVARI	15.67	307.1	3	23K	-16	6	46	15			5	49	
GORIS	15.83	71.6	3	40A	-1						7	17	
KASPERSKE H.	16.25	327.6	3	45	-1						4	36	
GROZNY	16.28	57.8									7	17	
PRUHONICE	16.51	331.2	3	49	-1	6	57	7					

PRAGUE	16.63	331.2	3	54A	3		7	9	16	8 44 PCP
MONACO	16.69	303.2	3	53	1					
CHUR	16.80	315.2	3	53	0					7 35
ROSELFND	17.26	308.9	4	8K	9					
RAVENSBURG	17.29	317.9	3	59	0					
MAKHACH-KALA	17.39	60.3	3	58	-2					4 1 PP
CHEB	17.48	327.8	4	2	0		7	29	17	
EBINGEN	17.88	318.2	4	7	0					
TUBINGEN	18.03	319.2	4	9	1					
STUTTGART	18.07	320.1	4	9	0		7	41	15	6 47
COLLMBERG	18.16	331.3	4	9	-1		7	39	11	4 30 PP
BASLE	8.29	314.7	4	11A	-1					9 18
NEUCHATEL	.8.39	312.6	4	13	0		7	47	14	
JENA	18.45	328.4	4	13	-1		7	52	18	4 21 PP
KARLSRUHE	18.67	319.6	4	18	2		7	53	14	
HALLE	18.73	330.1	4	16	-1		7	57	17	
HEIDELBERG	18.75	320.9	4	17	0					
STRASBOURG	18.76	317.7	4	17	0		7	53	12	4 35 PP
BESANCON	19.09	312.3	4	21	0					
TEHERAN	19.93	83.6	4	28	-2		8	14	7	
CLERMONT-FD.	20.28	305.9	4	34A	0		8	27	13	
BENSBERG	20.50	322.7	4	35	-1		8	30	12	5 4 PP
MUNSTER	20.95	325.4	4	42	1					
MOSCOW	21.02	17.3	4	42A	0		8	34	6	
TORTOSA	21.10	291.0	4	41	-1		8	40	11	
DOURBES	21.33	318.0	4	44	-1		8	43	10	
KARLSKRONA	21.50	342.8	4	42	-4		8	43	6	
BAGNERES	21.64	297.0	4	47	-1		8	51	12	5 6 PP
ALICANTE	21.81	284.2	4	48	-1		8	54	12	5 18 PP
UCCLE	21.85	319.4	4	50	0		8	53	10	
PARIS	21.89	313.1	5	49	59		8	53	9	11 1
COPENHAGEN	21.93	337.9	4	50K	-1		8	55	10	
WITTEVEEN	21.95	326.1	4	58	7					
DE BILT	22.19	323.0	4	55	2		9	1	12	
SHIRAZ	22.51	99.1	4	55	-1		9	0	5	5 9 *SP
ALMERIA	23.51	280.7	5	8A	2		9	26	I3	5 39 PP
GOTEBORG	23.79	340.1	5	9	0					
PULKOVO	23.84	4.4	5	9	0		9	21	3	
HELSINKI	24.16	357.8	5	12	0					
GRANADA	24.37	281.7	5	22K	8		9	46	18	6 6 PP
NURMIJARVI	24.51	357.5	5	14	-2		9	39	9	
UPPSALA	24.54	348.8	5	15K	-1		9	35	5	13 33
TOLEDO	24.54	288.3	5	17K	1		9	42	12	5 45 PP
KEW	24.72	317.0	5	17	-1		9	45	12	5 56 PP
JERSEY	24.80	310.9	5	18	-1		9	50	15	
MALAGA	25.06	280.8	5	17K	-4		9	38	-1	
ASHKABAD	25.22	76.2	5	22	-1					
DURHAM	27.03	322.7	5	34K	-5		10	32	20	
COIMBRA	27.89	289.3	5	48	1		10	40	14	
SERRA PILAR	27.99	291.2	5	47K	-1		10	25	-2	6 35 PP
BERGEN	27.99	337.2	6	14	26					
KAJAANI	28.06	0.9	5	49	0					10 29
UMEA	28.08	353.8	5	46	-3					
LISBON	28.56	286.2	5	49	-4		10	50	14	
ABERDEEN	28.61	326.7					10	43	6	6 49 PPP
SKALSTUGAN	28.95	346.6	5	54	-3					
SVERDLOVSK	30.74	36.8	6	11	-2		11	8	-3	
SODANKYLA	31.36	359.9	6	15	-3		11	22	2	9 22 PCP
APATITY	31.77	4.8	6	19A	-3		11	27	0	13 15 SS
KIRUNA	32.03	355.5	6	22	-2		11	30	-1	7 33 PP
BANGUI	32.41	195.3	6	26	-1		11	38	1	
DUZHANBE	33.28	72.9	6	36	1		11	58	8	
TASHKENT	33.33	67.8	6	37A	2		11	58	7	16 39
KEVO	33.76	0.1	6	36	-3					
TROMSOE	33.90	355.1	6	39	-1					
QUETTA	33.97	88.2	6	41	0		12	5	4	
KHOROG	35.62	74.1	6	57	2		12	31	4	
WARSAK DAM	36.47	79.8	6	30	-32		12	37	-3	
FRUNSE	37.15	64.6	7	8A	0		12	53	3	
LWIRO	38.16	176.7	7	17K	1		13	10	5	15 59
AMDERMA	38.68	18.6	7	18	-2		13	9	-4	
LAHORE	39.46	82.4	7	29	2					
SEMIPALATNSK	40.62	52.2	7	37	0		13	41	-1	9 14 PP
NEW DELHI	42.86	85.2	7	57A	2		14	20	5	9 38 PP
DEHRA DUN	42.88	82.4	7	53	-2		14	14	-2	9 43 PP
SCORESBY SD.	42.98	338.2	7	56	0					
BOMBAY	43.84	100.3	8	6	3		14	34	4	9 48 PP
M.BOUR	44.62	252.6	8	12	3		14	49	8	
POONA	44.86	100.0	8	14K	3					

KHEYS	46.24	6.8	8	19	-3					10	41 PPP
NORD	48.23	352.2	8	34	-4						
BROKEN HILL	50.26	177.9	8	54	1						
CHATRA	51.62	82.3	9	5	2						
ESEN BULAK	51.70	55.7	9	5	1						
BOKARO	51.87	86.4	9	9	4					16	25 PS
BANDEIRA	52.26	196.6	9	8A	0				9 17		
VISHAKHAPTNM	52.89	94.5	9	16K	3	16	40	3		16	47 PS
MADRAS	52.99	101.5	9	17K	3	16	43	5		12	18 PPP
LHASA	53.51	77.3	9	20	2	16	47	2			
ALERT	54.38	350.7	9	20	-4						
IRKUTSK	55.27	46.9	9	28	-2	17	10	1			
BULAWAYO	55.92	177.9	9	35	0						
SHILLONG	55.95	81.3	9	37A	2	17	18	0		11	43 PP
CHITTAGONG	57.44	84.7	9	48	2				10 5	10	5 PCP
TANANARIVE	58.10	156.7	9	54	3					10	19
ULAN-BATOR	58.18	51.2	9	52A	1	17	53	6			
WINDHOEK	59.02	190.4	9	57K	0						
LANCHOW	60.62	65.0	10	9	1	18	21	2	10 27	19	59 SCS
PRETORIA	61.49	178.6	10	10	-4						
PAOTOW	63.11	58.0	10	24	-1	18	54	4	10 44		
RESOLUTE	63.14	345.3	10	23	-2						
CHENGTU	63.14	70.4	10	25	0	18	52	1		20	15 SCS
YAKUTSK	64.46	30.6	10	31	-2	19	5	-2		12	50 PP
KUNMING	64.81	76.4	10	36	0	19	11	0			
SIAN	65.16	64.7	10	39A	1	19	19	4	10 57		
MOULD BAY	65.93	351.6	10	40	-3						
HALIFAX	66.03	308.6	10	42A	-2						
PEKING	67.54	56.2	10	53	0	19	48	4	11 11		
HERMANUS	70.47	186.6				20	32	13		47	40
SHAWINIGAN	70.66	313.8	11	12	0						
CHANGCHUN	71.49	49.0	11	16	-1	20	30	-1	11 32		
BREBEUF	71.72	313.2	11	19K	0	20	40	7	11 33	25	31 SS
NANKING	73.41	62.3	11	28	-1	20	55	2			
MAGADAN	74.13	26.0	11	34	1	21	6	5			
CANTON	74.14	72.9	11	33	0	21	4	3			
PALISADES	74.38	309.5	11	35	1	20	49	-14			
ZO-SE	75.64	62.0	11	42	1	21	18	1	12 0		
VLADIVOSTOK	75.85	46.8	11	41	-2	21	19	-1			
PENNSYLVANIA	76.95	311.1	11	46K	-3						
MORGANTOWN	78.93	311.1	12	0A	0						
COLLEGE	79.32	357.7	12	1	-1				12 14		
CHAPEL HILL	80.63	307.7	12	10	1						
SAN JUAN	81.68	286.6	12	15	1						
COLUMBIA	83.10	307.2	12	23	1						
BLOOMINGTON	83.12	314.0	12	21	-1	22	39	3			
DUBUQUE	83.21	318.6	12	23	1	22	39	2			
MATUSIRO	83.74	49.0	12	25	0	22	42	0			
FLORISSANT	85.60	315.8	12	34	0	23	7	6			
C. GIRARDEAU	86.14	314.3	12	37	0						
BANFF	87.05	337.3	12	41	0						
ROLLA	87.09	316.0	12	42	1	23	6	-9			
LAWRENCE	88.17	318.6	12	47	0						
RAPID CITY	88.23	326.5	12	47	0				12 58		
MANHATTEN	88.71	319.5	12	49	0	23	32	2			
PENTICTON	89.92	338.8	12	36	-19						
BOZEMAN	90.19	331.9	12	58	2						
BUTTE	90.47	333.0	12	57	0						
LARAMIE	91.49	326.2	13	2	0						
WICHITA MTS.	93.11	317.7	13	9	-1	23	44	-25		16	57 PP
BOGOTA	96.04	280.1				24	4	10		26	7 PS
CHINCHINA	97.07	281.3	13	29	1	24	6	7		27	10 PS
EUREKA	97.36	331.8	13	28	-1						
RABAUL	120.70	71.0								20	11
DUMONT	131.67	150.7								22	34
CANBERRA	133.67	107.0	19	12	1						
ROXBURGH	150.34	120.2	19	45	5						
KARAPIRO	155.03	103.7	20	17	30					20	45

APRIL 28 12.H 43.M 49.S EPICENTRE 36.12 26.85 DEPTH= 45.KM

A= 0.72244 B= 0.36566 C= 0.58684 D= 0.4516 E=-0.8922
G= 0.5236 H= 0.2650 K=-0.8097 HT= -0.3

DEPTH OF FOCUS= 0.002R

SE= 2.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.11	307.4	0	48K	0						1	31	SG
SOFIA	7.11	338.6	1	45	1						2	2	P*
SKOPJE	7.20	325.9	1	47	2						1	53	PP
KSARA	7.76	104.5	1	46	-7	3	10	-10					
JERUSALEM	8.19	119.5	1	52	-7	3	21	-10					
BUCHAREST	8.31	356.3	1	57K	-3	3	42	8			4	7	S*
TITOGRAD	8.62	319.3	2	6	1	3	57	15			4	53	
TARANTO	8.71	302.8	2	23	17						4	18	
REGGIO CALA.	9.16	285.8	2	10	-2	3	59	4					
MESSINA	9.25	286.3	2	12K	-1	3	52	-5			2	37	P*
BELGRADE	9.96	332.7	2	25K	2	4	32	17			5	35	
SIMFEROPOL	10.41	29.8	2	30A	1	4	31	5					
TIMISOARA	10.52	337.9	2	36	5						6	16	
KISHINEV	10.99	7.1	2	35	-2								
IASI	11.09	2.6	2	33	-5								
SZEGED	11.31	335.6	2	4	-37	3	53	-54			2	25	PP
KALOCSA	11.96	332.9									2	58	PG
SOTCHI	12.38	49.1	2	53A	-3								
ROME	12.57	301.7	3	1K	3	5	33	15			3	31	P*
ZAGREB	12.69	323.1	2	58	-2						6	41	
BUDAPEST	12.76	335.3	3	1	0	5	36	14			3	21	PPP
HURBANOVO	13.38	334.1	3	21	12						6	20	SS
LJUBLJANA	13.58	320.7	3	10	-2	5	46	4			7	43	
TRIESTE	13.73	317.9	3	10	-4						7	44	
LWOW	13.85	352.4	3	15	0	5	47	-1					
SKALNATE PL.	13.92	341.7	3	24	8								
BRATISLAVA	14.03	332.1	3	17A	-1	5	48	-5			4	0	
FLORENCE X.	14.19	307.4	3	10	-10						6	15	
VIENNA-H.	14.38	330.7	3	22	0	5	54	-7					
PADOVA	14.64	313.9	3	26	0	6	11	4			6	56	
KRAKOW	14.80	342.3	3	28	0						3	43	PP
TIFLIS	15.05	62.7	3	30	-1								
RACIBORZ	15.30	338.5	3	41	7						3	48	PP
CHIAVARI	15.67	306.9	3	58	19						8	15	SGSG
GORIS	15.76	71.8	3	43	3	6	48	15					
PAVIA	16.16	309.5	3	59	14	7	7	25			11	30	
GROZNY	16.21	57.9	3	53K	7								
KASPERSKE H.	16.23	327.4	3	47K	1								
PRUHONICE	16.48	331.0	3	49	0	7	3	13					
WARSAW	16.63	347.4	3	52	1	7	8	15			4	6	PP
MONACO	16.70	303.0	3	51	-1								
CHUR	16.79	315.0	3	54	1						7	36	
ROSELEND	17.27	308.7	4	8A	9						4	16	
RAVENSBURG	17.28	317.7	4	0	1								
CHEB	17.46	327.6	4	4	3								
EBINGEN	17.86	318.0	4	7	1								
TUBINGEN	18.02	319.0	4	9K	1								
STUTTGART	18.05	319.9	4	9	0	7	40	14					
COLLMBERG	18.13	331.1	4	10	0	7	39	12			8	33	PCP
BASLE	18.28	314.5	4	12K	0						11	10	
NEUCHATEL	18.38	312.4	4	13	0	7	55	22					
JENA	18.43	328.2	4	14	1	7	50	16			9	35	
KARLSRUHE	18.66	319.4	4	18	2	8	3	24					
HALLE	18.70	329.9	4	16	-1	7	57	17					
HEIDELBERG	18.73	320.7	4	17	0								
STRASBOURG	18.75	317.5	4	17A	0	7	55	14			9	19	
BESANCON	19.09	312.1	4	23	2						4	51	
TEHERAN	19.87	83.8	4	28	-2	8	12	6					
CLERMONT-FD.	20.29	305.7	4	34	0								
BENSBERG	20.49	322.5	4	35K	-1	8	23	5			4	56	PP
MUNSTER	20.93	325.2	4	41	0								
TORTOSA	21.12	290.8	4	41	-2	8	38	8					
DOURBES	21.32	317.9	4	45	0	8	40	6					
KARLSKRONA	21.46	342.6	4	45	-1								
BAGNERES	21.66	296.9	4	47	-1						4	59	PP
UCCLE	21.83	319.2	4	50	0	8	54	11					
ALICANTE	21.84	284.1	4	49	-1	8	55	11			5	19	PP
PARIS	21.88	313.0	4	50	0	7	51	-53					
COPENHAGEN	21.90	337.8	4	51	1	9	6	21					

WITTEVEEN	21.93	325.9	4	56	5						
DE BILT	22.17	322.9	4	56A	3	8	56	7			
SHIRAZ	22.47	99.3	4	56	0	8	58	3		16	1 SCS
ALMERIA	23.55	280.5	5	8A	1					5	51 PP
FOLINIERE	23.66	310.8	5	7	-1						
GOTEBORG	23.76	340.0	5	8	-1						
PULKOVO	23.78	4.4	5	9	0	9	21	3			
HELSINKI	24.10	357.7	5	12	0						
GRANADA	24.40	281.6	5	17K	2	9	42	13		5	57 PP
NURMIJARVI	24.45	357.4	5	14	-1	9	30	0			
UPPSALA	24.49	348.8	5	15K	-1	9	51	21			
TOLEDO	24.57	288.2	5	17K	0	9	42	10	5 28		
KEW	24.71	316.9	5	17	-1	9	49	15			
VANNOVSKAYA	24.96	76.4	5	19	-1						
MALAGA	25.10	280.7							5 25		
ASHKABAD	25.16	76.4	5	23	1						
DURHAM	27.01	322.6	5	33	-6	10	31	19			
COIMBRA	27.92	289.2	5	47	-1	10	47	20			
KAJAANI	28.00	0.8	5	46	-2						
SERRA PILAR	28.02	291.1	5	49A	0	10	29	1		6	38 PP
UMEA	28.03	353.8	5	47	-2						
ABERDEEN	28.59	326.6				10	47	10		8	48
LISBON	28.59	286.1	5	17	-37						
SKALSTUGAN	28.90	346.5	5	52	-4						
SVERDLOVSK	30.67	36.8	6	11K	-1						
SODANKYLA	31.30	359.8	6	16	-2						
APATITY	31.70	4.8	6	19A	-2	11	27	1		12	31
KIRUNA	31.97	355.4	6	22	-2						
BANGUI	32.48	195.4	6	24	-4	11	38	-1			
TASHKENT	33.27	67.9	6	36	1	11	55	4			
KEVO	33.70	0.1	6	38	-1						
TROMSOE	33.85	355.0	6	40	0						
QUETTA	33.92	88.3	6	43	3	12	3	2			
KHOROG	35.56	74.2	6	57	3						
WARSAK DAM	36.41	79.9	7	0	-2						
FRUNSE	37.08	64.6	7	9	2	12	54	4			
LWIRO	38.21	176.8	7	16	-1	13	11	4			
SEMIPALATNSK	40.55	52.2	7	35	-1	13	43	1			
NEW DELHI	42.81	85.3	7	57A	2	14	14	-1			
DEHRA DUN	42.82	82.5	7	56	1					13	35
SCORESBY SD.	42.95	338.2	7	56	0						
BOMBAY	43.80	100.4	8	6	3	14	34	4		9	48 PP
POONA	44.82	100.1	8	13K	2						
KHEYS	46.17	6.8	8	21K	-1	15	3	-1			
BROKEN HILL	50.31	178.0	9	0	6						
CHATRA	51.56	82.4	8	44K	-19						
ESEN BULAK	51.63	55.7	9	5A	1	16	25	5			
BANDEIRA	52.33	196.6	9	7K	-2						
MADRAS	52.95	101.6	9	17	3	16	43	5		12	18 PPP
LHASA	53.44	77.3	9	17	U	16	46	1			
ALERT	54.33	350.7	9	21	-3						
SHILLONG	55.90	81.4	9	35A	U						
BULAWAYO	55.97	178.0	9	35	-1						
CHITTAGONG	57.38	84.8	9	50	4					10	41 PCP
ULAN-BATOR	58.11	51.3	9	52A	1	17	52	5			
TANANARIVE	58.14	156.8	9	58	7						
WINDHOEK	59.09	190.5	9	57K	-1						
LANCHOW	60.55	65.1	10	10	2	18	22	3			
PAOTOW	63.03	58.1	10	24	0	18	54	4	10 42		
CHENGTU	63.08	70.4	10	26	1	18	54	4			
RESOLUTE	63.10	345.3	10	22	-3	18	52	1			
YAKUTSK	64.38	30.7	10	29	-4	19	6	-1			
KUNMING	64.75	76.4	10	35	-1	19	12	1		20	39 SCS
SIAN	65.09	64.8	10	38	0	19	18	3			
MOULD BAY	65.88	351.6	10	40	-3						
HALIFAX	66.03	308.6	10	42K	-2						
PEKING	67.46	56.2	10	52	-1	19	47	3	11 11		
SHAWINIGAN	70.65	313.8	11	12K	0						
CHANGCHUN	71.41	49.0	11	17A	0	20	43	12	11 34		
BREBEUF	71.72	313.2	11	19K	0						
NANKING	73.33	62.4	11	28	0	20	55	2			
CANTON	74.07	72.9	11	35	2	21	7	6	11 52		
PALISADES	74.38	309.5	11	34	0	21	13	9			
ZO-SE	75.57	62.0	11	40	-1	21	17	0			
PENNSYLVANIA	76.95	311.1	11	46	-3						
MORGANTOWN	78.92	311.1	12	0K	0						
COLLEGE	79.26	357.7	12	1	-1						
CHAPEL HILL	80.63	307.7	12	9	0						

SAN JUAN	81.71	286.6	12	16	1					
BLOOMINGTON	83.11	314.1	12	22K	0					
DUBUQUE	83.20	318.7	12	21K	-1					
MATUSIRO	83.67	49.0	12	24A	-1	22	44	2		
FLORISSANT	85.59	315.8	12	34	0					
C. GIRARDEAU	86.13	314.3	12	39	2					
BANFF	87.01	337.4	12	41	0					
ROLLA	87.08	316.0	12	41K	-1					
LAWRENCE	88.16	318.6	12	47	0					
RAPID CITY	88.20	326.5	12	47	0					
MANHATTEN	88.69	319.6	12	50K	1					
PENTICTON	89.88	338.8	12	56	1					
WICHITA MTS.	93.10	317.8	13	10	0	23	44	-26	16 51	PP
CHARTERS TS.	125.04	90.4	18	57	2					
BYPD STATION	134.06	187.7	19	13	1				32 33	
SCOTT BASE	134.81	168.9	19	15	1					
ROXBURGH	150.32	120.1	19	47	6					
KARAPIRO	155.00	103.6	20	16	29					

APRIL 30 2.H 26.M 26.S EPICENTRE 38.79 141.15 DEPTH= 35.KM

A=-0.60864 B= 0.49020 C= 0.62390 D= 0.6273 E= 0.7788
G=-0.4859 H= 0.3913 K=-0.7815 HT= -1.2

DEPTH OF FOCUS= 0.000R

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
MIZUSAWA	0.34	357.1	0	6A	-4							
ISINOMAKI	0.38	159.9	0	4K	-6	0	9	-9				
SENDAI	0.56	200.9	0	8K	-4	0	14	-8				
YAMAGATA	0.83	229.6	0	12K	-4	0	22	-5				
MORIOKA	0.91	0.9	0	15K	-2	0	24	-5				
SAKATA	1.04	276.5	0	17K	-1	0	35	3				
MIYAKO	1.07	36.2	0	19A	0	0	32	-1				
HUKUSIMA	1.17	207.5	0	18K	-2	0	32	-3				
AKITA	1.24	319.0	0	21K	0	0	38	1				
HATINOHE	1.76	9.4	0	30A	1	0	52	2				
SHIRAKAWA	1.82	204.1	0	29K	-1	0	52	0				
ONAHAMA	1.85	186.3	0	30A	0	0	54	2				
NIIGATA	1.87	242.9	0	33K	3	0	57	4				
AOMORI	2.05	352.1	0	34A	1	1	4	7				
UTUNOMIYA	2.46	204.9	0	39A	0	1	10	2				
MITO	2.47	192.9	0	37A	-2	1	9	1				
KAKIOKA	2.67	197.1	0	39A	-3	1	17	4				
TUKUBASAN	2.70	198.4	0	40A	-2	1	18	4				
TAKADA	2.85	234.6	0	44K	0	1	23	5				
MAEBASI	2.90	215.4	0	45A	0	1	24	5				
KUMAGAYA	2.99	208.7	0	47A	1	1	24	3				
HAKODATE	3.03	354.4	0	48A	1	1	30	8				
TYOSI	3.07	184.6	0	46	-1	1	25	2				
NAGANO	3.16	228.8	0	52A	3	1	39	13				
OIWAKE	3.21	220.9	0	50	1							
MATUSIRO	3.24	227.0	0	49K	-1							
TITIBU	3.25	211.1	0	50	0	1	37	9				
HONGO	3.27	200.2	0	51	1	1	39	11				
TOKYO C.M.O.	3.30	200.2	0	48A	-3	1	28	-1				
MORI	3.34	352.5	0	55K	4	1	45	15				
MURORAN	3.53	357.9	0	56A	2	1	40	5				
YOKOHAMA	3.56	200.2	0	54A	0	1	40	4				
URAKAWA	3.58	19.8	0	56	1	1	41	5				
MATUMOTO	3.58	225.9	0	56	1	1	45	9				
WAZIMA	3.64	248.6	0	55K	0	1	36	-2				
KOHU	3.74	214.4	0	58A	1	1	48	8				
TOYAMA	3.76	237.6	0	57	0	1	56	15				
HUNATU	3.80	210.8	0	58	0	1	47	5				
TOMAKOMAI	3.85	4.7	1	4	6	1	58	15				
HIROO	3.86	24.7	1	1	2	1	48	5				
MERA	4.01	195.7	1	0A	-1	1	52	5				
MISIMA	4.07	206.4	1	1A	-1	1	46	-3				
SUTTSU	4.07	350.4	1	5	3	2	3	14				
TAKAYAMA	4.07	230.9	1	3	1	2	1	12				
AJIRO	4.08	204.4	1	1A	-1	1	50	1				
IIDA	4.21	220.1	1	5A	1	1	57	5				
KANAZAWA	4.23	239.1	1	3	-1	2	7	14				

OSIMA	4.26	200.1	1	3A	-1	1	55	2				
SAPPORO	4.28	1.9	1	5A	0	2	0	6				
SHIZUOKA	4.41	210.9	1	8A	2	1	59	2				
OBIHIRO	4.41	20.0	1	7	1	2	11	14				
NAGATURO	4.57	204.6	1	11	2	2	8	7				
HUKUI	4.78	236.6	1	12	0	2	11	4				
OMAESAKI	4.80	210.3	1	13A	1	2	10	3				
KUSIRO	4.86	29.4	1	11A	-2	2	7	-2				
GIHU	4.87	227.3	1	14A	1	2	11	2				
HAMAMATU	4.91	215.2	1	14K	1	2	13	3				
NAGOYA	4.93	224.1	1	15A	1	2	10	0				
ASAHIGAWA	5.07	10.0	1	16K	0	2	19	5				
TSURUGA	5.13	233.9	1	18	1	2	26	11				
RUMOE	5.17	3.8	1	19	2	2	20	4				
HIKONE	5.26	229.6	1	22A	4	2	27	8				
KAMEYAMA	5.44	225.1	1	23A	2	2	27	4				
TU	5.52	223.7	1	26	4							
NEMURO	5.64	35.0	1	22	-2	2	24	-4				
MAIZURU	5.67	236.0	1	25	1	2	33	4				
ABASHIRI	5.73	23.2	1	24	-1							
KYOTO	5.75	230.8	1	25	0	2	34	3				
HATIDYOZIMA	5.78	191.4	1	19	-7	2	26	-6				
NARA	5.92	227.8	1	30A	2	3	9	34				
ABUYAMA	5.95	230.6	1	26K	-2							
OSAKA	6.12	229.3	1	31A	1	2	45	5				
OWASE	6.17	221.8	1	30A	-1	2	57	15				
KOBE	6.31	231.3	1	35	2	2	49	4				
WAKAYAMA	6.63	228.4	1	41	3	2	57	4				
WAKKANAI	6.64	3.2	1	42K	4	3	11	18				
SUMOTO	6.70	230.4	1	39	0	2	57	2				
SAIGO	6.73	249.8	1	47	8	3	12	16				
SIOMISAKI	6.88	220.9	1	39	-2	2	55	-4				
HIMEJI	6.91	233.8	1	39	-3	2	57	-3				
TOKUSIMA	7.09	230.4	1	48	4							
OKAYAMA	7.11	237.0	1	46	2	3	8	3				
TAKAMATU	7.25	234.2	1	46A	0	3	12	4				
MATSUE	7.27	245.2	1	48	1	3	3	-6			3	23
TSURUGISAN	7.58	231.6	1	50	-1	3	57	40				
MUROTO	7.90	227.7	1	55	0	3	22	-3				
KOTI	8.08	232.0	1	58A	0	3	31	2				
KURILSK	8.15	35.7	1	58	-1	3	29	-2				
VLADIVOSTOK	8.23	304.6	1	59	-1							
HAMADA	8.25	244.7	2	1	1	3	33	0				
HIROSIMA	8.29	240.5	2	2A	1	3	35	1				
TORISIMA	8.32	185.1	2	1	0	3	29	-6				
MATUYAMA	8.37	236.4	2	3	1	3	38	2				
SIMIDU	8.95	230.4	2	9	-1	3	51	0				
OOITA	9.51	237.2	2	19A	1	4	9	5				
SIMONOSEKI	9.55	242.7	2	19	1							
ASOSAN	10.07	237.4	2	28	3	4	39	21				
HUKUOKA	10.14	242.4	2	27A	1	4	42	22				
UGLEGORSK	10.31	3.4	2	27	-2						3	19
KUMAMOTO	10.37	238.1	2	31A	2	4	30	4				
SAGA	10.38	241.1	2	32	2						3	44
MIYAZAKI	10.49	232.1	2	33	2	5	6	37				
ITUHARA	10.60	248.0	2	35K	2	4	37	6				
UNZENDAKE	10.72	239.0	2	28	-6	4	32	-2				
NAGASAKI	10.97	240.0	2	38K	0	4	59	19				
KAGOSIMA	11.27	233.5	2	45K	3	3	58	-50				
YAKUSIMA	12.08	229.7	2	53A	0	5	19	12				
CHANGCHUN	12.93	298.0	3	4A	0	5	27	-1				
ZO-SE	18.06	250.9	4	8A	-2	7	19	-8			7	44 *SS
PETROPAVLOVK	18.66	34.6	4	16	-1						7	52 SS
PEKING	19.33	281.6	4	22A	-3							
NANKING	19.41	256.6	4	23A	-3	7	47	-10			8	11 *SS
TAIPEI	21.53	236.2	4	52	4	8	48	8				
ILAN	21.56	235.3	5	6	18							
MAGADAN	21.67	13.4	4	48A	-2						8	48 PCP
HWALIEN	22.21	234.0	4	55	0	8	49	-3				
TAITUNG	23.39	232.7	5	15	8	9	9	-5				
TAINAN	23.80	234.7	5	0	-10							
TAWU	23.84	232.4	5	11	0							
PAOTOW	23.96	284.2	5	10A	-2	9	18	-5			5	48 PP
YAKUTSK	24.30	346.9	5	13	-2	9	32	3				
GUAM	25.43	171.8	5	25K	-1	10	14	26				
CANTON	28.38	244.7	5	53A	0	10	35	-1			6	52 PP
IRKUTSK	28.77	310.0	5	54A	-3	10	42	0				
LANCHOW	29.64	276.5	6	0A	-4	10	45	-11			6	58 PP

MANILA	29.84	221.9	6	8	2	11	10	11				
CHENGTU	31.42	266.5	6	17A	-3	11	17	-7			7	26 PP
TIKSI	33.51	353.0	6	37A	-1	12	0	3			8	7 PP
ESEN BULAK	33.55	297.9	6	36A	-3	12	6	8				
KUNMING	35.06	258.6	6	51A	-1	12	20	-1			8	13 PP
TOCKLAI	40.41	266.9	7	50	13						8	36
LHASA	41.99	273.1	7	49A	-1							
SHILLONG	43.26	267.3	7	59A	-1	14	30	6			9	38 PP
SEMIPALATNSK	43.73	306.0	8	2	-2	14	32	1				
RABAUL	43.97	164.1	8	5	-1						12	26
CHITTAGONG	44.97	263.4	8	13A	-1				8	38	8	58 PP
CHATRA	46.31	271.8	8	24K	0	15	7	-1			10	2 PP
CALCUTTA	47.57	266.0	8	37	3	15	33	7			13	49 PCS
COLLEGE	47.73	33.1	8	36A	1	15	25	-3			10	30 PP
PORT MORESBY	48.26	172.1	8	40A	0	15	41	5			9	37 PCP
BOKARO	48.89	269.2	8	44A	0	15	45	0			10	32 PP
FRUNSE	49.34	297.2	8	47A	-1	15	54	3			10	45 PP
AMDERMA	50.61	333.7	8	56	-2	16	9	0				
PORT BLAIR	50.70	251.3	8	58K	0	16	14	4			11	53 PPP
KHEYS	50.89	347.9	8	59K	-1	16	16	4			10	58 PP
DEHRA DUN	51.75	280.9	9	5	-1	16	25	1			20	19 SS
DARWIN	51.81	192.9	9	7	0							
NEW DELHI	53.22	279.4	9	15A	-2							
KHOROG	53.52	292.0	9	20	1	16	51	3				
TASHKENT	53.59	297.2	9	20A	0	16	54	5			17	17 PS
SVERDLOVSK	53.71	317.7	9	20K	-1	16	54	3			11	25 PP
VISHAKHAPTNM	54.19	264.3	9	25K	1	17	3	6			11	29 PP
KIPAPA	54.45	90.0	9	27	1				9	47		
HONOLULU	54.45	90.1	9	29	3	17	18	17				
DJAKARTA	54.90	223.3	9	3	-27							
MOULD BAY	54.92	16.8	9	29A	-1							
WARSAK DAM	55.00	288.1	9	30A	0	17	11	3				
LEMBANG	55.03	222.0	9	29	-2							
DUZHANBE	55.05	294.3	9	30	-1	17	13	4				
HAWAII V.OB.	57.69	90.2	9	52	2	17	50	6				
HYDERABAD	58.14	267.3	9	52A	-1	17	55	5			12	2 PP
ALERT	58.39	3.5	9	53A	-1							
CHARTERS TS.	58.76	174.4	9	56A	-1							
NORD	59.29	356.3	9	59A	-2							
MADRAS	59.40	262.0	10	1A	0	18	9	3			12	10 PP
QUETTA	60.24	286.3	10	6	-1	18	20	3				
RESOLUTE	60.96	14.6	10	11A	-1							
APATITY	61.01	335.3	10	10A	-2	18	28	1			12	15 PP
POONA	61.11	271.2	10	12A	-1	18	28	0			12	30 PP
BOMBAY	61.70	272.2	10	18	1	18	37	1			10	52 PCP
PORT VILA	61.72	150.4	10	17K	0							
KEVO	61.73	338.9	10	16	-1							
ASHKABAD	62.65	298.0	10	22	-1	18	51	3				
KOUMAC	62.89	155.6	10	24A	-1							
SODANKYLA	63.27	336.8	10	26A	-2	18	56	1	10	48	12	50 PP
THULE	63.55	7.5	10	27K	-2				10	52	11	36 PCP
TROMSOE	63.99	340.8	10	30	-2							
ALBERNI	64.18	46.5	10	34	0							
KIRUNA	64.81	338.9	10	36A	-2	19	11	-3			12	54 PP
KAJAANI	64.93	333.6	10	38A	0	19	18	2				
NOUMEA	65.23	154.2	10	41A	1							
VICTORIA	65.36	46.7	10	41	0							
MOSCOW	65.73	322.9	10	42A	-1	19	28	2			13	9 PP
PULKOVO	66.58	329.0	10	48	-1	19	38	2				
BRISBANE	66.73	168.8	10	50	0	19	44	6				
PENTICTON	67.06	44.5	10	52A	0							
UMEA	67.60	335.7	10	54A	-1	19	51	3	11	21	11	55
NURMIJARVI	68.30	331.5	10	58A	-2	19	57	0			13	18 PP
HELSINKI	68.41	331.2	10	59A	-1						13	28 PP
TEHERAN	68.56	299.1	11	1	0	20	8	8				
TIFLIS	69.58	307.4				20	14	2			20	53 PS
SKALSTUGAN	70.21	338.3	11	10A	-1				11	38		
SCORESBY SD.	70.35	354.0	11	3	-9	20	47	26				
UFIAH	70.58	55.2	11	16A	2							
HUNGRY HORSE	70.64	43.1	11	14	0							
MINERAL	70.91	53.3	11	16A	0							
SHIRAZ	71.14	293.1	11	16A	-1	20	32	2	11	37	11	28 PCP
CALISTOGA	71.27	55.3	11	19A	1							
UPPSALA	71.29	333.6	11	16A	-2	20	34	2			13	53 PP
BERKELEY	71.91	55.8	11	23A	1	20	46	7				
RENO	72.50	53.2	11	26A	1	20	53	7				
LICK	72.62	55.9	11	27A	1							
RIVERVIEW	72.85	171.3	11	27A	0						14	11 PP
BUTTE	72.85	44.4	11	28A	1							

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BOZEMAN	73.90	44.0	11	34A	1						
PRIEST	73.96	56.5	11	35A	1						
CANBERRA	74.10	173.3	11	34A	0					11	40 PCP
MUNDARING	74.13	201.9	11	33A	-2						
BERGEN	74.74	339.0	11	37	-1						
KARLSKRONA	74.76	331.9	11	37A	-1						
GOTEBORG	74.85	334.5	11	37A	-2						
EUREKA	74.91	51.4	11	41A	2						
WARSAW	75.49	326.7	11	44A	2	21	20	1		22	2 PS
LWOW	75.84	323.5	11	45	0	21	27	4		14	34 PP
IASI	75.93	319.9	11	43	-2						
COPENHAGEN	76.27	332.9	11	46A	-1	21	34	6			
SIDA	76.44	350.7	11	50A	2						
REYKJAVIK	76.54	352.4	11	49A	0						
BACAU	76.69	319.7	11	56	7						
PASADENA	76.79	56.8	11	50	0	21	38	5			
FOCSANI	77.13	318.9	11	56	4						
KRAKOW	77.54	325.6	11	54	0	21	45	4		14	46 PP
BOULDER CITY	77.80	53.6	11	56	1						
FLAMING GRGE	77.88	46.9	11	57A	1						
SKALNATE PL.	78.03	324.9	11	56	-1						
RACIBORZ	78.27	326.5	11	59	1				12	21	14 58 PP
CAMPULUNG	78.53	319.7	12	2	2						
BUCHAREST	78.58	318.5	11	59A	-1	22	0	7			
RAPID CITY	79.12	41.4	12	4	1				12	40	
GLEN CANYON	79.17	51.1	12	35	32						
ISTANBUL UN.	79.33	314.5	12	4A	0	22	4	3			
COLLMBERG	79.48	329.9	12	4A	-1	22	3	1		15	7 PP
ABERDEEN	79.51	340.6	12	5A	0	22	5	3		15	0 PP
HALLE	79.73	330.5	12	4	-2	21	52	-13			
BUDAPEST	79.84	324.3	12	7	0	22	10	4		15	10 PP
PRAGUE	79.86	328.4	12	9K	2	22	9	3		15	6 PP
HURBANOVO	79.92	325.0	12	11	4	22	19	12		22	57 PS
KSARA	79.96	305.4	12	7A	0	22	5	-2		15	5 PP
TIMISOARA	80.07	322.0	12	15	7	22	12	4			
BRATISLAVA	80.18	325.7	12	8K	0	22	16	7		12	40
JENA	80.33	330.3	12	10	1	22	13	2		15	12 PP
VIENNA-H.	80.44	326.2	12	10A	0	22	10	-2			
WITTEVEEN	80.59	334.0	12	11	0						
CHEB	80.68	329.4	12	11	0					14	33
KASPERSKE H.	80.94	328.2	12	11A	-2					12	31
BELGRADE	81.12	321.7	12	14A	1	22	26	7		15	22 PP
DURHAM	81.48	339.2	12	12A	-3	22	25	2			
FORT NELSON	81.53	175.4	12	16K	0						
DE BILT	81.70	334.3	12	9	-7	22	30	5		15	24 PP
JERUSALEM	81.70	304.1	12	17A	1					15	25 PP
BENSBERG	81.95	332.6	12	18	0					12	49
FELDBERG	82.09	331.5	12	29A	11						
KARAPIRO	82.64	153.2	12	22A	1				12	46	
HEIDELBERG	82.65	330.9	12	21A	0						
SKOPJE	82.71	319.2	13	22	60	22	34	-1			
TUCSON	82.73	54.3	12	23A	1				12	57	15 44 PP
TUCSON TELE.	82.74	54.2	12	23	1						
LJUBLJANA	82.94	325.7	12	22A	-1					15	36 PP
STUTTGART	82.95	330.2	12	22	-1	22	39	1		28	4 SS
UCCLE	83.07	334.1	12	23	0	22	45	6			
KARLSRUHE	83.09	330.8	12	21	-3						
TUBINGEN	83.23	330.2	12	24A	0						
EBINGEN	83.55	330.1	12	26	0						
DOURBES	83.57	333.5	12	25	-1	22	48	4			
TRIESTE	83.59	325.9	12	25A	-1	22	41	-3		28	16 SS
ALBUQUERQUE	83.61	49.8	12	33A	7						
RAVENSBURG	83.62	329.5	12	26	0						
STRASBOURG	83.68	330.9	12	26	-1	22	46	1		15	40 PP
CHATEAU	83.78	153.8	12	27A	0						
TUAI	83.99	152.5	12	27A	-1				12	51	
KEW	84.01	336.9	12	28A	0					22	52
ATHENS	84.39	315.2	12	29A	-1	22	53	1		15	46 PP
CHUR	84.41	329.0	12	25	-5	22	54	2			
COBB RIVER	84.55	156.6	12	32	1						
PADOVA	84.59	326.8	12	34	3	22	49	-5			
BASLE	84.62	330.5	12	32A	1	22	57	2			
NEUCHATEL	85.30	330.5	12	35	0						
PARIS	85.40	334.0	12	36	1	23	5	3		15	50 PP
BESANCON	85.46	331.2	12	34	-1						
PAVIA	85.91	328.2	13	2	24					24	23 PS
TARANTO	85.94	320.6								22	34
MANHATTEN	86.07	41.2	12	39K	1	23	34	25			

			P		O-C	S		O-C		*PP			SUPP.		
	DELTA DEG.	AZ. DEG.	M	S	S	M	S	S		M	S		M	S	
FLORENCE X.	86.16	326.2	12	44A	5	23	13	4		12	58		16	13	PP
ROSELEND	86.28	329.3	12	40A	1								13	8	
DUBUQUE	86.39	35.6	12	40A	0										
FOLINIERE	86.42	335.7	12	40	0										
GARCHY	86.50	332.9	12	40A	-1								13	2	
CHIAVARI	86.55	327.6				23	32	19					13	24	
GEBBIES PASS	86.92	157.7	12	44	1										
ROME	87.10	324.3	12	42A	-2	23	12	-7		12	56		16	14	PP
ROXBURGH	87.63	160.6	12	47	1										
CLERMONT-FD.	87.77	332.1	12	49A	2										
MONACO	87.81	328.4	12	47	0										
WICHITA MTS.	88.32	45.4	12	50	1	23	36	6					16	5	PP
MESSINA	88.52	320.1	12	50	0	23	33	1					16	18	PP
ROLLA	89.43	39.2	12	55A	0	23	44	4							
FLORISSANT	89.46	37.7	12	55	0	23	46	5							
ST. LOUIS 1	89.66	37.7	12	56A	0	23	46	4							
SHAWINIGAN	89.77	22.7	12	33A	-23										
BREBEUF	90.46	23.6	12	59A	0	23	53	3							
BLOOMINGTON	90.94	35.1	13	2A	0										
C. GIRARDEAU	91.04	38.1	13	3A	1										
BAGNERES	91.18	332.5	13	2	-1										
PENNSYLVANIA	93.14	28.6	13	10A	-2										
MORGANTOWN	93.35	30.6	13	14K	1								16	25	PP
HALIFAX	94.02	17.4	13	18A	2										
PALISADES	94.37	25.8	13	18	1	23	52	-32							
TOLEDO	95.47	333.8	13	23A	1	24	45	51					17	15	PP
ALMERIA	97.59	331.3	13	12	-20										
GRANADA	97.72	332.3											17	38	PP
MALAGA	98.42	332.6	13	40	4								17	38	PP
TANANARIVE	104.33	257.2											18	19	PP
DUMONT	105.13	180.5	18	25	777										
LWIRO	108.74	282.6											18	48	PP
MIRNY	111.29	198.7											19	10	PP
BANGUI	111.82	295.1	18	33	2								19	16	PP
BROKEN HILL	116.53	272.5	18	42	1										
BULAWAYO	119.67	267.2	18	48	1										
MAWSON	121.02	206.0	18	48A	-1								20	19	PP
M.BOUR	123.29	334.4											20	2	PP
CHINCHINA	124.75	46.5	18	55	-1								20	47	PP
FUQUENE	125.39	44.3	18	59	1								20	52	PP
BOGOTA	125.91	45.2	19	3	4								20	57	PP
TRINIDAD	126.51	28.0	19	2	2								20	54	
SOUTH POLE	128.60	180.0	19	3	-1										
BYRD STATION	129.53	167.1	19	6	0								32	57	
HERMANUS	133.84	256.6											22	50	PKS
LA PAZ	146.10	57.3	19	40	4								42	4	SS
ANTOFAGASTA	149.28	70.0	19	44	3										
ARGENTINE I.	149.66	159.0	19	45	4										

APRIL 30 9.H 44.M 7.S EPICENTRE 17.05 147.27 DEPTH= 0.KM

A=-0.80475 B= 0.51717 C= 0.29142 D= 0.5406 E= 0.8413
G=-0.2452 H= 0.1575 K=-0.9566 HT= 5.3

SE= 1.61

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ABUYAMA	20.60	331.7	4	40A	-3							
MATUSIRO	21.01	339.3	4	48A	1	8	40	3				
RABAUL	21.66	166.7	4	54	0						8	58
MIZUSAWA	22.64	347.5	5	7	3	9	56	48				
MANILA	25.30	268.3	5	23	-6	9	35	-19				
BAGUIO CITY	25.57	272.5	5	33	1	10	13	15				
PORT MORESBY	26.28	180.3	5	39A	0							
ZO-SE	27.54	305.3	5	48	-2	10	23	-8				
VLADIVOSTOK	29.09	336.5	6	3	-1							
CHANGCHUN	32.52	329.8	6	4	-30							
DARWIN	33.45	210.1	6	44	1							
PEKING	35.35	316.7	6	58	-1	12	32	-1				
CHARTERS TS.	36.92	181.6	7	12	0							
PETROPAVLOVK	36.99	11.4	7	11	-2							
SIAN	38.31	304.0	7	23	-1	13	16	-3				
PAOTOW	39.75	313.9	7	37	1	13	40	-1				
CHENGTU	41.57	297.1	7	52	1	14	6	-2				
KUNMING	42.17	288.7	7	59	3	14	21	5				
MAGADAN	42.52	2.7	7	55	-4							

LANCHOW	42.81	304.9	8	3	2	14	28	2			
BRISBANE	44.50	173.0	8	14	-1	14	51	1			
ULAN-BATOR	45.10	322.0	8	18	-1						
LEMBANG	45.82	242.1	8	27K	2						
YAKUTSK	46.60	348.7	8	32	1	15	18	-3			
ESEN BULAK	51.19	316.3	9	7A	0	16	26	1			
SHILLONG	52.00	289.4	9	14K	1						
CANBERRA	52.11	178.2	9	14K	0						
CHATRA	56.16	291.1	9	45K	1						
MUNDARING	57.12	211.5	9	50A	0						
KARAPIRO	60.80	154.6	10	11	-5					10	57
CHATEAU	61.89	155.3	10	23	0						
SEMIPALATNSK	62.43	318.3	10	26	-1						
DEHRA DUN	63.91	295.8	10	37	0						
COLLEGE	64.10	25.5	10	37	-1					15	19 SCP
NEW DELHI	64.82	294.0	10	41A	-2						
FRUNSE	65.97	309.8	10	51	1						
KHOROG	68.66	304.1	11	9	2						
WARSAK DAM	69.01	300.4	11	10	1						
POONA	69.45	283.8	11	12A	0						
TASHKENT	70.03	308.4	11	16	1						
BOMBAY	70.33	284.4								20	30
AMDERMA	72.62	338.7	11	30	-1	20	53	-3			
KHEYS	73.17	350.1	11	35	1	20	58	-4			
QUETTA	73.44	297.1	11	37	1	21	15	10			
SVERDLOVSK	74.08	325.2	11	39K	0	21	14	2			
MOULD BAY	74.37	14.4	11	41A	0						
VANNOVSKAYA	79.08	306.4	12	9	1						
PENTICTON	79.25	41.7	12	9	1						
ALERT	79.67	3.8	12	11	0						
CALISTOGA	79.67	52.8	12	11A	0						
MINERAL	80.00	50.9	12	13A	0						
BERKELEY	80.10	53.5	12	14A	1						
RESOLUTE	80.67	13.8	12	16A	0						
LICK	80.70	53.9	12	17A	1						
RENO	81.54	51.3	12	22A	1						
APATITY	83.08	339.3	12	29K	0	22	48	0			
KEVO	83.95	342.4	12	33	0						
PASADENA	84.27	56.2	12	35	0						
THULE	84.30	7.9	12	35	0						
EUREKA	84.41	50.6	12	36	1						
BUTTE	84.75	43.5	12	37	0						
SODANKYLA	85.41	340.5	12	40K	0						
MOSCOW	86.65	327.7	12	46	0	23	20	-3			
KAJAANI	86.89	337.5	12	47	-1						
KIRUNA	87.02	342.3	12	48	0						
GORIS	87.47	310.5	12	50	0						
TIFLIS	87.79	313.0	12	53	1						
PULKOVO	88.17	333.2	12	53	-1						
FLAMING GRGE	88.68	47.5	12	57	1						
UMEA	89.68	339.3	12	57	-4						
NURMIJARVI	90.11	335.4	13	2K	-1						
HELSINKI	90.18	335.0	13	2	-1						
TUCSON	90.71	56.0	13	7	1						
LARAMIE	91.19	46.1	13	9	1						
RAPID CITY	91.63	42.8	13	11	1						
SKALSTUGAN	92.40	341.5	13	16	2						
ALBUQUERQUE	93.09	52.2	12	17	-60						
UPPSALA	93.24	337.1	13	16	-1						
WICHITA MTS.	99.03	49.6	13	45	1					17	53 PP
COLLMBERG	101.09	332.7	13	53	0						
PRUHONICE	101.33	331.1								18	5
JENA	101.98	333.1								18	7
KASPERSKE H.	102.38	330.9								18	12 PP
MAWSON	103.49	203.1	14	4	0					18	20 PP
BULAWAYO	122.06	256.6	18	59	2						
BANGUI	125.01	288.1	19	4	2						
ANTOFAGASTA	144.13	107.0	19	39	2						
LA PAZ	146.13	94.3	19	45	4						

APRIL 30 16.H 16.M 46.S EPICENTRE -18.20-175.92 DEPTH= 0.KM

A=-0.94819 B=-0.06770 C=-0.31039 D=-0.0712 E= 0.9975
G= 0.3096 H= 0.0221 K=-0.9506 HT= 5.1

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SUVA	5.38	269.6	1	21	-2								
AFIAMALU	5.83	43.6	1	25	-5	2	26	-12					
PORT VILA	15.01	269.3	3	36A	1	6	36	13					
NOUMEA	17.04	253.2	4	2A	1	7	23	13					
KOUMAC	18.83	259.6	4	23A	0	8	0	9					
ONERAHI	19.51	204.3	4	34	3								
KARAPIRO	21.03	199.1	4	47	-1								
TUAI	21.40	195.0	4	48	-3								
CHATEAU	22.21	197.8	4	57	-3						5	26	PP
WELLINGTON	24.35	197.2	5	21	1								
COBB RIVER	24.80	200.8	5	28	3								
KAIMATA	26.53	201.3	5	49	8								
GEBBIES PASS	27.19	198.3	5	42	-5								
ROXBURGH	29.85	201.1	6	31	20	11	6	-2			7	10	PP
BRISBANE	30.21	246.7	6	12	-2	10	25	-48					
RIVERVIEW	33.26	235.6	6	40A	-1	12	2	1			7	53	PP
RABAUL	34.17	290.2	6	45	-4						8	0	
CANBERRA	35.43	234.2	6	59A	-1	12	36	1			12	46	*SS
CHARTERS TS.	35.73	260.7	6	59	-3	12	34	-6					
PORT MORESBY	36.86	278.7	7	11A	-1				7	38			
MELBOURNE	39.32	232.0	7	32	0	13	37	3					
FORT NELSON	39.63	223.5	7	35K	0						16	50	SS
HAWAII V.OR.	42.53	29.5	7	42	-17	14	41	19					
HONOLULU	42.96	24.8				14	39	11					
KIPAPA	43.10	24.8	8	3	0								
GUAM	49.95	306.3	9	0	2								
DARWIN	51.55	268.5	9	8	-2								
CAPE HALLETT	54.71	185.1	9	36	3								
DUMONT	56.17	199.5	9	41	-3								
SCOTT BASE	60.29	184.2	10	16	3								
MUNDARING	62.10	243.0	10	24	-1								
PERTH	62.43	243.0	10	26	-1	18	56	3			25	56	SSS
BYRD STATION	66.58	170.9	10	14	-40								
WILKES	66.89	204.9	10	53	-3	19	46	-3	11	7	24	14	SS
TUKUBASAN	68.25	322.8	11	6A	1	20	8	3			27	38	SSS
MATUSIRO	69.57	321.9	11	10	-3	20	21	0					
ABUYAMA	70.05	319.1	11	19K	3								
MANILA	70.15	293.5	11	19	3	19	29	-58					
BAGUIO CITY	71.35	295.0	11	26	2	20	44	3					
MIRNY	73.90	204.6									11	57	PCP
PETROPAVLOVK	74.26	344.4				21	16	2			21	58	PS
LEMBANG	75.07	267.6	11	44A	-1	21	22	-1					
PRIEST	75.15	43.5	11	46K	0								
BERKELEY	75.16	41.3	11	48A	2	21	30	6	12	12	12	3	PCP
LICK	75.23	42.0	11	47K	1								
UKIAH	75.34	39.8	11	26	-21								
CALISTOGA	75.43	40.5	11	51K	4								
PASADENA	75.68	46.4	11	48	-1	21	35	5					
VLADIVOSTOK	77.56	323.7	11	57	-2						21	56	SCS
ZO-SE	77.77	308.6	12	3	3	21	59	6					
BOULDER CITY	78.97	46.3	12	8	1								
NANKING	80.02	308.4	12	16K	3	22	21	4					
EUREKA	80.10	42.8	12	13	0								
CANTON	80.35	298.1	12	15	0	22	24	4			12	35	*SP
VICTORIA	81.20	32.3	12	31K	12								
CHANGCHUN	81.81	321.3	12	22K	0	22	36	1	12	30			
MAGADAN	82.09	343.6	12	22	-2						22	42	SCS
PENTICTON	83.66	33.2	12	31K	-1								
MAWSON	84.38	199.2	12	35K	0								
ALBUQUERQUE	84.43	50.6	12	36	0								
FLAMING GRGE	85.16	44.2	12	39	0								
COLLEGE	85.56	11.6	12	39	-2	23	8	-5					
PEKING	85.66	314.5	12	42	0	23	14	0	12	52	12	57	*SP
BUTTE	85.73	38.6	12	41	-1								
BOZEMAN	86.46	39.5	12	58	12								
SIAN	88.41	306.8	12	57	2	23	47	7					
KUNMING	90.08	296.3	13	5	2	24	0	5			13	25	*SP
PAOTOW	90.13	312.9	13	5	2	23	59	3	13	12			
WICHITA MTS.	90.24	53.5	13	4	0	24	1	4			25	0	PS
YAKUTSK	90.72	337.5	13	4	-2								
CHENGTU	90.93	301.9	13	12	5	24	11	8					
LANCHOW	92.95	306.9	13	17	1	24	21	0					
MANHATTEN	93.36	49.9	13	19	1								
ULAN-BATOR	95.04	318.8	13	28	2	24	9	8					
ROLLA	96.40	52.3	13	33	1								
TIKSI	97.03	344.8	13	31	-4						24	13	SKKS

DUBUQUE	98.66	48.2				25	1	41			
SHILLONG	99.58	293.8	17	51	245						
BLOOMINGTON	100.82	52.3	14	4	12	24	44	13			
LA PAZ	101.01	111.5				24	44	12	18	7	PP
ESEN BULAK	101.49	315.1	14	0	5						
CALCUTTA	101.87	289.9							23	11	
BOGOTA	102.67	89.3							18	30	PP
FUQUENE	103.25	88.5							18	35	PP
MADRAS	106.98	278.4							19	0	PP
PALISADES	110.64	52.3	19	13	39						
DEHRA DUN	112.52	295.9							19	40	
NEW DELHI	112.99	293.9	18	40A	1						
KHEYS	113.45	351.7	18	43	3				22	17	PKS
BOMBAY	115.24	282.7							19	54	PP
FRUNSE	116.31	309.3	18	48	2				19	52	PP
TRINIDAD	116.41	86.9							28	44	
AMDERMA	117.92	340.6	18	49	0						
WARSAK DAM	118.39	299.3	18	52	2						
KHOROG	118.56	303.2							20	11	PP
TASHKENT	120.30	307.6	18	56	3				36	50	SS
DUZHANBE	120.75	304.5	18	55	1						
SVERDLOVSK	123.19	326.8	19	1	2						
SCORESBY SD.	125.41	10.4	19	7	4						
APATITY	127.22	346.3	19	3	-4				21	0	PP
SODANKYLA	128.75	349.0	19	10	0						
KIMBERLEY	129.22	203.6	18	43	-27						
KIRUNA	129.30	352.1							22	42	PKS
KAJAANI	131.42	346.4	19	18	3				22	41	PKS
UMEA	133.10	350.3	19	18	0				22	50	PKS
PULKOVO	134.36	341.8	19	18	-2						
MOSCOW	134.76	333.9	19	21	0				22	1	PP
TEHERAN	134.82	302.5	19	45	24						
BULAWAYO	134.94	213.4	19	24	3						
NURMIJARVI	135.24	345.7	19	22	0				22	55	PKS
HELSINKI	135.47	345.3	19	25	3						
UPPSALA	137.26	350.0	19	42	17				23	17	
GORIS	137.83	309.2	19	29	2						
TIFLIS	138.18	312.9	19	33	6				23	22	PKS
BROKEN HILL	139.62	218.1	19	20	-10						
ABERDEEN	140.82	5.3							34	45	PPS
DURHAM	143.24	5.5	19	23	-13						
WARSAW	143.52	342.5	19	35	-2			19	52		
LWOW	144.62	337.6	19	39	1				22	7	PP
IASI	145.24	331.5	19	35	-5						
WITTEVEEN	145.39	357.2	19	41	1						
KRAKOW	145.77	341.8	19	44	4			20	0		
BANDEIRA	145.88	196.0	19	44K	3						
BACAU	146.02	331.4	19	47	6						
DE BILT	146.16	358.8	19	46	5				42	44	SS
HALLE	146.19	351.2	19	44	3				23	21	PKS
COLLMBERG	146.22	349.9	19	42	1	26	42	-7	22	58	PP
RACIBORZ	146.24	343.6	19	45	4			19	55	19	53 PKP2
SKALNATE PL.	146.44	340.7	19	49	7						
FOCSANI	146.53	330.1	19	51	9						
KEW	146.62	5.0	19	44	2						
JENA	146.80	351.3	19	44	2				23	23	
PRAGUE	147.14	347.7	19	48	5				23	40	PP
PRUHONICE	147.20	347.5	19	46	3						
BENSBERG	147.22	356.4	19	48	5						
UCCLE	147.47	359.7	19	46	3				23	21	PP
KSARA	147.63	305.0	19	47	3	27	3	12	23	15	PP
CAMPULUNG	147.85	331.7							20	2	PKP2
FELDBERG	147.86	354.7	19	51	7						
BUCHAREST	148.00	329.5	19	53K	9						
DOURBES	148.17	359.4	19	48	4				23	25	PP
KASPERSKE H.	148.20	348.1	19	46	2				21	16	
HURBANOVO	148.23	341.8	19	49	4						
BRATISLAVA	148.28	343.3	19	47	2				24	56	
LWIRO	148.29	232.7	19	48	3				34	20	
BUDAPEST	148.33	340.5	19	46	1				22	17	
VIENNA-H.	148.40	344.3	19	49	4						
HEIDELBERG	148.65	354.2	19	48	3						
ISTANBUL UN.	148.78	322.1	19	50	5				23	57	PKS
JERUSALEM	148.83	301.7	19	48	3						
TIMISOARA	149.06	336.3	19	52	6						
KARLSRUHE	149.06	354.5	19	50	4						
STUTTGART	149.21	353.3	19	48	2						
FOLINIERE	149.28	5.9	19	50	4						
PARIS	149.44	2.1	19	54	8						

STRASBOURG	149.55	355.2	19	52	5				21	0	
BELGRADE	150.13	336.3	19	52A	4				23	36	PP
BASLE	150.61	355.2	19	57A	9				24	48	PP
ZAGRER	150.74	342.8	20	2	14						
GARCHY	150.98	1.4	19	59	10				20	6	PKP2
BESANCON	150.98	357.3	19	52	3						
TRIESTE	151.47	345.7	19	53	3				20	7	PKP2
LUANDA	151.65	199.3	20	1A	11						
PADOVA	152.10	348.2							20	14	
CLERMONT-FD.	152.49	1.5	19	54	3						
ROSELEND	152.63	354.6	20	3	12						
PAVIA	152.76	352.1							20	23	
FLORENCE X.	153.79	348.2	19	54	1				25	26	
ATHENS	153.87	322.9	20	3K	10						
BAGNERES	154.98	6.8	19	58	4				20	38	
ROME	155.31	344.9	19	55	0				24	14	PP
TOLEDO	157.28	16.4	20	2	4				20	34	PKP2
MESSINA	157.69	335.6	19	59	1	26	56	-6	24	12	PP
M.BOUR	159.44	97.5	20	15	15				20	48	PKP2
GRANADA	159.92	18.1	20	55	54	27	40	35	24	46	PP
MALAGA	160.09	20.4	20	2	1				27	36	PKS
BANGUI	160.23	227.7	20	3	2				21	7	

APRIL 30 18.H 30.M 55.S EPICENTRE -18.13-175.99 DEPTH= 0.KM

A=-0.94861 B=-0.06658 C=-0.30936 D=-0.0700 E= 0.9975
G= 0.3086 H= 0.0217 K=-0.9509 HT= 5.1

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
SUVA	5.31	269.0									1	45
AFIAMALU	5.83	44.5	1	27	-3	2	41	3				
PORT VILA	14.94	269.1	3	37A	3	6	38	17				
NOUMEA	17.00	253.0	4	3A	3	7	23	14				
KOUMAC	18.78	259.4	4	23A	0	7	58	8				
ONERAHI	19.54	204.0	4	33	2							
KARAPIRO	21.07	198.9	4	46	-2							
TUAI	21.44	194.8	4	48	-4							
CHATEAU	22.25	197.6	4	57	-3				5	25		
COBB RIVER	24.84	200.6	5	24	-1							
KAIMATA	26.56	201.1	5	46	5							
GEBBIES PASS	27.23	198.2	5	48	1							
ROXBURGH	29.89	201.0	6	17	6							
BRISBANE	30.17	246.6	6	12	-2	11	15	2				
RIVERVIEW	33.25	235.5	6	40A	-1	11	59	-2			14	34
RABAUL	34.09	290.1	6	45	-3						16	21
CANBERRA	35.42	234.1	6	59A	0						11	49
CHARTERS TS.	35.68	260.6	7	0	-2						8	26
PORT MORESBY	36.78	278.6	7	10A	-1							
MELBOURNE	39.31	231.9	7	32	0							
FORT NELSON	39.63	223.4	7	35A	0				8	9		
HONOLULU	42.93	24.9				14	42	14				
DARWIN	51.49	268.4	9	7	-2							
DUMONT	56.20	199.4	9	42	-2							
SCOTT BASE	60.35	184.1	10	14	1							
MUNDARING	62.07	243.0	10	22A	-3							
BYRD STATION	66.66	170.9	10	55	1							
MATUSIRO	69.48	321.9	11	10	-2	19	42	-37				
ABUYAMA	69.96	319.1	11	14A	-1							
MANILA	70.07	293.5	11	17	1							
SOUTH POLE	71.98	180.0	11	27	0							
MIRNY	73.93	204.6	11	37	-2							
PETROPAVLOVK	74.18	344.4							21	7	-6	
LEMBANG	75.01	267.6	11	44A	-1	21	25	3				
PRIEST	75.15	43.5	11	47K	1							
BERKELEY	75.16	41.3	11	46	0							
LICK	75.23	42.0	11	47	1							
CALISTOGA	75.43	40.5	11	48A	1							
PASADENA	75.69	46.4	11	48	-1							
UGLEGORSK	76.59	333.1	11	58	4							
MINERAL	77.07	39.6	11	57A	1							
RENO	77.69	41.1	12	0	0							
BOULDER CITY	78.98	46.4	12	8	1							
NANKING	79.93	308.5	12	12A	0	22	10	-6				
EUREKA	80.10	42.9	12	14	1							

CANTON	80.26	298.2	12	14A	0	22	16	-3			
CHANGCHUN	81.72	321.3	12	21A	-1	22	37	3			
MAGADAN	82.01	343.6				22	37	0			
PENTICTON	83.64	33.2	12	32K	1						
MAWSON	84.42	199.2	12	34K	-1						
ALBUQUERQUE	84.44	50.6	12	35	0						
COLLEGE	85.51	11.7	12	39	-2	22	43	-29			12 59
PEKING	85.57	314.5	12	41A	0	23	12	-1			
SIAN	88.32	306.8	12	55	0	23	45	6			
KUNMING	89.99	296.4	13	3	1	24	1	7			
PAOTOW	90.04	312.9	13	3A	0	24	48	53			
WICHITA MTS.	90.26	53.5	13	4	0						14 32
YAKUTSK	90.63	337.5	13	4	-1						
CHENGTU	90.84	301.9	13	7	1	24	54	52			
LANCHOW	92.86	306.9	13	18	2	24	30	10			
MANHATTEN	93.37	49.9	13	19	1						
ROLLA	96.41	52.4	13	32K	0						
SHILLONG	99.49	293.8	13	14K	-32						
DUZHANBE	120.66	304.5							19	28	
SVERDLOVSK	123.10	326.8	18	57	-1						
KAJAANI	131.34	346.4	19	15	1						22 37 PKS
UMEA	133.02	350.2	19	17	-1						
PULKOVO	134.28	341.7	19	20	0						
MOSCOW	134.67	333.9	19	21	0						21 50 PP
BULAWAYO	134.96	213.5	19	22	1						
NURMIJARVI	135.16	345.7	19	21	0						22 52 PKS
HELSINKI	135.39	345.2	19	23	1						
GORIS	137.74	309.2	19	29	3						
TIFLIS	138.08	312.9	19	29	2						23 4 PKS
DURHAM	143.18	5.4	20	12	36						
WITTEVEEN	145.32	357.2	19	41K	1						
KRAKOW	145.69	341.7	19	41	0						
BANDEIRA	145.92	196.2	19	43A	2				20	16	
DE BILT	146.10	358.7	19	43	2						
HALLE	146.12	351.1	19	42	1						19 47 PKP2
COLLMBERG	146.15	349.9	19	42A	1				20	17	23 15 PP
RACIBORZ	146.16	343.5							20	7	19 43 PKP2
SKALNATE PL.	146.36	340.7	19	44	3						
KEW	146.56	4.9	19	44	2						
JENA	146.73	351.3	19	42	0						21 35
PRAGUE	147.06	347.6	19	45	3						22 39 PP
PRUHONICE	147.12	347.4	19	45	2						
BENSBERG	147.15	356.3	19	44	1						20 6
UCCLE	147.41	359.6	19	44	1						
KSARA	147.54	305.0	19	46	3				20	18	23 14 PP
FELDBERG	147.79	354.7	19	46	2						
BUCHAREST	147.91	329.5	19	36	2						
DOURBES	148.11	359.3	19	48	4						31 1 PP
KASPERSKE H.	148.13	348.1	19	45	1						20 26
BRATISLAVA	148.20	343.3	19	46	2						23 14 PKS
BUDAPEST	148.25	340.5	19	47	3						20 28
LWIRO	148.28	232.8	19	47K	3						
VIENNA-H.	148.32	344.2	19	47	3						
HEIDELBERG	148.58	354.1	19	49	4						
ISTANBUL UN.	148.69	322.1	19	47	2						23 8 PP
JERUSALEM	148.74	301.7	19	47	2						
STUTTGART	149.14	353.2	19	46	0						
PARIS	149.38	2.0	19	52	6						
STRASBOURG	149.48	355.1	19	49	3						
BELGRADE	150.05	336.2	19	55K	8						20 20
ZAGREB	150.66	342.8	19	49	1						
BESANCON	150.92	357.2	19	49	0						
GARCHY	150.92	1.3	19	56	7						20 20
TRIESTE	151.39	345.7	19	51	2				20	18	19 56 PKP2
PADOVA	152.03	348.2									22 5
CLERMONT-FD.	152.43	1.4	19	49	-2						
FLORENCE X.	153.71	348.1	19	46	-7						31 20
ATHENS	153.78	322.9	19	52A	-1						
ROME	155.23	344.8									44 5 SS
TOLEDO	157.23	16.2									20 26 PKP2
MESSINA	157.61	335.6									22 15
GRANADA	159.88	17.9									45 1 SS
BANGUI	160.23	228.0	20	3	2				20	43	

APRIL 30 20.H 39.M 57.S EPICENTRE 6.46 124.14 DEPTH= 117.KM

A=-0.55776 B= 0.82245 C= 0.11170 D= 0.8276 E= 0.5613
G=-0.0627 H= 0.0924 K=-0.9937 HT= 6.9

DEPTH OF FOCUS= 0.013R

SE= 1.98

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	8.70	340.0	2	8	4						5	28
BAGUIO CITY	10.50	340.9	2	27	-1	4	35	11				
CANTON	19.54	328.9	4	18	-2	7	55	6			4	24 *SP
DARWIN	19.86	160.4	4	22	2	8	3	7				
LEMBANG	21.12	231.6	4	35K	-1	8	25	6				
DJAKARTA	21.36	234.3	4	38	-1							
GUAM	21.43	69.5	5	20	40	9	32	67				
ZO-SE	24.67	353.9	5	11A	0	9	28	7			5	17 *SP
NANKING	25.96	349.6	5	23	0	9	49	6			5	29 *SP
KUNMING	27.64	314.5	5	39	1	10	19	9				
PORT MORESBY	27.82	124.3	5	39A	-1	10	35	22				
RABAUL	29.92	110.0	5	58	-1						6	45
ABUYAMA	30.18	18.9	6	0A	-1							
CHENGTU	30.61	324.4	6	3	-2	11	3	6			6	9 *SP
SIAN	31.03	335.0	6	7A	-2	11	10	6			6	13 *SP
MATUSIRO	32.59	21.3	6	20	-2	11	9	-19				
PEKING	34.19	349.1	6	35A	-1	12	1	8			6	41 *SP
CHARTERS TS.	34.19	141.0	6	34	-2							
LANCHOW	34.85	330.5	6	42A	1	12	13	10			6	48 *SP
CHITTAGONG	34.95	300.2	6	41	-1	12	12	8	8	0		
SHILLONG	36.21	305.3	6	51K	-2	12	31	7				
PAOTOW	36.25	341.7	6	53A	0	12	34	10				
VLADIVOSTOK	37.15	9.4	7	1	0	12	46	8				
CHANGCHUN	37.24	1.4	7	1A	0	12	48	9			8	33 PP
CALCUTTA	38.00	298.6				13	3	12				
MUNDARING	38.95	190.8	7	44	28							
CHATRA	40.57	304.3	7	30	1							
BRISBANE	43.58	141.8	7	55	1	13	44	-29				
MADRAS	43.77	282.0	7	55	0	14	26	10				
ULAN-BATOR	43.86	343.3	8	17A	21	15	5	48				
ESEN BULAK	46.49	333.5	8	17A	0	15	5	10				
RIVERVIEW	47.54	149.2	8	26A	1						10	14 PP
CANBERRA	47.69	152.3	8	27A	1						10	16 PP
MELBOURNE	48.15	157.8	8	31	1						11	18
IRKUTSK	48.50	343.8	8	33A	1	15	32	9				
DEHRA DUN	49.31	304.7	8	38	-1	15	57	22				
NEW DELHI	49.47	302.3	8	38A	-2							
BOMBAY	51.40	289.0	9	1	6	16	13	10				
LAHORE	52.73	305.0	9	3	-2							
PETROPAVLOVK	54.29	24.9	9	16A	0							
YAKUTSK	55.60	3.2	9	25	0	17	7	7				
WARSAK DAM	55.69	307.0	9	26	0	17	11	10				
FRUNSE	56.62	317.9	9	33A	0	17	25	11				
QUETTA	58.53	301.4	9	45	-1							
TASHKENT	59.72	314.5	9	54A	0	18	5	11				
KARAPIRO	65.04	137.0	10	40	10							
TIKSI	65.17	1.6	10	27A	-3	19	9	7				
ROXBURGH	65.58	146.8	10	33	0							
CHATEAU	65.70	138.2	9	47	-47							
TUAI	66.58	137.1	10	39	0							
MACQUARIE I.	67.34	158.9	10	45	1							
SVERDLOVSK	70.31	328.5	11	1K	-1							
WILKES	73.29	185.7	11	18	-2							
AMDERMA	74.66	341.3	11	27A	-1	20	59	6				
TIFLIS	77.78	311.2	11	47	2	21	39	12				
HAWAII V.OB.	79.03	71.5	11	56	4							
TANANARIVE	79.51	249.5	11	57	2						12	29
KHEYS	79.85	351.2	11	58K	1	21	59	10				
MOSCOW	82.74	325.3	12	12	0							
COLLEGE	83.36	25.4	12	15	0						14	58
APATITY	84.35	337.3	12	21K	1	22	44	10				
KSARA	85.01	303.4	12	23	0						23	48 PS
MAWSON	85.41	199.7	12	25K	0							
JERUSALEM	85.73	301.4	12	29	2							
PULKOVO	86.40	329.6	12	29	-1	22	57	3				
SODANKYLA	86.98	337.4	12	32	-1							
KAJAANI	87.05	334.1	12	34	1							
SCOTT BASE	87.38	171.7	12	36	1							
HELSINKI	89.00	330.4	12	43	1							

NURMIJARVI	89.08	330.8	12	43	0						
KIRUNA	89.20	338.4	12	43K	0	23	29	9			
MOULD BAY	89.88	12.4	12	47	0						
UZHGOROD	92.97	319.4	13	2	1						
BUDAPEST	95.38	318.9								17	17
RESOLUTE	95.60	9.7	13	13	0						
SOUTH POLE	96.41	180.0	13	18	1						
PRUHONICE	97.46	322.2	13	53	32					17	21
COLLMBERG	97.94	323.8								17	27 PP
STUTTGART	101.11	322.3								17	48 PP
EUREKA	108.21	44.9	17	15	777						
MANHATTEN	120.99	36.3	18	42	4						
DUBUQUF	121.87	29.8	18	42	2						
WICHITA MTS.	122.54	41.5	18	45	4					20	21 PP
ROLLA	124.56	34.4	18	48K	3						
FLORISSANT	124.76	32.6	18	49	3						
ST. LOUIS 1	124.95	32.6	18	49	3						
BREBEUF	125.89	15.4	19	2K	14						
BLOOMINGTON	126.45	29.5	18	52	3						

APRIL 30 23.H 50.M 23.S EPICENTRE 72.71 4.07 DEPTH= 0.KM

A= 0.29828 B= 0.02120 C= 0.95424 D= 0.0709 E=-0.9975
G= 0.9518 H= 0.0677 K=-0.2990 HT=-12.4

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	
TROMSOE	5.71	115.5	1	25	-3								
KIRUNA	7.37	123.5	1	50	-1	3	26	9			1	58	PP
KEVO	7.93	100.6	1	58	-1	3	24	-7					
SCORESBY SD.	8.49	267.4	2	1	-6	3	39	-6					
SODANKYLA	9.34	113.7	2	15	-3	3	56	-9					
SKALSTUGAN	9.66	157.6	2	18	-5	3	58	-15					
NORD	9.94	342.4				4	3	-17					
AKUREYRI	10.51	239.0									4	37	
UMEA	10.70	138.3	2	34	-3	4	22	-17					
APATITY	11.14	103.0	2	40A	-3	4	57	7					
SIDA	12.05	233.3	2	55	-1								
KAJAANI	12.17	123.3	2	57	0	5	1	-14					
BERGEN	12.38	177.1	2	55	-5								
REYKJAVIK	12.72	240.7	3	9	4								
UPPSALA	13.96	150.6	3	17A	-4						3	34	PP
KHEYS	14.03	33.2	3	22	0	6	34	34					
NURMIJARVI	14.59	136.3	3	26K	-3	6	1	-12					
HELSINKI	14.96	136.3	3	31	-3								
GOTEBORG	15.41	163.8	3	36	-4								
ABERDEEN	15.81	192.4	3	47	2						4	9	PP
ALERT	15.92	333.9	3	41	-6								
PULKOVO	16.51	128.0	3	51K	-3								
KARLSKRONA	17.28	157.9	4	4	0								
COPENHAGEN	17.45	164.0	4	3	-3								
DURHAM	18.17	190.5	4	16	1	7	36	0					
WITTEVEEN	20.00	175.4	4	36	-1								
DE BILT	20.69	178.1	4	46	2	8	54	23					
KEW	21.40	187.5	4	51	0	8	43	-2					
HALLE	21.57	166.5	4	51	-2	8	56	8					
WARSAW	21.82	151.2	4	57	2	8	53	0			5	23	PP
COLLMBERG	21.84	164.8	4	54	-2	8	59	6			5	19	PP
BENSBERG	21.87	174.7	4	55	-1	9	2	9			6	31	
MOSCOW	21.90	123.0	4	57	1	9	10	16					
UCCLE	21.99	179.5	4	58	1	8	56	0					
JENA	22.11	167.3	4	55	-3	8	57	-1			5	11	PP
FELDBRG	22.65	172.7	5	26	22								
DOURBES	22.69	179.1	5	2	-2	9	6	-2					
CHEB	23.01	166.2	5	10	3								
PRAGUE	23.18	162.9	5	15	6	9	26	9			6	7	
PRUHONICE	23.28	162.7	5	9	-1	9	21	2					
HEIDELBERG	23.48	172.4	5	13	1								
RACIBORZ	23.56	156.8	5	14	2						5	46	PP
KRAKOW	23.81	154.1	5	17	2	9	39	11					
PARIS	23.99	182.6	5	17	0	9	46	15			5	51	PP
KASPERSKE H.	24.04	164.5	5	19	2						8	9	
STUTTGART	24.14	171.5	5	17	-1	9	36	2					
STRASBOURG	24.27	174.0	5	20	1	9	45	9			5	52	PP

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
TUBINGEN	24.37	171.9	5 21	1				
LWOW	24.62	147.9	5 25K	2	9 53	11		
SKALNATE PL.	24.70	154.0	5 27	3				
EBINGEN	24.71	172.1	5 25	1				
RESOLUTE	24.84	321.3	5 25	0	9 55	9	13 46	
VIENNA-H.	25.17	160.4	5 30A	2			6 13	PP
BRATISLAVA	25.32	159.3	5 29	0			8 8	
GARCHY	25.52	181.6	5 30A	-1				
UZHGOROD	25.52	151.2	5 32	1				
BESANCON	25.56	177.0	5 33	1			5 59	
NEUCHATEL	25.83	175.5	5 38	4				
CHUR	26.07	171.4	5 41	5				
BUDAPEST	26.22	156.7	5 42	4	10 18	9	9 8	PCP
CLERMONT-FD.	27.03	181.5	5 47	2				
ROSELEND	27.13	176.1	5 48	2				
SVERDLOVSK	27.41	94.9	5 50K	1	10 45	17		
MOULD BAY	27.50	334.3	5 49	-1				
TRIESTE	27.52	165.2	5 48	-2			8 15	
ZAGREB	27.54	161.8	5 37	-13				
IASI	27.75	144.3	5 1	-51				
BELGRADE	29.01	155.5	6 6K	3			7 45	
FLORENCE X.	29.21	169.3	6 17	12	11 33	36		
BAGNERES	29.78	185.8	6 9	-1			6 45	
BUCHAREST	30.21	147.7	6 30	16			7 6	
ROME	31.16	167.8	6 19	-3	11 33	5	13 27	
TOLEDO	33.15	191.5	6 40	0	12 2	3		
ISTANBUL UN.	33.98	145.2	6 49	2	12 20	8		
ALMERIA	36.09	188.9	7 7	2				
ATHENS	36.18	153.2	7 7A	1			8 27	
MALAGA	36.32	191.5	7 6A	-1			8 42	PP
GORIS	39.13	124.4	7 34A	3				
YAKUTSK	40.60	36.1	7 44	1				
COLLEGE	41.39	342.3	7 50	1			9 47	PP
KSARA	42.25	139.3	7 59	3	14 23	5	9 38	PP
VANNOVSKAYA	43.68	112.1	8 9	1				
BREBEUF	43.68	275.8	8 8	0	14 39	1		
TASHKENT	43.77	98.7	8 10	1				
TEHERAN	43.96	120.5	8 13	3	14 43	1	9 51	PPP
JERUSALEM	44.11	140.7	8 12	1				
ESEN BULAK	47.08	70.8	8 38	3	15 37	10		
KHOROG	47.98	98.5	8 49	7				
ULAN-BATOR	48.59	61.0	8 50	3	15 59	10		
PENNSYLVANIA	49.24	277.1	8 47A	-5				
MORGANTOWN	50.93	278.4	9 10	5				
WARSAK DAM	51.22	100.1	9 7	0				
QUETTA	53.46	106.4	9 25	1				
LAWRENCE	55.95	291.8	9 40	-2				
LARAMIE	56.51	301.7	9 44	-2				
DEHRA DUN	56.59	95.3	9 47	1			17 58	
WICHITA MTS.	60.85	293.0	10 14	-2	18 42	9	12 28	PP
MINERAL	61.17	314.9	10 17A	-1				
CALISTOGA	63.02	315.2	10 32	1				
PRIEST	65.01	312.8	10 44	0				
SHILLONG	65.17	84.0	10 45A	0				
MATUSIRO	66.55	39.0	10 53	-1				
BANGUI	68.84	164.4	11 7	-1				
LWIRO	76.46	154.5	11 52	-1				
KARAPIRO	144.88	11.8	19 38	-1				
MAWSON	145.29	144.8	19 38A	-1				
TUAI	145.84	9.6	19 40	0				
TONGARIRO	146.14	11.9	19 40	-1				
CHATEAU	146.15	11.9	19 40	-1				
WELLINGTON	148.17	13.3	19 33	-11				

MAY 1 9.H 59.M 59.S EPICENTRE 24.10 5.01 DEPTH= 0.KM

A= 0.91036 B= 0.07975 C= 0.40606 D= 0.0873 E=-0.9962
G= 0.4045 H= 0.0354 K=-0.9138 HT= 3.6

SE= 1.79

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TAMANRASSET	1.40	160.2	0 25	-2				
ALMERIA	14.24	334.9	3 23A	-2				3 35 PP
ALICANTE	14.95	343.1	3 30	-4				
MALAGA	14.95	329.4	3 32K	-2				

GRANADA	14.98	332.5						2 35 PG
TOLEDO	17.49	336.2	4	7	0			4 17 PP
BAGNERES	19.34	349.2	4	29	0			
MONACO	19.68	5.2	4	32	-1			
ISOLA	20.10	4.3	4	38	0			
FLORENCE X.	20.29	13.1	4	1	-39			
ATHENS	21.12	44.7	4	48K	0			
ROSELEND	21.58	3.1	4	55	2			
CLERMONT-FD.	21.67	356.4	4	55	1			5 19
M.BOUR	22.86	249.0	5	6	0	9	2 -10	
BESANCON	23.11	1.7	5	11	3			
GARCHY	23.18	356.6	5	10	1			5 25
BASLE	23.47	4.4	5	11	-1			
BANGUI	23.59	144.1	5	13	0			5 36 PP
RAVENSBURG	23.91	7.7	5	15	-1			
EBINGEN	24.24	6.5	5	20	1			
STRASBOURG	24.53	4.4	5	23	1			5 47
TUBINGEN	24.59	6.5	5	23	0			
PARIS	24.74	356.0	5	25	1			
STUTTGART	24.85	6.7	5	25	0			
HEIDELBERG	25.42	5.7	5	31	1			
JERSEY	25.65	349.2	5	53	20			
BRATISLAVA	25.86	18.8	5	35	0			8 40
KASPERSKE H.	25.88	13.0	5	35	0			7 6
DOURBES	25.95	359.4	5	35	-1			
FELDBERG	26.21	5.0	5	15	-23			
ISTANBUL UN.	26.21	44.1	5	41	3			
BENSBERG	26.87	3.0	5	44	0			6 1
PRUHONICE	26.89	13.7	5	44	0			7 11
JENA	27.26	9.1	5	46	-2			7 13
HALLE	27.87	9.3	5	51	-2			
KSARA	28.60	63.2	6	2K	2			
KARLSKRONA	32.95	10.9	6	37	-1			
GOTEBORG	33.94	6.7	6	46	-1			
LWIRO	34.94	135.3	6	56	1			18 14
ADDIS ABABA	35.54	109.2	7	2	2			
UPPSALA	36.80	10.6	7	10A	-1			9 32
HELSINKI	38.64	15.9	7	26K	-1			
NURMIJARVI	38.86	15.4	7	28K	0			
BANDEIRA	39.60	167.3	7	35K	0			
SKALSTUGAN	39.76	5.1	7	36	0			
UMEA	40.97	10.2	7	46A	0			9 45
SIDA	42.50	345.1	7	59	1			
SHIRAZ	42.51	71.8	7	59	1			
KAJAANI	42.67	14.5	7	59K	-1			
REYKJAVIK	43.75	343.3	8	9	1			
BROKEN HILL	44.65	146.7	8	6	-10			
KIRUNA	44.76	8.2	8	16A	-1			
SODANKYLA	45.32	11.6	8	20K	-1			
TROMSOE	46.30	6.7	8	28	-1			
KEVO	47.50	10.2	8	38	0			
BULAWAYO	49.62	150.4	8	53	-2			
TANANARIVE	59.57	132.1	10	10	3			
SAN JUAN	65.92	280.2	10	50	0			
C. GIRARDEAU	79.19	306.0	12	7	-1			
ST. LOUIS 1	79.21	307.4	12	7	-1			
ROLLA	80.71	307.3	12	19A	3			
LITTLE ROCK	82.28	304.5	12	24A	0			
LAWRENCE	82.68	309.3	12	27	1			
AREQUIPA	84.81	249.5	12	39	2			
WICHITA MTS.	86.95	306.7	12	49	1			13 21
LARAMIE	88.57	315.1	12	57	1			
COLLEGE	88.85	348.8	12	56	-1			
GOLDEN	89.26	313.7	13	0	1			
ALBUQUERQUE	92.47	310.1	13	15	1			
DUGWAY	93.77	317.2	13	21	1			
EUREKA	96.14	318.1	13	32	1			
BYRD STATION	119.35	189.5	18	53	2			
CANBERRA	146.96	118.2	19	46	4			

A THERMO-NUCLEAR EXPLOSION

MAY 2 2.H 43.M 22.S EPICENTRE 55.82-156.04 DEPTH= 0.KM

A=-0.51568 B=-0.22920 C= 0.82555 D=-0.4062 E= 0.9138
G=-0.7544 H=-0.3353 K=-0.5643 HT= -7.5

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	9.93	20.7	2	26	-1						3	3	
ALBERNI	19.96	96.1	4	37	0								
VICTORIA	21.14	96.5	4	49	0								
PENTICTON	22.86	91.2	5	6A	0								
BANFF	24.28	84.0	4	21	-59								
MOULD BAY	24.51	20.2	5	23	1								
PETROPAVLOVK	26.15	283.0	5	38K	0								
MINERAL	27.36	109.9	5	57K	8								
CALISTOGA	28.10	113.6	5	55A	0								
BERKELEY	28.85	114.2	6	4K	2								
RENO	28.90	109.0	6	3A	0								
LICK	29.57	114.2	6	8	-1								
RESOLUTE	29.74	28.0	6	11	1								
PRIEST	31.00	114.5	6	22A	1								
EUREKA	31.02	104.8	6	21	0								
WOODY	32.27	112.9	6	31	-1								
FLAMING GRGE	33.66	96.3	6	43	-2								
TIKSI	34.01	326.8	6	47A	0								
RAPID CITY	35.12	86.8	6	58	1								
ALERT	35.55	13.1	6	59	-2								
THULE	36.15	23.6	7	7	1								
Y.-SAKHLINSK	38.02	283.1	7	21	0								
TUCSON TELE.	39.16	107.6	7	31	0								
TUCSON	39.17	107.8	7	31	0								
ALBUQUERQUE	39.52	100.7	7	33	-1								
MANHATTEN	42.06	87.5	7	54	-1				8	1			
KHEYS	42.46	352.2	7	58K	0	14	21	0					
WICHITA MTS.	44.09	93.8	8	11	-1	14	48	3			10	3	PP
ROLLA	45.59	85.2	8	23	-1								
FLORISSANT	45.82	83.1	8	24	-1	15	10	0					
VLADIVOSTOK	46.41	285.9	8	32	2								
LITTLE ROCK	47.57	88.5	8	37	-2								
BLOOMINGTON	47.71	79.8	8	39	-1	15	27	-9					
CHANGCHUN	49.45	291.0	8	53	-1								
ABUYAMA	50.16	275.3	8	59A	0								
BREBEUF	50.26	65.0	8	58A	-2								
AMDERMA	51.78	344.3	9	12K	1								
PALISADES	53.26	69.3				17	4	11					
KEVO	54.70	358.7	9	34	1								
TROMSOE	54.80	2.2	9	34	0								
ULAN-BATOR	55.65	306.0	9	41	1								
KIRUNA	56.63	1.6	9	47	0								
APATITY	56.74	355.7	9	48	0								
PEKING	56.94	293.7	9	49	0								
SODANKYLA	57.11	358.8	9	50	0								
KAJAANI	60.39	358.1	10	13	0								
SKALSTUGAN	60.59	6.0	10	14	-1								
UMEA	60.65	1.9	10	15K	0						10	59	PCP
ZO-SE	60.98	283.3	10	16	-1	18	33	-2					
ESEN BULAK	61.50	311.4	10	22	1								
SVERDLOVSK	63.85	338.5	10	36	0								
NURMIJARVI	64.01	359.6	10	37K	-1						11	20	
HELSINKI	64.35	359.4	10	41	1								
UPPSALA	64.56	3.5	10	40	-1								
SIAN	65.08	294.5	10	45	1								
LANCHOW	66.22	299.3	10	51	-1								
GOTEBORG	66.42	7.0	10	51	-2								
MOSCOW	68.25	351.7	11	4	-1								
CHENGTU	70.44	295.7	11	17	-1	20	31	0					
BENSBERG	72.67	11.0	11	46	15								
FRUNSE	72.78	323.4	11	34	2								
JENA	73.12	8.2	11	48	14						13	56	
PRUHONICE	74.27	6.3	11	41	0						12	7	
SAN JUAN	74.96	79.5	11	44	-1								
STUTTGART	75.06	10.0	12	0	15								
KASPERSKE H.	75.06	7.0	11	55	10								
GARCHY	75.78	14.5	11	56	7								
TASHKENT	75.87	326.5	11	43	-7								
UZHGOROD	75.91	1.1	11	52	2								
ROSELEND	77.81	12.3	12	2	1								

KHOROG	78.62	323.2	12	9K	4							
SHILLONG	80.64	302.0	12	16	0							
TIFLIS	81.23	344.4	12	20	1	22	22	-7				
WARSAK DAM	81.76	321.7	12	20	-2							
DEHRA DUN	82.62	315.1	12	26	0							
NEW DELHI	84.50	314.9	12	34A	-2							
CHARTERS TS.	89.91	232.6	13	2	0							
WILKES	140.27	219.1									21	18
BULAWAYO	144.20	352.5	19	37	-1							
SOUTH POLE	145.64	180.0	19	39	-1							

MAY 2 8.H 56.M 35.S EPICENTRE -23.76 -66.72 DEPTH= 205.KM

A= 0.36213 B=-0.84161 C=-0.40069 D=-0.9186 E=-0.3952
G=-0.1584 H= 0.3681 K=-0.9162 HT= 3.7

DEPTH OF FOCUS= 0.027R

SE= 2.10

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
LA PAZ	7.35	349.4	1	47A	1	3	7	-1					
AREQUIPA	8.54	327.5	1	59	-2								
BOGOTA	29.11	344.8	5	45K	1	10	20	1			6	30	PP
FUQUENE	29.85	345.9	5	50	0						6	34	PP
CARACAS	34.05	359.6	6	27	0	11	37	1					
TRINIDAD	34.59	9.2	6	31	0	11	42	-3					
BALBOA HTS.	34.86	337.4	6	34	0								
GALERAZAMBA	35.33	345.4	6	45	7	11	57	1					
GRENADA	35.93	8.3	6	38	-5								
ST. VINCENT	37.09	8.8	6	50	-2	12	25	2					
BARBADOS	37.31	11.5	6	54	0								
FORT FRANCE	38.64	8.6	7	3	-2	12	44	-2					
ST. CLAUDE	39.85	7.5				13	1	11					
ANTIGUA	40.93	7.1	7	20	-4						13	13	
ST. KITTS	41.04	5.8	7	24	-1						9	22	
SAN JUAN	41.89	0.9	7	28	-4	13	35	1			9	13	PCP
M.BOUR	61.65	57.2	9	56	-2	18	0	-3					
LITTLE ROCK	63.10	336.5	10	5	-3								
DALLAS	63.18	331.8	10	8	0								
MORGANTOWN	64.26	348.7	10	15K	0				10	48			
C. GIRARDEAU	64.44	340.0	10	15	-2	18	33	-4					
PALISADES	64.79	354.0				18	39	-2					
PENNSYLVANIA	65.06	350.7	10	17	-4								
BLOOMINGTON	65.30	343.2	10	19K	-3	18	43	-5					
WICHITA MTS.	65.56	331.5	10	22K	-2	18	50	-1	10	53	12	48	PP
ROLLA	65.74	338.3	10	24K	-1	18	55	2					
ST. LOUIS 1	65.87	340.0	10	23K	-3	18	51	-4					
FLORISSANT	66.06	339.9	10	25	-2	18	53	-4					
SOUTH POLE	66.38	180.0	10	27	-2								
LAWRENCE	67.88	336.3	10	37	-1								
HALIFAX	68.11	2.4	10	39K	-1								
MANHATTEN	68.58	335.4	10	41K	-2	19	26	-1					
BREBEUF	69.21	354.8	10	45K	-1						19	35	
ALBUQUERQUE	69.50	325.9	10	48	0								
DUBUQUE	69.55	341.3	10	48	-1	19	36	-2					
TUCSON	69.84	321.1	10	51	1						13	35	PP
TUCSON TELE.	69.84	321.2	10	51	1								
SHAWINIGAN	70.19	355.6	10	51K	-1								
SCOTT BASE	73.97	190.2	11	15	0								
LARAMIE	74.10	330.6	11	16	1								
BOULDER CITY	74.82	321.3	11	23	3								
BANDEIRA	75.18	99.9	11	21A	-1				12	0	14	8	PP
RAPID CITY	75.34	333.7	11	23	1	20	46	3			11	36	
PASADENA	75.54	317.9	11	25	1	20	53	7					
FLAMING GRGE	75.59	328.0	11	24	0								
SALT LAKE C.	76.69	326.4	11	31	1								
EUREKA	77.93	323.2	11	37	0	21	17	6					
PRIEST	78.39	318.1	11	41K	2								
LICK	79.77	318.5	11	48K	1								
RENO	80.13	321.1	11	50K	1								
KIMBERLEY	80.17	117.0	11	48A	-1								
BERKELEY	80.48	318.6	11	51K	0								
BUTTE	80.95	329.6	11	54	1								
CALISTOGA	81.17	319.0	11	55K	1								
MAWSON	81.59	162.6	11	55K	-1						30	26	PKKP

MINERAL	81.70	320.8	11	56K	-1						
UKIAH	81.87	319.1	11	59	1						
MALAGA	84.06	45.7	12	9K	0	22	15	1		12	16 PCP
BANFF	86.07	331.6	12	18	-1						
TOLEDO	86.11	43.3	12	19K	0				12 38		
PENTICTON	86.64	328.5	12	22K	0						
BULAWAYO	86.72	110.4	12	20K	-2						
DUMONT	87.61	190.3	13	25	59						
VICTORIA	87.99	326.2	12	28K	0						
MIRNY	88.67	172.0	12	31	0						
BROKEN HILL	88.91	105.2	12	32K	0						
ALBERNI	89.18	326.2	12	34	0						
WILKES	90.16	178.9	12	39	1					29	19 SS
BAGNERES	90.51	42.4	12	49	9						
FOLINIERE	93.22	37.3	12	51	-1						
WELLINGTON	93.80	221.6	12	56	1						
LWIRO	94.15	94.3	12	58K	2					23	17
REYKJAVIK	94.30	18.1	12	57K	0						
ROXBURGH	94.32	215.8	12	58	1						
GARCHY	94.47	39.9	12	57	-1						
CHATEAU	94.54	223.6	13	0	2						
TONGARIRO	94.55	223.6	13	0	2						
PARIS	94.91	38.3	12	31	-29						
SIDA	95.17	19.6	13	1K	0						
KARAPIRO	95.28	224.7	13	3	1				14 11		
MONACO	95.43	44.5	13	2	0						
ROSELEND	95.84	42.5	13	3K	-1						
DURHAM	95.93	31.9	13	3K	-2						
DOURBES	96.75	37.9	13	8	0	24	8	44			
FLORENCE X.	97.93	45.7								23	43
ROME	97.96	47.8				23	40	10			
STUTTGART	98.85	40.5	13	16	-2						
PADOVA	99.02	44.4								23	40
RESOLUTE	99.88	352.7	13	21K	-2						
THULE	99.96	359.6	17	21	238						
TRIESTE	100.32	44.7				23	44	2		24	44
TARANTO	100.70	50.5								23	37
LJUBLJANA	100.97	44.5	13	25	-2					13	59
JENA	101.11	39.2	13	28	0						
HALLE	101.55	38.7	13	32	2	23	52	4			
PRUHONICE	102.49	40.8	13	33	-1	23	56	4			
BUDAPEST	104.37	44.3								26	40 SSS
UZHGOROD	106.82	43.9	18	2	777						
COLLEGE	107.57	333.7	13	56	777					17	46 PKP
KIRUNA	110.70	23.9	18	9	1				18 48		
KSARA	112.85	61.8								19	52 *PPP
SODANKYLA	112.97	24.8	18	12A	-1						
KAJAANI	113.02	28.4	18	17	4						
APATITY	115.59	24.8	18	17A	-1						
MOSCOW	117.31	38.1	18	21	0						
KHEYS	118.75	8.8	18	23A	-1						
TIFLIS	121.15	54.5	18	29	1						
GORIS	122.10	57.2	18	30	0						
MUNDARING	124.51	183.0	18	45K	10						
CHARTERS TS.	125.84	219.1	18	39	1						
SHIRAZ	125.93	69.7	18	39	1	25	25	3		21	0 PP
SVERDLOVSK	129.81	34.7	18	46	1						
VANNOVSKAYA	131.22	59.6	18	45	-3						
TIKSI	131.29	353.5	18	31	-17						
ASHKABAD	131.42	59.6	18	49	1					21	56 PP
RABAUL	133.01	238.9	18	37	-14					22	30
PORT MORESBY	133.29	229.1	18	55	3						
PETROPAVLOVK	135.09	322.5	18	47	-8						
QUETTA	138.44	70.8	18	55	-6					22	30 PKS
TASHKENT	139.46	53.6	19	4K	1						
YAKUTSK	140.15	348.0	18	57	-7						
DARWIN	140.19	207.4	18	58	-6						
WARSAK DAM	142.29	64.7	19	3	-5						
FRUNSE	142.91	49.7	19	8	-1						
POONA	142.94	90.4	19	6	-3						
SEMIPALATNSK	143.08	35.5	19	9	-1						
ALMATA-2	144.66	47.8	19	13	1						
LAHORE	144.78	68.5	19	12	-1						
Y.-SAKHLINSK	146.95	321.9	19	17K	1						
NEW DELHI	147.34	73.7	19	17K	0					20	13
DEHRA DUN	148.04	70.4	19	19	1						
GUAM	148.54	256.6	19	19	0						
LEMBANG	149.10	169.0	19	22K	2					22	55
TANGERANG	149.55	166.9	19	23A	3					23	3

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ESEN BULAK	153.57	27.1	19 27	1				
MATUSIRO	155.05	306.4	19 30	2			23 31	PP
VLADIVOSTOK	155.32	326.0	19 57	29				
ULAN-BATOR	155.36	10.3	19 32	4				
MEDAN	155.47	142.7	19 31K	2			23 43	
CHATRA	156.21	77.1	19 32A	3				
CHANGCHUN	157.67	336.6	19 32K	1			23 43	PP
LHASA	159.30	68.8	19 37	4				
SHILLONG	160.46	80.3	19 37K	2				
PAOTOW	163.01	8.5	19 39K	2	20 35		24 24	PP
PEKING	163.60	352.1	19 40K	2	20 36		23 14	PP
LANCHOW	165.28	31.6	19 41	2				
NHATRANG	167.89	160.7	19 44	3				
SIAN	168.88	19.1	19 44K	2	20 41		24 41	PP
CHENGTU	169.27	48.2	19 44K	2	20 40		24 48	PP
ZO-SE	169.87	317.9	19 45K	3	20 40		24 51	PP
KUNMING	170.30	79.8	19 44K	1	20 41		24 51	PP
NANKING	170.41	330.8	19 45K	2	20 40		24 51	PP
CANTON	179.33	184.6	19 48K	3	20 44		25 36	PP

MAY 2 12.H 33.M 15.S EPICENTRE -23.67 -66.48 DEPTH= 239.KM

A= 0.36596 B=-0.84068 C=-0.39916 D=-0.9169 E=-0.3991
G=-0.1593 H= 0.3660 K=-0.9169 HT= 3.7

DEPTH OF FOCUS= 0.033R

SE= 1.43

	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	
LA PAZ	7.30	347.4	1	44	-1	3	8	0					
AREQUIPA	8.58	325.8	2	4	2								
BOGOTA	29.07	344.3	5	42K	1	10	20	7					
FUQUENE	29.81	345.4	6	12	25								
TRINIDAD	34.47	8.8	6	28	1								
GALERAZAMBA	35.30	344.9	6	48	14								
GRENADA	35.80	8.0	6	37	-1								
ST. VINCENT	36.96	8.5	6	47	-1								
FORT FRANCE	38.51	8.3	7	1	0	12	42	3					
ANTIGUA	40.81	6.8	7	18	-2						7	39	
ST. KITTS	40.92	5.5	7	22	1								
ARGENTINE I.	41.60	178.6	7	25	-1								
SAN JUAN	41.79	0.5	7	26	-2						9	15	PCP
COLUMBIA	59.00	345.9	9	37	0								
CHAPEL HILL	60.44	348.3	9	46	-1								
MBOUR	61.41	57.1									10	44	
LITTLE ROCK	63.10	336.2	10	2	-2								
MORGANTOWN	64.21	348.5									11	7	
C. GIRARDEAU	64.43	339.8	10	12	-1								
PENNSYLVANIA	65.00	350.5	10	14K	-3								
BLOOMINGTON	65.27	343.0	10	16K	-2								
WICHITA MTS.	65.58	331.3	10	19K	-1	18	45	0			12	44	PP
ROLLA	65.74	338.1	10	20	-1	18	48	1					
FLORISSANT	66.05	339.7	10	22K	-1								
SOUTH POLE	66.47	180.0	10	24	-2								
LAWRENCE	67.88	336.1	10	34	-1								
HALIFAX	68.00	2.2	10	36K	1								
MANHATTEN	68.59	335.3	10	38	-1								
BREBEUF	69.14	354.6	10	43K	1				11	37			
ALBUQUERQUE	69.54	325.7	10	44	-1								
TUCSON	69.91	320.9	10	48	1				11	38			
TUCSON TELE.	69.91	321.0	10	48	1				11	39			
SCOTT BASE	74.11	190.2	11	10	-2								
BOULDER CITY	74.89	321.1	11	17	1								
BANDEIRA	74.98	99.9	11	19A	2				12	10			
PASADENA	75.62	317.8	11	21	0								
FLAMING GRGE	75.62	327.8	11	21	0								
EUREKA	77.99	323.0	11	35	1								
PRIEST	78.47	317.9	11	37K	1								
LICK	79.84	318.3	11	45K	1								12 29
BOZEMAN	80.02	330.0	11	45	1								
RENO	80.20	321.0	11	47K	2								
BERKELEY	80.56	318.4	11	48K	1								
BUTTE	80.98	329.4	11	51	1								
CALISTOGA	81.24	318.9	11	51A	0								

MAWSON	81.61	162.6	11	52K	-1				12	43	
BENI ABBES	81.65	52.1	11	49	-4	21	43	-1	12	29	14 41 PP
MINERAL	81.76	320.7	11	53K	-1						
BANFF	86.10	331.5	12	15	0						
BULAWAYO	86.55	110.3	12	18A	1						
PENTICTON	86.67	328.4	12	19K	1						
BANGUI	87.26	84.0	12	21	0						15 45 PP
VICTORIA	88.03	326.1	12	25K	1						
BROKEN HILL	88.72	105.1	12	29A	1						
ALBERNI	89.22	326.1	12	31	1						
BAGNERES	90.29	42.3	12	37	2						
FOLINIERE	93.01	37.2	12	49	1						
LWIRO	93.94	94.2	12	55	3						
CHATEAU	94.76	223.5	12	56	0						
KARAPIRO	95.50	224.6	12	59	0						
ROSELEND	95.62	42.4	13	3	3						
RESOLUTE	99.81	352.6	13	19	0						
COLLEGE	107.58	333.7	13	52	777						
KSARA	112.61	61.8									19 48 *PPP
MUNDARING	124.62	182.8	18	32A	1						
SHIRAZ	125.69	69.6	18	36	3						21 19 PP
CHARTERS TS.	126.06	219.0	18	36	2						
DARWIN	140.38	207.1	18	57	-4						
NEW DELHI	147.10	73.6	19	16K	3						20 12
DEHRA DUN	147.80	70.3	19	17	3						
LEMBANG	149.15	168.5	19	17	1						
MATUSIRO	155.17	306.8	19	27	3						
CHANGCHUN	157.67	337.1	19	28	0						23 39 PP
SHILLONG	160.22	80.0	19	33A	3						
PEKING	163.53	352.8	19	37	3						24 13 PP
SIAN	168.71	19.9	19	42K	4						20 54 PKP2
CHENGTU	169.04	48.5	19	42	4				20	36	31 10 SKKS
ZO-SE	169.95	319.1							20	36	24 49 PP
KUNMING	170.06	79.4	19	42	3						24 51 PP
NANKING	170.44	332.1									24 49 PP
CANTON	179.40	163.5							20	47	25 36 PP

MAY 3 2.H 38.M 2.S EPICENTRE 42.89 144.64 DEPTH= 60.KM

A=-0.59944 B= 0.42529 C= 0.67809 D= 0.5786 E= 0.8156
G=-0.5530 H= 0.3924 K=-0.7350 HT= -2.8

DEPTH OF FOCUS= 0.004R

SE= 3.98

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
KUSIRO	0.20	297.4	0	9K	-2	0	18	-1				
NEMURO	0.82	56.8	0	15K	-2	0	28	-2				
OBIHIRO	1.06	272.3	0	19K	-1	0	37	3				
HIROO	1.15	238.6	0	17A	-4	0	33	-3				
URAKAWA	1.56	242.5	0	23	-3	0	44	-2				
ASAHIGAWA	1.88	299.0	0	33K	2	1	2	8				
TOMAKOMAI	2.27	264.5	0	39	3	1	8	5				
SAPPORO	2.42	275.4	0	38A	0	1	7	0				
RUMOE	2.45	296.8	0	53	14							
MURORAN	2.76	259.4	0	42	-1	1	15	-1				
HAKODATE	3.07	250.8	0	45A	-2	1	21	-2				
MORI	3.11	256.7	0	48	0	1	31	7				
SUTTSU	3.25	270.0	0	50	0	1	32	4				
WAKKANAI	3.31	320.9	0	55A	4	1	52	23				
HATINOHE	3.31	225.8	0	44	-7	1	18	-11				
AOMORI	3.55	235.7	0	49	-5	1	27	-8				
MIYAKO	3.81	212.8	0	49	-9	1	26	-16				
MORIOKA	4.12	220.6	0	55	-7	1	37	-13				
Y.-SAKHLINSK	4.35	342.4	1	7	2	2	8	13				
MIZUSAWA	4.60	216.5	0	59	-10	1	47	-14				
AKITA	4.66	228.8	1	5	-5	1	56	-7				
ISINOMAKI	5.12	210.7	1	7A	-9	1	58	-16				
SAKATA	5.40	224.1	1	14	-6							
SENDAI	5.42	213.0	1	9	-11	2	6	-16				
YAMAGATA	5.67	216.6	1	15	-9	2	15	-13				
HUKUSIMA	6.04	213.3	1	22	-7	2	23	-14				
NIIGATA	6.54	222.6	1	36	0	2	57	7				
ONAHAMA	6.59	207.1				2	34	-17			2	13
SHIRAKAWA	6.69	212.0	1	30	-8	2	39	-14				

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MITO	7.25	207.7	1 36	-10	2 50	-17
UTUNOMIYA	7.32	211.7	1 37	-10	2 54	-15
KAKIOKA	7.49	208.9	1 39	-10	2 58	-15
TUKUBASAN	7.53	209.3	1 38K	-11	2 53	-21
TAKADA	7.58	222.5	1 37	-13		
TYOSI	7.74	203.6	1 48	-4		
MAEBASI	7.77	215.4	1 47	-6	3 7	-13
KUMAGAYA	7.86	212.9	1 45	-9	3 9	-13
NAGANO	7.95	220.8	1 50	-5		
MATUSIRO	8.05	220.2	1 48A	-9	3 12	-15
OIWAKE	8.06	217.7	2 6	9		
TITIBU	8.13	213.8	1 54	-4		
TOKYO C.M.O.	8.13	209.4	2 1	3	3 11	-18
MATUMOTO	8.39	220.1	1 51	-10		
YOKOHAMA	8.39	209.1			3 19	-17
TOYAMA	8.42	225.3	2 4	2		
KOHU	8.61	215.2	2 7	3	3 28	-13
MISIMA	8.93	211.6				3 5
AJIRO	8.94	210.7	1 59	-10	3 30	-19
OSIMA	9.08	208.6			3 33	-20
SHIZUOKA	9.28	213.6			3 32	-25
VLADIVOSTOK	9.34	275.8	2 5A	-9	4 5	6
GIHU	9.65	221.9	1 54	-25		
OMAESAKI	9.67	213.3			3 57	-10
NAGOYA	9.74	220.3	1 49	-31	3 40	-29
HAMAMATU	9.78	215.8			4 15	6
ABUYAMA	10.68	224.4	2 25K	-7		
PETROPAVLOVK	13.79	37.8	3 16	2		
CHANGCHUN	14.10	280.4	3 16A	-2	5 57	4
MAGADAN	17.11	10.7	3 57	1		
YAKUTSK	21.11	340.3	4 39	-2	8 31	3
PEKING	21.49	272.1	4 43	-2	8 36	1
ZO-SE	22.05	245.5	4 51A	0	8 47	2
NANKING	23.11	250.7	5 2A	1	9 13	9
PAOTOW	25.83	276.7	5 27A	0		
ULAN-BATOR	26.79	294.0	5 36	0	10 15	9
SIAN	29.06	264.8	5 56	-1		
LANCHOW	32.00	271.6	6 22A	0	11 31	2
ESEN BULAK	34.19	292.9	6 42	1		
CHENGTU	34.44	262.8	6 42	-2	12 8	1
MANILA	34.65	222.9	6 42	-3	11 52	-18
KUNMING	38.54	256.3	7 18A	0		
COLLEGE	42.85	35.5	7 54	0		
NHATRANG	43.28	235.8	7 56	-1		
SEMIPALATNSK	43.59	303.2	8 2	2		
SHILLONG	46.16	265.6	8 18K	-2		
RABAUL	47.36	169.8	8 26	-4		
KHEYS	47.46	347.2	8 30	0		
AMDERMA	48.16	332.4	8 36	0		
FRUNSF	49.91	295.3	8 50	1		
MOULD BAY	50.22	18.1	8 51	-1		
SVERDLOVSK	52.51	316.4	9 10K	1		
ALERT	54.13	4.2	9 20	-1		
TASHKENT	54.13	295.9	9 21A	0	16 56	5
RESOLUTE	56.31	16.0	9 36A	-1		
APATITY	58.40	335.1	9 51K	0		
KEVO	58.86	338.9	9 54A	-1		
THULE	59.13	8.6	9 56	0		
ALBERNI	59.48	49.5	9 58	-1		
SODANKYLA	60.55	336.9	10 6A	0		
VICTORIA	60.66	49.7	10 7K	0		
TROMSOE	60.99	341.0	10 9	0		
QUETTA	61.65	286.0	10 13	-1		
KIRUNA	61.93	339.2	10 15A	-1		
PENTICTON	62.31	47.3	10 17A	-1		
KAJAANI	62.43	333.8	10 19A	0		
CHARTERS TS.	62.68	178.3	10 25	4		
ASHKABAD	63.08	297.8	10 21	-2		
BANFF	63.39	43.9	10 25	0		
MOSCOW	64.06	323.0	10 30	0		
UMEA	64.94	336.2	10 35A	0		
NURMIJARVI	65.95	332.0	10 42A	0		11 15 PCP
HELSINKI	66.09	331.6	10 43A	0		11 17 PCP
MINERAL	66.39	56.3	10 44A	-1		
SKALSTUGAN	67.36	339.0	10 50A	-1		
UPPSALA	68.78	334.4	10 59A	0		
TEHERAN	68.88	299.5	11 1	1		
EUREKA	70.33	54.2	11 9	0		

WOODY	70.96	58.8	11 12	-1				
BERGEN	71.83	340.1	11 19	1				
GOTEBORG	72.27	335.5	11 20A	-1				
KARLSKRONA	72.36	332.9	11 23A	2				
FLAMING GRGE	73.18	49.6	11 27	1				
BOULDER CITY	73.28	56.4	11 25	-2				
COPENHAGEN	73.79	334.1	11 30	1				
LWOW	74.09	324.6	11 32	1				
KRAKOW	75.61	326.8	11 41	1			11 55 PCP	
UZHGOROD	75.73	324.7	11 41	0				
RACIBORZ	76.27	327.8	11 46	2			12 5 PCP	
COLLMBERG	77.22	331.2	11 50	1			14 34	
PRUHONICE	77.75	329.6	11 53	1				
WITTEVEEN	78.02	335.5	11 55	2				
JENA	78.03	331.8	11 54	1				
BRATISLAVA	78.23	327.2	11 49	-6			12 8 PCP	
TUCSON	78.24	56.9	11 56	1				
TUCSON TELE.	78.24	56.8	11 56	1				
ALBUQUERQUE	78.98	52.4	11 58	-1				
BENSBERG	79.47	334.2	12 2	1				
STUTTGART	80.65	331.9	12 8	0			12 46	
DOURBES	81.03	335.2	12 10	0				
KEW	81.22	338.7	12 11	0				
MANHATTEN	81.26	43.6	12 10	-1				
PARIS	82.81	335.9	11 51	-28				
WICHITA MTS.	83.58	47.7	12 23	0			13 10	
FOLINIERE	83.71	337.6	12 24	1				
GARCHY	84.00	334.8	12 25	0				
ROLLA	84.59	41.5	12 28	0				
FLORISSANT	84.61	40.0	12 28	0				
ST. LOUIS 1	84.81	40.0	12 29	0				
SHAWINIGAN	84.96	24.9	12 31K	1				
BREBEUF	85.63	25.9	12 34K	1		12 47		
C. GIRARDEAU	86.19	40.4	12 35	-1				
MORGANTOWN	88.48	32.8	12 48K	1				
BROKEN HILL	118.83	277.1					7 16	
BYRD STATION	132.90	166.3	19 10	2				

MAY 3 3.H 34.M 49.S EPICENTRE -60.31 -33.51 DEPTH= 0.KM

A= 0.41510 B=-0.27490 C=-0.86725 D=-0.5521 E=-0.8337
G=-0.7231 H= 0.4788 K=-0.4979 HT= -9.0

SE= 2.33

	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	
ARGENTINE I.	14.81	237.4	3	32	-1						4	45	
SOUTH POLE	29.86	180.0	7	12	60								
BYRD STATION	30.68	199.9	6	19	0	11	36	15	7	5	14	55	
SANTA LUCIA	36.14	301.2	7	4	-2	12	45	-1					
MAWSON	38.76	142.5	7	28K	0	13	29	3			8	52	PP
SCOTT BASE	41.53	186.4	7	51	0								
HERMANUS	42.51	76.8									14	33	PPS
CAPE HALLETT	46.66	189.7	8	33	1	15	21	-1					
MIRNY	47.45	154.1	8	38	-1	15	33	0					
KIMBERLEY	49.85	77.8	8	57A	0								
LA PAZ	50.37	315.0	9	2	1						11	11	
WILKES	50.89	162.2	9	5	0	16	27	6			10	58	PP
DUMONT	53.24	176.8	9	22	-1	16	52	-1	9	30			
BANDEIRA	56.57	57.7	9	49K	2				9	56			
BULAWAYO	58.97	75.8	10	2K	-2								
LUANDA	61.98	54.6	10	25K	0						11	7	PCP
TANANARIVE	69.35	92.0	11	15K	3						13	36	PP
BOGOTA	72.09	316.6	11	28K	0	20	51	1					
FUQUENE	72.76	317.7	11	33	1								
ROXBURGH	72.93	196.6	11	33	0	21	3	3					
CHINCHINA	72.94	315.7	11	29	-4	21	3	3					
TRINIDAD	74.14	331.4	11	39	-1	21	25	12					
LWIRO	74.64	66.6	11	46K	3	21	29	10					
CARACAS	75.42	326.0	11	47	-1								
KAIMATA	75.51	198.8	12	3	15								
GRENADA	75.56	331.5	11	48	-1								
M.BOUR	75.61	16.6	11	48	-1	21	42	12					
BANGUI	76.18	54.2	11	53	1						14	41	PP
ST. VINCENT	76.54	332.2	11	54	0								
COBB RIVER	76.70	200.1	12	5	10								

FORT NELSON	77.12	180.7	11	56K	-1							
CHATEAU	78.01	202.7	12	2	0							
TONGARIRO	78.01	202.7	12	2	0							
FORT FRANCE	78.02	332.7	12	5	3	22	1	5				
GALERAZAMBA	78.24	318.1	12	7	4	21	54	-4				
KARAPIRO	79.24	203.0	12	8	-1							
ST. CLAUDE	79.40	332.5	12	15	5							
ANTIGUA	80.50	332.6	12	15	-1							
ST. KITTS	80.90	331.8	12	17	-1							
MELBOURNE	82.21	178.8	12	25	0				12	34	12 29	PCP
SAN JUAN	82.73	328.9	12	26	-1							
PERTH	84.69	154.2				23	9	4			28 51	SS
CANBERRA	84.70	182.1	12	36	-1				12	41	28 47	SS
MUNDARING	84.75	154.5	12	38K	0							
RIVERVIEW	86.13	183.9									29 16	SS
BRISBANE	92.47	185.6	13	13	-1	24	20	3				
NOUMEA	96.10	198.5	13	32K	1							
KOUMAC	98.13	196.8	13	47	7							
CHARTERS TS.	99.89	179.8									14 49	
GRANADA	100.21	23.9	14	7A	17							
COLUMBIA	101.73	321.3	18	0	243							
MESSINA	106.08	38.3									25 34	
PALISADES	106.26	329.3				24	51	-5				
BAGNERES	106.64	25.1									18 43	PP
ATHENS	108.56	44.5	18	59A	777							
ROME	108.59	34.5									18 56	PP
WICHITA MTS.	108.59	308.0	14	26	777						18 47	PP
CLERMONT-FD.	109.86	26.4									19 11	PP
CHIAVARI	109.98	31.3	19	26	777							
FLORENCE X.	109.99	32.9									18 51	PP
BREBEUF	110.41	331.1									19 15	PP
LAWRENCE	111.06	312.6									19 15	PP
BESANCON	111.91	27.8									19 22	PP
LJUBLJANA	112.98	34.2									19 34	PP
SHIRAZ	113.38	71.1	18	41	1						20 46	PP
STRASBOURG	113.58	28.6									19 33	PP
BELGRADE	113.63	38.9									19 33	PP
STUTTGART	114.12	29.5	18	42	0							
DOURBES	114.28	25.9									19 35	PP
BOMBAY	114.32	94.4									19 39	
BRATISLAVA	115.64	35.0	18	51	6						20 3	
BENSBERG	115.66	27.2									19 39	PP
PASADENA	116.50	292.7	18	48	2						29 45	PS
BOULDER CITY	116.51	296.4	18	54	8							
PRAGUE	116.63	32.4	18	52	5						19 57	
JENA	116.68	30.1	18	47	0						19 56	PP
COLLMBERG	117.38	30.9	18	48	0						20 6	PP
TEHERAN	117.93	66.5	18	50	1							
SIMFEROPOL	118.43	48.3									22 40	PKS
GORIS	118.78	60.3	18	51	0							
LWOW	119.19	38.8									19 19	
EUREKA	119.91	297.7	18	53	0						20 28	PP
TIFLIS	119.97	57.8	18	58	5							
WARSAW	120.41	35.5	18	53	-1						30 21	PS
QUETTA	120.80	82.5	18	56	1							
RENO	121.67	295.0	18	59	3							
KARLSKRONA	122.44	30.1	19	2	4							
VANNOVSKAYA	122.83	70.1	18	58	-1							
GOTEBORG	122.97	27.2	18	58	-1							
MINERAL	123.13	294.2	18	59A	0							
BUTTE	123.79	304.6	19	0	0							
NEW DELHI	124.58	92.3	19	2A	0							
WARSAK DAM	126.17	83.6	19	5	0							
UPPSALA	126.23	29.2	19	4A	-1							
CHATRA	128.05	102.6	19	10A	1							
SKALSTUGAN	128.34	24.1	19	8	-1							
HELSINKI	128.39	32.9	19	9A	0							
NURMIJARVI	128.59	32.5	19	9A	-1							
MOSCOW	128.62	43.2	19	10	0							
BANFF	129.07	306.6	19	8	-3							
SHILLONG	129.25	108.0	19	10A	-1							
PENTICTON	129.32	302.4	19	11K	0							
PULKOVO	129.56	36.1	19	11	0							
GODHAVN	130.06	350.8	18	58	-14							
UMEA	130.29	28.0	19	12A	-1						21 25	PP
VICTORIA	130.33	299.3	19	12A	-1							
TASHKENT	130.80	76.0	19	13	-1							
LHASA	132.26	104.3	19	20	3							
BAGUIO CITY	132.33	145.4	19	31	14						22 47	

KAJAANI	132.35	31.4	19 16	-1		22 42	PKS
KIRUNA	133.72	25.1	19 18	-1		21 43	PP
KUNMING	133.80	119.7	19 22	3		21 51	PP
FRUNSE	134.54	78.8	19 24	3			
SODANKYLA	134.73	28.2	19 19	-2		21 51	
ALMATA-2	136.22	80.5	19 47	23			
CANTON	136.22	133.3	19 25	1	19 37	23 3	SKP
APATITY	136.54	30.9	19 23	-1			
SVERDLOVSK	138.09	55.2	19 16	-11			
THULE	138.25	348.3	19 19	-9		22 15	PP
CHENGTU	139.15	117.2	19 30	1		23 8	SKP
RESOLUTE	140.59	338.4	19 23	-9		46 35	
SEMIPALATNSK	142.64	74.8	19 31	-4			
ALERT	143.35	353.9	19 32	-5			
LANCHOW	143.60	112.3	19 35	-2		23 19	SKP
SIAN	144.37	119.9	19 38	0	19 51	22 43	PP
ZO-SE	146.29	138.7	19 42	0	19 56		
NANKING	146.35	134.6	19 43	1	19 57		
MOULD BAY	146.44	334.4	19 39	-3			
ESEN BULAK	147.82	92.6	19 46	2			
KHEYS	149.06	18.6	19 8	-38			
PAOTOW	150.11	114.8	19 49	1			
COLLEGE	150.66	307.4	19 45	-4		20 40	
PEKING	152.33	123.4	19 51	0			
ULAN-BATOR	154.14	100.7	19 52	-2			
TUKUBASAN	155.55	167.5	19 55A	-1			
MATUSIRO	155.63	163.7	19 55	-1		20 27	PKP2
CHANGCHUN	159.14	132.8	20 1	1			
Y.-SAKHLINSK	166.51	168.9	20 6	-1			
YAKUTSK	171.72	70.8	20 8	-3			

MAY 3 23.H 27.M 18.S EPICENTRE 44.43 -7.35 DEPTH= 30.KM

A= 0.71056 B=-0.09165 C= 0.69764 D=-0.1279 E=-0.9918
G= 0.6919 H=-0.0892 K=-0.7164 HT= -3.3

SE= 3.74

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SERRA PILAR	3.43	196.0	1 5	12	1 48	15	1 11	P*	
COIMBRA	4.30	191.1	1 0	-5	2 1	6	1 12	P*	
TOLEDO	5.17	150.5	1 12	-6	2 2	-15	1 26	P*	
BAGNERES	5.60	101.4	1 20	-4			1 24	PG	
LISBON	5.86	193.9	1 29	2	2 57	22			
JERSEY	5.96	35.3			2 34	-3	4 28		
FOLINIERE	6.42	45.1	1 34	-1					
TORTOSA	6.82	119.2	1 42	1			3 34	SG	
GRANADA	7.78	157.3					3 8		
GARCHY	7.81	65.0					1 52	PG	
ALICANTE	7.97	137.3	1 57	0	3 11	-16	3 33	S*	
MALAGA	8.02	162.8	1 54	-4	3 39	11	2 27	PG	
PARIS	8.06	53.6					1 57	PG	
ALMERIA	8.43	152.3	1 56	-7	3 24	-15	2 34	PG	
KEW	8.47	31.3	2 6	2	3 35	-5	4 28	SG	
BESANCON	9.72	68.5	2 20	-1	4 11	0			
DOURBES	9.90	50.8	2 21	-3	4 7	-8			
NEUCHATEL	10.33	70.6	2 29	-1					
ISOLA	10.33	86.4	2 27	-3			4 25	SG	
MONACO	10.66	88.6	2 39	5					
BASLE	10.84	68.1	2 31	-6	4 26	-12			
DURHAM	11.00	17.8	2 47	8	4 51	9			
STRASBOURG	11.21	63.0	2 38	-4	4 37	-10	4 50	SS	
BENSBERG	11.75	51.1	2 46K	-3	4 52	-8	6 6	SG	
EBINGEN	11.89	65.9	2 48	-3					
CHIAVARI	11.93	84.7	2 20	-31					
TUBINGEN	12.04	64.3			4 56	-11			
HEIDELBERG	12.05	60.0	2 50	-3					
STUTTGART	12.23	63.4	2 51	-4	5 1	-11			
WITTEVEEN	12.49	42.8	2 59	0					
MUNSTER	12.50	47.6	2 56	-3					
JENA	14.29	56.3	3 20	-3	6 3	2	6 30		
CHEB	14.52	60.1	3 25	-1			10 51		
HALLE	14.71	54.4	3 28	0	6 10	-1			
KASPERSKE H.	15.08	64.4	3 28K	-5					
LJUBLJANA	15.49	76.3	3 36	-2			4 5		

PRUHONICE	15.86	61.8	3 46	3		11 40
BRATISLAVA	17.28	68.9	4 1	0		8 59
BERGEN	17.70	20.9	4 11	5		
GOTEBORG	17.91	35.3	4 8	-1		
MESSINA	18.27	102.0	4 19	6		
BUDAPEST	18.56	71.2				4 17 PP
KARLSKRONA	18.67	42.9	4 23	5		
UPPSALA	21.56	35.5	4 49	0		
SKALSTUGAN	22.21	23.4	5 0	4		
ATHENS	24.16	94.7				9 41
UMEA	24.92	29.2	5 23	1		
HELSINKI	24.92	39.4	5 24	2		
NURMIJARVI	24.93	38.5	5 22	0		
KAJAANI	27.82	32.7	5 50	1		
SODANKYLA	29.17	26.3	6 7	6		
APATITY	31.52	28.7	6 22	0		
RESOLUTE	47.10	338.7	8 31	0		
SHIRAZ	48.97	86.4	8 46	0		
MORGANTOWN	52.51	291.8	9 12A	-1		
BLOOMINGTON	57.05	294.6	9 42K	-4		
FLORISSANT	59.78	296.2	10 1	-4		
COLLEGE	66.74	342.8	10 50	-1		
NEW DELHI	66.93	72.1	10 57A	5		
WICHITA MTS.	67.49	296.9	10 52	-4		11 19
ALBUQUERQUE	72.26	301.6	11 22	-3		
EUREKA	74.65	310.5	11 37	-2		
SHILLONG	78.71	65.4	12 1	0		

MAY 5 11.H 11.M 44.S EPICENTRE 34.12 139.43 DEPTH= 15.KM

A=-0.63016 B= 0.53956 C= 0.55837 D= 0.6504 E= 0.7596
G=-0.4241 H= 0.3632 K=-0.8296 HT= 0.4

SE= 3.11

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
OSIMA	0.65	356.4	0 14A	-1	0 23	-2		
NAGATURO	0.68	315.0	0 14K	-1	0 25	-1		
MERA	0.86	22.5	0 17A	-1	0 32	1		
AJIRO	0.96	343.7	0 18A	-1	0 31	-2		
HATIDYOZIMA	1.06	163.4	0 21	0	0 36	1		
MISIMA	1.07	338.5	0 20K	-1	0 35	-1		
OMAESAKI	1.11	295.8	0 20K	-1	0 37	0		
SHIZUOKA	1.20	315.2	0 23K	1	0 39	0		
YOKOHAMA	1.32	7.9	0 25A	1	0 44	2		
HUNATU	1.48	338.7	0 28	2	0 46	0		
HAMAMATU	1.53	293.4	0 27K	0	0 46	-1		
TOKYO C.M.O.	1.58	9.5	0 29A	1	0 51	3		
HONGO	1.61	9.9	0 30	2	0 51	2		1 13
KOHU	1.70	335.4	0 31K	1	0 53	1		
TITIBU	1.88	351.3	0 35	3	0 59	3		
IIDA	1.92	317.1	0 34K	1	1 0	3		
TYOSI	1.98	35.8	0 35A	1	1 0	1		
KUMAGAYA	2.02	358.9	0 36A	2	1 2	2		
TUKUBASAN	2.16	14.5	0 36A	0				
KAKIOKA	2.19	16.1	0 37A	0	1 1	-3		
NAGOYA	2.28	298.0	0 37K	-1	1 7	1		
MAEBASI	2.29	352.7	0 41A	3	1 11	4		
OIWAKE	2.32	342.2	0 41	3	1 13	6		
MITO	2.41	20.4	0 40A	0	1 12	3		
MATUMOTO	2.44	331.0	0 43	3	1 17	7		
UTUNOMIYA	2.45	8.3	0 41	1	1 10	-1		
TU	2.47	284.3	0 42A	1	1 10	-1		
GIHU	2.53	301.0	0 41K	-1	1 12	-1		
KAMEYAMA	2.55	287.4	0 41K	-1	1 11	-2		
MATUSIRO	2.61	337.9	0 43K	0	1 18	3		
OWASE	2.68	269.8	0 30	-14	0 56	-20		
TAKAYAMA	2.70	319.2	0 46	2	1 28	11		
NAGANO	2.73	338.8	0 49	5	1 25	7		
HIKONE	2.86	294.5	0 46K	0	1 17	-4		
NARA	3.03	281.6	0 50K	1	1 26	1		
SHIRAKAWA	3.06	11.9	0 49	0	1 20	-6		
ONAHAMA	3.07	22.6	0 50	1	1 28	2		
SIOMISAKI	3.12	258.6	0 50	0	1 24	-4		
TAKADA	3.12	342.4	0 50	0	1 31	3		
TOYAMA	3.15	325.3	0 52	2				2 42

HUKUI	3.25	307.1	0	53	1	1	42	11			
OSAKA	3.27	280.4	0	51K	-1	1	28	-3			
ABUYAMA	3.27	284.3	0	50	-2						
KANAZAWA	3.31	317.4	1	1	8	1	50	18			
WAKAYAMA	3.53	272.9	0	57	1	2	38	60			
KOBE	3.56	280.2	0	56	0	1	36	-3			
MAIZURU	3.59	293.2	0	57	0	1	38	-1			
TORISIMA	3.71	168.3	1	2	4	1	48	6			
HUKUSIMA	3.72	12.8	0	58A	0	1	44	1			
SUMOTO	3.75	274.6	0	57	-2	1	39	-5			
NIIGATA	3.80	355.5	1	2K	2	1	50	5			
WAZIMA	3.85	328.4	1	7	7	1	59	13			
AIKAWA	4.00	346.5	1	6K	4	2	1	11			
TOKUSIMA	4.02	270.6	1	3	0	1	50	0			
HIMEJI	4.18	276.6	1	5	0	1	49	-5			
YAMAGATA	4.19	10.0	1	5	0	1	57	2			
SENDAI	4.31	15.6	1	7	0	1	59	1			
TAKAMATU	4.46	274.0	1	9	0	1	56	-6			
MUROTO	4.46	260.2	1	12	3	1	58	-4			
TOTTORI	4.53	289.3	1	9	-1	2	12	9			
ISINOMAKI	4.56	19.0	1	10	0	2	6	2			
OKAYAMA	4.59	278.5	1	9	-2	1	56	-9			
SAKATA	4.78	3.8	1	17	4	2	16	6			
KOTI	4.94	265.0	1	16	0	2	9	-5			
YONAGO	5.17	286.3	1	18	-1	2	28	9			
MIZUSAWA	5.18	14.8	1	19	0	2	17	-3			
MATSUE	5.40	286.0	1	31	9	2	45	20			
SAIGO	5.41	294.3	1	31	9	2	48	23			
MATUYAMA	5.53	268.9	1	26	2	2	36	8			
SIMIDU	5.56	257.9	1	24	-1	2	19	-10			
AKITA	5.61	5.3	1	29	4	2	33	2			
MORIOKA	5.74	13.6	1	28	1	2	43	9			
HIROSIMA	5.80	274.4	1	28	0	2	29	-6			
MIYAKO	5.88	19.5	1	23	-6						
HAMADA	6.12	279.3	1	33	1	2	40	-3			
OOITA	6.57	264.4	1	45	6	3	15	21			
HATINOHE	6.61	14.0	1	38	-1	3	4	9			
AOMORI	6.77	8.7	1	44	3						
SIMONOSEKI	7.06	271.0	1	44	-2						
MIYAZAKI	7.08	254.1	1	40	-6				5	1	
ASOSAN	7.09	262.4	1	45	-1	3	8	1			
KUMAMOTO	7.41	262.3	1	54	4	3	13	-2			
HUKUOKA	7.55	268.4	1	52	0	3	26	7			
SAGA	7.66	266.0							2	36	
HAKODATE	7.75	7.4	1	57	2	3	23	-1			
KAGOSIMA	7.89	253.6	1	59	2	3	38	11			
MORI	8.02	6.1	2	12	13				4	35	
NAGASAKI	8.10	262.8	2	0	0	3	52	19			
MURORAN	8.27	8.0	2	12	9						
YAKUSIMA	8.40	246.6	2	4	0						
URAKAWA	8.44	17.2	2	4	-1	3	38	-3			
TOMAKOMAI	8.66	10.6							3	5	
SUTTSU	8.69	3.9	2	21	13				4	54	
HIROO	8.70	19.4	2	5	-3	3	40	-8			
SAPPORO	9.06	9.0	2	13K	0	3	57	0			
OBIHIRO	9.27	17.5	2	22	6						
KUSIRO	9.66	22.3	2	15	-7	3	59	-12			
ASAHIGAWA	9.91	12.5	2	23A	-2	4	17	-1			
NEMURO	10.37	25.7							4	18	
VLADIVOSTOK	10.74	329.0	2	39K	2						
WAKKANAI	11.41	8.0							4	46	
Y.-SAKHLINSK	13.12	10.0	3	5K	-4	5	39	3			
CHANGCHUN	14.63	315.6	3	29K	1	6	18	7	3	38	*SP
ZO-SE	15.67	263.9	3	44	2	6	43	7	3	56	*SP
NANKING	17.43	269.0	4	5	1	7	25	9			
PEKING	19.45	294.4	4	30K	1	8	10	8			
GUAM	21.13	165.5	4	44	-3	8	44	7	5	25	
PETROPAVLOVK	23.34	30.1	5	10A	1	9	22	5	6	0	PPP
PAOTOW	24.17	294.1	5	18	1	9	39	7			
BAGUIO CITY	24.45	228.5	5	26	7	9	36	0			
SIAN	25.20	279.0	5	26K	-1						
CANTON	25.34	251.1	5	31	3	9	55	4			
MANILA	25.50	225.0	5	31	2	9	57	3			
MAGADAN	26.52	13.0	5	39	0	10	12	1			
ULAN-RATOR	27.91	309.4	5	51	-1	10	35	2			
YAKUTSK	28.59	350.4	5	55	-3						
LANCHOW	29.10	284.1	6	1	-1						
CHENGTU	30.02	273.3	6	8	-3	11	6	-1			
KUNMING	32.99	264.1	6	36	-1	11	56	3			

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

ESEN BULAK	34.74	303.8	6	53	1						
TIKSI	37.99	354.6	7	17A	-2	13	8	-3		8	56 PP
RABAUL	39.97	160.0								16	34
SHILLONG	41.81	271.4	7	49	-2	14	9	1		9	12 PP
SEMIPALATNSK	45.49	309.6	8	19	-2						
HONIARA	47.49	152.0	8	36	0						
FRUNSF	50.36	300.2	8	59	0	16	14	4			
DEHRA DUN	51.39	283.7	9	1	-5					16	39
COLLEGE	52.41	31.0	9	14	0						
NEW DELHI	52.72	282.0	9	15A	-1						
KHOROG	54.08	294.5	9	32	6	17	6	5			
AMDERMA	54.22	335.2	9	26A	-1	16	59	-4			
CHARTERS TS.	54.30	172.1	9	28	0						
TASHKENT	54.59	299.6	9	31	1	17	7	-1			
KHEYS	55.17	348.6	9	34K	0	17	15	0		11	38 PP
WARSAK DAM	55.23	290.5	9	34	-1						
SVERDLOVSK	56.29	319.6	9	42	0	17	32	2			
MOULD BAY	59.78	15.8	10	6	-1						
BRISBANE	62.47	166.6	10	26	1					19	2
ALERT	63.12	3.1	10	28	-2						
ASHKABAD	63.66	299.4	10	32	-1						
APATITY	64.68	335.9	10	39K	-1	19	19	1			
RESOLUTE	65.82	13.7	10	46	-1						
SODANKYLA	67.02	337.2	10	54	-1						
TROMSOE	67.94	341.0	11	0	0						
ALBERNI	68.44	44.5	11	4	0						
RIVERVIEW	68.48	169.5	10	7	-57						
KAJAANI	68.49	334.0	11	3	-1						
MOSCOW	68.62	323.5	11	4	-1					11	17 PCP
KIRUNA	68.66	339.1	11	4A	-1	19	59	-7		24	21 SS
VICTORIA	69.61	44.7	11	12K	1						
CANBERRA	69.66	171.7	11	14	3						
PULKOVO	69.87	329.4	11	16	4						
UMEA	71.28	335.9	11	20	-1						
TIFLIS	71.33	308.0	11	20	-1	20	36	-1		21	9 PS
PENTICTON	71.39	42.7	11	22	0						
GORIS	71.40	305.4	11	22	0	20	35	-3			
SHIRAZ	71.71	293.7	11	22	-1	20	36	-6		21	36 SP
NURMIJARVI	71.74	331.8	11	23	-1					11	43 PCP
HELSINKI	71.83	331.4	11	24	0						
BANFF	72.64	39.6	10	40	-49						
SKALSTUGAN	74.02	338.2	11	36	-1						
UPPSALA	74.85	333.6	11	40A	-2	21	15	-2	11	59	
MINERAL	74.86	51.4	11	43K	1						
CALISTOGA	75.11	53.4	11	38A	-5						
BERKELEY	75.73	53.9	11	48A	1					12	13
SIMFEROPOL	76.25	315.2	11	55	5	21	32	-1			
LICK	76.43	54.1	11	53A	2						
RENO	76.45	51.4	11	52	1						
GODHAVN	76.49	4.7	12	1	10						
FORT NELSON	77.02	174.0	12	2	8						
BUTTE	77.18	42.8	11	55	0						
PRIEST	77.74	54.7	12	11K	13						
KARLSKRONA	78.21	331.7	12	5A	4						
BOZEMAN	78.25	42.5	12	2	1						
GOTEBORG	78.45	334.2	12	1	-1						
WARSAW	78.61	326.5				22	2	4			
EUREKA	78.95	49.7	12	5	0						
KARAPIRO	79.15	151.7	12	8	2						
COPENHAGEN	79.77	332.6	12	15K	6						
CHATEAU	80.25	152.3	12	16	4						
PASADENA	80.55	55.2	12	24	11	22	27	9			
KRAKOW	80.59	325.3				22	19	0			
KSARA	81.52	305.1	12	24	6				12	48	
BOULDER CITY	81.72	52.1	12	22	2						
BUDAPEST	82.79	323.9	12	36	11					15	38 PP
BRATISLAVA	83.23	325.3	12	26	-1					15	45 PP
RAPID CITY	83.56	40.1	12	30	1						
JENA	83.67	329.8	12	29	-1					15	47 PP
KASPERSKE H.	84.15	327.6	12	31	-1					15	52
MUNSTER	84.46	332.4	12	34	0						
DURHAM	85.33	338.5	12	44A	6	23	7	0			
BENSBERG	85.43	332.0	12	45	7						
LJUBLJANA	85.98	325.1	12	41	0						
STUTTGART	86.28	329.6	12	43	0						
TUCSON	86.61	53.0	12	46	2						
TUCSON TELE.	86.63	52.9	12	46	2						
TRIESTE	86.64	325.2				23	20	1			

STRASBOURG	87.06	330.2				23	28	5						
DOURBES	87.10	332.8	12	48	1							23	28	SCP
FLORENCE X.	89.22	325.3				23	24	-19				31	19	
ROSELEND	89.82	329.0	13	12	12									
ROME	90.04	323.4	12	41	-20	24	6	15				30	16	SS
FOLINIERE	90.07	334.8	13	5	4									
MANHATTEN	90.51	40.1	13	3	0									
WICHITA MTS.	92.60	44.4	13	13	1							16	52	PP
TOLEDO	99.00	332.4										30	55	SS
SOUTH POLE	123.94	180.0	19	1	3									
BYRD STATION	125.28	167.9	19	13	12									
LA PAZ	149.67	61.5	19	55	10									

MAY 5 23.H 5.M 52.S EPICENTRE -31.90-176.91 DEPTH= 0.KM

A=-0.84931 B=-0.04589 C=-0.52589 D=-0.0539 E= 0.9985
G= 0.5251 H= 0.0284 K=-0.8506 HT= 1.2

SE= 2.58

	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
ONERAHI	8.22	239.6	2	5	1							
TUAI	8.42	213.5	2	4	-2	3	39	-4				
KARAPIRO	8.64	223.8	2	8	-1							
CHATEAU	9.53	218.1	2	20	-2	4	0	-11				
TONGARIRO	9.54	218.1	2	20	-2	4	4	-7				
TARATA	10.16	221.9	2	28	-2	4	39	13			3	42
WELLINGTON	11.50	213.2	2	47	-2	4	44	-15				
COBB RIVER	12.38	219.4	3	7	6	5	7	-14				
KAIMATA	14.09	217.9	3	23	0	5	44	-18				
GEBBIES PASS	14.37	212.0	3	25	-2	5	48	-20				
ROXBURGH	17.27	214.4	4	2	-2	7	1	-15				
AFIAMALU	18.51	15.9	4	15	-5	7	34	-10				
PORT VILA	19.43	313.1	4	33	2							
KOUMAC	20.27	299.3	4	40A	0							
BRISBANE	26.68	271.8	5	43	0	10	19	2				
CANBERRA	28.52	253.8	6	1A	2				6	12		
MELBOURNE	31.68	248.6	6	31	3						15	23
CHARTERS TS.	34.97	280.6	6	57	1	12	30	2				
RABAUL	40.01	307.1	7	38	0							
DUMONT	43.13	203.4	8	8	4							
SCOTT BASE	46.62	184.7	8	34	2							
BYRD STATION	53.29	169.4	9	23	0							
WILKES	54.27	208.3	9	29	-1							
KIPAPA	56.02	21.3	9	42	-1							
SOUTH POLE	58.27	180.0	10	0	1							
MIRNY	61.22	207.2	10	23	4							
MAWSON	71.23	200.5	11	13	-10							
LEMBANG	74.10	271.8	11	38A	-2							
TANGERANG	75.28	271.9	11	47K	0							
MANILA	75.29	297.9	11	48	1							
MATUSIRO	80.00	324.8	12	11K	-2							
PRIEST	85.77	42.4	12	44A	1							
PASADENA	85.86	45.3	12	43	0							
LICK	86.07	41.0	12	45K	1							
BERKELEY	86.10	40.3	12	43A	-1							
CALISTOGA	86.48	39.6	12	47A	1							
MINERAL	88.23	39.0	12	54A	-1							
RENO	88.63	40.5	12	57A	0							
TUCSON	89.26	50.8	13	0	0							
TUCSON TELE.	89.39	50.8	13	1	1							
EUREKA	90.76	42.6	13	6	0							
AREQUIPA	93.95	112.0	13	23	2							
FLAMING GRGE	95.55	44.7	13	28	-1							
WICHITA MTS.	98.99	54.8	13	43	-1						30	19 PKKP
COLLEGE	99.10	12.1	13	43	-2						18	18
MOULD BAY	113.66	12.8	18	40	-1							
NEW DELHI	117.07	288.2	18	47A	0							
RESOLUTE	118.39	17.4	18	49	-1							
BROKEN HILL	127.88	211.7	19	10	2							
SHIRAZ	137.77	280.4	19	27	0						23	2
SODANKYLA	141.88	345.5	19	30	-4							
KIRUNA	142.63	349.3	19	38	3							
KAJAANI	144.31	341.7	19	36	-2							
SIDA	145.44	16.4	19	42K	2							
UMEA	146.29	346.4	19	42	0							

NURMIJARVI	148.04	339.9	19	48A	3						19	59	PKP2
HELSINKI	148.22	339.3	19	49A	4						20	1	PKP2
BANGUI	148.99	211.2	19	51	5			20	11				
UPPSALA	150.41	345.1	19	54	6								
BERGEN	151.46	357.7	20	0	10								
KSARA	152.45	282.9	20	1	10								
GOTEBORG	153.49	349.3	20	0	7								
KARLSKRONA	154.22	343.8	20	3	9						20	40	
JENA	159.98	344.2	20	1	0						20	39	
KASPERSKE H.	161.07	338.4	20	2	0						20	57	
STUTTGART	162.51	346.3	20	4	0						20	52	PKP2

MAY 6 19.H 0.M 9.S EPICENTRE -60.22 -33.66 DEPTH= 0.KM

A= 0.41556 B=-0.27669 C=-0.86646 D=-0.5542 E=-0.8324
G=-0.7212 H= 0.4802 K=-0.4992 HT= -9.0

SE= 2.39

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
ARGENTINE I.	14.80	237.1	3	32	0	6	33	15					
SOUTH POLE	29.95	180.0	6	11	-1								
BYRD STATION	30.74	199.9	6	18	-1						6	56	
CONCEPCION	33.79	296.4	6	50	5								
MAWSON	38.88	142.6	7	26	-3	13	21	-6			9	3	PP
SCOTT BASE	41.61	186.4	7	52	1								
HERMANUS	42.56	77.1	8	3	4						17	46	
ANTOFAGASTA	44.53	308.5	8	14	-1						9	53	PP
CAPE HALLETT	46.73	189.8	8	33	1	15	26	4					
GRAHAMSTOWN	47.06	83.2	9	5K	30								
MIRNY	47.56	154.2	8	38	-1	15	34	0			10	23	PP
KIMBERLEY	49.90	78.0	8	57A	0								
LA PAZ	50.25	315.1	8	59K	-1	16	5	-7					
WILKES	50.99	162.3	9	8K	3	16	13	-9			11	5	PP
WINDHOEK	51.50	66.2	9	9A	0								
AREQUIPA	51.51	311.2	9	8	-1								
DUMONT	53.33	176.9	9	21	-2	16	55	1	9	33			
CHANGALANE	55.59	83.2	9	39K	0	17	33	8	9	47	11	39	PP
BANDEIRA	56.58	57.9	9	47	0				9	57	12	1	PP
BULAWAYO	59.01	76.0	10	1	-3								
LUANDA	61.99	54.8	10	25K	1	18	57	9	10	33	11	5	PCP
BROKEN HILL	63.83	72.6	10	34K	-2								
TANANARIVE	69.42	92.2	11	15K	3	20	32	13			13	52	PP
LOME	71.61	36.8	11	24	-1						11	33	PCP
BOGOTA	71.97	317.2	11	27K	0	20	46	-2					
FUQUENE	72.65	317.8	11	28	-3								
CHINCHINA	72.83	315.8	11	34K	2	21	2	4					
ROXBURGH	73.00	196.7	11	34	1								
TRINIDAD	74.02	331.6	11	38K	-1	21	7	-4					
GEBBIES PASS	74.22	199.5	11	46	6								
LWIRO	74.66	66.7	11	44	1	21	27	8			26	16	SS
CARACAS	75.31	326.1	11	55K	8	21	30	4					
GRENADA	75.45	331.6	11	45	-2								
M.BOUR	75.55	16.7	11	48	0	21	27	-1					
BARBADOS	76.00	333.9	11	52	2								
BANGUI	76.18	54.3	11	51	-1						21	38	*SS
WELLINGTON	76.20	201.7	11	55	3								
ST. VINCENT	76.42	332.3	11	51	-2								
COBB RIVER	76.76	200.2	11	55	0								
FORT NELSON	77.21	180.8	11	57K	0	22	7	20					
FORT FRANCE	77.90	332.8	12	2	1	22	2	8					
BALBOA HTS.	77.93	313.5	12	0K	-1	22	5	11					
CHATEAU	78.07	202.8	11	55	-7								
TONGARIRO	78.07	202.8	12	3	1						15	10	PP
GALERAZAMBA	78.13	318.2	12	7	5								
TUAI	78.13	204.1	12	3	1								
TARATA	78.30	201.9	12	3	0								
ST. CLAUDE	79.28	332.6	12	7	-2								
KARAPIRO	79.30	203.1	12	6	-3						15	13	PP
ANTIGUA	80.39	332.7	12	13	-2								
ST. KITTS	80.79	332.0	12	16	-1								
ONERAHI	81.61	202.7	12	20	-1								
MELBOURNE	82.30	178.9	12	25K	0	22	44	4			15	34	PP
SAN JUAN	82.62	329.1	12	23	-3								
CANBERRA	84.79	182.2	12	36K	-1	23	7	2			12	43	PCP

PERTH	84.80	154.3	12	39	2	23	8	3	15	58 PP
MUNDARING	84.86	154.6	12	36	-2	23	3	-3		
RIVERVIEW	86.21	184.0	12	45K	1	23	20	1	12	49 PCP
BRISBANE	92.56	185.7	13	14	0	23	52	-25		
BENI ABBES	93.65	27.0	13	19	0	23	53	-33	17	10 PP
NOUMEA	96.16	198.7	13	26A	-5					
SUVA	97.70	210.6	13	44	6				17	25 PP
ANGRA DO HO.	98.65	5.1	13	45A	0	24	25	5	17	41 PP
AFIAMALU	98.86	221.0	13	46	3					
CHARTERS TS.	99.98	179.9	13	48	0				17	51 PP
ALMERIA	100.07	25.0	13	50	2	24	27	0	25	16 S
GRANADA	100.15	24.0	13	54A	5	24	6	-22	18	0 PP
LISBON	100.63	19.3				24	25	-5	17	55 PP
COLUMBIA	101.62	321.4	13	41K	-14				27	1 PS
ALICANTE	101.94	26.1	13	57	0	24	41	5	18	14 PP
COIMBRA	102.19	19.5							18	7 PP
TOLEDO	102.67	22.9	13	56	-4	24	40	0	18	26 PP
CHAPEL HILL	102.80	323.7	14	8	7					
HOUSTON	102.81	308.2	14	2	1					
SERRA PILAR	103.07	19.2	13	51	-11				18	14 PP
TORTOSA	104.52	26.1	17	55	227					
WASHINGTON	105.00	326.3	14	10K	777				18	30 PP
GEORGETOWN	105.00	326.3	14	9	777	25	41	51		
PHILADELPHIA	105.47	328.1	14	18	777				33	33
FORDHAM	105.98	329.4	15	15	777					
REGGIO CALA.	106.00	38.5							17	6
MESSINA	106.06	38.4	14	22	777	25	1	6	18	43 PP
PALISADES	106.14	329.4	14	13K	777	24	31	-24	17	59 PKP
LITTLE ROCK	106.17	312.9	14	17	777					
MORGANTOWN	106.50	324.4	14	25	777				17	57 PP
BAGNERES	106.59	25.2	14	27	777				18	26 PP
TANGERANG	106.82	138.4	14	49	777				18	28 PP
DJAKARTA	106.88	138.6	17	51	777				22	51
PENNSYLVANIA	107.00	326.4	14	18K	777					
HALIFAX	107.31	338.1	18	46	777					
C. GIRARDEAU	107.44	316.2	14	25	777					
BLOOMINGTON	108.12	319.3	14	22	777					
WICHITA MTS.	108.48	308.1	14	25	777	25	16	10	18	55 PP
ATHENS	108.55	44.6	18	39A	777				24	56
ROME	108.56	34.6	14	30	777	25	10	4	18	50 PP
TARANTO	108.66	38.7							19	26
ROLLA	108.79	314.7	14	35	777					
ST. LOUIS 1	108.87	316.3	14	24	777					
FLORISSANT	109.06	316.3	14	26	777					
ISOLA	109.24	29.8	17	35	777				19	22
KODAIKANAL	109.27	103.4	19	0	777				28	30
KSARA	109.55	55.9	14	27	777	25	16	6	14 40	19 4 PP
HONIARA	109.74	194.3	14	31	777	26	31	80		
CLERMONT-FD.	109.81	26.5							19	10 PP
CHIAVARI	109.94	31.4	14	28	777	24	22	-50	19	23 PP
FLORENCE X.	109.95	33.0	14	30	777				34	21 SSP
PRATO	110.01	32.8	14	39	-234	26	14	62		
BREBEUF	110.29	331.2	14	35K	-239	25	7	-6	19	8 PP
PORT MORESBY	110.61	180.9	18	1	-33				19	12 PP
PAVIA	110.71	30.9							18	57 PP
LAWRENCE	110.95	312.8	18	6	-29					
SHAWINIGAN	111.08	332.2	18	24	-11				19	14
GARCHY	111.23	25.9	18	15	-20				19	24 PP
SKOPJE	111.36	41.0							19	12
TUCSON	111.48	297.4	18	36K	0				19	15 PP
TUCSON TELE.	111.51	297.5	18	36K	0				19	16 PP
PADOVA	111.63	32.7							21	11 PPP
ALBUQUERQUE	111.89	302.3	18	13	-24				19	11 PP
CHUR	112.35	30.5	19	37	59				29	41
TRIESTE	112.37	33.9	14	50	-228				19	31 PP
DUBUQUE	112.48	317.8	14	49	-229					
BASLE	112.50	28.9	19	17	39				29	5
PARIS	112.56	25.0	18	49	11				22	21 PP
SOFIA	112.64	42.1	19	14	36	26	31	68	21	25 PP
LJUBLJANA	112.95	34.3	14	51	-228				19	30 PP
MADRAS	112.97	104.4	19	11	32				29	3
ISTANBUL UN.	113.15	46.9							19	27
ZAGREB	113.16	35.4							19	21 PP
SHIRAZ	113.42	71.2	18	39	-1				19	33 PP
STRASBOURG	113.53	28.6	14	51	-229	25	23	-3	19	18 PP
BELGRADE	113.60	39.0	18	53	13				22	7 PPP
STUTTGART	114.07	29.6	14	56	-225	27	42	134	19	24 PP
KARLSRUHE	114.08	28.9	18	51	10				19	44 PP
DOURBES	114.23	25.9	14	51	-230				19	37 PP

BOMBAY	114.40	94.5	19	1	19				35	48 SS
HEIDELBERG	114.52	28.9	18	42	0					
KEW	114.53	22.2	18	42	0				19	36 PP
POONA	114.60	95.7	18	39	-3				22	10
TIMISOARA	114.68	39.1							19	42
VIENNA-H.	115.48	34.6	18	42	-2				19	55 PP
KASPERSKE H.	115.51	32.3	18	33	-11				19	33 PP
BUDAPEST	115.55	36.7	18	45	1	25	10	-24	19	42 PP
BRATISLAVA	115.61	35.1	18	46	2				19	43 PP
BENSBERG	115.61	27.3	18	43	-1				19	47 PP
RABAUL	115.61	186.4	15	3	-221				19	44
HYDERABAD	115.93	100.4	18	38	-7				19	53 PP
CHEB	116.06	31.1							19	43 PP
DE BILT	116.24	25.5	14	57	-228				20	0 PP
PASADENA	116.40	292.8	18	45	-1				19	53 PP
BOULDER CITY	116.40	296.5							27	19
PRUHONICE	116.54	32.6	18	45	-1				19	45 PP
PRAGUE	116.59	32.4	18	47	1				22	11
JENA	116.64	30.2	18	45	-1	25	30	-8	19	49 PP
MUNSTER	116.66	27.2	18	47	1					
LARAMIE	116.94	306.5	18	47	0				19	54
WITTEVEEN	117.24	26.2							19	57 PP
HALLE	117.26	30.2	18	44	-3				19	47 PP
COLLMBERG	117.34	30.9	18	47A	0				20	5 PP
SKALNATE PL.	117.44	36.7							20	5 PP
DURHAM	117.45	20.3	18	48	0	25	40	-1	20	5 PP
RACIBORZ	117.65	34.9							20	7 PP
PORT BLAIR	117.66	117.1							20	4
TEHERAN	117.96	66.6	18	47	-2				20	12 PP
KRAKOW	118.12	36.0	18	49	0				20	5 PP
FLAMING GRGE	118.18	303.6	18	20K	-29				29	10 PKKP
RAPID CITY	118.35	309.9							19	59
SIMFEROPOL	118.42	48.4	18	49	0				22	31 PPP
VISHAKHAPTNM	118.54	104.7	19	28	38				22	11 PP
SALT LAKE C.	119.08	301.7	18	52K	1				20	14 PP
LWOW	119.16	38.8	18	50	-1				20	10 PP
PRIEST	119.18	292.2	18	52K	1				20	9 PP
ABERDEEN	119.66	19.2	19	17A	25	25	44	-5	22	59 PPP
EUREKA	119.80	297.9	18	52K	0				20	15 PP
TIFLIS	119.98	57.9	18	53	1	25	39	-11	20	22 PP
WARSAW	120.37	35.6	18	59K	6	25	52	1	20	27 PP
LICK	120.62	292.2	18	54A	0				29	7 PKKP
QUETTA	120.86	82.5	18	54	0					
BERKELEY	121.33	292.1	18	55	0				20	27 PP
RENO	121.57	295.1	18	57K	1				20	29 PP
CALISTOGA	122.10	292.4	18	56A	-1				20	33 PP
KARLSKRONA	122.40	30.1	18	57	0				20	27 PP
BOZEMAN	122.78	305.5	18	59K	1					
UKIAH	122.79	292.3	18	46	-12				20	43
GOTEBORG	122.93	27.2	18	57	-1				20	46
ASHKABAD	122.99	70.4	18	59	1				20	40 PP
MINERAL	123.03	294.4	18	57	-1				28	51
BUTTE	123.68	304.7	18	53A	-7					
BERGEN	124.01	22.1	19	3	3					
NEW DELHI	124.66	92.4	19	0K	-2	25	20	-45	20	49 PP
BOKAPO	124.95	103.4							20	59
LAHORE	125.65	87.8	19	2	-1					
HUNGRY HORSE	126.14	305.5	18	55	-9				30	50
UPPSALA	126.18	29.2	19	2K	-2				20	53 PP
WARSAK DAM	126.23	83.7	19	4A	-1				21	13 PP
DEHRA DUN	126.50	91.9	19	3	-2				21	5
CHITTAGONG	126.58	110.2	19	7	2	26	21	11	22	40 PKS
CHATRA	128.14	102.7	19	7	-1				21	18 PP
HELSINKI	128.35	33.0	19	7	-2					
NURMIJARVI	128.55	32.6	19	7	-2				21	14 PP
MOSCOW	128.60	43.3	19	8	-1				21	20 PP
BANFF	128.96	306.7	18	57	-13					
KHOROG	128.98	81.0	19	9	-1					
PENTICTON	129.21	302.6	19	8	-2				38	54
SHILLONG	129.34	108.1	19	10K	-1				21	16 PP
PULKOVO	129.53	36.1	19	9	-2	26	12	-6	21	18 PP
VICTORIA	130.23	299.4	19	12	0					
UMEA	130.24	28.0	19	10	-2				21	26 PP
SCORESBY SD.	130.67	5.2	19	13K	0				21	16 PP
TASHKENT	130.85	76.1	19	13	0				22	48 PKS
MANILA	130.92	146.9	19	14	0				27	8
ALBERNI	131.40	299.2	19	14	0					
KAJAANI	132.31	31.4	19	15	-1				21	38 PP

LHASA	132.36	104.4	19	18	2				22	53 PKS
BAGUIO CITY	132.45	145.6	19	21	5				22	47
KIRUNA	133.67	25.1	19	16	-3				21	43 PP
KUNMING	133.91	119.8	19	21A	2				21	55 PP
FRUNSE	134.59	78.8	19	20	0				22	3 PP
SODANKYLA	134.68	28.2	19	1	-20				21	38 PP
TROMSOE	134.86	23.1	19	21K	0					
CANTON	136.34	133.4	19	25	1				22	5 PP
APATITY	136.50	30.9	19	21K	-3	26	26	-7	22	4 PP
KEVO	136.65	26.2	19	20	-4					
SVERDLOVSK	138.10	55.2	19	15	-12					
THULE	138.15	348.4	19	24A	-3				22	13 PP
CHENGTU	139.26	117.2	19	22	-7				23	10 PKS
RESOLUTE	140.48	338.5	19	21	-10					
SITKA	141.33	301.1	18	31	-62					
NORD	141.89	4.0	19	25	-9					
SEMIPALATNSK	142.68	74.8	19	30	-5	26	24	-19	22	55 SKP
ALERT	143.25	353.9	19	30	-6					
LANCHOW	143.70	112.3	19	35	-2					
SIAN	144.47	120.0	19	36	-2					
MOULD BAY	146.33	334.5	19	36	-5				39	22
ZO-SE	146.40	138.8	19	40	-1					
NANKING	146.46	134.7	19	42K	1					
ESEN BULAK	147.90	92.6	19	43K	-1					
KHEYS	149.00	18.6	19	41	-5				23	37
PAOTOW	150.21	114.8	19	47	-1					
COLLEGE	150.55	307.6	19	43K	-5				23	1 PP
PEKING	152.44	123.5	19	50	-1				23	27 PKS
ABUYAMA	153.69	159.7	19	52K	-1					
ULAN-BATOR	154.22	100.7	19	52K	-1					
TUKUBASAN	155.65	167.7	19	53K	-2				23	59 PP
IRKUTSK	155.71	90.2	19	54	-1				24	0 PP
MATUSIRO	155.74	163.9	19	54	-1				24	1 PP
CHANGCHUN	159.26	132.8	19	57K	-3					
VLADIVOSTOK	160.76	146.4	20	3	2					
TIKSI	166.59	24.2	20	1	-6				24	49 PP
Y.-SAKHLINSK	166.61	169.2	20	5	-2					
PETROPAVLOVK	170.11	228.6	20	8	-1				25	14
YAKUTSK	171.75	70.2	20	7	-3					
MAGADAN	177.66	255.4	20	8	-4				25	51 PP

MAY 6 21.H 53.M 46.S EPICENTRE -60.32 -33.91 DEPTH= 0.KM

A= 0.41303 B=-0.27763 C=-0.86737 D=-0.5579 E=-0.8299
G=-0.7199 H= 0.4839 K=-0.4977 HT= -9.0

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	
SOUTH POLE	29.85	180.0	6	12	1								
BYRD STATION	30.60	200.0	6	17	-1								
MAWSON	38.87	142.7	7	28K	0	13	31	4			8	54	PP
SCOTT BASE	41.49	186.5	7	51	1								
MIRNY	47.52	154.3	8	39	0	15	37	3					
LA PAZ	50.24	315.4	8	59	-1	16	24	12					
WILKES	50.93	162.4									16	22	PS
AREQUIPA	51.49	311.6	9	9	0								
DUMONT	53.24	177.0	9	21	-1								
BANDEIRA	56.74	58.1	9	50	2								
BULAWAYO	59.16	76.1	10	OK	-5								
BROKEN HILL	63.99	72.8	10	34	-3								
TANANARIVE	69.54	92.4	11	16	4								
LWIRO	74.82	66.9	11	45	1								
M.BOUR	75.68	16.9	11	56	7	21	36	6					
BANGUI	76.34	54.5	11	50	-2						12	12	
CHATEAU	77.92	203.0	12	2	1								
TONGARIRO	77.92	203.0	12	1	0								
KARAPIRO	79.15	203.3	12	7	-1								
SAN JUAN	82.65	329.3	12	24	-2								
CANBERRA	84.68	182.4	12	35	-2								
BRISBANE	92.44	185.9	13	15	1								
BENI ABBES	93.80	27.2	13	19	-1								
WICHITA MTS.	108.45	308.3									18	56	PP
SHIRAZ	113.57	71.4	18	39	-1						19	34	
KASPERSKE H.	115.66	32.5	18	42	-2								

PRUHONICE	116.70	32.7	18 45	-1		
COLLMBERG	117.50	31.1	18 47	-1		
EUREKA	119.74	298.0	18 49	-3		20 28 PP
QUETTA	121.00	82.8	18 54	0		
NEW DELHI	124.78	92.6	18 59A	-3		
UPPSALA	126.33	29.4	19 3	-2		
DEHRA DUN	126.63	92.2	19 3	-2		
CHATRA	128.24	103.0	19 6	-2		
HELSINKI	128.51	33.2	19 9	0		
NURMIJARVI	128.71	32.8	19 8A	-1		
PENTICTON	129.16	302.7	19 9A	-1		
SHILLONG	129.43	108.4	19 9A	-2		
UMEA	130.40	28.2	19 10	-2		
KAJAANI	132.46	31.6	19 15	-1		
KIRUNA	133.82	25.3	19 18	-1		
KUNMING	133.97	120.2	19 20	1		21 58 PP
SODANKYLA	134.83	28.4	19 12	-9		
APATITY	136.65	31.1	19 22A	-2		
RESOLUTE	140.53	338.5	19 21	-10		
ALERT	143.34	354.0	19 31	-5		
LANCHOW	143.77	112.8	19 34	-3		
SIAN	144.53	120.4	19 39	1		
MOULD BAY	146.37	334.5	19 36	-5		
ZO-SE	146.41	139.2	19 43	2		23 17 PP
NANKING	146.47	135.1	19 44	3		23 22 PP
PAOTOW	150.28	115.3	19 49	1		
COLLEGE	150.51	307.5	19 43	-5		
PEKING	152.48	124.0	19 52	1		
MATUSIRO	155.67	164.5	19 54	-1		20 19

MAY 7 17.H 39.M 47.S EPICENTRE 45.20 147.01 DEPTH= 0.KM

A=-0.59304 B= 0.38503 C= 0.70715 D= 0.5445 E= 0.8387
G=-0.5931 H= 0.3851 K=-0.7071 HT= -3.6

SE= 2.83

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	0.61	86.6	0 17K	1	0 35	9		
NEMURO	2.13	209.3	0 38A	1	1 16	11		
ABASHIRI	2.28	239.8	0 40	0				
KUSIRO	2.90	221.2	0 49A	0	1 31	6		
Y.-SAKHLINSK	3.49	303.0	0 58K	1			2 0	
OBIHIRO	3.56	231.7	1 1	3	1 51	10		
ASAHIGAWA	3.61	248.5	1 0A	1	1 42	-1		
HIROO	3.95	223.8	1 5	1	1 59	8		
URAKAWA	4.32	226.7	1 7	-2	2 4	3		
SAPPORO	4.59	244.4	1 14K	1	2 22	15		
TOMAKOMAI	4.69	238.7	1 22	8	2 26	16		
UGLEGORSK	5.14	320.8	1 22	2				
SUTTSU	5.44	246.3	1 31	6	2 43	14		
MORI	5.60	238.7	1 32	5	2 43	10		
HAKODATE	5.66	235.5	1 30K	2	2 39	5		
HATINOHE	6.16	222.7	1 34	-1	2 41	-6		
AOMORI	6.32	228.4	1 40	3	2 48	-3		
MIYAKO	6.68	215.7	1 40	-2	2 53	-7		
MORIOKA	6.98	220.2	1 45	-1	3 1	-6		
MIZUSAWA	7.47	217.8	1 51	-2	4 17	57		
AKITA	7.48	225.4	1 55	2	3 18	-2		
ISINOMAKI	7.98	214.1	1 58	-2	3 29	-3		
SAKATA	8.25	222.8	2 2	-2	3 39	0		
SENDAI	8.29	215.5	2 1A	-4	3 34	-6		
YAMAGATA	8.54	217.9	2 6	-2	3 41	-5		
HUKUSIMA	8.91	215.6	2 12K	-1	3 49	-6		
NIIGATA	9.40	222.1	2 20	0	4 18	10		
ONAHAMA	9.44	211.3	2 18K	-2	4 13	4		
SHIRAKAWA	9.55	214.7	2 20	-2	4 15	4		
AIKAWA	9.71	225.5	2 23	-1	4 14	-1		
MITO	10.10	211.6	2 28	-2	4 21	-4		
UTUNOMIYA	10.18	214.5	2 30	-1	4 24	-3		
KAKIOKA	10.34	212.4	2 31	-2	4 23	-8		
TUKUBASAN	10.38	212.7	2 27A	-6	4 17	-15		4 44
TAKADA	10.44	222.2	2 32	-2	4 33	0		
TYOSI	10.56	208.4	2 36	0	4 33	-3		
MAEBASI	10.64	217.1	2 34A	-3	4 44	6		
KUMAGAYA	10.73	215.2	2 37	-1	4 29	-11		

NAGANO	10.81	221.0	2	38	-1				6	45
WAZIMA	10.89	227.7	2	39	-1	4	36	-8		
MATUSIRO	10.91	220.6	2	38A	-3	4	30	-15		
PETROPAVLOVK	10.92	40.1	2	44A	3	4	53	8	3	12
OIWAKE	10.93	218.8	2	39	-2	4	47	2		
HONGO	10.96	212.6	2	50	9				6	4
TOKYO C.M.O.	10.99	212.6	2	32	-10	4	37	-10		
TITIBU	11.00	215.9	2	40	-2	5	14	27		
YOKOHAMA	11.25	212.4	2	39	-6	4	54	1		
MATUMOTO	11.26	220.6	2	44	-1					
TOYAMA	11.26	224.5	2	44	-2	5	4	11		
KOHU	11.48	216.9	2	49	1	5	22	23		
HUNATU	11.54	215.8	2	46	-3	4	56	-4		
MERA	11.64	210.6	2	55	4	5	4	1		
KANAZAWA	11.67	225.7	2	54	3					
TAKAYAMA	11.68	222.7	2	23	-28					
MISIMA	11.79	214.2	2	51	-2				5	59
AJIRO	11.80	213.5	2	50	-3	5	4	-2		
IIDA	11.92	219.0	2	53K	-2	5	14	4		
OSIMA	11.94	211.9	2	50	-5					
SHIZUOKA	12.15	215.7	2	57	-1	5	23	8		
HUKUI	12.26	225.5	2	58	-1				6	51
GIHU	12.51	222.1	3	1	-1					
OMAESAKI	12.54	215.5	2	56	-7					
NAGOYA	12.61	220.9	3	0	-4	5	26	0		
HAMAMATU	12.65	217.4	3	5	1					
TSURUGA	12.65	224.9	3	3	-1					
HIKONE	12.87	223.3	3	0	-7	5	46	14		
KAMEYAMA	13.10	221.6	3	8	-2	5	47	9		
MAIZURU	13.14	226.3	3	13	2				7	3
TU	13.20	221.0	3	20	8					
HATIDYOZIMA	13.31	207.3							6	24
ABUYAMA	13.52	224.2	3	13A	-3					
NARA	13.54	223.0	3	23	7					
SAIGO	13.71	233.8	3	20	2	6	1	8		
OSAKA	13.71	223.8	3	17	-1	5	58	5		
TOTTORI	13.74	229.7	3	20	1					
KOBE	13.86	224.8	3	21	1				7	4
OWASE	13.87	220.5	3	16	-4				6	31
KLYUCHI	14.14	33.1	3	27	3				6	27
WAKAYAMA	14.23	223.7	3	29	4					
YONAGO	14.25	231.5	3	28	3	6	5	0		
SUMOTO	14.27	224.7	3	25	-1					
MATSUE	14.40	232.3	3	28	1					
MAGADAN	14.56	7.7	3	31	2				6	24 *SS
SIOMISAKI	14.58	220.3	3	34	4	6	30	17		
TAKAMATU	14.72	226.9	3	29	-3	6	59	42		
HAMADA	15.36	233.1	3	36	-4	6	36	4		
MUROTO	15.50	224.1	3	43	1	6	53	18		
CHANGCHUN	15.54	272.7	3	35K	-7	6	41	5		
HIROSIMA	15.55	231.0	3	40	-2	6	51	15		
KOTI	15.59	226.4	3	43	0	6	47	10		
TORISIMA	15.61	202.0	3	50	7				4	6
MATUYAMA	15.76	228.9	3	44	-1	6	59	18		
ASHIZURI	16.52	225.9	3	51	-4					
SIMONOSEKI	16.69	233.3	3	53	-4					
OOITA	16.85	230.1	4	2	3	7	22	16		
HUKUOKA	17.27	233.6	4	4A	0	7	28	12		
ASOSAN	17.40	230.6	4	6	0	7	33	14		
ITUHARA	17.47	237.2	4	9	2	7	30	9		
SAGA	17.56	233.0	4	7	-1	7	37	14		
KUMAMOTO	17.66	231.2	4	9	0	7	24	-1		
MIYAZAKI	17.97	227.8	4	15	2	7	45	13		
NAGASAKI	18.18	232.7	4	15A	-1	7	39	2		
KAGOSIMA	18.70	229.0	4	28A	6	7	59	11		
HUKUE	18.80	234.7	4	25	2	7	56	6		
YAKUSIMA	19.61	227.0	4	33	0	8	16	7		
PEKING	23.19	268.1	5	10A	0	9	20	2	5	20 *SP
NAHA	24.51	225.9	5	24	2	9	54	13		
ZO-SE	24.58	244.0	5	24A	1	9	44	2	5	35 *SP
NANKING	25.51	248.8	5	33A	1	9	55	-3	5	43 *SP
PAOTOW	27.32	273.5	5	50	1					
ULAN-BATOR	27.50	290.2	5	49A	-1	10	28	-2		
TIKSI	27.91	347.8	5	53A	-1	10	33	-4		
IRKUTSK	28.69	299.8	6	0A	-1				7	6 PPP
TAIPEI	28.77	234.2	6	10	8	11	12	21		
ILAN	28.84	233.5	6	20	18					
HSINCHU	29.27	234.7							7	43

HWALIEN	29.54	232.7	6	30	21	11	14	11				
TAITUNG	30.77	231.9	6	9	-10	11	25	2				
SIAN	31.00	262.8	6	22	0						7	38 PP
TAINAN	31.07	233.5	6	51	29							
TAWU	31.22	231.8	6	24	0							
HENGCHUN	31.59	231.6	6	29	2							
GUAM	31.69	184.2	6	27	-1							
LANCHOW	33.68	269.6	6	46K	1	12	3	-5				
ESEN BULAK	34.91	290.5	6	58A	2	12	31	4				
CANTON	35.15	242.5	6	58A	0	12	26	-5			7	7 *SP
CHENGTU	36.44	261.6	7	9	0	12	49	-2			8	50 PPP
MANILA	37.50	224.0	6	56	-21	12	46	-21				
COLLEGE	39.99	37.1	7	39A	1	13	45	0				
KUNMING	40.75	255.8	7	45A	0	13	52	-4			9	21 PP
SEMIPALATNSK	43.78	301.8	8	9A	0	14	39	-2			9	54 PP
KHEYS	45.60	346.7	8	22A	-2	15	2	-5			10	20 PP
LHASA	46.18	270.3	8	31A	3						10	16 PP
AMDERMA	46.92	331.7	8	33A	-1							
MOULD BAY	47.49	18.9	8	36	-3							
SITKA	47.57	46.3	7	42	-57							
SHILLONG	48.04	265.2	8	46A	3	15	44	3			10	43 PP
ALMATA-2	48.49	293.9	8	48	1							
ALMATA	48.77	294.1	8	50A	1	15	53	1			10	51 PP
RABAUL	49.39	173.2	8	54A	0	16	5	5				
CHITTAGONG	50.12	262.0	9	0A	1	16	10	-1	9	8	11	0 PP
FRUNSE	50.48	294.6	9	3A	1	16	18	3				
CHATRA	50.59	270.0	9	2K	-1	16	17	0			11	4 PP
KIPAPA	50.59	99.0	9	5K	2							
HONOLULU	50.61	99.2	9	5K	2	16	5	-12				
ALERT	51.70	4.7	9	7	-4							
SVERDLOVSK	52.03	315.9	9	12K	-2	16	30	-7			11	2 PP
CALCUTTA	52.44	264.9	9	17	0	16	45	3			12	16 PPP
BOKARO	53.42	268.0	9	36A	12	16	58	2			11	34 PP
RESOLUTE	53.62	16.9	9	24A	-1							
PORT MORESBY	54.34	179.8	9	49A	18							
TASHKENT	54.67	295.5	9	33A	0	17	13	0				
DEHRA DUN	54.92	279.5	9	33	-2	17	14	-2			11	36 PP
HONIARA	55.61	164.5	9	40A	0	17	27	2				
NEW DELHI	56.55	278.4	9	45A	-2	17	36	-2			11	45 PP
THULE	56.58	9.4	9	44K	-3						10	41
ALBERNI	56.70	51.6	9	48A	0							
LAHORE	56.77	283.0	9	49	1							
PORT BLAIR	56.88	251.8	9	50	1	17	44	2			11	56 PP
APATITY	57.02	335.2	9	48K	-2	17	41	-3			11	55 PP
WARSAK DAM	57.24	287.0	9	51A	-1	17	49	2				
KEVO	57.32	339.0	9	51	-1						10	47
VICTORIA	57.88	51.7	9	56A	0							
SODANKYLA	59.09	337.1	10	3A	-2	18	9	-2			12	17 PP
MEDAN	59.13	240.3	10	4	-1	18	10	-2				
VISHAKHAPTNM	59.17	264.3	10	8K	3	18	16	4			12	23 PP
TROMSOE	59.36	341.3	10	5	-2							
PENTICTON	59.50	49.3	10	8A	0							
SEHORE	60.00	273.5	10	9	-2	18	22	-1			12	22 PP
KIRUNA	60.37	339.5	10	11A	-3	18	20	-8			22	25 SS
BANFF	60.55	45.8	10	15A	0							
KAJAANI	61.11	334.0	10	17	-1						12	32 PP
SPOKANE	61.67	49.8	10	24	2	18	49	5				
DJAKARTA	62.51	226.3	10	29	1	18	53	-2				
TANGERANG	62.61	226.5	10	28	-1	18	55	-1				
QUETTA	62.65	286.2	10	29	0	18	54	-3				
LEMBANG	62.67	225.2	10	27	-2	18	54	-3				
HYDERABAD	62.79	267.7	10	28	-2	18	55	-3			12	46 PP
HUNGRY HORSE	63.04	47.7	10	32K	1	19	2	1				
MOSCOW	63.23	323.3	10	30	-3	18	53	-11			12	48 PP
PULKOVO	63.30	329.6	10	31A	-2	18	57	-8			12	43 PP
UKIAH	63.47	60.4	9	35A	-59							
ASHKABAD	63.50	298.0	10	39	5						13	6 PP
UMEA	63.51	336.6	10	32A	-3	19	2	-5			39	18 PKPPKP
MINERAL	63.71	58.4	10	36A	0							
KIZYL-ARVAT	64.02	300.2	10	39A	1	19	15	1			14	43 PPP
CALISTOGA	64.17	60.5	10	40A	1							
SCORESBY SD.	64.36	355.9	10	39	-1							
MADRAS	64.58	262.8	10	41A	-1	19	28	7			13	7 PP
NURMIJARVI	64.70	332.5	10	40	-2	19	8	-14			13	3 PP
BERKELEY	64.84	61.0	10	43A	0	19	24	0	11	5	11	20 SP
HELSINKI	64.85	332.1	10	42	-1						13	10 PP
CHARTERS TS.	64.97	180.8	10	43	-1	19	27	2				
BUTTE	65.29	49.0	10	46A	0	19	32	3				
RENO	65.29	58.2	10	47A	1	19	39	10				

POONA	65.31	271.8	10	45	-1	19	29	-1	13	29 PP
LICK	65.56	61.1	10	49A	1					
PORT VILA	65.56	157.6	10	48A	0					
BOMBAY	65.79	272.8	10	50	1	19	31	-4	13	14 PP
BOZEMAN	66.32	48.5	10	54A	1					
PRIEST	66.93	61.5	10	58A	1					
UPPSALA	67.42	335.0	10	57A	-3	19	53	-2	13	28 PP
EUREKA	67.61	56.2	11	1	0				39	19 PKPPKP
KODAIKANAL	68.40	262.7	11	5K	-1	20	35	28		
TIFLIS	69.09	308.4	11	11A	1	20	18	3	15	29 PPP
SALT LAKE C.	69.13	52.9	11	11A	1					
TEHERAN	69.21	300.0	11	13	2	20	21	4		
SUVA	69.22	148.0	11	11	0	20	37	20		
NOUMEA	69.47	160.8	11	9	-3	20	38	18		
AFIAMALU	69.66	137.0	11	13	-1	20	29	7		
GORIS	69.72	305.8	11	15A	1	20	27	4	13	53 PP
PASADENA	69.77	61.7	11	15	1	20	25	2	39	16 PKPPKP
BERGEN	70.22	340.9	11	17	0	20	24	-4	13	53 PP
FLAMING GRGE	70.40	51.4	11	19A	1					
BOULDER CITY	70.60	58.3	11	21	2					
GOTEBORG	70.85	336.3	11	19A	-2				15	49
KARLSKRONA	71.07	333.7	11	27A	5					
RAPID CITY	71.48	45.7	11	25	0					
GLEN CANYON	71.85	55.7	11	25	-2					
LARAMIE	72.20	49.0	11	29	0					
SIMFEROPOL	72.38	316.7	11	29A	-1	20	53	0	14	16 PP
WARSAW	72.42	328.5	11	30A	0	20	52	-2	14	16 PP
BRISBANE	72.43	174.6	11	31A	1	20	26	-28		
COPENHAGEN	72.43	335.0	11	29A	-1	20	54	0		
LWOW	73.17	325.4	11	34K	-1	21	0	-2	14	14 PP
KRAKOW	74.59	327.8	11	43	0	21	18	0	14	26 PP
ABERDEEN	74.78	343.2	11	49A	5	21	16	-4	14	36 PP
SKALNATE PL.	75.17	327.1	11	45	-1	21	28	3	14	33 PP
RACIBORZ	75.21	328.7	11	46	0				14	37 PP
TUCSON	75.56	58.8	11	50A	2	21	42	13		
TUCSON TELE.	75.57	58.7	11	50A	2				14	50 PP
HALLE	76.16	333.0	11	45	-7	21	32	-4		
ALBUQUERQUE	76.23	54.2	11	53A	1					
PRAGUE	76.56	330.8	11	56A	2	21	33	-7	14	38 PP
PRUHONICE	76.59	330.7	11	54	0	21	40	0		
WITTEVEEN	76.60	336.5	11	54A	0					
JENA	76.77	332.9	11	53	-2	21	40	-2	14	46 PP
DURHAM	76.90	341.9	11	56	0	21	33	-11	15	10 PP
HURBANOVO	77.03	327.4	11	59	2	21	49	4	14	37 PP
BUDAPEST	77.03	326.7	11	57	0	21	24	-21	14	34 PP
MUNSTER	77.08	335.6	11	58	1					
BRATISLAVA	77.19	328.2	11	58K	0	21	47	0	14	43 PP
KECSKEMET	77.22	326.0	11	59	1				12	21 PCP
VIENNA-H.	77.40	328.7	11	59A	0	21	50	1	14	57 PP
TIMISOARA	77.56	324.4	12	3	3	21	54	3		
SZEGED	77.60	325.4	11	41	-19				14	45 PP
KASPERSKE H.	77.65	330.8	11	59A	-1				14	44 PP
DE BILT	77.66	337.0	11	54A	-6	21	53	1	26	43 SS
ISTANBUL UN.	77.80	316.9	12	1	0				16	55 PPP
KALOCSA	77.83	326.2	12	5	4					
BENSBERG	78.11	335.4	12	2A	-1	21	54	-3	15	4 PP
MANHATTEN	78.42	45.3	12	4	0					
BELGRADE	78.64	324.3	12	5A	-1	22	3	1	15	19 PP
DUBUQUE	78.66	39.6	12	6	0	22	1	-2		
RIVERVIEW	78.74	176.5	12	8A	2	22	9	5	15	8 PP
HEIDELBERG	79.01	333.7	12	7	-1					
SOFIA	79.12	321.3	12	9	1	22	18	11	12 15	15 12 PP
LAWRENCE	79.26	44.6	12	9	0					
STUTTGART	79.39	333.1	12	10A	0	22	12	2	15	18 PP
KARLSRUHE	79.45	333.7	12	21	11	22	23	12		
ZAGREB	79.58	327.6	12	13	2	22	13	1		
DOURBES	79.62	336.5	12	10	-1	22	10	-3		
KSARA	79.65	307.9	12	12	1					
KEW	79.66	339.9	12	11A	0	22	11	-2	15	10 PP
TUBINGEN	79.67	333.1	12	11	0					
LJUBLJANA	79.93	328.6	12	12A	-1				15	9 PP
STRASBOURG	80.03	333.9	12	12	-1	22	15	-2	15	9 PP
ADELAIDE	80.14	186.9	12	14	0	22	19	1	12 23	27 5
RAVENSBURG	80.15	332.4	12	13	-1					
CANBERRA	80.16	178.3	12	15A	1	22	28	10		
CHICAGO JSA.	80.49	38.1	12	15	-1					
SKOPJE	80.53	322.0	12	18	2				22	24
TRIESTE	80.55	328.8	12	15A	-1	22	18	-5	15	12 PP
WICHITA MTS.	80.78	49.5	12	18A	1	22	30	5	15	10 PP

CHUR	80.99	332.0	12	19	1	22	26	-1				
BASLE	81.02	333.5	12	18K	0	22	21	-6				
TITOGRAD	81.09	323.7	12	20	1	22	28	0			23	7 PS
PARIS	81.37	337.2	12	21	1	22	23	-8			15	29 PP
PADOVA	81.44	329.8	12	22	1	22	35	3			15	25 PP
NEUCHATEL	81.69	333.6	12	22	0							
ROLLA	81.74	43.2	12	22A	0	22	31	-4				
MUNDARING	81.74	206.1	12	22A	0	22	38	3				
FLORISSANT	81.75	41.7	12	22A	0	22	37	2				
BESANCON	81.77	334.3	12	23	1							
PERTH	81.84	206.4	12	24	1	22	44	8			15	40 PP
ST. LOUIS 1	81.95	41.7	12	23	0	22	44	7				
SHAWINIGAN	82.14	26.5	12	25A	1							
FOLINIERE	82.20	339.0	12	25	1							
BOLOGNA	82.42	329.7	12	37	11	22	33	-9			16	6
PAVIA	82.57	331.4	12	30	4	22	36	-7			13	16
GARCHY	82.60	336.2	12	26	-1	22	44	0			12	31 PCP
MELBOURNE	82.67	181.6	12	28	1				12	38	22	54 SCS
ATHENS	82.73	318.2	12	27A	0	22	44	-1			15	42 PP
BREBEUF	82.80	27.5	12	28A	0	22	45	-1			23	39 PS
ROSELEND	82.96	333.2	12	28	0							
PRATO	83.04	329.5	12	35	6	22	49	1				
FLORENCE X.	83.07	329.4	12	21A	-8				12	37	23	43 PS
BLOOMINGTON	83.21	39.0	12	31A	1	22	49	-1				
CHIAVARI	83.28	330.9	12	48	18	22	52	2			16	18 PP
C. GIRARDEAU	83.33	42.0	12	30	0							
TARANTO	83.56	323.8	12	38	7	22	52	-1				
CLERMONT-FD.	83.96	335.5	12	35A	1	23	9	12				
ISOLA	84.17	332.3	12	34	-1							
ROME	84.24	327.7	12	34A	-1	22	59	-1	13	16	15	38 PP
MONACO	84.44	331.8	12	35	-1							
PENNSYLVANIA	85.42	32.5	12	42A	1							
MORGANTOWN	85.61	34.5	12	43	1						16	31 PPP
MESSINA	86.18	323.7	12	42	-3	23	6	-13			16	10 PP
REGGIO CALA.	86.22	323.6	12	42	-3						23	8
HOUSTON	86.34	50.6	12	49	4							
HALIFAX	86.54	21.4	12	47K	1							
KARAPIRO	86.65	157.8	12	49	2							
PALISADES	86.68	29.8	12	48A	1	23	30	6				
FORDHAM	86.83	29.8	12	49	1	23	11	-14				
BAGNERES	87.29	336.4	12	51	1						15	53 PP
WASHINGTON	87.37	32.9	12	50K	0	23	30	0				
FORT NELSON	87.74	179.7	12	55	3						29	29 SS
CHATEAU	87.85	158.2	12	55	2						16	19
COBB RIVER	88.93	160.8	13	1	3							
CHAPEL HILL	89.16	35.8	12	55	-4							
WELLINGTON	89.61	159.4	13	2	1							
COLUMBIA	89.95	38.2	13	4K	1	23	33	-21				
KAIMATA	90.01	162.2	13	18	15							
SERRA PILAR	91.32	341.8	13	7A	-2	24	3	-4			16	47 PP
GEBBIES PASS	91.40	161.7	13	18	9							
TOLEDO	91.41	338.1	13	10A	1	23	44	-23			16	52 PP
ALICANTE	91.83	335.0	13	12	1	24	14	3			16	51 PP
COIMBRA	92.17	341.4	13	14	1	23	42	-32			18	59 PPP
ROXBURGH	92.43	164.5	12	47	-27	23	49	-27			30	44 SS
ALMERIA	93.80	335.9	13	21K	1	24	27	-1			17	1 PP
GRANADA	93.81	336.9	13	21A	1	24	48	20			19	8 PP
MALAGA	94.47	337.3	13	23A	0	25	17	43			17	9 PP
ANGRA DO HO.	96.37	355.5				24	19	10			26	23 PS
BENI ABBES	99.97	333.2	13	48	0	24	27	0			17	51 PP
TANANARIVE	109.75	262.8									19	12 PP
SAN JUAN	109.92	33.5	19	9	777							
LWIRO	111.19	289.2	14	43	-233	25	25	8			19	21 PP
DUMONT	111.66	183.0									19	3 PP
BALBOA HTS.	111.77	50.6	14	46	-231							
GALERAZAMBA	112.50	45.7									19	37 PP
ST. CLAUDE	113.72	30.3									19	32 PP
WILKES	114.68	195.3	19	31	48						19	40 PP
FORT FRANCE	115.12	30.3									19	43 PP
CHINCHINA	117.22	49.4	18	47	-1						19	58 PP
CAPE HALLETT	118.33	172.1				25	53	9			20	8 PP
BOGOTA	118.34	48.1	19	3A	13						20	5 PP
TRINIDAD	118.78	32.2									20	8 PP
MIRNY	118.80	201.7	18	50	-1						30	2
M.BOUR	118.95	342.2				25	58	11			20	13 PP
BROKEN HILL	120.17	280.1	18	45A	-8						29	5
SCOTT BASE	123.38	175.1	19	0	0							
BULAWAYO	123.92	275.1	19	1A	0							

LUANDA	126.26	297.8	19	11A	6	21 9	PP
BANDEIRA	130.76	292.6	19	15A	1	21 29	PP
KIMBERLEY	132.03	269.4	19	20	4		
WINDHOEK	133.56	281.9	18	48	-31		
BYRD STATION	134.73	165.8	19	21	0	31 45	
SOUTH POLE	135.00	180.0	19	13	-9		
LA PAZ	138.97	57.2	19	32	3	22 25	PP
HERMANUS	139.11	266.5				22 16	PP
ANTOFAGASTA	142.88	67.4	19	35	-1		
SANTA LUCIA	148.87	81.1	19	51	5	23 23	PP

MAY 8 16.H 25.M 13.S EPICENTRE 43.60 144.68 DEPTH= 118.KM

λ=-0.59276 B= 0.41994 C= 0.68723 D= 0.5781 E= 0.8160
G=-0.5608 H= 0.3973 K=-0.7264 HT= -3.0

DEPTH OF FOCUS= 0.013R

SE= 1.52

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	2.80	53.4	0	47	2	1	21	3				
Y.-SAKHLINSK	3.69	338.6	0	57A	1	1	40	1				
MIZUSAWA	5.21	212.1	1	17	0	2	13	-3				
UGLEGORSK	5.77	342.6	1	21	-3						2	34
TUKUBASAN	8.17	207.0	1	54K	-3	3	22	-6			3	57
MATUSIRO	8.62	217.3	2	2K	-1	3	36	-3				
VLADIVOSTOK	9.33	271.4	2	13A	0							
PETROPAVLOVK	13.21	39.6	3	4	0							
CHANGCHUN	14.02	277.6	3	14K	0	6	11	24				
YAKUTSK	20.45	339.6	4	35	5	8	8	1				
PEKING	21.50	270.3	4	40	0							
ZO-SE	22.38	244.0	4	50	1	8	59	17				
NANKING	23.38	249.2	5	0	1							
PAOTOW	25.78	275.3	5	22	1							
ULAN-BATOR	26.53	292.7	5	27K	-1							
LANCHOW	32.01	270.5	6	18	1							
CANTON	32.93	241.8	6	27	2							
ESEN BULAK	33.94	292.0	6	35	1							
CHENGTU	34.57	261.8	6	39	0							
KUNMING	38.74	255.5	7	15	1							
COLLEGE	42.26	35.9	7	44	1				8	14		
SHILLONG	46.25	265.0	8	15A	0							
AMDERMA	47.54	332.1	8	26	1							
CHATRA	48.92	269.7	8	37A	1							
MOULD BAY	49.53	18.3	8	39	-1							
FRUNSE	49.63	294.8	8	42K	1							
SVERDLOVSK	52.02	316.1	8	59A	0							
DEHRA DUN	53.54	279.2	9	10	0							
TASHKENT	53.85	295.5	9	13	0							
NEW DELHI	55.13	278.0	9	21K	-1							
LAHORE	55.50	282.7	9	26	1							
RESOLUTE	55.62	16.1	9	24	-2							
MARSAK DAM	56.11	286.7	9	27	-2							
APATITY	57.77	335.0	9	39	-2							
SODANKYLA	59.90	336.7	9	54	-2							
TROMSOE	60.32	340.9	9	57	-1							
KIRUNA	61.27	339.0	10	4	-1							
QUETTA	61.49	285.6	10	6	0							
PENTICTON	61.80	47.6	10	8A	0							
CHARTERS TS.	63.39	178.3	10	19	0							
UMEA	64.30	336.0	10	24	-1							
NURMIJARVI	65.33	331.9	10	30A	-1						11	0 PCP
HELSINKI	65.47	331.5	10	32	0						11	2 PCP
UPPSALA	68.14	334.3	10	47	-2							
TIFLIS	68.76	307.7	10	54	1							
EUREKA	69.89	54.4	11	1	1							
WOODY	70.56	59.1	11	3	-1				11	33		
GOTEBORG	71.63	335.4	11	9	-1							
KARLSKRONA	71.74	332.8	11	9	-2							
COLLMBERG	76.61	331.2	11	43	4				12	9		
PRUHONICE	77.14	329.6	11	43	1				12	12		
JENA	77.41	331.7	11	43	0						14	41 PP
MUNSTER	77.82	334.5	11	46	0							
STUTTGART	80.03	331.9	11	58	0							
TRIESTE	81.03	327.6	12	3	0							

WICHITA MTS.	83.08	47.8	12 14	0			12 44		
GARCHY	83.36	334.8	12 15	0					

MAY 8 23.H 53.M 57.S EPICENTRE 35.19 24.17 DEPTH= 85.KM

A= 0.74728 B= 0.33543 C= 0.57364 D= 0.4095 E=-0.9123
G= 0.5233 H= 0.2349 K=-0.8191 HT= 0.1

DEPTH OF FOCUS= 0.008R

SE= 2.96

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ATHENS	2.80	352.6			1 9	-7		0 41 PG
ISTANBUL UN.	6.97	31.6	1 39	-2	3 7	8		
ISTANBUL KA.	7.03	31.8	1 40	-2				
SKOPJE	7.10	343.3	1 39	-4	3 10	7		3 37
REGGIO CALA.	7.44	295.5						2 56
SOFIA	7.53	355.2	1 49	0	3 25	12		1 57 PP
MESSINA	7.55	296.0	2 10	21	3 35	21		2 29 P*
TARANTO	7.60	316.0						2 51
TITOGRAD	8.19	333.5	2 6	8	3 59	30		2 35 PG
BELGRADE	10.04	344.6	2 42A	19	4 15	1		3 11 PG
ROME	11.34	309.7			4 52	6		3 22
ZAGREB	12.31	332.1	2 55	2				
KISHINEV	12.33	15.1	2 53	0	5 21	12		
SIMFEROPOL	12.36	34.9	2 55	1				
BUDAPEST	12.87	344.1	3 23	22				5 32 SS
LJUBLJANA	13.08	328.9	2 57	-6	5 19	-8		6 45 SGSG
TRIESTE	13.11	326.0	3 1	-3	5 23	-5		6 50 SGSG
FLORENCE X.	13.15	314.6	3 1	-3	5 18	-11		6 3
UZHGOROD	13.51	354.7	3 11	2				
PADOVA	13.86	321.2	3 13	0				8 33
BRATISLAVA	14.00	340.1	3 18	3				3 56 PPP
SKALNATE PL.	14.28	349.5	3 38	19				
NIEDZICA	14.50	349.9	3 22	0				
LWOW	14.63	359.6	3 24	1	6 20	17		
SOTCHI	14.64	50.4	3 22	-1	6 9	5		
KRAKOW	15.18	349.5	3 36	6				
MONACO	15.47	308.5	3 36	2				
RACIBORZ	15.51	345.5	3 46	11				4 6 PPP
CHUR	16.03	321.1	3 46	5				6 50
PRUHONICE	16.37	337.5	3 46	1	6 52	8		
PRAGUE	16.49	337.4	3 50	3	7 6	20		8 51
RAVENSBURG	16.61	323.6	3 46	-2				
ROSELEND	16.95	313.5	3 53	0	7 7	10		
CHEB	17.20	333.6	3 55	-1				
TUBINGEN	17.40	324.6	3 56	-2				
TIFLIS	17.40	61.8	3 59	1	7 21	14		
STUTTGART	17.47	325.5	3 56	-3				
BASLE	17.48	319.9	4 2A	3				6 8
NEUCHATEL	17.50	317.6	3 59	0				
COLLMBERG	18.01	336.8	4 4	-2	7 29	9		
STRASBOURG	18.07	322.8	4 8	2	7 26	4		5 22
GORIS	18.13	69.7	4 6	-1	7 38	15		
BESANCON	18.18	317.0	4 5	-3				
JENA	18.19	333.8	4 5	-3	7 32	8		4 16 PP
HALLE	18.53	335.4	4 10	-2				4 31 PP
GARCHY	19.87	313.9	4 25	-1				
BENSBERG	19.99	327.3	4 27K	-1				4 41 PP
BAGNERES	20.19	300.2	4 27	-3				
DOURBES	20.63	322.2	4 33	-1	8 20	5		
PARIS	21.00	317.0	4 37	-1	8 13	-9		8 39 SS
WITTEVEEN	21.56	330.2	4 45	2				
ALMERIA	21.59	282.2	4 43K	-1			5 1	5 6 PP
KARLSKRONA	21.78	347.0	4 44	-2	8 39	3		
COPENHAGEN	22.02	342.1	4 47	-1	8 47	7		
TEHERAN	22.15	80.6	4 52	3	9 4	21		
GRANADA	22.48	283.2	4 52K	0	8 47	-1		5 41 PP
MOSCOW	22.53	20.1	4 52	-1	8 53	4		
FOLINIERE	22.68	314.3	4 53	-1				
TOLEDO	22.82	290.2	4 56K	0	9 1	6		5 15 PP
MALAGA	23.15	282.2	4 59K	0	9 10	10		5 26 PP
GOTEBORG	23.96	343.8	5 8	1				
KEW	23.96	320.3	5 8	1	9 24	10		5 53 PP
PULKOVO	24.92	7.4	5 15	-1	9 39	8		

HELSINKI	25.00	0.9	5	16	-1						
UPPSALA	25.04	352.2	5	16	-1	9	33	0	5	41	
NURMIJARVI	25.34	0.6	5	18	-2	9	50	13			
COIMBRA	26.19	290.8	5	29K	1						
DURHAM	26.49	325.6	5	46	15	10	7	11			6 23 PP
BERGEN	28.02	340.0	5	48	3						
UMEA	28.76	356.4	5	49	-2						
KAJAANI	29.00	3.2	5	55	2	10	37	0			6 47
SODANKYLA	32.26	1.8	6	20	-2						
KIRUNA	32.76	357.4	6	24A	-2						
APATITY	32.84	6.5	6	25A	-2						
QUETTA	36.14	85.6	6	57	2						
LWIRO	37.49	172.4	7	6	-1						
NEW DELHI	45.07	83.0	8	9K	0						
DEHRA DUN	45.11	80.3	8	9	0						
CHATRA	53.85	80.4	9	16	0						
SHILLONG	58.20	79.5	9	45A	-2						
RESOLUTE	63.44	344.9	10	22	-1						
MOULD BAY	66.47	351.1	10	42	0						
SHAWINIGAN	69.71	313.1	11	14	12						
BREBEUF	70.75	312.4	11	24K	16						
COLLEGE	80.08	356.5	12	2	1						
BANFF	87.00	335.9	12	39	2						
PENTICTON	89.93	337.3	12	53	3						
WICHITA MTS.	92.29	316.1	13	4	3						18 37

MAY 9 11.H 19.M 3.S EPICENTRE 46.35 152.96 DEPTH= 40.KM

A=-0.61690 B= 0.31494 C= 0.72128 D= 0.4547 E= 0.8907
G=-0.6424 H= 0.3280 K=-0.6926 HT= -4.1

DEPTH OF FOCUS= 0.001R

SE= 1.87

	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	3.73	254.3	0	56A	-1	1	41	1				
Y.-SAKHLINSK	7.07	279.1	1	46	2							
PETROPAVLOVK	7.62	26.9	1	49	-3	3	13	-5				
UGLEGORSK	7.83	294.3	1	59	5							
MAGADAN	13.28	355.2	3	9	0							
MATUSIRO	14.76	233.6	3	22K	-6	6	5	-6				
VLADIVOSTOK	15.30	265.4	3	31	-4	6	25	1			6	45
CHANGCHUN	19.64	272.7	4	26	-2	7	57	-5				
YAKUTSK	20.58	328.0	4	37K	-1	8	28	7			5	15 PPP
PEKING	27.37	270.0	5	44	0	10	22	3				
TIKSI	27.80	343.9	5	46	-2							
ZO-SE	28.86	249.4	5	56	-1							
ULAN-BATOR	31.01	290.0	6	23	7							
SIAN	35.26	265.9	6	53	0							
COLLEGE	36.53	38.1	7	5	1							
LANCHOW	37.82	272.2	7	14	-1							
ESEN BULAK	38.39	291.3	7	15	-4							
CHENGTU	40.71	265.0	7	38	-1							
MOULD BAY	45.02	19.8	8	14	0							
KUNMING	45.07	259.7	8	14	0	14	55	5				
KHEYS	45.43	346.7	8	14	-3						10	47 PPP
SEMIPALATNSK	46.69	302.9	8	24	-3							
AMDERMA	47.87	332.0	8	36	0							
NHTRANG	50.13	241.7	8	52	-2							
ALERT	50.17	5.7	9	53	59							
LHASA	50.30	273.4	8	55	0							
RESOLUTE	51.25	18.4	9	2A	0						13	45
ALMATA-2	51.79	295.8	9	6	0							
SHILLONG	52.26	268.7	9	8A	-2							
ALBERNI	52.67	54.7	9	12	-1							
VICTORIA	53.85	54.9	9	20	-1							
SVERDLOVSK	54.05	317.3	9	22K	-1							
PENTICTON	55.54	52.4	9	32A	-2							
BANFF	56.71	48.8	10	40	58							
APATITY	57.67	336.7	9	47	-2							
TASHKENT	57.87	297.9	9	49	-1							
DEHRA DUN	58.78	282.5	9	56	-1							
MINERAL	59.52	62.1	10	1	-1						22	15
TROMSOE	59.53	343.0	10	0	-2							
SODANKYLA	59.58	338.8	10	1K	-1						10	42 PCP

NEW DELHI	60.45	281.5	10	7A	-1						
LAHORE	60.52	285.9	10	9	0						
KIRUNA	60.68	341.3	10	8	-2						
WARSAK DAM	60.83	289.8	10	11A	0						
RENO	61.11	61.9	10	25	12						
LICK	61.32	64.9								22	4
BUTTE	61.34	52.3	10	12	-2						
KAJAANI	61.82	336.0	10	16K	-1						
PRIEST	62.69	65.4	10	23A	0						
EUREKA	63.47	59.9	10	27	-1						
UMEA	64.02	338.7	10	30A	-2						
WOODY	64.09	64.7	10	30	-3						
NURMIJARVI	65.52	334.7	10	40K	-2						
HELSINKI	65.70	334.4	10	43K	0						
QUETTA	66.26	289.3	10	47	1					11	7 *SP
FLAMING GRGE	66.37	55.1	10	46	-1						
BOULDER CITY	66.41	62.2	10	49	2						
ASHKARAD	66.56	300.8	10	49	1						
UPPSALA	68.04	337.5	10	57A	-1						
GOTEBORG	71.36	339.1	11	17	-1						
TUCSON	71.37	62.7	11	18	0						
TUCSON TELE.	71.37	62.6	11	19	1						
TIFLIS	71.54	311.4	11	20	1						
KARLSKRONA	71.78	336.5	11	19A	-1						
TEHERAN	72.15	303.1	11	24	1						
COPENHAGEN	73.04	337.9	11	28	0						
SIMFEROPOL	74.30	319.7	11	36	1						
LWOW	74.48	328.5	11	36A	0						
MANHATTEN	74.58	49.0	11	35	-2						
SHIRAZ	75.77	298.0	11	44A	0						
COLLMBERG	76.79	335.5	11	49	0					12	47
WICHITA MTS.	76.80	53.4	11	49	-1	21	39	6		12	12
HALLE	76.91	336.2	11	53	3						
WITTEVEEN	77.08	339.8	11	53	2						
PRUHONICE	77.50	334.0	11	54	1						
JENA	77.52	336.1	11	54	0					12	16
BENSBERG	78.67	338.7	12	0	0						
C. GIRARDEAU	79.61	46.0	12	3	-2						
KEW	79.87	343.4	12	9	3						
DOURBES	80.09	339.9	12	10	2						
STUTTGART	80.12	336.6	12	7	-1						
STRASBOURG	80.70	337.4	12	12	1						
LJUBLJANA	80.99	332.1	11	57	-15						
FOLINIERE	82.47	342.6	12	20	0						
GARCHY	83.09	339.9	12	23	0					17	7 PP
ROSELEND	83.66	337.0	12	28	2						
ATHENS	84.51	322.0								15	29
KARAPIRO	86.32	162.3								15	49
CHATEAU	87.54	162.6								15	59
BYRD STATION	134.83	165.8								21	30

MAY 9 12.H 12.M 31.S EPICENTRE 37.12 68.25 DEPTH= 38.KM

A= 0.29622 B= 0.74239 C= 0.60092 D= 0.9288 E=-0.3706
G= 0.2227 H= 0.5581 K=-0.7993 HT= -0.6

DEPTH OF FOCUS= 0.001R

SE= 3.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KULYAB	1.42	56.5									0	24 PG
DUZHANBE	1.50	15.8	0	29	4	0	56	12				
KHOROG	2.64	81.2	0	40	-1						0	59
SAMARKAND	2.73	339.0	0	47A	4							
DZERGETAL	3.15	47.4	0	49	0							
WARSAK DAM	4.12	138.2	0	56A	-6							
FERGANA	4.27	39.2	1	6	2	2	1	7				
TASHKENT	4.27	10.5	1	5A	0	1	59	5			2	39
NAMANGAN	4.68	33.6	1	13	3	2	13	9			2	38
ANDIJAN	4.84	40.3	1	13	0	2	11	3			1	50
TCHIMKENT	5.28	11.0	1	21	2	2	28	9			2	54
QUETTA	7.01	189.3	1	38	-5	2	43	-19			2	4 *SP
NARYN	7.39	52.0	1	53	5	3	19	7				
LAHORE	7.49	136.1	1	42	-8							
FRUNSE	7.51	38.7	1	49A	-1	3	17	2				

ASHKABAD	7.91	279.0	1	56	0					
VANNOVSKAYA	8.11	278.9	1	54	-4					
ALMATA	9.05	44.6	2	11	0	3	57	4	4 49	
ALMATA-2	9.29	45.8	2	11	-4	3	57	-2	4 58	
PRZHEVALSK	9.47	52.5	2	14	-3				5 9	
CHILIK	10.08	47.2	2	22	-4				3 16	
DEHRA DUN	10.61	126.9	2	24	-9	5	34	63	5 56	SS
NEW DELHI	11.36	136.0	2	32A	-11	4	32	-18	5 24	
TEHERAN	13.65	269.3	3	14	1	6	11	26	8 37	PCP
SHIRAZ	15.09	245.0	3	30	-2				4 36	PP
SEMIPALATNSK	15.82	29.2	3	38	-4					
MAKHACH-KALA	16.91	296.6	3	51	-5				10 7	
GORIS	17.36	284.6	4	0	-1					
KIROVOBAD	17.42	288.4	4	0	-2	7	19	6		
GROZNY	18.24	296.8	4	13	1				7 49	
BOMBAY	18.59	166.3	4	7	-9				10 22	
TIFLIS	18.67	291.5	4	18	1				8 45	PCP
EREVAN	18.79	286.6	4	19	0					
CHATRA	19.02	117.2	4	13A	-9	7	49	0	4 30	PP
POONA	19.16	163.6	4	18	-5					
BOKARO	20.06	126.4	4	30	-3				10 55	
SVERDLOVSK	20.37	347.9	4	36	0					
HYDERABAD	21.58	152.6				8	49	9	11 34	
SOTCHI	22.61	295.5	5	0	1				5 32	PP
ESEN BULAK	22.75	57.2	4	57	-3	9	17	15		
SHILLONG	23.16	113.1	4	58A	-6	9	20	11		
VISHAKHAPTNM	23.44	141.5	5	6K	-1				12 28	
CHITTAGONG	25.11	119.3	5	19	-4	9	34	-9	6 1	PP
MADRAS	26.29	152.9	5	58	24				13 46	
KSARA	26.50	272.6	5	13	-23	9	32	-33	12 31	PCS
SIMFEROPOL	26.75	297.7	5	39	1				6 17	PP
MOSCOW	27.79	321.8	5	49	1				12 5	SS
ULAN-BATOR	30.17	56.7	6	8	-1					
KISHINEV	30.60	301.4	6	13	0				12 53	SCP
PULKOVO	33.14	325.3							13 59	SS
LWOW	34.02	306.2	6	43	0				14 11	SS
UZHGOROD	35.08	303.9	6	52	0					
HELSINKI	35.77	324.1	6	58	0					
NURMIJARVI	36.03	324.6	7	0	0					
APATITY	36.21	338.2	6	56	-5					
KAJAANI	36.22	331.1	7	1	0					
SODANKYLA	38.25	335.5	7	19	1				9 31	PCP
UPPSALA	39.22	321.9	7	27A	1				9 16	PP
KARLSKRONA	39.71	315.9	7	31A	0					
PRUHONICE	40.14	306.2	7	45	11				9 27	
PRAGUE	40.22	306.3	7	34	-1				25 32	
LJUBLJANA	40.49	300.1	7	39	2					
KIRUNA	40.56	334.4	7	37	-1				19 5	
COLLMBERG	41.08	308.3	7	43	1				11 20	
HALLE	41.73	308.6	7	52	5					
GOTEBORG	41.82	318.0	7	48	0				9 37	PP
JENA	41.99	307.8	7	51	2	8	19		9 23	PP
STUTTGART	43.68	304.8	8	5	2					
KHEYS	43.79	357.6	8	5	1					
NHATRANG	44.24	113.3	8	1	-7					
BENSBERG	44.77	308.2	8	13	1					
YAKUTSK	44.77	36.0	7	59	-13					
ROSELEND	45.98	301.0	8	22	0					
TIKSI	46.03	22.6	8	19A	-3				15 19	PS
VLADIVOSTOK	48.01	62.0	8	35	-2				11 19	PPP
GARCHY	48.04	303.8	8	39	1					
FOLINIERE	50.02	306.4	8	53	0					
BANGUI	55.82	246.7	9	33	-3	10	1			
MOULD BAY	66.82	2.0	10	49	-1					
RESOLUTE	67.92	355.2	11	0	3					
BULAWAYO	68.12	220.2	10	55	-3					
COLLEGE	74.49	15.1	11	33	-4				13 37	
CHARTERS TS.	92.82	113.0	13	7	-3					
PENTICTON	93.65	5.1	13	14	0					
WICHITA MTS.	107.48	348.7							29 36	PKKP
PASADENA	108.84	5.6	15	20	777					
BYRD STATION	136.87	178.0	19	19	0					

MAY 10 0.H 3.M 40.S EPICENTRE 62.01-150.11 DEPTH= 72.KM

A=-0.40900 B=-0.23510 C= 0.88173 D=-0.4984 E= 0.8670
G=-0.7644 H=-0.4394 K=-0.4718 HT= -9.6

DEPTH OF FOCUS= 0.006R

SE= 1.81

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
COLLEGE	3.05	18.7	0 49	1					
SITKA	9.00	116.9	2 6	-4					
MOULD BAY	17.61	23.9	4 1	-1					
ALBERNI	18.98	120.6	4 18	-1					
VICTORIA	20.14	119.9	4 31A	0					
PENTICTON	21.13	112.9	4 40K	-1					
SEATTLE	21.29	119.7	4 47	4	9 2	32			
BANFF	21.62	104.2	4 45A	-1					
RESOLUTE	22.84	34.2	4 59K	1					
HUNGRY HORSE	24.33	107.5	5 13	1	9 33	9			
BUTTE	26.74	109.3	5 34	-1					
BOZEMAN	27.69	108.0	5 43	-1					
MINERAL	27.69	128.3	5 44K	0				8 59	
MAGADAN	28.09	291.9	5 47	0					
ALERT	28.77	15.9	5 53K	0					
CALISTOGA	28.85	131.4	5 54K	0					
RENO	29.07	126.6	5 56K	0					
THULE	29.23	28.6	5 56	-2				7 42	
BERKELEY	29.65	131.6	6 2K	1	10 56	6		6 23	PP
LICK	30.34	131.2	6 8K	1			6 29	9 6	PCP
EUREKA	30.62	121.5	6 10	0					
TIKSI	30.73	322.2	6 10	-1	11 8	1			
SALT LAKE C.	31.25	115.0	6 17	2					
PRIEST	31.76	130.9	6 21K	1					
FLAMING GRGE	32.18	111.9	6 24	0				9 10	PCP
RAPID CITY	32.49	101.5	6 27	1					
BOULDER CITY	34.10	123.3	6 41	1					
PASADENA	34.44	129.1	6 43	0	12 9	4	7 0	7 24	*SP
GLEN CANYON	34.55	118.4	6 44	0					
YAKUTSK	35.36	306.6	6 52K	1					
KHEYS	36.72	352.6	7 2K	0					
ALBUQUERQUE	38.44	114.2	7 17	0			7 31		
TUCSON TELE.	38.92	121.2	7 22	1				9 32	PCP
TUCSON	38.95	121.4	7 22	1				9 32	PCP
MANHATTEN	39.38	100.0	7 24	-1	13 22	2			
DUBUQUE	39.55	91.3	7 21	-5	13 18	-5			
Y.-SAKHLINSK	39.80	279.9	7 29	1					
KIPAPA	40.93	191.3	7 37	0					
WICHITA MTS.	42.12	106.0	7 47A	0	14 4	3	8 2	10 0	PP
FLORISSANT	42.61	94.5	7 50K	-1					
HAWAII V.OB.	42.70	187.2	7 52	0					
ST. LOUIS 1	42.80	94.5	7 52K	-1					
SCORESBY SD.	42.91	22.8	7 55	1	14 18	1		17 42	SS
BLOOMINGTON	44.12	90.6	8 2K	-1	14 19	-11			
C. GIRARDEAU	44.19	95.0	8 3	-1					
CLEVELAND	44.66	84.3	8 8K	0					
SHAWINIGAN	44.81	72.8	8 8K	-1					
LITTLE ROCK	44.94	99.7	8 8	-2					
BREBEUF	45.22	74.4	8 11	-1			8 34	9 56	PP
AMDERMA	46.59	345.4	8 24K	1	15 5	-1			
MORGANTOWN	46.86	84.6	8 24K	-1					
PENNSYLVANIA	46.91	81.9	8 23K	-2					
REYKJAVIK	48.37	27.5	8 37A	0				10 2	
TROMSOE	48.41	5.1	8 36	-1					
KEVO	48.50	1.3	8 37K	-1				10 3	PCP
PALISADES	48.58	78.5	8 38	-1	15 36	2			
FORDHAM	48.72	78.6	8 38	-2	15 38	2			
WASHINGTON	48.79	82.8	8 40	0				11 52	
GEORGETOWN	48.79	82.8	8 39	-1					
SIDA	49.49	25.7	8 46	1				9 17	
CHANGCHUN	50.16	290.2	8 50K	-1	15 58	3	9 6		
CHAPEL HILL	50.26	86.8	8 50	-1					
KIRUNA	50.27	4.7	8 50K	-1	15 58	1	9 4	10 9	PCP
HALIFAX	50.38	67.7	8 52K	0					
APATITY	50.71	358.2	8 54K	-1	16 4	1			
SODANKYLA	50.89	1.6	8 55K	-1	16 5	-1		10 12	PCP
COLUMBIA	50.90	89.9	8 57	1					
IRKUTSK	51.85	311.2	9 3	0	16 20	1			
ABUYAMA	52.65	275.2	9 9K	0					

KAJAANI	54.21	1.2	9	20K	-1	16	50	-1			39 37 PKPPKP
UMEA	54.27	5.3	9	19K	-2	16	50	-2	9	34	10 23 PCP
ULAN-BATOR	54.47	306.4	9	23K	0	16	59	5			
PEKING	57.22	294.3	9	42K	-1	17	33	2	9	58	19 23 SCS
NURMIJARVI	57.74	3.1	9	44K	-2	17	36	-2			39 19 PKPPKP
HELSINKI	58.09	2.9	9	48	-1						39 36 PKPPKP
UPPSALA	58.10	7.3	9	48K	-1	17	36	-6	10	1	10 38 PCP
PULKOVO	58.55	359.7	9	51A	-1	17	51	3			
SVERDLOVSK	59.09	340.9	9	55A	-1	17	59	4			
ESEN BULAK	59.63	312.7	9	59K	0	18	9	7			
GOTEBORG	59.81	11.0	9	59K	-2						
DURHAM	60.96	20.2	10	15K	7				10	29	
SEMIPALATNSK	60.99	325.7	10	6	-3	18	18	-2			
KARLSKRONA	61.64	9.0	10	9K	-4						
MOSCOW	62.44	355.1	10	18K	0	18	42	4			
NANKING	62.74	287.3	10	20K	0				10	36	
WITTEVEEN	64.05	15.4	10	30	1						
KEW	64.34	20.4	10	29	-2	19	4	2			
MUNSTER	65.00	15.0	10	35	0						
SIAN	65.19	296.4	10	36K	0	19	15	3	10	52	
LANCHOW	65.74	301.3	10	39	-1	19	21	2			
WARSAW	65.89	6.0	10	41	0	19	25	4	10	55	
BENSBERG	65.93	15.5	10	40K	-1				10	54	13 21 PP
HALLE	65.94	12.2	10	41	0	19	25	4			
COLLMBERG	66.24	11.5	10	42K	-1						13 12 PP
DOURBES	66.43	17.5	10	43	-1	19	33	6			
JENA	66.47	12.5	10	44	0	19	29	1			13 13 PP
FOLINIERE	66.93	21.3	10	17	-30						
PARIS	67.37	19.2	10	52	2				11	5	11 15 *SP
CHEB	67.39	12.1	10	50	0				11	4	
PRAGUE	67.59	10.7	10	54	3						11 36
PRUHONICE	67.69	10.6	10	52	0	19	46	4			
RACIBORZ	67.87	8.1	10	53	0						11 25 PCP
KRAKOW	68.01	6.9	10	54	0	19	49	3			20 46 SCS
ALMATA-2	68.33	324.6	10	56K	0						
STUTTGART	68.34	14.5	10	55	-1						
STRASBOURG	68.35	15.6	10	56	0						
LWOW	68.42	4.1	10	56	-1	19	54	3			
TUBINGEN	68.55	14.7	10	58	1						
SKALNATE PL.	68.89	6.8	11	1	2						
GARCHY	68.95	19.2	11	0	0				11	13	13 38 PP
RAVENSBURG	69.36	14.5	11	3	1						
BESANCON	69.41	17.2	11	2	-1						
FRUNSE	69.47	326.4	11	4K	1	20	7	4			
VIENNA-H.	69.56	9.6	11	4	0						
ANGRA DO HO.	69.64	44.5	11	13A	9				11	30	
BRATISLAVA	69.69	9.1	11	5A	1						11 36 PCP
CHENGTU	70.36	298.4	11	8K	0	20	14	0	11	24	
CLERMONT-FD.	70.43	19.5	11	9	0						
BUDAPEST	70.51	7.8	11	11	2						20 22
ROSELEND	71.03	17.0	11	14	2						
SAN JUAN	71.14	86.4	11	12	-1				11	27	
TRIESTE	71.91	11.8	11	17	-1	20	37	5			
PADOVA	71.95	13.3									12 50
TASHKENT	72.22	329.9	11	19K	-1						
BAGNERES	72.56	22.4	11	27	5						
ISOLA	72.57	17.0	11	23	1						
SERRA PILAR	72.61	29.5	11	22A	0						11 37 PCP
CANTON	72.89	286.8				20	46	3			
MONACO	73.06	16.8	11	24	-1						
BELGRADE	73.25	7.0	11	26A	0	20	52	5			11 41 PCP
SIMFEROPOL	73.34	356.9	11	27	1	20	52	4			
FLORENCE X.	73.49	14.0	11	38	11	21	7	17			
COIMBRA	73.54	29.7	11	28A	1				11	43	
ST. KITTS	73.63	83.9	11	25	-3						
ANTIGUA	74.22	83.3	11	30	-1						
LISBON	74.77	30.7	11	34	0				11	59	
TOLEDO	74.81	26.4	11	38K	3	21	12	8	11	51	12 2 *SP
KHOROG	75.30	326.9	11	38	1	21	11	1			
ROME	75.49	13.3	11	39K	0	21	10	-2			22 30
KUNMING	75.75	296.7				21	16	1			
TIFLIS	75.92	348.5	11	41K	0	21	19	3			
ISTANBUL UN.	77.30	0.7	11	48K	-1	21	37	6			
GRANADA	77.51	26.8	11	51K	1	21	42	8			12 0 PCP
ASHKABAD	77.76	337.3	11	52	1						
MALAGA	77.78	27.6	11	59K	2	21	44	7			14 48 PP
ST. VINCENT	77.94	84.8	11	51	-1						
GORIS	77.97	347.1	11	53K	1	21	42	3			

ALMERIA	78.06	26.0	11 55A	2			12 10		14 35	PP	
CHINCHINA	78.37	101.4	11 53	-2							
WARSAK DAM	78.58	325.7	11 54	-2							
FUQUENE	78.81	99.5	11 56	-1							
BOGOTA	79.40	100.2	12 2A	2	21 55	1					
MESSINA	79.47	11.4	12 0	0							
SHILLONG	79.73	305.9	12 1A	-1							
TRINIDAD	80.08	86.1	12 2	-2							
DEHRA DUN	80.17	319.2	12 4	0							
ATHENS	80.24	4.9	12 5A	0	22 4	1					
CHATRA	80.33	310.3	12 6A	1					22 14		
TEHERAN	81.05	342.4	12 10	1	22 16	5					
CHITTAGONG	82.65	304.6	12 16	-1							
QUETTA	83.39	328.3	12 22	1					22 47	SCS	
KSARA	84.38	355.0	12 27	1					15 45	PP	
PORT MORESBY	85.98	241.6	12 34K	0							
SHIRAZ	86.85	340.4	12 39K	1	22 57	-12	12 55		15 55	PP	
PORT BLAIR	91.94	299.3	13 5	3							
POONA	92.50	318.8	13 5	0							
LA PAZ	100.70	104.8	13 41	-1					17 54	PP	
BANGUI	113.23	12.2	18 30	0					29 16		
MUNDARING	119.36	256.7	18 42A	0							
LWIRO	120.38	1.3	18 46A	2							
BANDEIRA	131.48	21.6	19 6A	1					22 26	SKP	
BROKEN HILL	132.49	1.9	19 0	-7					22 32	PKS	
BULAWAYO	138.15	1.8	20 7	50							
SCOTT BASE	142.07	193.6	19 20	-4							
BYRD STATION	142.88	171.5	19 22	-4							
WILKES	146.90	226.8	19 34K	1							
GRAHAMSTOWN	151.21	5.8	19 11	-28							
MIRNY	153.31	232.6	19 50	8							

MAY 10 0.H 27.M 16.S EPICENTRE -41.81 171.68 DEPTH= 33.KM

A=-0.73975 B= 0.10816 C=-0.66413 D= 0.1447 E= 0.9895
G= 0.6571 H=-0.0961 K=-0.7476 HT= -2.4

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
KAIMATA	0.74	195.2	0	15	0								
COBB RIVER	1.07	47.7	0	19	0								
GEBBIES PASS	2.02	159.7	0	33	0						0	44	PG
WELLINGTON	2.38	78.2	0	39	1	1	11	5			1	31	SG
TARATA	3.33	39.1	0	51	0	1	26	-4			1	45	SG
CHATEAU	3.93	49.7	0	59	-1						2	14	SG
ROXBURGH	4.05	204.2	1	0	-2						2	19	SG
KARAPIRO	4.88	38.7	1	11	-2								
TUAI	5.15	56.1	1	21	4						1	41	PG
ONERAHI	6.38	20.1	1	32	-3	2	42	-5					
FORT NELSON	18.00	258.3	4	11K	1	7	31	4					
RIVERVIEW	18.04	289.5	4	12K	2						7	44	SS
CANBERRA	18.86	282.7	4	19A	-1				4	28	8	11	
NOUMEA	19.94	345.7	4	36K	4								
MELBOURNE	20.87	272.1	4	42A	0	8	37	9	4	57	5	26	PP
BRISBANE	21.12	306.9	4	45	0	8	35	2					
KOUMAC	22.09	341.3	4	54K	0								
PORT VILA	24.17	352.2	5	16A	1								
ADELAIDE	26.61	274.0	5	38A	0								
DUMONT	30.39	204.4	6	11	-1						17	14	
CHARTERS TS.	30.52	307.4	6	13	0								
CAPE HALLETT	30.59	180.9	6	14	1	11	29	17					
AFIAMALU	31.29	32.2	6	19	-1								
SCOTT BASE	36.21	181.8	7	3	1								
PORT MORESBY	38.84	319.2	7	24A	0				7	35			
WILKES	41.13	212.5	7	41A	-2	13	52	-2			12	59	PCS
MUNDARING	44.76	264.0	8	11A	-2								
BYRD STATION	45.48	166.8	8	20	2						15	12	
DARWIN	46.05	297.4	8	24	1								
MIRNY	48.14	211.8	8	40	1	15	35	0					
SOUTH POLE	48.38	180.0	8	42	1								
ARGENTINE I.	64.77	157.3	10	38	0								
LEMBANG	66.22	282.6	10	47A	0	19	37	5					
MANILA	73.02	308.6	11	28	-1	20	24	-28					
MEDAN	79.81	284.1	12	7	0								

TUKUBASAN	82.86	334.7	12	22A	-1						28	2	SS
MATUSIRO	83.77	333.5	12	16	-12	22	37	-10					
CANTON	84.13	308.0	12	30A	1								
SANTA LUCIA	85.76	132.1	12	37	-1								
ZO-SE	86.18	318.4	12	39	-1	23	4	-6					
NANKING	88.16	317.3	12	49	0								
KUNMING	92.11	302.2	13	9	1	23	41	-24					
SHILLONG	99.53	295.7	13	41A	0								
LA PAZ	99.97	122.7	13	44	1						17	49	PP
EUREKA	104.19	49.5	14	21	19								
ALBUQUERQUE	106.96	58.2	18	46	777								
COLLEGE	110.96	17.3	18	34	4								
WICHITA MTS.	111.94	62.6	18	32	0						28	54	PS
WARSAK DAM	118.61	291.3	18	44	-1								
QUETTA	119.79	285.2	18	49	2								
TRINIDAD	124.29	108.0	18	57	1								
MOULD BAY	125.49	15.9	18	55	-3								
SAN JUAN	125.91	97.2	18	59	0								
SHIRAZ	130.09	276.5	19	7K	0						21	16	PP
RESOLUTE	130.70	20.5	19	5	-3						22	25	
BANGUI	135.64	220.2	19	18	0						19	27	
KSARA	144.50	271.8	19	32	-1						22	49	PP
APATITY	145.83	332.9	19	35A	-1								
KEVO	146.60	338.6	19	38	1								
SODANKYLA	148.16	335.2	19	39	-1						23	17	SKP
TROMSOE	148.74	342.0	19	43	2								
KAJAANI	149.57	329.3	19	40	-2								
KIRUNA	149.68	338.8	19	40	-2								
SCORESBY SD.	150.43	9.2	19	41	-2								
M.BOUR	151.66	162.1	20	8	23						23	32	PP
ISTANBUL UN.	152.15	281.0	19	52	6								
UMEA	152.44	332.7	19	52A	6								
NURMIJARVI	152.55	324.2	19	45	-1								
HELSINKI	152.58	323.4	19	47	1								
UPPSALA	155.87	327.3	19	59	8								
WARSAW	157.59	307.8	19	54	1						20	26	PKP2
KARLSKRONA	158.88	321.0	19	53A	-2						20	28	
GOTEBORG	159.52	327.8	20	2	7								
PRAGUE	162.20	305.4	19	58	0						32	14	
COLLMBERG	162.59	310.3	20	48K	50						25	12	
HALLE	163.09	311.9	20	51	52								
CHEB	163.44	307.0	20	52	53								
JENA	163.56	310.5	20	51	52						24	36	
TRIESTE	163.60	291.0	19	58	-1						20	52	PKP2
ROME	164.50	277.3	20	0	0	26	44	-15			25	14	PP
WITTEVEEN	165.05	322.5	21	0	59								
ANGRA DO HO.	165.21	96.1									52	16	SSS
FLORENCE X.	165.50	284.4	19	59	-2	26	46	-14			25	12	PP
STUTTGART	165.81	305.3	19	59	-3						24	49	PP
STRASBOURG	166.80	306.3	21	7	65								
ROSELEND	168.51	294.8	21	14	71								
KEW	168.89	333.2	20	1	-3								
PARIS	169.66	316.3									25	15	
GRANADA	174.11	219.8	19	58K	-8	28	1	57			25	33	PP
TOLEDO	176.23	240.7	20	7	0						25	38	PP

MAY 10 5.H 12.M 12.S EPICENTRE 52.39-171.03 DEPTH= 0.KM

A=-0.60543 B=-0.09554 C= 0.79014 D=-0.1559 E= 0.9878
G=-0.7805 H=-0.1232 K=-0.6129 HT= -6.3

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
COLLEGE	17.25	34.6	4	4	0	7	12	-3				
PETROPAVLOVK	18.32	284.1	4	18A	1	7	47	7				
SITKA	20.98	63.0	4	48	0							
MAGADAN	22.27	303.8	5	3A	3	9	12	11				
ALBERNI	28.97	77.5	6	4	0							
UGLEGORSK	29.46	282.5	6	7	-1							
Y.-SAKHLINSK	29.97	278.4	6	13A	0							
VICTORIA	30.13	78.1	6	15K	1							
MOULD BAY	30.89	21.5	6	22A	1							
PENTICTON	32.04	74.6	6	32K	1							
TIKSI	32.19	328.9	6	32A	0	11	45	0				
YAKUTSK	32.38	310.8	6	32	-2							

KIPAPA	32.51	157.0	6	48	13							
BANFF	33.64	69.5	6	43K	-2							
HAWAII V.OB.	35.12	153.5	6	56	-1					8	7	
MINERAL	35.49	89.7	7	1A	0					13	10	SCP
HUNGRY HORSE	35.78	73.1	7	4	1					12	13	PCP
CALISTOGA	35.93	92.9	7	5A	1							
BERKELEY	36.61	93.6	7	11A	1	12	56	3	7 27	8	34	PP
RESOLUTE	36.80	25.5	7	12	0							
RENO	37.08	89.4	7	15	1					13	17	SCP
LICK	37.33	93.8	7	16K	0					13	18	SCP
BUTTE	37.80	75.7	7	21	1							
MATUSIRO	38.68	266.4	7	27	0	13	9	-16				
PRIEST	38.70	94.4	7	29K	1							
BOZEMAN	38.89	75.3	7	30	1							
EUREKA	39.46	86.6	7	35	1					13	25	SCP
ALERT	40.76	11.0	7	46A	1							
SALT LAKE C.	41.19	82.0	7	49	1					13	33	SCP
ABUYAMA	41.39	266.7	7	50A	0							
PASADENA	41.55	94.6	7	51	0	14	3	-5	8 3			
CHANGCHUN	42.09	284.6	7	55A	-1							
BOULDER CITY	42.38	89.8	7	58	0					13	38	
FLAMING GRGE	42.59	80.2	8	0	0					13	38	SCP
THULE	42.62	19.9	7	59	-1					17	56	
GLEN CANYON	43.72	86.2	8	9	0							
RAPID CITY	44.40	72.5	8	16	2	14	46	-4				
KHEYS	44.47	349.8	8	16	1							
LARAMIE	44.65	77.2	8	13	-3							
TUCSON	47.34	90.6	8	38	0	15	31	-1		13	59	SCP
TUCSON TELE.	47.34	90.4	8	38	0	15	31	-1		13	58	SCP
ALBUQUERQUE	48.18	84.5	8	44	0	16	36	53		14	2	SCP
IRKUTSK	48.82	305.6	8	49A	0							
PEKING	49.81	286.2	8	56A	-1	16	1	-5	9 12			
ULAN-BATOR	50.09	299.7	8	58A	-1	16	16	6				
MANHATTEN	51.32	73.5	9	7	-1					14	49	
LUBBOCK	51.91	82.5	9	12	-1							
LAWRENCE	52.25	72.9	9	15	0							
AMDERMA	52.29	339.5	9	14A	-2							
DUBUQUE	52.56	66.6	9	12	-6	15	43	-61				
ZO-SE	52.78	274.2	9	9A	-10							
WICHITA MTS.	53.11	79.1	9	21	-1	16	49	-3	9 38	14	18	SCP
NANKING	53.57	276.9	9	24A	-1	16	54	-4	9 41	11	38	PP
ROLLA	54.92	71.7	9	33A	-2	17	5	-11				
FLORISSANT	55.19	69.9	9	35A	-2	17	14	-6				
ST. LOUIS 1	55.38	69.9	9	36	-2							
SCORESBY SD.	55.43	12.1	9	39	0							
ESEN BULAK	56.62	304.1	9	47A	0							
C. GIRARDEAU	56.69	70.6	9	45	-3							
BLOOMINGTON	57.14	67.1	9	49	-2	17	40	-5				
KEVO	57.46	352.7	9	53	0							
SIAN	57.97	285.8	9	57A	0	17	55	-1	10 14			
TROMSOE	58.08	355.9	9	57	-1							
HOUSTON	58.53	81.1	10	10	9							
APATITY	58.99	349.3	10	3K	-1	18	7	-3				
SHAWINIGAN	59.27	52.6	10	4A	-2							
BREBEUF	59.60	54.0	10	6A	-2	18	13	-5		12	9	PP
LANCHOW	59.67	290.7	10	8	-1	18	15	-4				
KIRUNA	59.80	355.0	10	9A	-1	18	17	-3		10	31	
SODANKYLA	59.83	352.2	10	9	-1					10	56	
MORGANTOWN	60.46	62.6	10	13K	-1							
PENNSYLVANIA	60.75	60.3	10	12A	-4							
REYKJAVIK	61.36	14.9	10	21	1							
SIDA	62.27	13.2	10	28	2							
WASHINGTON	62.54	61.3	10	26	-2							
GEORGETOWN	62.54	61.3	10	28	0	18	52	-3				
PALISADES	62.68	57.7	10	28A	-1	18	56	-1	10 39			
FORDHAM	62.81	57.8	10	28	-2	18	56	-3				
KAJAANI	62.96	350.9	10	29A	-2	18	55	-5		39	25	PKPPKP
SVERDLOVSK	63.19	331.1	10	32K	0							
CANTON	63.37	273.7	10	33A	-1	19	4	-2	10 50			
CHAPEL HILL	63.62	64.9	10	34	-1							
UMEA	63.80	354.5	10	35A	-1					39	28	PKPPKP
COLUMBIA	63.91	67.7	10	37	0							
BAGUIO CITY	63.98	263.2	10	38	0	19	12	-1				
MANILA	65.03	261.5	10	46	2							
HALIFAX	65.04	48.7	10	45K	0							
HONIARA	66.41	211.5				19	38	-5		27	18	
NURMIJARVI	66.75	351.6	10	54A	-2	19	43	-4		39	19	PKPPKP
PULKOVO	66.88	348.4	10	55	-1							

HELSINKI	67.06	351.4	10	57	0						39	23 PKPPKP
UPPSALA	67.90	355.3	11	2A	-1	19	55	-6			11	29 PCP
ALMATA-2	67.98	312.9	11	4A	1							
KUNMING	68.28	283.2	11	5A	0	20	5	0	11	22		
FRUNSE	69.55	314.3	11	13	0	20	19	-2				
MOSCOW	69.68	343.2	11	13	-1	20	17	-5				
GOTEBORG	70.25	358.3	11	17A	0							
PORT MORESBY	71.18	224.0	11	19	-4							
LHASA	71.63	294.7	11	27A	1							
KARLSKRONA	71.68	356.1	11	24A	-2							
COPENHAGEN	72.26	357.9	11	29A	0	21	0	8				
TASHKENT	73.08	316.8	11	33A	-1	21	0	-1				
SHILLONG	74.29	291.4	11	40A	-1	21	10	-5			22	25
WITTEVEEN	75.15	1.4	11	48	2							
WARSAW	75.27	352.4	11	47A	0	21	25	-1				
KHOROG	75.28	313.1	11	48	1							
DE BILT	75.84	2.4	11	48	-2	21	54	22				
CHATRA	75.95	295.6	11	51K	0	21	31	-2				
MUNSTER	76.01	0.9	11	52	1							
KEW	76.22	6.0	11	51	-1							
HALLE	76.46	358.1	11	54	0	21	36	-3				
COLLMBERG	76.63	357.4	11	54A	-1						14	52 PP
CHITTAGONG	76.81	289.4	11	56A	0	21	38	-5	12	9	14	57 PP
BENSBERG	77.02	1.2	11	57A	0				12	8		
JENA	77.04	358.3	11	56	-1	21	42	-3			14	54 PP
LWOW	77.37	350.1	11	58	-1	21	44	-5				
KRAKOW	77.52	352.8	11	59	0	21	48	-2			12	14 PCP
RACIBORZ	77.61	353.9	12	0	0						12	11 PCP
PRAGUE	77.82	356.4									15	14
DOURBES	77.82	2.9	12	2	1	21	53	-1				
CHEB	77.87	357.8	12	2	1						12	34
PRUHONICE	77.90	356.3	12	2	0	21	51	-4				
DEHRA DUN	78.01	304.3	12	2	0							
WARSAK DAM	78.15	311.1	12	1	-2							
LAHORE	78.86	307.7	12	8	1							
FOLINIERE	78.90	6.4	12	7	0							
BOKARO	79.07	294.8	12	10	2						22	11
STUTTGART	79.22	359.8	12	9	0	22	7	-2			27	54 SS
STRASBOURG	79.41	0.8	12	11	1	22	10	-1			33	24
VIENNA-H.	79.54	355.0	12	11	0							
NEW DELHI	79.86	303.9	12	11A	-1	22	23	8			15	14 PP
BUDAPEST	80.14	353.1	12	15	1						14	49 PP
RAVENSBURG	80.21	359.6	12	14	0							
ASHKABAD	80.30	322.5	12	14	-1							
BASLE	80.46	1.0	12	18	3							
GARCHY	80.59	4.1	12	17	1						13	22
SIMFEROPOL	80.66	342.2	12	17A	1	22	23	-1				
BESANCON	80.71	2.1	12	16	-1							
CHARTERS TS.	81.17	220.2	12	18	-1							
TIFLIS	81.27	333.7	12	20A	0							
CLERMONT-FD.	82.10	4.1	12	25	1							
TRIESTE	82.26	356.6				22	40	0				
ROSELEND	82.28	1.7	12	26	1							
PADOVA	82.55	357.9	12	35	9	22	28	-15			32	18 SSS
BELGRADE	82.67	351.8	12	28A	1						12	39 PCP
GORIS	82.90	331.8	12	27	-1							
QUETTA	83.46	312.4	12	31	0	22	53	1				
ISOLA	83.80	1.4	12	34	1	22	53	-3				
ANGRA DO HO.	84.02	27.7	12	42K	8	23	8	10				
FLORENCE X.	84.19	358.3	12	46A	11	23	8	8	13	2	16	3 PP
MONACO	84.25	1.1	12	35	0							
SAN JUAN	84.38	67.2	12	35	-1							
BAGNERES	84.62	6.5	12	41	4							
PORT BLAIR	84.64	282.0	12	36	-1	22	55	-9				
TEHERAN	84.76	326.6	12	38	0	23	2	-3				
GALERAZAMBA	85.05	78.9				23	12	4				
VISHAKHAPTNM	85.34	293.0	12	46K	6	23	6	-5				
ISTANBUL UN.	85.34	344.9	12	41	0	23	3	-8				
BRISBANE	85.51	211.8	12	45	4	22	58	-15				
ROME	86.04	357.4	12	45A	1	23	19	1	13	1	16	3 PP
TORTOSA	86.88	6.4				23	27	1				
ST. KITTS	87.12	65.2	12	50	1							
MEDAN	87.37	272.4	12	51K	1						24	7
TOLEDO	87.42	10.0	12	51A	0	23	15	-16			16	24 PP
ANTIGUA	87.78	64.6	12	52	0							
ATHENS	89.10	348.4	12	59A	0	23	22	-25				
CHINCHINA	89.40	82.7	13	0	0	23	49	0				
MESSINA	89.61	354.8	13	1	0							
POONA	89.84	300.8	13	1	-1							

SHIRAZ	89.87	323.1	13	2A	0	23	39	-15	23	28	SKS
BOMBAY	90.08	301.8	13	4	1	23	53	-2	16	43	PP
GRANADA	90.13	10.0	13	8A	4	23	57	1	17	3	PP
FUQUENE	90.16	80.9	13	8	4						
CARACAS	90.22	72.5	13	26	22				14	30	
MALAGA	90.50	10.7	13	4A	-1	23	55	-4	16	42	PP
BOGOTA	90.62	81.7	13	11	5	23	31	-29			
KARAPIRO	90.70	190.6	13	4	-2				13	57	
MADRAS	90.91	292.6	13	6	-1	23	34	-29	16	29	
KSARA	90.99	337.9	13	8	0				16	40	PP
TRINIDAD	93.29	68.0	13	18	0						
CANBERRA	94.05	211.8	13	23	1						
LWIPO	127.37	334.8	19	9A	2						
BYRD STATION	135.36	168.8	19	25	3				31	35	
BROKEN HILL	139.08	330.4	19	22	-7				23	3	PKS
SOUTH POLE	142.20	180.0	19	27	-8						
BANDEIRA	142.45	353.1							19	32	PP
BULAWAYO	144.37	327.2	19	38A	0						

MAY 11 12.H 6.M 42.5 EPICENTRE -14.28 170.25 DEPTH= 628.KM

A=-0.95550 B=.0.16425 C=-0.24503 D= 0.1694 E= 0.9855
G= 0.2415 H=-0.0415 K=-0.9695 HT= 5.9

DEPTH OF FOCUS= 0.094R

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
PORT VILA	3.90	208.1	1	27A	0	2	38	1				
KOUMAC	8.45	221.5	2	5A	0	3	53	9				
NOUMEA	8.76	203.8	2	9K	1	3	55	5				
HONIARA	11.17	294.4	2	32A	2	4	38	7				
AFIAMALU	17.44	91.0	3	28	-2							
RABAUL	20.44	297.6	3	57	-1							
BRISBANE	20.86	228.5	4	1	-1						4	28
ONERAHI	21.72	170.9	4	11	1							
CHARTERS TS.	23.62	252.5	4	28	2						10	30
KARAPIRO	24.02	169.7	4	28A	-2							
TARATA	25.08	172.4	4	42	3							
TUAI	25.18	167.2	4	37	-3	8	19	-5			5	8
RIVERVIEW	26.05	218.3	4	48K	0							
COBB RIVER	26.79	175.8	4	55	1							
WELLINGTON	27.19	172.5	4	55K	-3	8	41	-15				
KAIMATA	28.16	178.2	6	8	62						9	6
CANBERRA	28.36	218.6	5	8K	0							
GEBBIES PASS	29.40	176.4	5	14	-2							
ROXBURGH	31.11	181.3	5	29	-2							
MELBOURNE	32.45	219.1	5	43	1							
TARRALEAH	34.67	211.7	6	1A	0							
FORT NELSON	34.69	210.1	6	1	0							
ADELAIDE	35.06	228.4	6	5	1	10	55	-1			11	7 SCP
KIPAPA	47.21	41.9	7	40	0							
HAWAII V.OB.	47.69	46.3	7	43	0							
MATUSIRO	58.89	330.1	8	53K	-9							
SCOTT BASE	63.61	180.8	9	33	0							
MIRNY	71.93	204.2	10	22	-1							
BYRD STATION	72.63	170.1	10	26	-1							
SOUTH POLE	75.82	180.0	10	44	-1							
PASADENA	83.28	52.4	11	25	2							
COLLEGE	85.04	16.6	11	31	-1				13	44		
SHILLONG	85.91	297.5	11	37K	1							
BOULDER CITY	86.49	51.7	11	40	1							
EUREKA	86.88	48.1	11	42	1							
PENTICTON	88.26	38.0	11	48K	1							
TUCSON	88.41	56.3	11	50	2							
TUCSON TELE.	88.53	56.2	11	50	2							
FLAMING GRGE	92.12	48.4	12	5	0							
ALBUQUERQUE	92.68	54.8	12	8	1							
WICHITA MTS.	98.93	56.5	12	36	0						16	46 PP
BULAWAYO	129.08	228.7									20	26 PP
BROKEN HILL	132.62	234.5									20	38
STUTTGART	142.19	339.4	18	21	-2							
STRASBOURG	142.86	340.7	18	24	0							
BANDEIRA	143.11	219.1	18	24A	-1							

BASLE	143.84	340.0	18	25A	-1							
BESANCON	144.60	341.4	18	28	1							
FOLINIERE	144.76	349.4	18	29	2							
GARCHY	145.40	344.6	18	32	4							
ROSELEND	145.77	339.4	18	33	4							
BAGNERES	150.07	345.4	18	44	9							
BANGUI	150.36	253.4	18	44	9						21	5 SP

MAY 11 14.H 11.M 55.S EPICENTRE 17.26 -99.63 DEPTH= 37.KM

A=-0.15984 B=-0.94207 C= 0.29489 D=-0.9859 E= 0.1673
G=-0.0493 H=-0.2907 K=-0.9555 HT= 5.3

DEPTH OF FOCUS= 0.001R

SE= 2.70

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SAN SALVADOR	10.67	108.1	2	35	1	4	54	21				
SANTIAGO MA.	11.40	107.7	2	45	1	5	26	35				
HOUSTON	12.99	16.6	3	5	0							
WICHITA MTS.	17.41	2.9	4	0	-2	7	29	16				
TUCSON	18.04	327.9	4	11	1	7	45	18				
TUCSON TELE.	18.06	328.3	4	10	0							
LITTLE ROCK	18.62	19.1	4	15	-2							
ALBUQUERQUE	18.64	342.2	4	17	0							
BALBOA HTS.	21.20	110.4	4	42K	-3	8	44	11				
ROLLA	21.65	16.8	4	49	0							
C. GIRARDEAU	21.88	22.0	4	51	-1							
LAWRENCE	21.97	9.2	4	56	3							
MANHATTEN	22.02	6.3	4	54	1	8	54	5				
GLEN CANYON	22.29	334.1	4	56	0							
ST. LOUIS 1	22.83	19.2	5	2A	1							
FLORISSANT	22.94	18.8	5	2	0							
BOULDER CITY	23.02	327.0	5	1A	-2							
COLUMBIA	23.58	41.5	5	8A	0							
PASADENA	23.64	318.9	5	9	0	9	34	16				
TERRE HAUTE	24.47	23.4	5	0	-17	10	5	33				
LARAMIE	24.51	349.1	5	18	1	9	18	-15				
BLOOMINGTON	24.67	25.0	5	18	-1							
FLAMING GRGE	25.05	342.3	5	23K	0							
SALT LAKE C.	25.69	338.2	5	29	0	9	59	7				
CHAPEL HILL	26.06	40.5	5	32	0							
DUBUQUE	26.30	15.0	5	33	-1							
EUREKA	26.31	330.6	5	34A	0							
CHINCHINA	26.49	114.7	5	35	-1	10	3	-3				
RAPID CITY	26.91	354.3	5	46	6							
LICK	27.85	320.3	5	49A	1							
FUQUENE	27.92	111.8	5	48	-1							
BOGOTA	28.01	113.7	5	54K	4							
MORGANTOWN	28.09	33.5	5	55A	4							
RENO	28.30	325.8	5	53A	1							
BERKELEY	28.57	320.4	5	55A	0	10	50	11			12	17
CLEVELAND	28.71	29.1	5	57A	1							
WASHINGTON	29.19	37.9	6	1K	1							
GEORGETOWN	29.19	37.9	6	1	1	10	55	6				
CALISTOGA	29.26	321.3	6	0A	-1							
BOZEMAN	29.89	343.8	6	7A	0							
UKIAH	29.95	321.4	6	10K	3							
PENNSYLVANIA	30.04	34.2	6	5A	-3							
BUTTE	30.63	342.2	6	12A	-1							
PHILADELPHIA	30.99	38.2	6	17	1	11	8	-9				
SAN JUAN	31.90	82.8	6	23	-1	11	57	25				
FORDHAM	32.33	38.0	6	28	0	11	43	5				
PALISADES	32.41	37.8	6	10A	-19	11	49	9				
CARACAS	32.41	97.6	6	26	-3	11	47	7				
HUNGRY HORSE	33.17	342.3	6	36	1	11	50	-1				
ST. KITTS	35.20	84.2	6	49	-4							
BREBEUF	35.55	32.0	6	56A	0	12	36	8			8	21 PP
SEATTLE	35.57	333.4	7	1	5	12	50	21				
PENTICTON	35.85	337.5	6	58A	0							
ANTIGUA	36.06	84.4	6	56	-4						9	48
BANFF	36.13	343.0	7	0	-1							
ST. CLAUDE	36.32	86.3	7	6	4							
SHAWINIGAN	36.71	31.4	7	5A	-1							
DOMINICA	36.71	87.4	7	7	1							

VICTORIA	36.72	333.3	7	6A	0						
GRENADA	36.99	92.8	7	8	0						
FORT FRANCE	37.04	88.3	7	6	-2	13	4	13			
ST. VINCENT	37.20	90.8	7	8	-2						
TRINIDAD	37.63	94.9	7	9	-4				8	47	PP
ALBERNI	37.89	333.0	7	14	-2						
BARBADOS	38.80	90.4	7	35	12						
HALIFAX	40.69	40.1	7	40	1						
LA PAZ	45.70	135.5	8	17A	-3	14	53	-6			
SITKA	47.85	334.5	8	35	-1						
HAWAII V.OB.	52.67	281.5	9	13	0	16	43	6			
KIPAPA	54.99	284.3	9	28	-2						
HONOLULU	55.08	284.2	9	29	-2	17	15	6	21	5	SS
COLLEGE	57.41	337.8	9	45A	-3	17	49	9			
RESOLUTE	57.49	1.5	9	46A	-2						
SANTA LUCIA	57.51	151.3	9	46	-2	17	39	-2			
CONCEPCION	59.76	154.5				18	5	-6			
MOULD BAY	59.88	354.6	10	5A	0						
LA PLATA	65.26	143.0	10	47A	7	19	23	3			
ANGRA DO HO.	65.82	54.9	10	53A	9	20	1	34	13	35	PP
ALERT	66.89	5.0	10	52	1						
PONTA DELGDA	67.10	55.8	10	51	-1	19	53	11			
REYKJAVIK	69.26	27.3	11	6A	0	20	27	19			
SCORESBY SD.	69.74	20.5	11	6A	-3	20	27	13			
SIDA	70.95	27.7	11	17	1						
NORD	72.01	8.8	11	19	-3						
AFIAMALU	77.64	251.1	11	44	-11	21	43	1			
M.BOUR	78.98	78.3	12	5	3	22	8	11			
SERRA PILAR	79.62	50.2	12	5A	0	22	12	9	12	16	15 8 PP
ABERDEEN	79.68	33.3	12	6	0	22	13	9			15 3 PP
LISBON	79.78	52.6	12	5A	-1	22	5	0			14 59 PP
COIMBRA	79.96	51.0	12	8A	1	22	8	1			15 10 PP
DURHAM	80.63	35.6	12	12K	1	22	35	21			15 26 PP
KHEYS	81.61	3.6	12	15A	-1						15 25 PP
KEW	82.33	38.5	12	20A	0	22	56	25			15 32 PP
FOLINIERE	83.07	41.1	12	23	0						
PETROPAVLOVK	83.24	323.4	12	23A	-1						15 31 PP
TOLEDO	83.29	50.5	12	25A	0	22	54	13			15 36 PP
TROMSOE	83.32	18.0	12	25	0						
MALAGA	83.94	53.6	12	27A	-1	22	49	1			15 41 PP
GRANADA	84.42	52.9	12	28K	-2	23	10	18			15 40 PP
KIRUNA	84.77	19.3	12	31A	-1	22	59	3			15 43 PP
MAGADAN	84.79	331.2	12	31A	-1						15 55 PP
PARIS	84.91	40.5	12	34	1	23	3	6			15 48 PP
BAGNERES	85.31	46.4	12	34	-1						23 10
DE BILT	85.33	36.8	12	34A	-1	23	19	18			15 49 PP
UCCLE	85.33	38.2	12	35	0	23	7	6			
ALMERIA	85.38	53.0	12	35A	0	23	2	0			15 38 PP
TIKSI	85.47	346.2	12	34A	-1	23	3	0			15 50 PP
KEVO	85.53	16.3	12	34	-2						12 57
DOURBES	85.74	38.8	12	36	-1						12 40 PCP
GARCHY	85.82	41.8	12	35	-2	23	5	-1			15 55 PP
WITTEVEEN	85.89	35.7	12	40	2						
TORTOSA	86.30	48.5	12	38	-2						15 48 PP
CLERMONT-FD.	86.39	43.2	12	41A	1	23	37	26			
ALICANTE	86.40	51.1	12	41	1	23	25	13			16 0 PP
G. G. VIDELA	86.51	165.1	12	44	3	23	4	-9			16 14 PP
ARGENTINE I.	86.53	165.9	12	42	1						17 8
GOTEBORG	86.57	30.0	12	44	3						16 6 PP
MUNSTER	86.77	36.3	12	46	4						
BENSBERG	86.92	37.3	12	43A	0	23	47	30			16 9 PP
SODANKYLA	86.95	18.2	12	40	-3	23	32	15			16 8 PP
UMEA	86.95	22.7	12	41	-2	23	14	-3			15 56 PP
BESANCON	87.67	41.0	12	47	1						
COPENHAGEN	87.73	31.7	12	45	-1	23	17	-7			
SUVA	87.93	250.4				23	20	-6			29 21 SS
FELDBERG	87.97	37.7	12	51	3						16 21 PP
UPPSALA	88.07	26.7	12	47A	-1	23	18	-9			16 14 PP
STRASBOURG	88.24	39.3	12	48	-1	23	52	23			16 4 PP
NEUCHATEL	88.37	41.0	12	53	3	23	38	8			
KARLSRUHE	88.45	38.8	12	50	0	23	54	23			
HEIDELBERG	88.47	38.3	12	49	-1						16 19 PP
BASLE	88.55	40.4	12	48	-2	23	24	-8			16 21
ROSELEND	88.69	42.3	12	51	0						
APATITY	88.76	16.3	12	50A	-1	23	39	5			16 20 PP
TUBINGEN	89.05	39.0	12	53	0						16 23 PP
KARLSKRONA	89.05	30.4	12	49	-4						
STUTTGART	89.07	38.8	12	51	-2	23	40	3			16 24 PP

EBINGEN	89.13	39.4	12	53	0				16	23 PP
HALLE	89.40	35.5	12	55	1	23	40	0		
KAJAANI	89.42	20.5	12	52	-3	23	56	16	16	26 PP
JENA	89.45	36.2	12	55	0	23	53	13	16	25 PP
ISOLA	89.57	43.6	13	0	5					
RAVENSBURG	89.70	39.6	12	55	-1				16	33 PP
MONACO	90.01	43.9	12	59	2					
CHUR	90.05	40.4	12	53	-4	23	33	-13		
COLLMBERG	90.07	35.4	12	57	-1	23	46	0		
CHEB	90.30	36.7	13	4	5	23	37	-11		
PAVIA	90.53	42.0	13	29	29	23	39	-11	30	31
NURMIJARVI	90.58	24.1	12	59	-1	23	35	-15	16	34 PP
HELSINKI	90.91	24.3	13	0	-2				16	36 PP
CHIAVARI	91.00	42.8							16	59 PP
PRAGUE	91.46	36.1	13	0	-4				28	38
PRUHONICE	91.57	36.1	13	3	-2	23	30	-29		
YAKUTSK	91.92	339.0							16	51 PP
PADOVA	92.14	41.0	13	15	8	23	50	-14	16	45 PP
AMDERMA	92.20	6.4	13	7A	0					
PRATO	92.34	42.6	13	12	4	23	47	-19		
FLORENCE X.	92.49	42.6	13	17A	8	23	41	-26	16	55 PP
TRIESTE	93.20	40.2	13	6	-6				16	58 PP
PULKOVO	93.22	22.9	13	11	-1	23	48	-26	16	54 PP
VIENNA-H.	93.48	37.0	13	14	1	24	8	-8	17	0 PP
LJUBLJANA	93.48	39.5	13	13	0				17	5 PP
RACIBORZ	93.55	34.8	13	15	1				16	57 PP
WARSAW	93.85	32.0	13	14A	-1	24	28	9	17	3 PP
BRATISLAVA	93.94	36.8							25	35 PS
ROME	94.15	43.9	13	17A	1	23	43	-39	16	57 PP
ZAGREB	94.48	39.2	13	21K	3	23	59	-25	16	57 PP
KRAKOW	94.50	34.2	13	22	4				17	6 PP
HURBANOVO	94.72	36.7	13	37	18	23	43	-43	17	15 PP
Y.-SAKHLINSK	95.07	322.5	13	24K	3				17	15 PP
SKALNATE PL.	95.16	34.8	13	26	5				17	13 PP
BUDAPEST	95.40	36.7	13	23	1				17	9 PP
SZEGED	96.71	37.3							14	29
LWOW	96.80	32.9	13	29A	1				17	27 PP
TIMISOARA	97.62	37.3	13	35	3	24	15	10	17	25 PP
BYRD STATION	97.68	183.4	13	32	0	24	10	4	17	34
BELGRADE	97.68	38.4	13	35K	3	24	15	9	17	36 PP
WELLINGTON	97.96	229.4	13	37	3	24	11	4	17	37 PP
MESSINA	97.97	46.1	13	35	1	24	8	1	17	34 PP
TARANTO	97.99	43.4							16	45
REGGIO CALA.	98.09	46.1							14	3
TITOGRAD	98.25	40.9	13	40	5	24	19	10	17	39 PP
MOSCOW	98.85	22.9	13	37A	-1				26	15
SKOPJE	99.86	40.4	13	46	4	24	24	7	17	27
SOFIA	100.60	39.0	13	51	5	24	27	7	17	57 PP
TUKUBASAN	102.48	314.3	13	53K	-1	25	35	66	18	5 PP
HONIARA	102.62	263.9	14	0	5	25	45	75		
ROXBURGH	102.82	226.2	13	50	-6	24	37	6	27	9 PS
VLADIVOSTOK	103.56	323.9	14	0	1				18	13
ATHENS	103.56	42.8	14	0A	1	24	41	7	18	17
SVERDLOVSK	104.36	11.0	14	2K	0	24	33	-5	18	25 PP
SIMFEROPOL	105.16	32.1	14	7	777	24	51	9	17	44 PKS
ABUYAMA	106.29	315.3	14	11A	777					
CAPE HALLETT	106.35	198.6	11	15	777					
CHANGCHUN	106.62	327.8	14	13	777				18	38 PP
IRKUTSK	107.70	344.8	14	15	777					
RABAUL	108.61	271.4	16	13	777				25	53
TIFLIS	112.73	28.2	14	41	-232	25	20	6	19	23 PP
BRISBANE	113.06	247.1	14	46	-228	25	17	2		
KSARA	113.84	39.6	14	48	-227				19	27 PP
PEKING	113.96	330.6	14	45	-230	25	27	9	19	32 PP
LUANDA	114.32	92.1							19	35 PP
ESEN BULAK	115.04	347.9							19	32 PP
RIVERVIEW	115.17	240.3	18	31A	-7	25	28	5	19	35 PP
GORIS	115.20	28.6							19	35 PP
BANGUI	115.38	76.5	18	37	-1					
BANDEIRA	115.81	98.5							19	47 PP
CANBERRA	117.03	238.8							20	19 PP
CHARTERS TS.	117.88	256.1	18	44	1	25	35	2		
ZO-SE	117.96	320.6	18	42	-1	25	50	17	19	58 PP
FORT NELSON	118.33	230.2				25	40	6	29	47 PS
NANKING	118.68	323.0	18	43	-2	24	34	-62	20	2 PP
FRUNSE	119.98	4.9	18	45	-2				22	43 PPP
MELBOURNE	120.31	235.9				25	48	7	20	22 PP
TEHERAN	120.57	27.2	18	52	4				20	22 PP
WINDHOEK	120.65	106.3	18	52	4				20	19

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TASHKENT	120.82	9.7	18	50	1	25	38	-5			27	9 SKKS
ASHKABAD	121.31	20.3	18	53	3						20	24 PP
SIAN	122.01	332.2	18	51	0						20	21 PP
LANCHOW	122.52	337.5	18	53	1	26	18	29			20	24 PP
HERMANUS	123.17	120.1									20	34 PP
DUZHANBE	123.41	10.9	18	58	4						30	37 PS
KHOROG	124.92	8.6	18	59	2						30	45 PS
ADELAIDE	125.45	239.1	18	56	-2	25	59	1			20	53 PP
WILKES	127.10	194.7	19	3	2	25	43	-19			21	2 PP
CHENGTU	127.21	334.3	18	59	-2						21	11 PP
LWIRO	127.23	79.4	19	7	6						21	26 PP
WARSAK DAM	128.34	9.3	19	2	-1							
MAWSON	128.44	171.5	18	59	-4						20	17 PP
CANTON	128.55	320.2	19	3	-1						21	13 PP
MANILA	128.81	305.9	19	7	3	26	15	8				
MIRNY	130.05	186.6	19	7	0	26	19	9				
BROKEN HILL	130.11	94.5	18	51	-16							
BULAWAYO	131.04	101.9	18	56	-12							
DARWIN	131.08	268.5	19	16	8							
QUETTA	131.10	15.5	19	10	1							
LAHORE	131.13	6.8	19	13	4						22	40 PKS
LHASA	132.25	347.4	19	11	0						21	37 PP
KUNMING	132.57	332.1	19	12	1						21	37 PP
DEHRA DUN	132.64	2.7	19	14	3						33	39
NEW DELHI	134.33	3.9	18	56K	-19	26	18	-2			21	49 PP
CHATRA	135.68	351.3	19	17	0	26	28	6			21	54 PP
SHILLONG	135.98	345.0	19	10K	-8						39	56 SS
BOKARO	138.82	352.4	19	32	9						21	58
CHITTAGONG	139.06	343.7	19	21	-2				19	31	22	22 PP
CALCUTTA	139.69	348.5	19	31	7						22	54
BOMBAY	143.31	12.0	19	29	-2						22	42 PP
MUNDARING	144.46	238.9	19	32	-1							
PERTH	144.78	238.8	19	37	4						23	20 PP
VISHAKHAPTNM	145.12	355.1	19	38	4						22	8 PP
HYDERABAD	145.48	3.2	19	40	5						22	51 PP
PORT BLAIR	148.77	336.2	19	44	4							
TANANARIVE	148.78	98.1	19	46K	6						20	58
MADRAS	149.93	0.4	20	0	18	27	4	20			24	11 PP
LEMBANG	151.45	288.0	19	41K	-3							
DJAKARTA	151.89	289.9	20	3	18						24	53
TANGERANG	152.07	290.1	19	56	11						20	32
MEDAN	152.51	317.2	19	48	2						25	5
KODAIKANAL	152.54	6.2	19	18	-28						42	9

MAY 12 22.H 3.M 45.S EPICENTRE -18.05-178.15 DEPTH= 622.KM

A=-0.95088 B=-0.03073 C=-0.30802 D=-0.0323 E= 0.9995
G= 0.3079 H= 0.0099 K=-0.9514 HT= 5.1

DEPTH OF FOCUS= 0.093R

SE= 1.60

	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
AFIAMALU	7.38	57.0	1	48K	-7							
PORT VILA	12.89	269.3	2	47	0	4	57	-4				
NOUMEA	15.06	251.2	3	8A	0							
KOUMAC	16.77	258.6	3	23A	-1							
ONERAHI	18.85	199.1	3	45	2							
KARAPIRO	20.56	194.3	3	58	-1							
BRISBANE	28.32	245.6	5	6	-1						8	4
RIVERVIEW	31.61	234.2	5	35	0							
CHARTERS TS.	33.66	260.7	5	53K	1							
CANBERRA	33.81	232.9	5	54K	0							
PORT MORESBY	34.74	279.6	6	3K	2							
MELBOURNE	37.75	230.9	6	26K	0							
MOORLANDS	38.15	223.0	6	30K	1							
FORT NELSON	38.29	222.2	6	31K	1						7	8
TARRALEAH	38.56	223.6	6	33K	0							
DARWIN	49.43	269.0	7	57	0							
DUMONT	55.61	198.8	8	39	-1							
MUNDARING	60.28	243.1	9	12A	0							
SCOTT BASE	60.29	183.6	8	13	-59							
BYRD STATION	67.06	170.7	9	54	0							
MATUSIRO	68.17	323.2	10	1K	0							
SOUTH POLE	72.06	180.0	10	25	1							

LEMBANG	72.95	268.2								12	32	
TANGERANG	74.09	268.6	10	34A	-1							
WOODY	77.49	45.8	10	56	2			12	58			
COLLEGE	85.86	12.5	11	36	0			13	42			
WICHITA MTS.	91.87	54.1	12	5	1							
SHIRAZ	132.57	293.9	18	8	3					20	41	
UMEA	132.57	349.0	18	6	1							
NURMIJARVI	134.56	344.4	18	10	1							
HELSINKI	134.77	343.9	18	12	3							
COLLMBERG	145.67	347.6	18	33K	4							
KSARA	145.80	304.0	18	34	5							
JENA	146.29	348.9	18	32	2							
PRUHONICE	146.55	345.1	18	36	6					20	50	
LWIRO	146.66	235.5	18	38	8							
BENSBERG	146.90	353.8	18	36	5							
KASPERSKE H.	147.58	345.6	18	38	6			20	53			
DOURBES	147.95	356.7	18	39	7							
STUTTGART	148.77	350.5	18	36	2							
FOLINIERE	149.30	3.0	18	42	8							
LJUBLJANA	150.17	342.1	18	38	2							

MAY 13 9.H 12.M 34.S EPICENTRE 6.82 -73.01 DEPTH= 160.KM

A= 0.29021 B=-0.94967 C= 0.11794 D=-0.9563 E=-0.2923
G= 0.0345 H=-0.1128 K=-0.9930 HT= 6.9

DEPTH OF FOCUS= 0.020R

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	
FUQUENE	1.52	208.3	0	30	-2								
BOGOTA	2.43	205.9	0	43A	1	1	13	-1					
CHINCHINA	3.18	234.9	0	53K	2	1	29	-1			1	34	S*
GALERAZAMBA	4.53	330.6	1	10	1	2	1	0					
BALBOA HTS.	6.83	288.6	1	36	-3	2	50	-6					
CARACAS	7.03	58.2	1	41K	-1						4	0	SG
TRINIDAD	12.09	70.8	2	47A	-1	5	17	17					
GRENADA	12.28	64.1	2	48	-3								
ST. VINCENT	13.17	60.4	3	1	-1								
FORT FRANCE	14.05	55.0	3	14	1								
BARBADOS	14.61	63.6	3	23	3								
ANTIGUA	14.98	45.8	3	27	2								
AREQUIPA	23.18	176.3	4	53	0								
LA PAZ	23.67	168.3	5	OK	2						5	33	PP
COLUMBIA	28.05	345.7	5	40	1								
LITTLE ROCK	33.05	330.0	6	21	-2								
MORGANTOWN	33.26	350.2	6	26A	2								
C. GIRARDEAU	33.88	336.0	6	30	0								
PALISADES	34.06	358.8	6	32	1								
PENNSYLVANIA	34.11	353.4	6	31A	-1								
BLOOMINGTON	34.45	341.3	6	35	1						11	53	
ST. LOUIS 1	35.30	336.3	6	43A	1								
ROLLA	35.37	333.7	6	42A	0								
FLORISSANT	35.49	336.3	6	43A	0								
WICHITA MTS.	36.42	323.2	6	50A	-1						9	12	PCP
LAWRENCE	37.78	331.2	7	1	-2								
BREBEUF	38.54	359.3	7	10A	1						8	44	PCP
HALIFAX	38.54	10.8	7	10A	1								
MANHATTEN	38.61	330.1	7	9	0								
DUBUQUE	38.83	339.0	7	10A	-1								
SHAWINIGAN	39.58	0.3	7	19A	2								
ALBUQUERQUE	41.60	317.0	7	34	0								
TUCSON	43.34	310.8	7	49	1								
LARAMIE	44.93	324.9	8	2	1								
RAPID CITY	45.54	329.5	8	5	-1								
FLAMING GRGE	46.94	322.0	8	16	-1								
BOULDER CITY	47.99	313.3	8	26	1								
WOODY	50.84	311.1	8	48	1						10	2	PCP
BUTTE	51.83	325.6	8	53	-1								
PRIEST	52.36	310.9	8	58K	0								
RENO	53.10	315.2	9	4A	1						9	30	
LICK	53.54	311.9	9	7A	0						10	1	
BERKELEY	54.19	312.3	9	12A	1								
CALISTOGA	54.71	313.1	9	15A	0								
PENTICTON	57.62	325.7	9	35	-1								

VICTORIA	59.41	323.5	9	47K	-1					
ALBERNI	60.58	323.8	9	55	-1					
RESOLUTE	68.98	353.9	10	50A	0					
FOLINIERE	73.40	41.2	11	15	-2					
MOULD BAY	73.81	349.6	11	19A	0					
ALERT	75.79	1.4	11	30A	0					
COLLEGE	77.42	335.0	11	39	0					
NORD	78.60	7.2	11	45A	-1					
STUTTGART	79.83	41.8	11	50	-2					
JENA	81.34	39.6	12	11	11					
KASPERSKE H.	82.66	41.4	12	7	0	12	47			
PRUHONICE	83.26	40.5	12	11	1			12	49	
KIRUNA	85.04	22.4	12	20K	1					
UMEA	85.37	26.4	12	21	0					
SODANKYLA	87.45	22.5	12	31	0					
NURMIJARVI	87.88	29.4	12	32	-1					
KAJAANI	88.58	25.6	12	34	-2					
BYRD STATION	89.82	187.3	12	41	-1					
BANGUI	91.10	85.5	12	47	-1			13	30	
CANBERRA	132.17	227.6	18	59	4			22	9	PKS
NEW DELHI	134.57	37.8	19	1K	1					
CHARTERS TS.	139.72	246.9	19	5	-4			22	33	
SHILLONG	144.61	24.0	19	19A	1					

MAY 15 5.H 23.M 51.S EPICENTRE -7.44 128.30 DEPTH= 66.KM

A=-0.61461 B= 0.77829 C=-0.12855 D= 0.7848 E= 0.6198
G= 0.0797 H=-0.1009 K=-0.9917 HT= 6.8

DEPTH OF FOCUS= 0.005R

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DARWIN	5.51	153.3	1	19	-2	2	12	-12					
PORT MORESBY	18.75	97.3	4	12	-4	7	46	7			4	40	
LEMBANG	20.53	270.4	4	34K	-1	8	18	2					
DJAKARTA	21.35	272.0	4	42K	-1	8	28	-3					
CHARTERS TS.	21.48	127.7	4	44	-1								
TANGERANG	21.55	272.0	4	49A	4	8	31	-4					
RABAUL	23.96	83.6	5	7A	-2								
BAGUIO CITY	24.90	342.2	5	16	-2	9	33	-1					
GUAM	26.41	38.2	5	32A	0	10	14	15					
MUNDARING	26.88	203.2	5	35K	-1								
ADELAIDE	29.03	162.2	5	55	-1	10	45	4					
HENGCHUN	30.17	346.0	6	5	-1	11	0	1					
TAWU	30.48	346.4	6	11	2	11	3	-1					
BRISBANE	30.53	133.5	6	10K	1	11	14	9					
TAITUNG	30.80	347.0	6	11	-1						8	31	
HSINKONG	31.09	347.6	5	42	-32						7	16	
TAINAN	31.26	345.6									7	3	
HONIARA	31.37	95.9	6	14	-2	11	25	7					
MEDAN	31.52	289.3	6	18A	0								
ALISHAN	31.63	346.8	6	23	4	11	35	13					
ISIGAKIZIMA	31.83	352.8	6	22	1								
HWALIEN	31.89	348.4	6	21	0						7	39	
TAICHUNG	32.26	346.9	6	27	3								
HONG KONG	32.63	335.2	6	26	-2						7	50	PPP
ILAN	32.64	348.9	6	32	4						9	34	
HSINCHU	32.83	347.7	6	36	7						13	26	
TAIPEI	32.94	348.6	6	33	3	11	34	-8					
MAWASHI	33.47	359.0	6	34	-1								
CANBERRA	33.63	148.5	6	35A	-1	11	53	0			6	48	*SP
CANTON	33.68	334.6	6	36A	-1	11	55	1			6	47	*SP
RIVERVIEW	33.70	144.4	6	37A	0	12	5	11			6	51	*SP
MELBOURNE	33.82	155.9	6	38	0	12	5	9			10	50	
YAKUSIMA	37.73	3.1	7	11	0	13	7	11					
TARRALEAH	38.25	158.1	7	17	2						8	51	PP
MOORLANDS	38.65	157.4	7	21A	2						9	30	PCP
KAGOSIMA	38.84	3.1	7	22	2	13	26	13					
ZO-SE	38.92	350.3	7	19A	-2	13	10	-4			7	30	*SP
FORT NELSON	39.13	157.7	7	24A	2	13	23	6					
MIYAZAKI	39.25	4.2	7	32	9	13	33	14					
TORISIMA	39.42	16.4	7	28	3						9	24	
NOUMEA	39.58	116.1	7	26K	0	13	31	7					
HUKUE	39.93	358.7	7	30	1	13	38	9					

NAGASAKI	39.97	2.1	7 29	0	13 41	11				
KUMAMOTO	40.10	3.1	7 33	2	13 39	7				
PORT BLAIR	40.16	297.9	7 29A	-2	13 35	2			9 3	PP
ASHIZURI	40.18	6.1	7 31	0	13 49	16				
ASOSAN	40.20	3.6	7 31	0	13 38	5				
SIMIDU	40.24	6.1	7 31	-1					18 44	
PORT VILA	40.29	108.6	7 31	-1					9 13	
NANKING	40.31	347.5	7 31A	-1	13 36	1			7 42	*SP
SAGA	40.50	2.6	7 34	0					9 48	
OOITA	40.56	4.3	7 43	9	13 27	-12				
KUNMING	40.82	323.3	7 37A	1	13 39	-3			7 48	*SP
HUKUOKA	40.84	2.7	7 34	-3	13 53	10				
MUROTO	40.84	7.5	7 38	1					9 30	
KOTI	41.06	6.7	7 39	1	13 39	-7			9 27	PP
SIMONOSEKI	41.23	3.3	7 39	-1						
SIOMISAKI	41.27	9.5	7 37	-3	13 25	-24				
ITUHARA	41.42	1.2	7 42	1	13 24	-27				
TOKUSIMA	41.70	7.8	7 45	1					8 5	
HIROSIMA	41.76	5.1	7 44	0	13 55	-1				
WAKAYAMA	41.94	8.5	7 47	1					10 49	
OWASE	41.95	9.8	7 39	-7	13 53	-6				
SUMOTO	42.02	8.2	7 45	-1	14 14	14				
HAMADA	42.26	4.6	7 50	2	14 12	8			8 55	PP
KOBE	42.39	8.4	7 52	3	14 20	14				
OSAKA	42.41	8.9	7 51	1	14 3	-3				
NARA	42.49	9.2	7 51K	1						
TU	42.62	10.0	7 54	3						
ABUYAMA	42.63	8.8	7 50A	-1						
KAMEYAMA	42.76	9.9	7 54A	2	14 23	12				
KYOTO	42.80	9.0	7 54	1	14 19	7				
HAMAMATU	42.86	11.4	7 53	0						
MATSUE	42.89	5.7	8 0	7						
YONAGO	42.90	6.1	7 52	-2					8 18	
TOTTORI	43.07	7.0	7 54	-1						
HIKONE	43.13	9.5	7 58	3	14 28	12				
NAGOYA	43.16	10.4	7 56A	0	14 26	9				
MAIZURU	43.19	8.5	8 2	6					15 26	
SHIZUOKA	43.24	12.1	7 59	3						
OSIMA	43.26	13.3	7 59	2						
GIHU	43.35	10.1	7 59	2	14 39	19				
AJIRO	43.47	12.9	7 54	-4						
IIDA	43.66	11.3	8 1	1	14 41	17				
SAIGO	43.66	5.9	8 3	3	14 32	8				
HUNATU	43.83	12.4	8 2	1					13 4	
KOHU	43.95	12.1	8 3	1	14 22	-6				
YOKOHAMA	43.96	13.4	7 55	-7					11 13	
TAKAYAMA	44.16	10.4	8 1	-3						
TOKYO C.M.O.	44.22	13.4	8 2	-2	14 46	14				
HONGO	44.25	13.4	8 10	6					14 46	
TITIBU	44.36	12.5	8 7	2						
MATUMOTO	44.39	11.2	8 8	2						
CHENGTU	44.46	329.6	8 4A	-2	14 37	1			8 15	*SP
TYOSI	44.52	14.6	8 7	0						
OIWAKE	44.59	11.8	8 9	2	14 38	0				
KUMAGAYA	44.59	12.8	8 6	-1					11 19	
MATUSIRO	44.72	11.4	8 6A	-2	14 45	6				
MAEBASI	44.76	12.4	8 10	1					11 53	
TUKUBASAN	44.82	13.6	8 5A	-4	14 39	-2	8 14		10 32	PP
NAGANO	44.84	11.3	8 13	4	14 42	1				
KAKIOKA	44.85	13.7	7 56	-13						
MITO	45.06	13.9	8 12	1						
UTUNOMIYA	45.08	13.2	8 14	3	14 48	3				
TAKADA	45.27	11.2	8 12	-1						
WAZIMA	45.30	9.6	8 5	-8	14 55	7				
SIAN	45.34	337.3	8 12A	-1					8 22	*SP
ONAHAMA	45.70	14.1	8 17K	1	15 3	9				
SHIRAKAWA	45.71	13.3	8 15	-1	15 9	15				
AIKAWA	46.16	10.9	8 18	-2						
NIIGATA	46.22	11.8	8 23	3					12 7	
HUKUSIMA	46.36	13.4	8 21	0	15 20	17				
CHITTAGONG	46.41	310.5	8 20A	-2	15 11	7			8 30	PP
SENDAI	46.96	13.6	8 25	-1	15 25	14				
ISINOMAKI	47.21	14.0	8 26	-2	15 22	7				
SAKATA	47.33	12.2	8 11	-18	15 31	14				
MIZUSAWA	47.83	13.5	8 33	0	15 16	-8				
AKITA	48.17	12.2	8 35	0	15 42	13				
SHILLONG	48.28	314.1	8 35A	-1	15 33	3			10 28	PP
MORIOKA	48.39	13.3	8 36	-1	15 46	14				

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MIYAKO	48.53	14.1	8	38	0	15	45	12				
PEKING	48.54	347.6	8	36A	-2	15	33	-1			8	47 *SP
LANCHOW	48.99	333.6	8	42A	0	15	36	-4			8	52 *SP
CALCUTTA	49.14	308.3	8	47	4	15	50	8			10	46 PP
HOWRAH	49.19	308.3	8	42	-1	16	3	20				
HATINOHE	49.26	13.3	8	43	-1	15	47	3				
AOMORI	49.37	12.5	8	45	0	15	52	7				
HAKODATE	50.32	12.1	8	51K	-1	16	3	5				
VLADIVOSTOK	50.42	3.4	8	49	-4						10	43 PP
MORI	50.56	11.8	8	57	3	16	14	12				
ONERAHI	50.63	130.7	9	2	8	16	14	11			11	4 PP
PAOTOW	50.66	342.0	8	53A	-2	16	9	6				
MURORAN	50.85	12.1	8	56	0							
VISHAKHAPTNM	50.99	299.8	8	53A	-4	16	15	7			10	50 PP
URAKAWA	51.09	13.8	8	57	-1	16	24	15				
CHANGCHUN	51.09	357.2	8	55A	-3	16	5	-4			9	6 *SP
SUTTSU	51.16	11.3	9	4	6	16	20	10				
TOMAKOMAI	51.28	12.6	8	41	-18							
HIROO	51.34	14.3	8	57	-3							
LHASA	51.40	317.6	9	0A	0	16	16	3			10	53 PP
KAIMATA	51.56	139.8	9	12	11	16	26	11			21	11
SAPPORO	51.65	12.2	8	59A	-3	16	8	-9			9	58 PP
COBB RIVER	51.72	137.6	9	4	1	16	32	14				
BOKARO	51.83	308.1	9	2A	-1	16	29	10			11	8 PP
ROXBURGH	51.85	144.0	9	4	1	16	21	2			11	15 PP
MADRAS	51.93	292.8	9	6K	2	16	24	3			11	2 PP
TARATA	52.01	134.7	9	5	0						14	22 PCP
KUSIRO	52.27	14.9	9	5A	-2	16	32	7				
KARAPIRO	52.33	132.8	10	7	60						10	57 PP
CHATPA	52.43	312.1	9	6K	-2	16	25	-2			11	3 PP
ASAHIGAWA	52.55	12.8	9	9K	0							
CHATEAU	52.84	134.3	9	10	-1						11	35
NEMURO	52.91	15.8	9	11	0	16	47	13				
GEBBIES PASS	52.93	140.5	9	12	0	16	44	10	9	23	12	40
MACQUARIE I.	52.98	158.1	9	13	1							
WELLINGTON	53.18	137.0	9	12	-1	16	47	9	9	22		
ABASHIRI	53.22	14.4	9	14	0							
KODAIKANAL	53.57	288.5	9	24	8	16	48	5			11	24 PP
TUAI	53.83	133.2	9	18	0				9	29		
WAKKANAI	53.97	11.6	9	20A	1							
HYDERABAD	55.10	297.2	9	30A	3	17	8	5			11	48 PP
Y.-SAKHLINSK	55.71	11.9	9	29A	-3						17	19 PS
ULAN-BATOR	58.27	343.2	9	48A	-2	17	53	8				
SEHORE	58.58	302.8	9	54	2	18	0	11			13	21 PPP
AFIAMALU	59.11	101.7	9	55	-1	17	52	-4				
POONA	59.57	296.5	9	56	-3	18	1	-1			12	9 PP
DUMONT	59.69	174.6	9	59	-1	18	16	12	10	11		
WILKES	60.08	188.2	10	0A	-3	18	6	-3	10	11	12	9 PP
BOMBAY	60.61	296.5	10	5	-1	18	10	-6			12	12 PP
ESEN BULAK	60.73	335.1	10	6	-1							
NEW DELHI	60.89	308.4	10	5A	-3	18	11	-8			12	5 PP
DEHRA DUN	61.07	310.6	10	12	3	18	24	3			12	35 PP
IRKUTSK	62.91	343.7	10	20A	-2	18	52	7			14	26 PPP
MIRNY	63.79	194.9	10	27	0	18	48	-7				
LAHORE	64.46	310.1				19	2	-2				
WARSAK DAM	67.65	311.3	10	51	-1	19	53	10				
MAGADAN	69.14	12.0	10	59	-2						20	12 PS
KHOROG	69.24	314.6	11	0K	-2						11	11 PCP
YAKUTSK	69.25	0.7	11	6	4						15	40 PCS
CAPE HALLETT	69.64	167.4	11	5	1	19	59	-7			13	44 PP
FRUNSE	69.81	320.8	11	4A	-1	20	14	6			13	36 PP
SEMIPALATNSK	71.00	329.8	11	11A	-1	20	27	5			11	34 PCP
TASHKENT	72.54	317.4	11	21	-1						25	15 SS
SCOTT BASE	73.13	172.1	11	25	0							
MAWSON	73.93	201.3	11	28A	-2	21	0	5			14	22 PP
HONOLULU	77.61	66.3	11	52	1	21	59	23				
KIPAPA	77.70	66.2	11	52	1							
TIKSI	78.90	0.2	11	55A	-3	21	56	7			14	58 PP
TANANARIVE	78.91	252.2	12	0	2	21	58	9			12	8 PCP
ASHKABAD	79.04	310.9	11	57	-1	21	56	5			12	5 PCP
HAWAII V.OB.	79.80	68.8	11	57	-6							
SHIRAZ	81.44	301.4	12	9A	-2	22	21	5	12	26	29	39 SS
SOUTH POLE	82.61	180.0	12	18	1							
TEHERAN	83.80	307.2	12	22	-1						15	48 PP
SVERDLOVSK	84.27	329.3	12	24K	-2	22	48	4			15	46 PP
BYRD STATION	86.49	170.7	12	36	-1	22	38	-28				
GORIS	88.52	310.0	12	46A	0	23	24	-1			16	25 PP
AMDERMA	89.06	341.4	12	46A	-3	23	37	7				
TIFLIS	90.07	311.9	12	54	0	23	46	7			16	36 PP

CHANGALANE	92.18	243.3	13	10	6	24	15	17	13	19	13 12 PCP
COLLEGE	94.08	25.2	13	10	-2	24	43	29			16 23 PP
KHEYS	94.12	351.1	13	9A	-3	23	34	-41			16 45 PP
KSARA	96.09	303.2	13	20	-1	24	0	9			17 17 PP
MOSCOW	96.46	325.3	13	20	-3						24 14 SKKS
BULAWAYO	96.48	248.8	13	23	0						
BROKEN HILL	97.59	254.4	13	29	1						
SIMFEROPOL	98.15	314.3	13	30A	-1						17 40 PP
APATITY	98.69	337.2	13	31A	-2	24	9	5			17 43 PP
LWIRO	99.12	266.5	13	37A	2	24	19	13			18 13 PP
PULKOVO	100.40	329.4	13	40	-1	24	19	6			17 53 PP
HERMANUS	101.27	232.8	13	53	8	24	26	9			18 6 PP
KAJAANI	101.28	333.9	13	43	-2	24	25	8			17 59 PP
SODANKYLA	101.31	337.3	13	44	-1	24	23	6			18 0 PP
MOULD BAY	102.43	13.1	13	47	-3						
HELSINKI	103.04	330.0	13	59	6						18 11 PP
NURMIJARVI	103.14	330.4	13	58	5						18 7 PP
KIRUNA	103.56	338.2	13	54	-1	25	28	61			18 16 PP
TROMSOE	103.63	340.1	13	53	-2						
UMEA	104.57	334.2	13	58	-1	24	46	14			18 18 PP
ALERT	104.82	1.4	13	57A	-3						
LWOW	104.85	319.5	14	7	6						27 22
SOFIA	106.00	312.2	17	25	777						20 43
ATHENS	106.02	307.3	14	5A	777	26	0	81			18 31 PP
WARSAW	106.41	322.2	14	13	777	24	48	8			18 35 PP
UPPSALA	106.72	330.5	14	5A	777						18 37 PP
SKALNATE PL.	107.37	319.2									18 44 PP
KRAKOW	107.44	320.1	14	7	777						18 41 PP
G. G. VIDELA	107.46	175.0	18	40	777						27 52
SKOPJE	107.46	311.6	18	16	777						28 20
VICTORIA	107.63	41.5	13	45	777						
BELGRADE	107.86	314.6	17	22	777						22 31 PPP
SZEGED	107.89	316.1	18	31	777						22 14 SS
SKALSTUGAN	108.03	335.0	14	18	777						18 49 PP
RESOLUTE	108.43	11.1	14	16	777						
BUDAPEST	108.45	317.5	18	28	777	26	24	95			18 57 PP
RACIBORZ	108.53	320.3	14	27	777	25	3	13			18 52 PP
KARLSKRONA	108.71	327.0	14	25	777						18 52 PP
HURBANOVO	108.93	318.1				24	57	6			19 5 PP
TITOGRAD	109.02	312.2	17	56	777						28 27
CALISTOGA	109.53	51.7	14	34A	777						
BRATISLAVA	109.61	318.5	14	28	777						18 57 PP
BERKELEY	109.87	52.5	14	23A	777	25	3	8			18 33 PP
PENTICTON	109.95	40.2	14	29K	777						
VIENNA-H.	110.07	318.7	14	28	-236	25	57	61			19 12 PP
MINERAL	110.08	49.8	18	31	7						
GOTEBORG	110.15	329.2	14	29	-235						18 59 PP
LICK	110.41	53.0	18	21	-4						
THULE	110.46	4.1	18	15	-9						
COPENHAGEN	110.54	327.0	14	26	-239						
TARANTO	110.78	310.4	15	19	-186						28 59 PS
ZAGREB	110.81	316.2	18	30	5						19 9 PP
PRUHONICE	110.86	320.8	14	33	-232	25	7	8			
PRAGUE	110.91	320.9	18	9	-16						19 11 PP
PRIEST	111.33	54.2	14	39K	-227						
COLLMBERG	111.48	322.4	14	36	-230	26	53	111			
RENO	111.56	50.5	14	39	-228						
KASPERSKE H.	111.67	320.1	14	40	-227						19 7 PP
LJUBLJANA	111.76	316.7	18	34	7						19 4 PP
SPOKANE	111.78	41.5									18 54 PP
BANDEIRA	111.85	250.8									19 13 PP
HALLE	112.05	322.8	14	32	-236						19 19 PP
CHEB	112.18	321.3	15	32	-176	26	37	92			
BERGEN	112.32	333.3									19 22
TRIESTE	112.37	316.4				26	58	113			19 18 PP
MESSINA	112.41	308.2				25	15	10			19 12 PP
JENA	112.44	322.3	18	29	1	25	9	3			19 22 PP
LUANDA	113.30	257.1									19 31 PP
PASADENA	113.59	56.1	18	33	2	25	26	16			19 26 PP
PADOVA	113.71	316.5									19 39 PP
HUNGRY HORSE	113.77	40.2	18	42	11						
ROME	114.08	312.6	18	39	7	25	4	-8			19 29 PP
SCORESBY SD.	114.24	349.5	14	48	-224						19 25 PP
MUNSTER	114.46	324.2	18	20	-12						
EUREKA	114.50	50.0	18	34	2						29 20 PKKP
STUTTGART	114.50	320.5	18	15	-17						19 39 PP
FLORENCE X.	114.54	314.8									19 19 PP
FELDBERG	114.56	322.2									19 44 PP

RAVENSBURG	114.58	319.4	18	33	0					22	9
PRATO	114.62	315.0	14	55	-218	25	33	19			
HEIDELBERG	114.65	321.3	18	38	5					19	43 PP
WITTEVEEN	114.70	325.3	18	45	12					19	37 PP
TUBINGEN	114.70	320.3								19	42 PP
EBINGEN	114.87	320.0								19	32 PP
CHUR	114.90	318.4	18	38	5					19	40 PP
KARLSRUHE	114.97	321.0								19	37 PP
BENSBERG	115.07	323.3	18	36	2					19	49 PP
BUTTE	115.38	42.4	18	37	3						
STRASBOURG	115.51	320.7	18	40	6	25	8	-9		19	43 PP
PAVIA	115.61	316.8								19	48 PP
CHIAVARI	115.75	315.8	18	20A	-15	24	42	-36		19	7 PP
DE BILT	115.81	325.0	14	53	-222					19	31 PP
BASLE	115.97	319.6				27	15	116		19	45
BOULDER CITY	116.03	53.6	18	38A	3						
BOZEMAN	116.50	42.4	18	39A	3						
NEUCHATEL	116.54	319.2	18	48	12						
UCCLE	116.79	323.9	15	0	-217	25	30	8			
DOURBES	116.92	323.1	14	57	-220	25	35	13			
BESANCON	117.08	319.7	18	43	6					19	59 PP
ROSELEND	117.17	317.9	18	43	5					19	57 PP
MONACO	117.22	315.6								19	58 PP
SALT LAKE C.	117.29	47.8	18	40A	2						
ISOLA	117.35	316.2	18	51	13					19	57
DURHAM	118.24	329.7	18	44A	4					19	55 PP
GLEN CANYON	118.39	52.0								19	28
PARIS	118.69	322.3	19	42	61					20	9 PP
SIDA	118.81	343.7								20	1 PP
GARCHY	118.92	320.5	18	47	6					19	49 PP
FLAMING GRGE	119.05	47.1	18	40A	-1						
KEW	119.17	326.0	18	50	9					19	52 PP
CLERMONT-FD.	119.45	318.9	18	54	12					20	12 PP
TUCSON	119.96	57.1	18	45A	2						
TUCSON TELE.	120.04	57.0	18	45A	2						
FOLINIERE	120.49	323.2	18	45	1						
LARAMIE	121.67	45.6	19	1	15						
RAPID CITY	122.28	41.8	18	49A	2					20	48 PP
BAGNERES	122.44	316.9	18	55	7					20	9 PP
ALBUQUERQUE	122.91	53.1	18	50A	1						
TORTOSA	123.02	314.3								20	22 PP
ALICANTE	124.60	311.9	18	57	5	26	0	12		20	47 PP
TOLEDO	126.60	314.9	18	58	2					20	59 PP
ALMERIA	126.60	310.8	18	56K	0	26	13	19		20	45 PP
LUBBOCK	126.96	53.3	18	59	3						
GRANADA	127.32	311.6	19	9A	12	25	42	-14		21	12 PP
MALAGA	128.09	311.4	15	46A	-193	26	23	25		20	49 PP
MANHATTEN	128.83	44.7	19	2	2						
WICHITA MTS.	129.14	50.8	19	1	0					21	15 PP
SERRA PILAR	129.14	318.3	19	0	-1	26	5	4		21	12 PP
COIMBRA	129.47	317.1	19	10	9					21	22 PP
LAWRENCE	129.85	44.4	19	2	0						
LISBON	130.66	315.8	19	11K	7					21	30 PP
DUBUQUE	131.04	38.1	19	5	1						
ROLLA	132.68	44.0	19	2	-5					16	7 P
FLORISSANT	133.26	42.1	19	10	1					16	11 P
ST. LOUIS 1	133.43	42.2	19	12	3						
LITTLE ROCK	133.82	48.0	19	1	-9						
C. GIRARDEAU	134.59	43.4	19	4	-7						
TERRE HAUTE	134.89	39.7								19	59
BLOOMINGTON	135.54	39.3	19	15	2					16	19 P
SANTA LUCIA	135.55	157.2	19	11	-2						
CLEVELAND	136.99	33.2	19	19	4						
SHAWINIGAN	137.03	21.3	19	7	-8						
BREBEUF	137.60	22.9	19	9	-7					22	59 PP
MORGANTOWN	139.14	34.0	19	14	-5					22	17 PP
PENNSYLVANIA	139.41	31.0								16	34
PALISADES	141.16	27.1	19	19	-4					19	27 PKP2
GEORGETOWN	141.23	32.3	19	24	1						
WASHINGTON	141.23	32.3	19	18	-5					22	29 PP
PHILADELPHIA	141.40	29.4	19	25	2					22	31 PP
HALIFAX	141.54	13.7	19	20K	-4						
PONTA DELGDA	141.71	325.8	19	38	14					22	45 PKS
ANGRA DO HO.	141.88	328.3	19	19A	-5	26	31	5		22	35 PP
COLUMBIA	142.17	41.6	19	26A	1					22	29 PP
CHAPEL HILL	142.19	37.5	19	21	-4						
SAN SALVADOR	142.65	77.2	19	35	9						
SANTIAGO MA.	143.38	77.4	19	31	4						

ANTOFAGASTA	144.06	149.9	19 28	0			21 12 PP	
M.BOUR	145.24	284.5	19 30	0	26 59	28		
AREQUIPA	149.23	140.6	19 40	3				
LA PAZ	151.19	145.7	19 42	2			23 36 PP	
BALBOA HTS.	152.39	84.9	19 44	3				
CHINCHINA	156.10	94.5	19 51A	5			37 30 PPS	
GALERAZAMBA	156.50	80.1	19 49	2				
BOGOTA	157.58	95.9	19 52A	4				
FUQUENE	158.03	93.8	19 51	2				
SAN JUAN	162.24	50.8	19 56A	3			24 28 PP	
ANTIGUA	166.18	44.8	19 59	2			21 5 PKP2	
ST. CLAUDE	167.01	48.0	20 3	5			26 28	
DOMINICA	167.70	49.7	20 1	3				
ST. VINCENT	169.00	58.0	20 1	2			21 15 PKP2	
GRENADA	169.11	64.3	20 7	8				
TRINIDAD	169.90	70.8	20 2K	3			24 34	
BARBADOS	170.39	53.3	20 11	11				

MAY 15 6.H 42.M 56.S EPICENTRE -7.39 128.29 DEPTH= 0.KM

A=-0.61456 B= 0.77847 C=-0.12770 D= 0.7849 E= 0.6196
G= 0.0791 H=-0.1002 K=-0.9918 HT= 6.8

SE= 2.94

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	#PP M S	SUPP. M S
DARWIN	5.56	153.4	1 25	-1	2 22	-10		
PORT MORESBY	18.77	97.4	4 22A	-1				
LEMBANG	20.52	270.2	4 47A	4	8 35	7		
DJAKARTA	21.34	271.9	4 49	-2	8 57	13		
CHARTERS TS.	21.51	127.7	4 51	-2	8 49	2		
TANGERANG	21.54	271.9	4 49	-4				8 55
MANILA	23.05	341.9	5 7	-1	8 37	-39		
RABAUL	23.97	83.7	5 18	1				
BAGUIO CITY	24.85	342.2	5 27	1				
MUNDARING	26.93	203.1	5 44A	-1				
ADELAIDE	29.08	162.2	6 2	-3				12 23
BRISBANE	30.57	133.6	6 15	-3				
MEDAN	31.49	289.3	6 27	1				12 41
HONG KONG	32.58	335.2	6 36	1	11 52	1		
CANTON	33.63	334.6	6 45	0				
CANBERRA	33.68	148.6	6 43K	-2	12 1	-7		13 5 PCS
RIVERVIEW	33.74	144.4	6 49A	3				
MELBOURNE	33.87	155.9	6 46	-1	12 10	-1		8 42
TARRALEAH	38.30	158.1	7 31	7				
MOORLANDS	38.70	157.4	7 34A	6				
ZO-SE	38.87	350.3	7 28	-1				
FORT NELSON	39.18	157.7	7 36	4	13 37	5		
NOUMEA	39.61	116.2	7 35K	0				
NANKING	40.26	347.5	7 35	-6				
PORT VILA	40.32	108.7	7 33	-8				9 17
KUNMING	40.78	323.2	7 47A	2				
CHENGTU	44.42	329.6	8 14	0				
MATUSIRO	44.67	11.4	8 15	-2				
SIAN	45.29	337.3	8 21	0				
CHITTAGONG	46.37	310.5	8 29	-1	15 5	-13	8 42	10 24 PP
SHILLONG	48.24	314.0	8 42A	-3				
PEKING	48.49	347.6	8 46	-1				
LANCHOW	48.94	333.6	8 51A	1	15 55	1		
VLADIVOSTOK	50.37	3.4	9 11	10				
PAOTOW	50.61	342.0	9 4	1				
LHASA	51.36	317.6	9 10A	1	16 28	0		9 21 *SP
TARATA	52.05	134.8	9 17	3				
KARAPIRO	52.37	132.8	9 17	1				
CHATRA	52.39	312.1	9 15	-1				
WELLINGTON	53.23	137.0	9 18	-5				
TUAI	53.87	133.2	9 27	0				
AFIAMALU	59.13	101.7	10 7	2				
DUMONT	59.74	174.6	10 8	-1				
WILKES	60.13	188.2	10 11	-1				
NEW DELHI	60.85	308.4	10 14K	-3				
DEHRA DUN	61.03	310.6	10 19	1				
LAHORE	64.42	310.1	10 40	-1				
WARSAK DAM	67.61	311.3	11 1	0				
MAGADAN	69.10	12.0	11 11	1				
YAKUTSK	69.20	0.7	11 15A	4				

TASHKENT	72.50	317.4	11	30	-1							
SCOTT BASE	73.18	172.1	11	34	-1							
MAWSON	73.97	201.3	11	43A	4				12	16	14	31 PP
TANANARIVE	78.92	252.2	12	10	3							
VANNOVSKAYA	79.19	310.8	12	9	0							
SHIRAZ	81.41	301.4	12	18A	-2	22	26	-5			15	39 PP
SOUTH POLE	82.66	180.0	12	25	-2							
BYRD STATION	86.54	170.7	12	44	-2							
COLLEGE	94.04	25.2	13	21	-1	24	34	4			17	14 PP
MOSCOW	96.42	325.3	13	31	-1							
KAJAANI	101.23	333.9	13	53	-1							
SODANKYLA	101.26	337.3	13	48	-6							
KIRUNA	103.51	338.2	14	10	6							
UMEA	104.52	334.2	14	13	4							
PRUHONICE	110.81	320.8									19	9 PP
COLLMBERG	111.43	322.4									19	24 PP
KASPERSKE H.	111.63	320.1									19	32
MUNSTER	114.41	324.2									19	48 PP
STUTTGART	114.45	320.5									19	29 PP
EUREKA	114.47	50.0	18	43	1						29	23 PKKP
DOURBES	116.87	323.1									20	2 PP
GARCHY	118.88	320.6									20	13
WICHITA MTS.	129.11	50.8	19	10	-1						21	14 PP
LAWRENCE	129.83	44.4	19	12	0							
LITTLE ROCK	133.79	48.0	19	20	1							
BREBEUF	137.56	22.9	19	29	3							
M.BOUR	145.22	284.5	19	50	10							
AREQUIPA	149.27	140.5	19	51	4							
LA PAZ	151.24	145.7	19	58	8							
SAN JUAN	162.22	50.7	20	51	48							

MAY 15 16.H 54.M 0.S EPICENTRE -7.36 127.96 DEPTH= 21.KM

A=-0.61012 B= 0.78201 C=-0.12732 D= 0.7884 E= 0.6151
G= 0.0783 H=-0.1004 K=-0.9919 HT= 6.8

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
DARWIN	5.73	150.7	1	27	0	2	37	4				
PORT MORESBY	19.09	97.4	4	25	1							
LEMBANG	20.19	270.2	4	36K	0	8	21	4				
TANGERANG	21.22	271.9	4	44	-3						9	6
CHARTERS TS.	21.79	127.3	4	53	0	8	57	9				
MANILA	22.93	342.7	5	9	5						8	59 PP
RABAUL	24.29	83.9	5	13	-4							
BAGUIO CITY	24.73	342.9	5	25	3	9	50	10				
MUNDARING	26.82	202.6	5	40	-1							
ADELAIDE	29.20	161.7	6	2	-1	10	52	-1			11	37
BRISBANE	30.83	133.3	6	19	2						12	58
HONIARA	31.71	96.0	6	23	-2						12	10
HONG KONG	32.43	335.7	6	32	1	11	48	5			7	42 PP
CANTON	33.48	335.1	6	42A	2	12	2	2				
CANBERRA	33.87	148.2	6	44K	0						20	24
RIVERVIEW	33.95	144.1	6	45	1	12	8	1				
MELBOURNE	34.02	155.5	6	46	1						7	47
TARRALFAH	38.45	157.8	7	27	5							
ZO-SE	38.79	350.7	7	26	1	13	22	1			9	24 PPP
MOORLANDS	38.84	157.1	7	31	5							
FORT NELSON	39.32	157.4	7	34	4							
PORT BLAIR	39.83	298.1	7	19	-15						13	40
NANKING	40.17	347.9	7	40	3							
KUNMING	40.56	323.6	7	43A	3	13	54	6				
CHENGTU	44.23	329.9	8	11	1	14	43	1				
MATUSIRO	44.72	11.8	8	14K	0	14	50	1				
SIAN	45.14	337.6	8	18A	1	14	56	1				
SHILLONG	47.99	314.3	8	40K	0							
PEKING	48.40	347.9	8	43	0	15	42	1				
LANCHOW	48.78	333.9	8	48A	2	15	50	3				
VLADIVOSTOK	50.37	3.7	9	9	11							
VISHAKHAPTNM	50.66	300.0	8	59	-1	16	21	8				
CHANGCHUN	51.01	357.5	9	3	0	16	18	0				
LHASA	51.12	317.8	9	7A	3	16	24	5				
ROXBURGH	52.10	143.9	9	17	6							
CHATRA	52.13	312.3	9	12A	1							
KARAPIRO	52.63	132.7	9	18	3							

WELLINGTON	53.46	136.9	9 29	8							
TUAI	54.13	133.1	9 26	0							
Y.-SAKHLINSK	55.71	12.2	9 37	-1							
UGLEGORSK	57.55	10.9	9 50	-1							
ULAN-BATOR	58.10	343.5	9 55	0	17 57	4					
POONA	59.24	296.6	10 4	1							
DUMONT	59.79	174.5								10 6	
WILKES	60.11	188.0			18 0	-19					
BOMBAY	60.28	296.6			18 30	9				12 20	
ESEN BULAK	60.53	335.3	10 12	1							
NEW DELHI	60.58	308.6	10 10A	-2							
DEHRA DUN	60.77	310.7	10 15	2						18 41	
IRKUTSK	62.75	343.9	10 27	1							
MIRNY	63.77	194.8	10 23	-10							
LAHORE	64.16	310.2	10 46	10							
PETROPAVLOVK	65.55	19.8	10 40	-5							
WARSAK DAM	67.36	311.4	10 57	1							
ALMATA-2	68.10	322.5	11 2K	1							
KHOROG	68.95	314.7	11 7K	1							
YAKUTSK	69.19	0.9	11 7A	0							
SEMIPALATNSK	70.77	329.9	11 18	1							
TASHKENT	72.27	317.5	11 26A	0	20 53	6					
SCOTT BASE	73.25	172.0	11 31	-1							
MAWSON	73.87	201.2	11 35A	0			11 44			11 53	PCP
TANANARIVE	78.61	252.2	12 5	3							
ASHKABAD	78.74	310.9	12 3	0							
TIKSI	78.83	0.3	12 1A	-2	21 58	-1					
VANNOVSKAYA	78.93	310.9	12 5	1							
SHIRAZ	81.12	301.5	12 16A	0	22 24	1				15 22	PP
SOUTH POLE	82.69	180.0	12 22	-2							
SVERDLOVSK	84.04	329.3	12 31K	0							
BYRD STATION	86.61	170.7	12 43	0						13 8	
GORIS	88.22	310.0	12 53	2	23 43	10					
AMDERMA	88.89	341.4	12 53	-1							
TIFLIS	89.77	312.0	13 0	1							
COLLEGE	94.16	25.2	13 22	3							
KSARA	95.77	303.3								17 18	
KIRUNA	103.37	338.2	14 6	6							
UMEA	104.36	334.1	14 9	4							
SKALSTUGAN	107.83	334.9								18 50	PP
PRUHONICE	110.59	320.7								19 4	PP
KASPERSKE H.	111.40	320.0								19 13	PP
HALLE	111.79	322.8	18 48	14						19 24	PP
JENA	112.18	322.2								19 24	PP
STUTTGART	114.23	320.5								20 40	
BENSBERG	114.82	323.2								19 44	PP
DOURBES	116.66	323.0								20 21	PP
GARCHY	118.66	320.5								20 15	
WICHITA MTS.	129.35	50.7	19 8	0						21 17	PP
AREQUIPA	149.49	141.0	19 51	8							
LA PAZ	151.44	146.2	19 50	4							

MAY 15 19.H 32.M 29.S EPICENTRE 53.37 159.80 DEPTH= 92.KM

A=-0.56231 B= 0.20691 C= 0.80062 D= 0.3453 E= 0.9385
G=-0.7514 H= 0.2765 K=-0.5992 HT= -6.6

DEPTH OF FOCUS= 0.009R

SE= 1.90

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PETROPAVLOVK	0.78	243.2	0	15K	-4	0	25	-8					
KLYUCHI	3.02	11.4	0	48	1	1	28	6					
MAGADAN	7.94	324.8	1	58	3						5	0	
OKHA	10.06	277.8	2	23	-1	4	31	16					
KURILSK	11.26	228.4									4	6	
UGLEGORSK	11.91	256.0	2	51A	3	5	12	12			3	10	*SP
Y.-SAKHLINSK	12.64	246.7	2	59K	1	5	23	6					
YAKUTSK	18.10	310.5	4	6A	-1						7	19	
VLADIVOSTOK	21.09	252.2	4	46	7	8	45	22					
MATUSIRO	22.59	230.5	4	53A	-1	8	45	-5					
CHANGCHUN	24.51	261.1	5	9A	-3	9	22	-1					
ABUYAMA	25.19	232.5	5	18A	-1								
COLLEGE	28.34	45.4	5	45	-3								
PEKING	32.23	263.4	6	19	-3								

MOULD BAY	36.86	23.2	7	2A	1								
KHEYS	39.67	345.4	7	24	-1						9	31	PPP
ESEN BULAK	40.30	286.7	7	33	3								
LANCHOW	42.20	269.0	7	45A	-1								
ALERT	42.68	7.5	7	50A	1								
RESOLUTE	43.13	22.0	7	54A	1						9	42	
AMDERMA	43.85	330.2	7	59	0								
ALBERNI	45.25	63.2	8	10	0								
HONG KONG	46.36	246.2	8	19	0								
VICTORIA	46.44	63.3	8	20	0								
THULE	46.89	13.9	8	18	-5								
PENTICTON	47.97	60.4	8	32A	0								
BANFF	48.92	56.3	9	33	54								
SVERDLOVSK	51.95	316.4	9	1K	-1								
APATITY	52.93	337.2	9	8	-1								
ALMATA	53.04	294.9	9	10	0								
TROMSOE	54.04	344.2	9	16	-1								
SODANKYLA	54.58	339.7	9	20	-1						10	22	PCP
KIRUNA	55.38	342.5	9	26A	-1						10	25	PCP
EUREKA	56.39	67.6	9	36	2								
SHILLONG	56.84	269.0	9	36A	-2								
KAJAANI	57.14	337.2	9	39	-1						10	31	PCP
TASHKENT	58.50	297.9	9	47	-2						10	38	PCP
CHATRA	58.72	273.7	9	49K	-2								
UMEA	58.99	340.4	9	51A	-2						10	40	PCP
BOULDER CITY	59.50	69.8	9	54	-2								
KHOROG	60.03	293.4	10	0K	0								
LARAMIE	60.65	59.5	10	5	1								
SKALSTUGAN	60.66	344.0	10	3	-1						10	46	PCP
NURMIJARVI	60.95	336.5	10	5	-1						10	46	PCP
HELSINKI	61.17	336.1	10	7	0						10	50	PCP
MOSCOW	61.33	326.9	10	8	-1						10	29	*SP
DEHRA DUN	61.54	283.3	10	9	-1								
UPPSALA	63.11	339.7	10	20A	0						10	56	PCP
NEW DELHI	63.33	282.6	10	18A	-4								
BERGEN	64.75	346.3	10	30	-1								
GOTEBORG	66.23	341.8	10	40A	-1						11	9	PCP
KARLSKRONA	66.94	339.2	10	41	-4								
DUBUQUE	66.99	49.2	10	44	-1								
COPENHAGEN	68.03	340.8	10	53	1								
WICHITA MTS.	69.23	59.6	11	0A	1						13	40	PP
DARWIN	70.02	210.2	11	5	1								
TIFLIS	70.05	313.8	11	5	1								
ROLLA	70.07	53.0	11	4A	0								
FLORISSANT	70.08	51.4	11	4A	0								
SHAWINIGAN	70.85	35.5	11	9A	0								
DURHAM	71.13	348.7	11	4	-7								
GORIS	71.18	311.4	11	11	0								
BRFBFUF	71.46	36.6	11	12A	-1						11	23	
BLOOMINGTON	71.54	48.6	11	27	14								
RACIBORZ	71.95	335.1	11	20	4								
HALLE	72.07	339.5	11	17	1								
LITTLE ROCK	72.34	55.3	11	18	0								
MUNSTER	72.47	342.4	11	20	1								
JENA	72.69	339.6	11	19	-1								
PRUHONICE	72.93	337.4	11	22	1								
BENSBERG	73.52	342.3	11	25	0								
PENNSYLVANIA	73.87	41.9	11	25A	-2								
KASPERSKE H.	73.95	337.7	11	28A	1						11	49	
FELDBERG	73.99	341.3	11	42	14								
MORGANTOWN	74.01	43.9	11	29	1								
CHARTERS TS.	74.09	193.2	11	28	0								
KEW	74.20	347.2	11	28	-1								
HEIDELBERG	74.72	340.9	11	33	1								
DOURBES	74.80	343.7	11	33	1						11	54	
STUTTGART	75.21	340.3	11	36	1								
HALIFAX	75.55	30.4	11	36A	0								
STRASBOURG	75.69	341.2	11	39	2						12	0	
SHIRAZ	76.16	301.1	11	40A	0	21	14	-1	12	2	14	23	PP
PARIS	76.39	344.8	11	43	2						12	3	
LJUBLJANA	76.61	335.9	11	43	1						12	4	
FOLINIERE	76.87	346.7	11	44	0								
BESANCON	77.30	342.1	11	47	1								
GARCHY	77.78	344.0	11	50	1								
ROSELEND	78.68	341.2	11	55	1								
CLERMONT-FD.	79.24	343.6	11	58	1								
ISOLA	80.05	340.5	12	4	3								
MONACO	80.41	340.1	12	5	2								

ATHENS	81.41	326.3	12	9K	1							
BAGNERES	82.35	345.1	12	16	3							
TOLEDO	86.08	347.6	12	34	2							
COIMBRA	86.25	351.0	12	36K	3							
CANBERRA	88.82	188.8	12	46	1							
BROKEN HILL	125.58	296.6	18	54A	3							
LA PAZ	127.67	64.1	18	59	4							
KIMBERLEY	139.05	288.7	19	8	-8							
MAWSON	140.10	216.4	19	18K	0							
BYRD STATION	140.48	164.3	19	11	-8							
SOUTH POLE	143.19	180.0	19	20	-4						22	16

MAY 16 14.H 35.M 33.S EPICENTRE -7.45 127.98 DEPTH= 64.KM

A=-0.61028 B= 0.78165 C=-0.12876 D= 0.7882 E= 0.6154
G= 0.0792 H=-0.1015 K=-0.9917 HT= 6.8

DEPTH OF FOCUS= 0.005R

SE= 2.87

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DARWIN	5.65	150.4	1	21	-2								
PORT MORESBY	19.06	97.2	4	21	1								
LEMBANG	20.21	270.5	4	31K	-1	8	15	5					
TANGERANG	21.24	272.1	4	40	-2								
CHARTERS TS.	21.72	127.2	4	47	0	8	51	12					
MANILA	23.01	342.7	5	2	2	9	12	10					
RABAUL	24.28	83.7	5	11	-1								
MUNDARING	26.75	202.7	5	35A	0								
ADELAIDE	29.12	161.7	4	57	-6U						5	10	*SP
BRISBANE	30.75	133.2	6	14	3	13	7	118					
MEDAN	31.22	289.6	6	15K	U								
HONG KONG	32.51	335.7	6	28	1	11	40	4					
CANTON	33.56	335.1	6	36	0								
CANBERRA	33.79	148.2	6	38K	0						14	5	
RIVERVIEW	33.87	144.0	6	43	5						7	53	PP
MELBOURNE	33.94	155.5	6	43	4						14	3	
ZO-SE	38.88	350.7	7	25	4	13	27	13					
NANKING	40.25	347.9	7	32	0	13	39	5					
KUNMING	40.64	323.6	7	38	3	13	50	10					
CHENGTU	44.32	329.9	8	5	0								
MATUSIRO	44.80	11.7	8	7	-2	14	42	1					
SIAN	45.23	337.6	8	13	U	14	52	5					
SHILLONG	48.06	314.3	8	36K	1								
PEKING	48.48	347.9	8	37	-1								
LANCHOW	48.86	333.9	8	42	1	15	44	5					
CHANGCHUN	51.09	357.5	8	57	-1								
LHASA	51.20	317.8	9	0A	1	16	18	7					
COBB RIVER	51.92	137.5	9	14	10								
ROXBURGH	52.02	143.9	9	23	18								
CHATRA	52.20	312.3	9	7K	1								
KARAPIRO	52.55	132.7	9	16	7								
CHATEAU	53.05	134.2	9	23	10								
WELLINGTON	53.39	136.8	9	23	8								
TUAI	54.06	133.1	9	19	-1								
ULAN-BATOR	58.19	343.5	9	48A	-2	17	52	7					
DUMONT	59.71	174.5	9	59	-1						10	9	
ESEN BULAK	60.61	335.3	10	6	U	18	24	8					
NEW DELHI	60.65	308.6	10	3A	-4								
DEHRA DUN	60.84	310.7	10	7	-1								
IRKUTSK	62.83	343.9	10	21A	0								
MIRNY	63.69	194.8	10	27	0								
PETROPAVLOVK	65.63	19.8	10	36	-3								
WARSAK DAM	67.43	311.4	10	50A	-1								
ALMATA-2	68.18	322.5	10	57	2								
YAKUTSK	69.27	0.9	11	1A	-1								
FRUNSE	69.63	321.0	11	5	1								
SEMIPALATNSK	70.86	329.9	11	11	-1								
SCOTT BASE	73.16	172.0	11	27	1								
MAWSON	73.80	201.2	11	30K	1								
ASHKABAD	78.81	310.9	11	59	1								
TIKSI	78.91	0.3	11	56K	-2	21	52	2					
VANNOVSKAYA	79.00	310.9	11	59	0								
SHIRAZ	81.18	301.5	12	10A	0						15	42	PKS
SOUTH POLE	82.60	180.0	12	17	-1								

SVERDLOVSK	84.12	329.3	12	25	0							
BYRD STATION	86.53	170.7	12	38	1					14	21	
AMDERMA	88.97	341.4	12	47K	-2							
COLLEGE	94.22	25.2	13	12	-1							
KIRUNA	103.45	338.2	13	54	-1							
PRUHONICE	110.67	320.7						19	7			
COLLMBERG	111.29	322.4								19	15	PP
LJUBLJANA	111.55	316.6	18	44	17					19	14	PP
TRIESTE	112.16	316.3								19	18	PP
JENA	112.26	322.2								19	19	PP
STUTTGART	114.31	320.4								19	32	PP
FLORENCE X.	114.32	314.8								19	18	PP
EUREKA	114.74	50.0	18	35	2							
CHIAVARI	115.53	315.7	18	17	-18					19	48	PP
WICHITA MTS.	129.39	50.7	19	3	2					21	7	PP
AREQUIPA	149.41	141.1	19	46	9							
LA PAZ	151.36	146.3	19	50	10							
TRINIDAD	170.20	70.4	20	5	5							

MAY 16 17.H 33.M 4.S EPICENTRE -13.39 167.22 DEPTH= 18.KM

A=-0.94906 B= 0.21531 C=-0.23005 D= 0.2212 E= 0.9752
G= 0.2243 H=-0.0509 K=-0.9732 HT= 6.0

SE= 2.46

	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	
PORT VILA	4.45	166.3	1	8A	-1	1	56	-5					
KOUMAC	7.67	201.1	1	43A	-11						2	12	
HONIARA	8.14	298.1	2	1A	0								
NOUMEA	8.89	184.6	2	10A	-1						2	47	
SUVA	11.78	115.1	2	53	2	5	21	18					
RABAUL	17.44	300.2	4	2	-2						8	45	
BRISBANE	19.39	221.9	4	28	0						4	50	PP
AFIAMALU	20.42	93.9	4	37A	-2						9	44	
CHARTERS TS.	21.14	248.8	4	46	-1						8	50	
RIVERVIEW	25.05	213.0	5	24	-1						6	13	PPP
KARAPIRO	25.54	164.6	5	31	1				5	36			
CHATEAU	26.74	165.5	5	44	3				5	55			
TUAI	26.80	162.6	5	41	0								
CANBERRA	27.33	213.8	5	46	0								
MELBOURNE	31.38	215.2	6	23	0								
ROXBURGH	32.04	177.2	6	30	2	11	52	14					
ADELAIDE	33.52	225.2	6	44	3								
MUNDARING	50.08	239.5	8	55	-1								
MANILA	53.51	299.8	9	29	7								
MATUSIRO	56.70	332.1	9	42A	-3	18	0	25					
LEMBANG	58.92	270.0	10	3A	2						12	11	
ZO-SE	62.53	315.9	10	23	-3	18	52	1					
CANTON	63.99	304.1	10	38	3	19	15	6					
Y.-SAKHLINSK	64.02	341.6	10	33	-2								
SCOTT BASE	64.47	180.1	10	36	-2								
NANKING	64.74	315.4	10	38	-2	19	22	4					
WILKES	64.78	201.9	10	38	-2								
VLADIVOSTOK	64.86	332.1	10	41	0								
CHANGCHUN	68.57	328.7	11	2	-2	20	4	0					
MEDAN	70.05	278.8	11	14	1								
PEKING	71.19	320.9	11	19	-1	20	40	5					
MIRNY	71.53	204.0	11	19	-3								
SIAN	72.86	312.5	11	32	2	21	6	12					
KUNMING	73.56	301.5	11	34	0	21	6	4					
BYRD STATION	74.01	170.0	11	35	-2								
CHENGTU	74.85	307.2	11	42	0	21	19	2					
SOUTH POLE	76.70	180.0	11	52	0								
LANCHOW	77.38	312.1	11	57	1	21	50	6					
YAKUTSK	80.72	343.1	12	13	-1								
SHILLONG	82.90	298.3	12	26K	0								
MAWSON	83.10	202.0	12	24	-3								
BERKELEY	83.33	48.7	12	30A	2						13	5	
CALISTOGA	83.39	47.9	12	28K	0								
LICK	83.58	49.4	12	30A	1								
PRIEST	83.87	50.8	12	32A	2								
COLLEGE	85.06	17.6	12	34	-2				12	41			
PASADENA	85.09	53.4	12	37	0								
RENO	85.73	47.9	12	39	-1								

ALBERNI	86.25	37.5	12	40	-2					
VICTORIA	86.78	38.5	12	43	-2					
ESEN BULAK	86.93	319.1	12	45	-1					
CHATRA	87.31	298.2	12	47	0					
BOULDER CITY	88.27	52.5	12	52	0					
EUREKA	88.50	48.9	12	51	-2					
TIKSI	88.64	348.7	12	51	-3	23	41	3		
PENTICTON	89.40	38.8	12	56K	-1					
WICHITA MTS.	100.90	56.8							17	56 PP
SHIRAZ	117.85	296.6	18	52	6					
KIRUNA	121.46	345.9	18	57	4					
KAJAANI	122.14	340.3	18	53	-1					
UMEA	124.62	342.9	18	57	-2					
NURMIJARVI	125.61	338.3	19	0	-1					
HELSINKI	125.73	337.8	19	1	0					
SKALSTUGAN	126.88	346.3	19	8	5					
BULAWAYO	127.39	231.4	19	4	0					
UPPSALA	128.48	340.9	19	12	5					
KSARA	131.50	303.4	19	17	5				21	38 PP
COLLMBERG	136.82	336.5	19	27	5				22	11
PRUHONICE	137.21	334.1	19	24	1				22	9
KASPERSKE H.	138.26	334.0	19	27	2					
LJUBLJANA	140.12	330.1	19	28	0				20	31
STUTTGART	140.28	337.1	19	30	1					
TRIESTE	140.78	330.3	19	32	3					
MESSINA	144.74	319.6	19	40	4					
CLERMONT-FD.	145.03	340.5	19	37	0					
MONACO	145.14	334.0	19	37	0					
BANGUI	147.75	256.8	19	44	3				20	3
TOLEDO	152.51	345.3	19	59	10					

MAY 18 18.H 46.M 40.S EPICENTRE 46.15 148.76 DEPTH= 29.KM

A=-0.59436 B= 0.36053 C= 0.71885 D= 0.5186 E= 0.8550
G=-0.6146 H= 0.3728 K=-0.6952 HT= -4.0

SE= 2.79

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	1.11	214.4	0	19A	-1	0	30	-4				
Y.-SAKHLINSK	4.25	283.9	1	4K	-1						2	5
UGLEGORSK	5.39	305.3	1	21	0	2	23	0				
OKHA	8.30	335.2	1	58	-3						4	39
PETROPAVLOVK	9.40	39.4	2	17	0						4	9
TUKUBASAN	11.87	216.3	2	46	-4	4	57	-6				
VLADIVOSTOK	12.39	261.9	3	1A	4						5	24
MATUSIRO	12.44	223.2	2	56	-2							
KLYUCHI	12.67	32.2	3	1	0							
MAGADAN	13.48	4.5	3	18	6						6	8
ABUYAMA	15.06	226.2	3	31	-2							
CHANGCHUN	16.74	270.5	3	56A	2	7	7	9				
YAKUTSK	19.30	332.3	4	25K	0	8	2	6			4	41 PP
PEKING	24.46	267.3	5	18A	0	9	37	4				
ZO-SE	26.10	244.5	5	36	3	10	10	9				
NANKING	27.00	249.2	5	45	4	10	24	9				
TIKSI	27.25	346.4	5	43A	-1	10	21	2			6	28 PP
ULAN-BATOR	28.34	289.0	5	53	-1	10	44	7				
PAOTOW	28.50	272.8	5	55	0	10	44	5				
SIAN	32.34	262.7	6	28	-1							
LANCHOW	34.91	269.5	6	52A	1							
ESEN BULAK	35.74	289.9									8	26
CHENGTU	37.80	261.8	7	16	0	13	8	4				
COLLEGE	38.48	37.9	7	22	1							
KUNMING	42.18	256.3	7	53	1	14	13	3				
KHEYS	44.95	346.6				14	47	-3			8	23
MOULD BAY	46.18	19.4	8	22	-2							
AMDERMA	46.66	331.5	8	27A	-1	15	24	9				
LHASA	47.40	270.6	8	36	2	15	33	8				
SHILLONG	49.34	265.7	8	49A	0							
RABAUL	50.22	175.6	8	56	1						17	12
FRUNSE	51.19	294.8	9	2A	-1							
CHATRA	51.81	270.5	9	9A	2							
SVERDLOVSK	52.20	315.9	9	10A	0						20	14 55
RESOLUTE	52.34	17.5	9	10A	-1							
THULE	55.43	10.0	9	32	-2							

DEHRA DUN	55.97	280.0	9 38	0			
KHOROG	56.10	290.8	9 40	1			
APATITY	56.67	335.4	9 42	-1			
NEW DELHI	57.62	278.9	9 48A	-2			
LAHORE	57.75	283.5	9 48	-3			
PENTICTON	57.95	50.5	9 52A	0			
WARSAK DAM	58.13	287.5	9 53	0			
SODANKYLA	58.68	337.4	9 56K	-1			12 9 PP
TROMSOF	58.84	341.7	9 57	-1			
KIRUNA	59.91	339.9	10 4	-2			
KAJAANI	60.78	334.4	10 10K	-2			
MINERAL	62.16	59.8	10 20A	-1			
CALISTOGA	62.63	61.8	10 25A	1			
PULKOVO	63.10	330.1	10 25	-2			12 55 PP
UMEA	63.11	337.1	10 25	-2			
MOSCOW	63.19	323.8	10 26	-2			12 53 PP
BERKELEY	63.31	62.3	10 22A	-7			
QUETTA	63.56	286.8	10 42	12			
RENO	63.74	59.5	10 32A	1			
LICK	64.02	62.4	10 34A	1			10 59
ASHKABAD	64.13	298.5	10 35	1			
LEMBANG	64.22	226.5	10 33K	-2			
NURMIJARVI	64.41	333.0	10 34K	-2			12 56 PP
HELSINKI	64.58	332.6	10 36	-1			12 58 PP
BOZEMAN	64.77	49.7	10 39	1			
SKALSTUGAN	65.33	340.2	10 43	1			
PRIEST	65.39	62.9	10 43A	1			
EUREKA	66.06	57.5	10 47	1			
UPPSALA	67.06	335.6	10 50	-3			
SALT LAKE C.	67.58	54.2	10 56	0			
FLAMING GRGE	68.84	52.7	11 3	-1			
BOULDER CITY	69.05	59.7	11 7	2			
TEHERAN	69.79	300.7	11 8	-2			
GORIS	70.15	306.5	11 12	0	20 25	5	
GOTEBORG	70.46	337.0	11 21	7			
KARLSKRONA	70.75	334.4	11 6	-9			
SIMFEROPOL	72.52	317.4	11 26	0			
LWOW	73.07	326.2	11 29	0			
SHIRAZ	73.26	295.4	11 30A	0			
TUCSON	74.02	60.1	11 36	1			
TUCSON TELE.	74.02	60.0	11 36	1			
ALBUQUERQUE	74.68	55.4	11 40	1			
RACIBORZ	75.02	329.6	11 41	0			
COLLMBERG	75.71	333.1	11 44	-1			14 44
HALLE	75.86	333.8	11 44	-1			
PRUHONICE	76.35	331.6	11 47	-1			14 48
JENA	76.47	333.7	11 47	-2			14 48 PP
BRATISLAVA	77.01	329.1	11 51K	-1			14 48 PP
KASPERSKE H.	77.40	331.7	11 53	-1			15 0
BENSBERG	77.74	336.3	11 55	-1			
ISTANBUL UN.	77.93	317.8	11 54	-3	21 49	2	
FELDBERG	78.04	335.2	12 10	12			
HEIDELBERG	78.69	334.7	11 50	-11			
STUTTGART	79.08	334.0	12 2	-1			
SOFIA	79.13	322.3	12 4	0			
KEW	79.17	340.9	12 12A	8			
WICHITA MTS.	79.22	50.7	12 4	0			15 1 PP
DOURBES	79.22	337.4	12 0	-4			
KSARA	80.02	308.8	12 9	1			
SHAWINIGAN	80.73	27.6	12 12A	0			
LONDON ONT.	80.75	34.6	12 12A	0			
PARIS	80.96	338.2	12 14	1			
CANBERRA	81.10	179.8					19 14
BREBEUF	81.38	28.7	12 15A	-1		12 24	
GARCHY	82.21	337.2					13 19
MORGANTOWN	84.12	35.7	12 31K	1			
HALIFAX	85.19	22.6	12 35K	0			
COLUMBIA	88.44	39.4	12 52	1			
MAWSON	130.15	210.0	19 8A	0			
BYRD STATION	135.35	165.6	19 12	-5			25 0
SOUTH POLE	135.96	180.0	19 7	-11			
LA PAZ	137.42	58.3	19 33	12			

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

MAY 19 14.H 58.M 10.S EPICENTRE 17.12 -99.56 DEPTH= 0.KM

A=-0.15884 B=-0.94294 C= 0.29263 D=-0.9861 E= 0.1661
G=-0.0486 H=-0.2886 K=-0.9562 HT= 5.3

SE= 1.96

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SAN SALVADOR	10.56	107.5	2	36	0	4	42	6				
SANTIAGO MA.	11.29	107.1	2	48	2	5	32	38				
HOUSTON	13.10	16.2	3	11	1							
WICHITA MTS.	17.55	2.7	4	7A	-1	7	31	9				
TUCSON	18.19	328.0	4	18A	2	7	51	14				
TUCSON TELE.	18.21	328.4	4	18A	2							
LITTLE ROCK	18.73	18.8	4	21	-1							
ALBUQUERQUE	18.79	342.2	4	18A	-5							
BLACK RIVER	20.70	84.3	4	44	0							
BALBOA HTS.	21.09	110.1	4	47K	-2	8	46	7				
ROLLA	21.79	16.6	4	56A	0	9	8	16				
C. GIRARDEAU	21.98	21.8	4	57	0	9	20	24				
LAWRENCE	22.09	9.0	4	58	-1							
MANHATTEN	22.15	6.2	5	0	1							
ST. LOUIS 1	22.94	19.0	5	7A	0							
FLORISSANT	23.04	18.6	5	8A	0							
COLUMBIA	23.64	41.2	5	15A	1	9	28	2				
PASADENA	23.78	319.0	5	17	2	9	46	18				
GALERAZAMBA	24.39	101.8	5	22	1	9	51	12				
TERRE HAUTE	24.57	23.2	5	50	27	10	50	68				
LARAMIE	24.65	349.1	5	21	-3							
BLOOMINGTON	24.76	24.8	5	25	0							
FLAMING GRGE	25.19	342.3	5	28A	-1	10	5	13				
SALT LAKE C.	25.84	338.2	5	35A	0							
CHAPEL HILL	26.12	40.2	5	38	1							
CHINCHINA	26.38	114.5	5	39A	-1	10	17	5				
DUBUQUE	26.42	14.9	5	42	2							
EUREKA	26.46	330.6	5	42	1							
PRIEST	26.62	319.4	5	43A	1							
RAPID CITY	27.05	354.2	5	47A	1							
FUQUENE	27.81	111.6	5	54	1							
BOGOTA	27.90	113.5	5	59	5							
LICK	28.00	320.3	5	56A	1							
MORGANTOWN	28.17	33.3	5	56A	0							
RENO	28.44	325.8	6	1A	2	11	18	32			13	11
BERKELEY	28.71	320.5	6	2A	1	10	59	9			7	18 PP
CLEVELAND	28.80	28.9	6	1A	-1							
WASHINGTON	29.26	37.6	6	6K	0	11	8	9				
CALISTOGA	29.40	321.4	6	5K	-2							
MINERAL	29.99	325.0	6	9	-4							
BOZEMAN	30.04	343.8	6	14A	1							
UKIAH	30.10	321.5	6	13K	-1							
PENNSYLVANIA	30.12	34.0	6	11A	-3							
LONDON ONT.	30.20	27.4	6	12A	-2							
BUTTE	30.78	342.2	6	21A	1							
PHILADELPHIA	31.06	38.0	7	22	60							
SAN JUAN	31.85	82.6	6	28A	-1	11	47	8				
CARACAS	32.33	97.4	6	31A	-2	11	47	0				
FORDHAM	32.39	37.9	6	33	-1	11	51	3				
PALISADES	32.48	37.6	6	35A	1	12	3	14				
HUNGRY HORSE	33.32	342.3	6	44	2	11	40	-22			7	12
ST. KITTS	35.15	84.1	6	54	-4							
BREBEUF	35.63	31.9	7	2A	0	12	54	16			8	26 PP
SEATTLE	35.72	333.4	7	2	0	12	50	10				
PENTICTON	36.00	337.6	7	5A	0							
ST. CLAUDE	36.27	86.1	7	8	1	12	50	2				
BANFF	36.28	343.0	7	6A	-1							
DOMINICA	36.65	87.2	7	12	2							
SHAWINIGAN	36.79	31.3	7	12A	1							
VICTORIA	36.87	333.4	7	12A	0							
GRENADA	36.92	92.6	7	13	1							
FORT FRANCE	36.98	88.1	7	12A	-1						15	22
ST. VINCENT	37.13	90.7	7	13	-1							
TRINIDAD	37.55	94.8	7	16K	-2	13	8	0			8	46 PP
HUANCAYO	37.60	138.8	7	20	2	13	10	2				
ALGERNI	38.04	333.0	7	22A	0							
BARBADOS	38.74	90.3	7	32	4							
HALIFAX	40.75	40.0	7	46A	2							
LA PAZ	45.56	135.5	8	22	-2	15	7	1				
SITKA	48.00	334.5	8	44	1	15	50	9				

ANTOFAGASTA	49.56	144.1	8	53	-2				11	29 PP
KIPAPA	55.09	284.4	9	35A	-1					
HONOLULU	55.17	284.3	9	37	0	17	26	7	20	53 SS
SANTIAGO	57.35	151.3	9	51A	-1	17	41	-7		
SANTA LUCIA	57.36	151.3	9	51A	-2	17	41	-7	12	22 PP
COLLEGE	57.56	337.8	9	53A	-1	17	50	-1		
RESOLUTE	57.62	1.5	9	53A	-1					
MOULD BAY	60.02	354.6	10	11	0					
THULE	61.48	8.0	10	20K	-1				12	25 PP
ANGRA DO HO.	65.84	54.9	10	59A	9	19	58	22	13	40 PP
ALERT	67.02	5.0	10	55A	-2	20	10	20		
PONTA DELGDA	67.12	55.8	10	52	-6	19	56	4		
REYKJAVIK	69.35	27.3	11	12A	0				13	50 PP
SCORESBY SD.	69.85	20.5	11	14	-1					
SIDA	71.04	27.7	11	22	0					
AFIAMALU	77.66	251.2	12	1	1	22	1	9		
M.BOUR	78.95	78.3	12	8	1	22	14	8		
SERRA PILAR	79.65	50.2	12	10K	-1	22	9	-4	15	12 PP
LISBON	79.81	52.6	12	12A	0	22	39	24	27	28 SS
COIMBRA	80.00	51.0	12	13A	0	22	18	1	15	24 PP
DURHAM	80.70	35.6	12	17K	0	22	35	11	15	27 PP
KHEYS	81.74	3.6	12	22A	0				22	45 SCS
JERSEY	81.99	41.1	12	17	-6	22	50	13		
KEW	82.40	38.5	12	27A	2	23	1	20	15	37 PP
BERGEN	82.40	29.0	12	28	3	22	11	-30	22	47 PS
FOLINIERE	83.13	41.1	12	30	1					
TOLEDO	83.33	50.5	12	31A	1	22	54	3	15	41 PP
PETROPAVLOVK	83.39	323.5	12	30A	-1	22	53	2	15	49
TROMSOE	83.43	18.0	12	32	1					
MALAGA	83.97	53.6	12	34A	0	22	54	-3	15	46 PP
SKALSTUGAN	84.11	24.7	12	35A	1					
GRANADA	84.45	53.0	12	37	1	23	12	10	16	16 PP
KIRUNA	84.88	19.3	12	37A	-1	23	11	5	16	2 PP
MAGADAN	84.94	331.2	12	40A	2	23	12	5	15	49 PP
PARIS	84.98	40.5	12	40A	1	23	15	8	16	0 PP
BAGNERES	85.36	46.4	12	40	0				13	25
UCCLE	85.40	38.2	12	41	0	23	10	-1		
DE BILT	85.40	36.8	12	43A	2	23	26	15	16	2 PP
ALMERIA	85.41	53.0	12	41A	0	23	9	-2	15	59 PP
TIKSI	85.62	346.2							16	0 PP
DOURBES	85.80	38.8	12	12	-31	23	10	-5		
GARCHY	85.87	41.8	12	43	0				16	13 PP
WITTEVEEN	85.97	35.7	12	44	0					
TORTOSA	86.34	48.5	12	49	4	23	13	-8		
G. G. VIDELA	86.36	165.2							23	11
ALICANTE	86.44	51.1	12	44	-2	23	26	5	15	56 PP
CLERMONT-FD.	86.44	43.2	12	46A	0	23	14	-7		
GOTEBORG	86.65	30.0	12	46A	-1				16	11 PP
MUNSTER	86.84	36.3	12	48	0					
BENSBERG	86.99	37.3	12	48A	-1	23	26	-1	16	17 PP
UMEA	87.05	22.7	12	47A	-2	23	21	-6	16	13 PP
SODANKYLA	87.06	18.2	12	48	-1	23	44	17	16	13 PP
BESANCON	87.73	41.1	12	50	-2				13	50
COPENHAGEN	87.81	31.7	12	52A	-1	22	56	-38		
FELDBERG	88.03	37.7	12	57	3					
UPPSALA	88.16	26.7	12	52A	-2	23	22	-16	16	16 PP
STRASBOURG	88.30	39.4	12	51	-4	23	36	-3	16	15 PP
NEUCHATEL	88.43	41.0	12	57	2	23	57	17	16	23
KARLSRUHE	88.51	38.8	12	59	3				16	12 PP
HEIDELBERG	88.53	38.4	12	56	0					
BASLE	88.61	40.4							16	26
APATITY	88.87	16.3	12	55A	-3	23	50	6	16	22 PP
TUBINGEN	89.11	39.0	12	58	-1					
KARLSKRONA	89.13	30.4	12	57	-2				16	27 PP
STUTTGART	89.13	38.8	12	58	-1	23	33	-14	16	28 PP
EBINGEN	89.20	39.4	12	58	-1				16	29 PP
HALLE	89.47	35.6	13	0	0	23	12	-38		
KAJAANI	89.52	20.5	13	0	-1	24	5	15	16	33 PP
JENA	89.52	36.2	13	0	-1	23	38	-12	16	31 PP
ISOLA	89.63	43.6	13	0	-1					
RAVENSBURG	89.76	39.6	13	2	0				16	32 PP
MONACO	90.06	43.9	13	2	-1				16	33 PP
CHUR	90.11	40.4	13	4	1	23	37	-19	16	37 PP
COLLMBERG	90.15	35.4	13	3	-1	23	34	-22		
CHEB	90.37	36.7	13	6	1	23	45	-13		
PAVIA	90.59	42.1	13	30	24	24	50	50	17	20 PP
NURMIJARVI	90.68	24.2	13	4	-2	23	34	-27	16	40 PP
HELSINKI	91.01	24.3	13	7	-1				16	44 PP
CHIAVARI	91.05	42.8	13	10	2	24	40	36	17	4 PP

KASPERSKE H.	91.50	37.2	13	9A	-1				16	48 PP
PRAGUE	91.53	36.1	13	3	-7	24	38	30	16	45 PP
PRUHONICE	91.65	36.1	13	11	1	23	38	-31		
YAKUTSK	92.07	339.0	13	13A	1				16	53 PP
PADOVA	92.20	41.0	13	15	2	23	50	-24	16	55 PP
BOLOGNA	92.27	42.0	13	14	1	22	51	-84	16	27
CUGLIERI	92.29	46.8							31	20
AMDERMA	92.33	6.4	13	13A	-1					
PRATO	92.40	42.6	13	12	-2	23	57	-19		
FLORENCE X.	92.54	42.7	13	20	5				17	0 PP
TRIESTE	93.26	40.2	13	18A	0	24	32	9	17	0 PP
PULKOVO	93.32	22.9	13	17A	-1				17	0 PP
LJUBLJANA	93.54	39.6	13	19A	0				17	2 PP
VIENNA-H.	93.54	37.0	13	20A	1				17	5 PP
RACIBORZ	93.62	34.8	13	20	0				17	3 PP
WARSAW	93.93	32.1	13	20A	-1	24	31	2	17	5 PP
BRATISLAVA	94.01	36.8	13	22K	1	24	7	-23	17	5 PP
ROME	94.20	43.9	13	22A	0	23	58	-32	17	8 PP
ZAGREB	94.54	39.3	13	26	2	24	12	-22	17	48 PP
HURBANOVO	94.79	36.7				24	13	-24	17	13 PP
Y.-SAKHLINSK	95.21	322.5	13	26A	-1	24	45	43	17	14 PP
SKALNATE PL.	95.23	34.9	13	29	2				17	24 PP
KARAPIRO	96.42	232.4							17	30 PP
LWOW	96.88	32.9	13	34A	0	24	51	40	17	30 PP
BYRD STATION	97.55	183.4	13	36	-1	24	15	0		
TIMISOARA	97.69	37.4				24	18	2	17	35
BELGRADE	97.75	38.5	13	38A	0				17	38 PP
WELLINGTON	97.93	229.4	13	44	5	24	24	7	17	35 PP
MESSINA	98.02	46.1	13	43	3	24	18	1	17	44 PP
TARANTO	98.04	43.4	13	59	19				23	59
REGGIO CALA.	98.14	46.1							16	57
TITOGRAD	98.31	41.0				24	20	1	17	42 PP
MOSCOW	98.95	22.9	13	43A	-1	24	23	1	17	47 PP
SKOPJE	99.92	40.5							17	29
SOFIA	100.67	39.0	13	52	0	24	41	11	18	14 PP
TUKUBASAN	102.62	314.3	14	0K	0	25	40	60	18	18 PP
HONIARA	102.67	263.9	14	0	-1	25	58	78		
ROXBURGH	102.77	226.2				24	40	-1	18	10 PP
ATHENS	103.62	42.8	14	5A	0	24	45	1	18	22 PP
VLADIVOSTOK	103.71	323.9	14	3	-2				18	20 PP
MATUSIRO	103.72	315.5	14	5	0	24	58	13		
SVERDLOVSK	104.48	11.1	14	7K	-2	24	40	-8	18	22 PP
ISTANBUL UN.	105.03	37.8	14	10	777	25	0	9		
SIMFEROPOL	105.24	32.2	14	11A	777	24	51	-1	18	39 PP
ABUYAMA	106.44	315.3	14	19A	777					
CHANGCHUN	106.77	327.8	14	18A	777	26	30	91	18	44 PP
SCOTT BASE	107.40	192.8	18	50	777					
IRKUTSK	107.85	344.8	14	24A	777				18	40
RABAUL	108.68	271.3	14	24	777				25	9
ULAN-BATOR	111.06	341.3	14	39	-237					
SEMIPALATNSK	112.77	0.1							19	27
TIFLIS	112.82	28.2	15	0	-219				21	49
BRISBANE	113.07	247.1	18	32	-7				19	28 PP
KSARA	113.90	39.7	18	43	2	25	43	15	19	38 PP
PEKING	114.11	330.6				25	38	9	19	38 PP
LUANDA	114.26	92.1							19	50 PP
RIVERVIEW	115.16	240.2	18	43A	-1	25	36	3	19	52 PP
ESEN BULAK	115.18	348.0	14	57	-227				19	40 PP
GORIS	115.29	28.7							22	13 PPP
BANGUI	115.35	76.5	18	44	0				19	45 PP
BANDEIRA	115.73	98.6							19	49 PP
PAOTOW	116.34	335.2				25	51	14	19	51 PP
CANBERRA	117.02	238.7							19	59 PP
DUMONT	117.47	202.8	18	47	-1	25	36	-5		
CHARTERS TS.	117.91	256.0							20	7
ZO-SE	118.10	320.6	18	49	0	25	56	12	20	3 PP
NANKING	118.83	323.0	18	49	-2				20	7 PP
FRUNSE	120.11	4.9	18	54	1				30	11 PS
MELBOURNE	120.29	235.9							20	24 PP
WINDHOEK	120.55	106.4	18	58	4					
TEHERAN	120.66	27.3	18	53	-1				20	21 PP
SIAN	122.16	332.2	18	57	0	25	58	1	20	33 PP
LANCHOW	122.67	337.5	18	58	0				19	38 PP
HERMANUS	123.05	120.2							20	52 PP
KHOROG	125.05	8.7	19	4	1				20	53 PP
ADELAIDE	125.44	239.0	19	4	1	26	11	4	20	50 PP
SHIRAZ	126.26	30.4	19	4A	-1				20	46 PP
WILKES	126.99	194.7	19	6	0	26	14	2	21	9 PP

LWIRO	127.19	79.6	19	8	1				21	0	PP
CHENGTU	127.36	334.3	19	7	0				21	6	PP
KIMBERLEY	127.86	113.3	19	8	0						
MAWSON	128.29	171.5	19	8A	-1	25	40	-36	20	54	PP
WARSAK DAM	128.46	9.4	19	8	-1				21	9	PP
CANTON	128.70	320.1	19	10A	0				21	16	PP
HONG KONG	128.76	318.7							21	32	PP
MANILA	128.95	305.9							22	34	PKS
MIRNY	129.92	186.5	19	15	3				21	24	PP
BROKEN HILL	130.04	94.7	19	13	1						
BULAWAYO	130.95	102.0	19	10	-4						
QUETTA	131.21	15.6	19	15	1				21	21	PP
LAHORE	131.25	6.9	19	13	-2				22	35	SKP
LHASA	132.40	347.5	19	19A	2				21	42	PP
KUNMING	132.72	332.1	19	18A	1				21	44	PP
DEHRA DUN	132.78	2.8	19	18	1				21	42	
NEW DELHI	134.46	4.0	19	21A	0	26	57	27	21	53	PP
CHANGALANE	134.47	110.2							34	2	SSP
CHATRA	135.82	351.4	19	25	2						
SHILLONG	136.13	345.0	19	24A	0				23	0	PKS
BOKARO	138.96	352.5							22	19	
CHITTAGONG	139.21	343.8	19	32	3				22	20	PP
CALCUTTA	139.83	348.6	19	48	18				41	9	
BOMBAY	143.43	12.2	19	36	-1				22	49	PP
POONA	143.98	10.7	19	36	-2				26	40	
MUNDARING	144.45	238.7	19	38K	0						
VISHAKHAPTNM	145.26	355.2	19	44K	4				22	14	PP
HYDERABAD	145.61	3.4	19	43	3				33	16	PS
KERGUELEN I.	146.77	167.6	19	48	6				30	46	
TANANARIVE	148.70	98.4	19	53A	7				23	45	PP
PORT BLAIR	148.92	336.2	19	53	7						
MADRAS	150.07	0.5	20	3	15	27	9	15	23	39	PP
LEMBANG	151.55	287.8	19	49A	-1				21	49	
DJAKARTA	152.00	289.7	19	50	-1				20	54	
TANGERANG	152.18	289.9	19	53	2				21	5	

MAY 19 23.H 56.M 38.S EPICENTRE -13.35 -76.61 DEPTH= 119.KM

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DEPTH OF FOCUS= 0.014R

SE= 1.91

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AREQUIPA	5.84	122.6	1	22	-3								
LA PAZ	8.77	112.0	2	4	-1	3	36	-7					
ANTOFAGASTA	11.85	151.2									3	46	
BOGOTA	18.03	8.2	4	5	1								
CHINCHINA	18.22	3.2	4	7	1	7	27	5	4	22			
BALBOA HTS.	22.36	352.3	4	49	0								
GALERAZAMBA	24.01	3.2	5	8	3	9	29	19					
SAN JUAN	33.18	18.4	6	25	-2						7	14	
COLUMBIA	47.27	355.0	8	22	-1						9	53	
CHAPEL HILL	49.05	357.4	8	35	-2								
LITTLE ROCK	50.14	343.1	8	43A	-2								
WICHITA MTS.	52.16	337.0	8	59K	-1	16	21	7			11	16	
MORGAN:OWN	52.79	356.8	9	4A	-1								
ROLLA	52.96	344.8	9	6	0								
ST. LOUIS 1	53.26	346.7	9	6	-3								
FLORISSANT	53.45	346.6	9	8K	-2								
PALISADES	54.14	2.5	9	14	-1	16	47	6					
LAWRENCE	54.88	342.3	9	19	-1								
ALBUQUERQUE	55.76	330.4	9	27	0								
TUCSON	55.93	324.9	9	28	0						10	26	PCP
TUCSON TELE.	55.94	325.0	9	29	1						10	27	PCP
DUBUQUE	57.07	347.6	9	34K	-2								
BREBEUF	58.63	2.5	9	46	-1				10	6			
HALIFAX	58.89	10.8	9	48	-1								
SHAWINIGAN	59.72	3.1	9	54K	0								
BOULDER CITY	60.92	325.0	10	7	4								
PASADENA	61.59	321.3	10	7	0				10	32	10	47	*SP
FLAMING GRGE	61.94	332.3	10	8	-1								
RAPID CITY	62.08	338.6	10	10	0								
EUREKA	64.08	326.9	10	25	2								

PRIEST	64.43	321.4	10	27K	1							
LICK	65.81	321.8	10	36K	1							
RENO	66.22	324.7	10	39K	2							
BERKELEY	66.53	321.9	10	41K	2							
CALISTOGA	67.22	322.4	10	45K	1							
MINERAL	67.78	324.3	10	46K	-1							
BYRD STATION	69.50	187.3	10	53	-5							
PENTICTON	73.01	332.2	11	15K	-3							
SCOTT BASE	82.43	191.0	12	13	3						21	29
COIMBRA	82.55	45.8	12	14A	3							
RESOLUTE	88.59	355.2	12	41K	0							
SIDA	88.85	22.3	12	45	3							
THULE	89.73	2.0	12	46	0							
MOULD BAY	92.95	350.6	13	2K	1							
MAWSON	94.11	165.5	13	8K	2				13	23		
COLLEGE	94.22	336.1	13	7	0						16	43 PP
CHARTERS TS.	126.31	232.5	18	54	5							
SHIRAZ	130.36	62.4	18	59K	3						19	17 PP
MATUSIRO	141.22	312.8	19	13	-4							
QUETTA	142.44	57.6	19	20	1							
CHANGCHUN	144.27	332.4	19	21K	-1							
WARSAK DAM	144.55	49.1	19	25K	3							
LAHORE	147.76	51.0	19	29	1							
PEKING	151.14	339.4	19	42K	9							
DEHRA DUN	151.15	50.1	19	39	6							
NEW DELHI	151.32	54.0	19	38K	5							
PAOTOW	152.25	349.1	19	46K	11							
ZO-SE	155.91	320.1	20	10	31							
LANCHOW	157.39	359.1	19	47K	6							
SIAN	158.59	347.4	19	48	5							
SHILLONG	163.71	40.0	19	55	7							
KUNMING	168.27	2.9	19	57	5							

MAY 20 15.H 1.M 15.S EPICENTRE 20.63 -65.80 DEPTH= 0.KM

A= 0.38397 B=-0.85435 C= 0.35023 D=-0.9121 E=-0.4099
G= 0.1436 H=-0.3194 K=-0.9367 HT= 4.5

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M	P O-C S	S M	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SAN JUAN	2.26	187.8	0 38	-1	1 1	-7				
ST. KITTS	4.37	137.9	1 8	-1	1 54	-8				
ST. CLAUDE	6.01	138.9	1 33	1	2 20	-23				
DOMINICA	6.75	141.0	1 42	-1						
FORT FRANCE	7.35	142.2	1 53	2						
ST. VINCENT	8.59	149.0	2 6	-3					4	5 SS
GRENADA	9.38	154.8	2 18	-2						
TRINIDAD	10.79	156.2	2 39	0	4 30	-12				
GALERAZAMBA	13.37	224.4	3 21	7						
FUQUENE	16.92	208.2	3 55	-5						
BOGOTA	17.83	207.9	4 15	4	7 28	0				
CHINCHINA	18.26	212.8	4 17	1	7 45	7				
COLUMBIA	18.96	317.8	4 24	-1						
CHAPEL HILL	19.16	325.5	4 25	-2						
WASHINGTON	20.64	334.4	4 36	-8						
GEORGETOWN	20.64	334.4	4 45	1	8 21	-9				
PALISADES	21.46	343.0	4 52	0	8 36	-10	4	56		
MORGANTOWN	22.49	330.4	5 4K	2	9 15	10				
HALIFAX	24.00	3.9	5 20	3						
BREBEUF	25.63	347.2	5 36A	3			5	54		
BLOOMINGTON	25.67	320.6	5 34	1	10 19	19				
LONDON ONT.	25.80	333.5	5 35A	1						
SHAWINIGAN	26.48	349.2	5 37	-4						
C. GIRARDEAU	26.49	314.0	5 41	0						
LITTLE ROCK	27.30	306.7	5 49	1						
FLORISSANT	27.85	315.9	5 53	0						
ROLLA	28.40	313.0	5 58	0	10 31	-14				
DUBUQUE	30.22	321.8	6 17	2						
WICHITA MTS.	32.09	302.9	6 32	1					7	31 PP
MANHATTEN	32.25	311.8	6 32	0						
LA PAZ	36.97	183.7	7 11	-2	13 7	8				
ALBUQUERQUE	38.43	300.5	7 25	0						
RAPID CITY	38.82	315.7	7 28	0						
FLAMING GRGE	42.05	308.7	7 51	-4						
BOZEMAN	44.60	314.8	8 18	2					10	0 PP
BLOOMINGTON	25.67	320.6	5 34	1	10 19	19				
LONDON ONT.	25.80	333.5	5 35A	1						
SHAWINIGAN	26.48	349.2	5 37	-4						
C. GIRARDEAU	26.49	314.0	5 41	0						
LITTLE ROCK	27.30	306.7	5 49	1						
FLORISSANT	27.85	315.9	5 53	0						
ROLLA	28.40	313.0	5 58	0	10 31	-14				
DUBUQUE	30.22	321.8	6 17	2						
WICHITA MTS.	32.09	302.9	6 32	1					7	31 PP
MANHATTEN	32.25	311.8	6 32	0						
LA PAZ	36.97	183.7	7 11	-2	13 7	8				
ALBUQUERQUE	38.43	300.5	7 25	0						
RAPID CITY	38.82	315.7	7 28	0						
FLAMING GRGE	42.05	308.7	7 51	-4						
BOZEMAN	44.60	314.8	8 18	2					10	0 PP

EUREKA	46.68	305.2	8 33	1
WOODY	48.58	299.8	8 45	-2
PENTICTON	51.20	317.3	9 37	30
THULE	55.85	359.3	9 41	-1
RESOLUTE	56.27	351.1	9 44	-1
FOLINIERE	58.58	44.8	10 2	1
BAGNERES	58.80	51.5	10 3	1
MOULD BAY	61.75	347.4	10 22	-1
STUTTGART	65.03	44.8	10 44	0
JENA	66.38	42.4	10 53	0
SKALSTUGAN	66.44	28.5	11 6	13
HALLE	66.57	41.7	10 53	-1
COLLMBERG	67.24	41.9	10 59	1
KASPERSKE H.	67.82	44.2	11 3K	1
COLLEGE	68.15	332.9	11 3	-1
KIRUNA	69.67	23.8	11 15	2
UMEA	69.97	28.1	11 15	0
SODANKYLA	72.09	24.0	11 29	1
NURMIJARVI	72.50	31.2	11 31	0
HELSINKI	72.72	31.6	11 33	1
KAJAANI	73.18	27.3	11 36	1
BANGUI	83.26	87.9	12 30	0
SHILLONG	129.21	26.3	19 13A	2
BRISBANE	144.23	251.5	19 37	-1
CANBERRA	146.16	236.9	19 43K	2
CHARTERS TS.	149.96	265.3	19 55	8

MAY 21 12.H 2.M 49.S EPICENTRE 37.11 95.83 DEPTH= 0.KM

A=-0.08122 B= 0.79525 C= 0.60082 D= 0.9948 E= 0.1016
G=-0.0610 H= 0.5977 K=-0.7994 HT= -0.6

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
LANCHOW	6.52	97.0	1 39	-1				3 32 SG
LHASA	8.46	209.6	2 7K	0	3 41	-3		2 18 *SP
ESEN BULAK	9.28	1.8	2 20	2				
CHENGTU	9.36	131.1	2 18	-1				2 29 *SP
TOCKLAI	10.37	185.3	2 37	4				2 51 PP
SIAN	11.02	101.1	2 38A	-4				2 47 *SP
PAOTOW	11.60	68.3	2 45A	-5				
SHILLONG	11.99	197.5	2 52K	-3	5 36	25		2 59 PPP
CHATRA	12.61	218.1	3 4	0	5 49	23		3 10 PP
KUNMING	13.33	151.8	3 11A	-2	5 38	-5		3 22 *SP
ULAN-BATOR	13.52	33.5	3 14A	-2	5 58	10		
CHITTAGONG	15.11	194.4	3 31	-6	6 16	-10		3 42 PP
BOKARO	15.80	215.9	3 42K	-3	6 42	0		3 53 PP
CALCUTTA	15.90	206.0	3 45	-2	6 55	11		
PEKING	16.17	73.4	3 48A	-2				4 1 *SP
DEHRA DUN	16.26	250.6	3 49	-2	7 21	28		4 12 PP
IRKUTSK	16.29	18.9	3 54A	2	7 0	7		4 3 PP
FRUNSE	17.22	295.9	4 1A	-2				7 29 SS
SEMIPALATNSK	17.36	324.8	4 3A	-2				7 23 SS
NEW DELHI	17.80	246.8	4 4A	-7	7 15	-13		4 22 PP
LAHORE	18.59	259.0	4 18	-3	7 46	0		
KHOROG	19.33	278.5	4 29	0				8 13
NANKING	19.54	98.2	4 30A	-2				4 40 *SP
WARSAK DAM	19.99	268.3	4 35A	-2				
CANTON	20.56	127.9	4 41A	-2	8 26	-3		4 50 *SP
SHIRAZ	21.30	234.5	4 51	0	8 53	10		5 13 PP
HONG KONG	21.66	127.9	4 52A	-2	8 48	-2		
ZO-SE	21.80	98.5	4 55A	-1	9 4	12		5 5 *SP
VISHAKHAPTNM	22.25	213.1	5 1K	1	9 17	16		5 39 PP
CHANGCHUN	23.33	64.1	5 9A	-2	9 18	-2		5 13 *SP
HSINCHU	24.73	112.6	5 17	-7				12 30
HYDERABAD	24.88	222.7	5 28	2	9 46	-1		5 52 PP
TAICHUNG	24.90	114.2	5 27	1				
QUETTA	24.96	262.4	5 27	1	9 55	7		
TAIPEI	24.99	111.5	5 30	-3	10 9	20		
TAINAN	25.27	117.0	5 36	7	10 26	32		
ILAN	25.32	111.7	5 37	7	10 9	15		
ALISHAN	25.37	115.3	5 48	18				13 58
PORT BLAIR	25.49	187.1	5 34K	2	10 0	3		5 45 PP
YUSHAN	25.50	116.1	5 58	26				

HWALIEN	25.69	113.4	5	40	7			14	6
TAITUNG	26.10	116.2	5	36	-1	11	7 60		
TAWU	26.17	117.2	5	42	4	10	32 23		
HENGCHUN	26.29	118.0	5	46	7			14	44
POONA	26.73	232.1	5	42	-1	10	20 2		
BOMBAY	27.12	234.3	5	45	-2	10	23 -1	6	19 PP
ITUHARA	27.25	86.0	5	46	-2	10	30 4		
NHATRANG	27.54	150.7	5	50	0				
MADRAS	27.80	214.3	5	54	1	10	32 -3	6	36 PP
VLADIVOSTOK	28.08	66.3	5	55	0	10	41 1		
NAGASAKI	28.17	88.7	5	55A	-1	10	42 1		
HUKUOKA	28.31	86.7	5	57	0	10	6 -37		
SAGA	28.34	87.4	6	8	10				
SIMONOSEKI	28.64	85.7	5	56	-4				
KUMAMOTO	28.79	88.1	5	41A	-21			13	45
ASOSAN	29.06	87.7	6	6	2	10	58 3	18	3
KAGOSIMA	29.09	90.6	6	6	2	11	14 18		
OOITA	29.40	86.8	6	6	-1			16	8
YAKUSIMA	29.46	92.8	6	6	-2			15	41
ASHKABAD	29.61	283.2	6	10	1				
MIYAZAKI	29.66	89.4	6	9	-1	11	3 -2		
SAIGO	29.97	80.3	6	16	4				
BAGUIO CITY	30.06	126.7	6	10	-3	11	22 11		
MATUYAMA	30.14	85.0	6	8	-6			16	49
YONAGO	30.17	81.7	6	12	-2				
SVERDLOVSK	30.57	321.5	6	18K	0	11	23 4		
ASHIZURI	30.66	87.0	6	14	-4			15	58
TOTTORI	30.81	81.3						15	35
KOTI	30.83	85.2	6	17	-3	11	21 -2		
TAKAMATU	31.02	83.5				11	32 6	7	0
MUROTO	31.44	85.4	6	16	-9			16	48
KODAIKANAL	31.48	216.4	6	27	1	11	45 11		
TOKUSIMA	31.51	83.8	6	30	4				
MANILA	31.69	128.2	6	33	6	11	33 -4		
SUMOTO	31.70	83.1	6	27	-1	11	37 0		
KOBE	31.81	82.4	6	28	-1			15	38
WAKAYAMA	31.93	83.2	6	32	2			18	39
ABUYAMA	32.07	81.9	6	28A	-3				
OSAKA	32.10	82.3	6	29	-2	12	3 20		
KYOTO	32.16	81.5	6	28	-4	11	41 -3		
TSURUGA	32.26	80.3	6	31	-1				
HUKUI	32.29	79.5	6	31	-2			17	22
HIKONE	32.50	80.9	6	34	-1	11	53 3		
KANAZAWA	32.50	78.5	6	34	-1				
WAZIMA	32.51	76.8	6	37	2				
YAKUTSK	32.57	29.2	6	33A	-2	11	52 1	7	46 PP
SIOMISAKI	32.64	84.3	6	37	1			17	15
KAMEYAMA	32.79	81.5	6	37A	0	12	1 7		
OWASE	32.80	83.0	6	36	-1				
TU	32.87	81.8	6	38	0				
GIHU	32.88	80.4	6	35	-3				
TOYAMA	32.90	78.0	6	36	-2			14	29
TAKAYAMA	33.07	78.9						17	10
NAGOYA	33.10	80.8	6	40	0				
AIKAWA	33.42	75.3	6	58	15			17	58
MATUMOTO	33.61	78.5	6	49	5				
TAKADA	33.62	76.9	6	33	-11				
IIDA	33.68	79.8	6	43	-2	12	15 7		
NAGANO	33.68	77.7	6	42	-3			17	13
MATUSIRO	33.72	77.9	6	41	-4	12	2 -7		
HAMAMATU	33.81	81.2	6	45	-1			18	49
OIWAKE	34.04	78.1	6	46	-2	12	31 18		
NIIGATA	34.06	75.2						7	54
KOHU	34.22	79.3	6	50	1			15	1
OMAESAKI	34.24	81.2	6	51	1				
SHIZUOKA	34.28	80.5	6	55	5				
HUNATU	34.43	79.5	6	51	0	12	19 0		
MAEBASI	34.43	77.8	6	51	0			7	32
SAKATA	34.47	73.3						17	3
AKITA	34.52	71.8	6	53	1			15	0
TITIBU	34.54	78.5	6	55	3				
MISIMA	34.67	80.1	6	48	-5			8	18
HAKODATE	34.70	68.0	6	55	1			8	16
KUMAGAYA	34.73	78.1	6	53	-1			8	14
MURORAN	34.80	67.1						8	21
AJIRO	34.81	80.1	6	51	-4				
AOMORI	34.85	69.8	6	57	2				
SAPPORO	34.99	65.8	6	57	1	12	29 1	8	16 PP
YAMAGATA	35.00	74.3	6	54	-2			13	24

UTUNOMIYA	35.02	77.3	6 48	-8					19 51	
WAKKANAI	35.05	61.6	6 58	1						
OSIMA	35.11	80.5	6 57	0					15 5	
YOKOHAMA	35.14	79.3	6 56	-1	12 58	28				
TOKYO C.M.O.	35.15	78.8	7 2	5					12 25	
SHIRAKAWA	35.15	76.2	7 3	6						
HONGO	35.16	78.7	7 0	2						
HUKUSIMA	35.20	75.1	7 1	3					19 27	
TUKUBASAN	35.28	77.8	6 53K	-6	12 27	-6	7 0		8 25	PPP
MORIOKA	35.34	71.6	6 59	0						
KAKIOKA	35.34	77.7	7 0	1					8 25	PP
MIZUSAWA	35.41	72.6	7 1	1	12 40	5				
SENDAI	35.42	74.1	6 58	-2					14 53	
MERA	35.42	80.0	7 1	1						
HATINOHE	35.46	70.1	7 10	10						
MITO	35.53	77.4	7 1	0					8 23	PP
TEHERAN	35.54	281.5	7 3	2	12 31	-6				
ASAHIGAWA	35.66	64.4	7 1	-1					8 5	
ISINOMAKI	35.70	73.7	7 0	-2						
Y.-SAKHLINSK	35.71	58.8							8 35	PPP
ONAHAMA	35.72	76.3	7 3	1	12 50	11				
MIYAKO	35.95	71.5	7 6	2						
TYOSI	36.00	78.3	7 7	2						
URAKAWA	36.15	67.1	7 7	1	12 54	8				
OBIHIRO	36.35	65.7	7 13	5						
HIROO	36.53	66.8	7 6	-3						
SHIRAZ	36.67	271.2	7 11A	1			7 31		8 52	PP
KUSIRO	37.22	65.5	7 0	-15						
AMDERMA	37.49	341.3	7 17A	0	13 8	1				
NEMURO	38.03	64.7	7 20	-2					13 23	
GORIS	38.53	289.2	7 27A	1	13 32	10				
TIKSI	38.53	16.1	7 24A	-2	13 21	-1			8 54	PP
TIFLIS	39.22	293.0	7 34A	2					23 33	
MAGADAN	41.34	39.2	7 50	1					9 36	PP
MOSCOW	42.80	315.0	8 2A	1	14 26	0			9 45	PP
DJAKARTA	44.28	164.2	8 14	1	14 50	2				
LEMBANG	45.08	163.4	8 20A	0	15 1	2				
PETROPAVLOVK	45.62	48.8	8 21A	-3	15 12	5			10 17	PP
APATITY	45.82	331.7	8 25A	0	15 11	1			10 12	PP
KHEYS	45.87	351.9	8 26A	0	15 12	2			10 59	PPP
SIMFEROPOL	46.21	300.0	8 29A	0					15 21	PS
PULKOVO	46.69	320.7	8 32A	0					15 26	PS
KAJAANI	47.89	326.6	8 42A	0						
KSARA	48.23	284.9	8 45A	0	15 43	-1			10 38	PP
SODANKYLA	48.41	331.1	8 46A	0	15 47	1			10 41	PP
HELSINKI	49.36	321.5	8 53A	0						
GUAM	49.45	105.2	8 55A	1					10 48	PP
NURMIJARVI	49.48	322.0	8 54A	0	15 59	-2			10 53	PP
KIRUNA	50.78	331.7	9 4A	0	16 23	4			11 1	PP
ISTANBUL UN.	50.89	296.3	9 5	0	16 27	6				
UMEA	51.19	326.5	9 6A	-1					11 8	PP
TROMSOE	51.23	334.1	9 2	-5						
LWOW	51.72	308.4	9 12A	1	16 35	3				
WARSAW	52.95	311.9	9 20A	0	16 52	3			11 24	PP
UPPSALA	53.05	321.8	9 20A	-1	16 54	3			11 22	PP
KRAKOW	54.21	309.6	9 29	-1	17 9	3			10 41	PCP
SKALNATE PL.	54.27	308.5	9 37	7					12 50	PPP
SOFIA	54.33	300.1	9 31	0	17 19	11			11 37	PP
TIMISOARA	54.73	304.2	9 35	2	17 14	1				
KARLSKRONA	54.98	317.7	9 34A	-1					11 38	PP
RACIBORZ	55.26	310.0	9 38	1					12 50	PPP
SZEGED	55.28	305.1	9 26	-11					10 35	PP
KECSKEMET	55.33	306.0	9 39	1	17 30	9			13 19	PP
BELGRADE	55.55	303.4	9 39A	0	17 29	5			11 33	PP
BUDAPEST	55.59	306.8	9 41	1	17 31	6			12 31	PPP
ATHENS	55.79	294.6	9 40A	-1	17 32	4			22 26	
SKOPJE	55.90	299.8	9 43	1	17 33	4			23 41	
KALOCSA	55.93	305.7	9 46	4					12 30	PPP
HURBANOVO	55.98	307.5	9 50	7					11 50	PP
GOTEBORG	56.44	320.2	9 44A	-2						
BRATISLAVA	56.57	308.1	9 48K	1					11 51	PP
COPENHAGEN	56.82	317.8	9 48A	-1	17 42	1				
VIENNA-H.	57.00	308.4	9 51	1	17 52	8			12 7	PP
TITOGRAD	57.22	301.1	9 50	-1					11 49	PP
PRAGUE	57.56	311.0	9 55A	1	17 59	8			12 9	PP
COLLMBERG	57.98	312.7	9 56A	-1	17 57	1				
ZAGREB	58.13	305.8	9 57A	-1	17 59	1				
KASPERSKE H.	58.41	310.2	10 0A	0					12 12	PP

HALLF	58.52	313.2	10	0	-1	18	5	2				
CHEB	58.79	311.5	10	4	2	18	14	7				
BERGEN	58.81	324.5	10	3	0	18	13	6				
JENA	58.94	312.7	10	3	-1	18	8	-1			12	14 PP
LJUBLJANA	58.99	306.6	10	3A	-1	18	19	9			12	21 PP
DARWIN	59.22	139.3	10	6	1							
TARANTO	59.39	299.7									18	11
TRIESTE	59.64	306.4	10	7A	-1	18	23	5			12	22 PP
ALERT	60.15	356.8	10	11	-1							
MUNSTER	60.83	314.9	10	16	0							
PADOVA	60.94	306.7	10	18K	1	18	43	8	10	27	12	41 PP
WITTEVEEN	61.01	316.1	10	18	0							
FELDBERG	61.06	312.8	10	26	8							
STUTTGART	61.16	311.1	10	18A	-1	18	48	10			12	37 PP
HEIDELBERG	61.24	311.9	10	19A	0							
RAVENSBURG	61.37	309.9	10	19	-1							
TUBINGEN	61.39	310.9	10	20A	0							
BENSBERG	61.50	314.0	10	20A	-1	18	53	11			12	35 PP
REGGIO CALA.	61.53	297.8	10	21	0	18	46	4				
MESSINA	61.55	298.0	10	21K	0	18	45	2	10	30	12	39 PP
KARLSRUHE	61.58	311.6	10	21	-1	18	57	14				
EBINGEN	61.59	310.6	10	21A	-1							
CHUR	61.81	309.0	10	23	0	18	40	-6			12	43 PP
FLORENCE X.	62.04	305.3	10	9	-16	19	1	12	10	36	12	41 PP
ROME	62.04	302.9	10	25A	0	19	5	16	10	35	12	46 PP
PRATO	62.09	305.4	10	28	3	18	55	6				
DE BILT	62.14	315.8	10	26A	1	19	0	10			12	39 PP
STRASBOURG	62.15	311.4	10	25	0	18	56	6			12	47 PP
BASLE	62.72	310.3	10	28A	-1	19	3	6				
PAVIA	62.76	307.4	10	28	-1						20	47
CHIAVARI	63.05	306.5	10	34K	3	19	7	6			13	1 PP
UCCLE	63.18	314.7	10	31	-1	19	6	3				
NEUCHATEL	63.34	310.0	10	34	1	19	11	6				
DOURBES	63.35	313.9	10	33	0	19	10	5				
ABERDEEN	63.66	323.0	10	37A	2	19	12	3			12	57 PP
BESANCON	63.82	310.6	10	35	-1							
SCORESBY SD.	63.86	340.7	10	37	0	19	20	8				
ROSELEND	64.13	308.8	10	39	1							
MONACO	64.53	306.6	10	40	-1						12	59 PP
DURHAM	64.54	320.5	10	41K	0	19	24	4			13	14 PP
ISOLA	64.56	307.2	10	41	0							
PARIS	65.16	313.3	10	45A	0	19	33	5			13	10 PP
CUGLIERI	65.46	302.7									31	51
KEW	65.47	316.9	10	48	1	19	34	3			13	10 PP
GARCHY	65.56	311.7	10	47A	-1						11	18 PP
CLERMONT-FD.	66.26	310.2	10	52A	0	19	49	8				
THULE	66.29	356.0	10	49K	-3							
RABAUL	66.53	115.2	10	54A	0	19	45	1			24	19
PORT MORESBY	66.70	123.0	10	55A	0						11	38
SIDA	66.77	333.8	10	56	1						13	26
FOLINIERE	66.90	314.4	10	55	-1							
COLLEGE	66.93	24.6	10	55A	-1	19	51	2				
JERSEY	67.61	315.3	11	2	1	19	59	2				
REYKJAVIK	67.87	335.2	11	4A	2	20	18	18				
RESOLUTE	68.26	3.1	11	4A	-1	20	10	5			13	59 PP
BAGNERES	69.46	308.9	11	11	-1	20	29	10			13	45 PP
TORTOSA	70.44	306.7	11	20	2	20	36	5				
TANANARIVE	71.94	228.0	11	29	2	20	51	3			14	10 PP
ALICANTE	72.41	304.9	11	34	4	20	57	3			14	2 PP
LWIRO	73.25	253.9	11	35A	0	21	10	7			14	25 PP
TOLEDO	73.85	307.9	11	39A	1	21	16	6			14	18 PP
CHARTERS TS.	74.13	131.1	11	39A	-1	21	11	-2				
ALMERIA	74.56	304.6	11	42A	-1	21	22	4			14	33 PP
GRANADA	75.11	305.4	11	47A	1	21	30	6			14	36 PP
HONIARA	75.73	113.7	11	48	-1	21	29	-2				
MALAGA	75.90	305.4	11	49A	-1	21	36	3			14	41 PP
SERRA PILAR	75.93	311.0	11	48A	-2	21	27	-6	11	58	14	39 PP
COIMBRA	76.38	310.2	11	54A	1	21	44	6			14	50 PP
SITKA	76.75	25.9	11	55	0							
BANGUI	77.17	265.8	11	57	0	21	44	-2				
LISBON	77.72	309.3	12	0A	0	21	59	7			12	11 PCP
BROKEN HILL	81.42	244.7	12	19	-1							
ADELAIDE	82.06	145.6	12	23	-1	22	36	-2			34	15 PKKS
BRISBANE	83.53	131.4	12	31	0						24	0
BULAWAYO	85.11	240.4	12	38A	-1							
ALBERNI	86.75	25.3	12	48	1							
MELBOURNE	87.30	143.2	12	49	-1	23	32	3	13	0	12	54 PCP
CANBERRA	87.36	139.1	12	49	-1	23	17	-13	12	56	24	44 PS

RIVERVIEW	87.38	136.7	12	49	-1	23	28	-2		16	23 PP
VICTORIA	87.87	24.9	12	53A	0						
BANFF	87.87	19.1	12	52	-1						
ANGRA DO HO.	88.15	319.0	12	55A	1	23	47	9	12 44	16	24 PP
PENTICTON	88.38	22.3	12	54A	-1						
NOUMEA	88.91	119.1	12	57K	-1						
PRETORIA	89.17	236.5	12	3	-56						
KIPAPA	89.37	63.5	13	0	0						
HONOLULU	89.39	63.7	13	0	0	23	39	-10		30	1
LUANDA	89.43	258.5	13	1K	1	23	56	7	13 10		
LOME	90.02	277.6	13	4	1					16	41 PP
HUNGRY HORSE	90.85	19.4	13	8K	1	23	39	-23		16	37 PP
TARRALEAH	91.53	145.0	13	11K	1					23	35
MOORLANDS	91.97	144.7	13	13	1						
FORT NELSON	92.43	144.9	13	15K	1						
HAWAII V.OR.	92.62	63.4	13	21	6						
BANDEIRA	93.03	253.7	13	16	-1				13 26	17	7 PP
BUTTE	93.39	19.4	13	18A	0						
KIMBERLEY	93.41	236.3	13	18	-1						
BOZEMAN	94.11	18.5	13	22A	0					17	14 PP
WINDHOEK	94.87	245.5	13	26A	1						
MINERAL	95.60	27.8	13	28A	-1					16	39
UKIAH	96.04	29.5	13	35K	4						
SHAWINIGAN	96.09	352.1	13	41A	10						
HALIFAX	96.54	345.4	13	34K	1						
CALISTOGA	96.71	29.3	13	36K	2						
RENO	96.97	27.0	13	37	2					17	40 PP
BREBEUF	97.22	352.5	13	36K	0	24	17	4	13 45	17	39 PP
RAPID CITY	97.36	13.7	13	36A	-1					17	34 PP
BERKELEY	97.51	29.5	13	39K	2	24	20	5		17	40 PP
LICK	98.21	29.3	13	46K	6					17	53
EUREKA	98.36	24.3	13	41A	0					17	39 PP
SALT LAKE C.	98.44	20.9	13	43	2						
M.BOUR	98.74	295.3	13	49	6	25	23	62			
FLAMING GRGE	98.97	19.1	13	44K	0					17	51 PP
PRIEST	99.64	29.2	13	53A	6						
LONDON ONT.	100.18	357.8	13	48A	-1						
DUBUQUE	100.53	4.9	13	52	1	25	27	57			
HERMANUS	100.66	234.9								18	2 PP
PALISADES	101.69	352.1	13	58	2	24	46	11		25	42 S
FORDHAM	101.84	352.0	13	57	0						
BOULDER CITY	101.91	25.0	12	59A	-58					29	2 PKKP
PENNSYLVANIA	102.25	355.1	14	0	1						
PASADENA	102.35	28.3	14	4	5					18	13 PP
MANHATTEN	103.20	9.9	14	2A	-1						
MORGANTOWN	103.53	356.7	14	5	1					27	33
LAWRENCE	103.60	8.9	14	5	0						
WILKES	103.75	174.0	14	8K	3	24	42	-3		18	21 PP
BLOOMINGTON	104.04	1.9	14	8	2	25	57	71			
WASHINGTON	104.08	354.3	14	2	-5					17	48
GEORGETOWN	104.08	354.3	14	8	1					33	45
FLORISSANT	104.24	5.0	14	9	2	25	59	72			
ROLLA	105.02	6.3	14	16	777	26	12	81			
ALBUQUERQUE	105.36	18.9	14	13K	777						
ROXBURGH	105.49	135.6				24	59	6		18	43 PP
WELLINGTON	106.22	129.6								18	42 PP
TUCSON TELE.	106.59	23.3	14	24	777					18	43 PP
TUCSON	106.63	23.4	14	24	777					18	48 PP
CHAPEL HILL	107.18	355.7	17	46	777						
WICHITA MTS.	107.28	12.4	14	22	777	24	47	-14		18	47 PP
MAWSON	107.33	192.6								18	49 PP
LUBBOCK	107.76	15.4	18	49	777						
LITTLE ROCK	108.07	7.1	14	27	777						
DUMONT	108.83	162.9	18	58	777					34	14
COLUMBIA	109.19	357.2	14	33	777					18	45
SCOTT BASE	122.13	166.3	18	56	-1						
SAN JUAN	122.24	339.6	18	58	1					20	38 PP
TRINIDAD	127.90	331.2	19	14	6					21	13 PP
BALBOA HTS.	133.97	353.7	19	21	1						
BYRD STATION	134.86	171.8	19	8	-13						
FUQUENE	136.53	344.8	19	16	-8						
CHINCHINA	137.38	347.4	19	27	1					22	15 PP
BOGOTA	137.43	345.0	19	23	-3					22	6 PP
LA PAZ	155.04	321.1	19	57A	2					24	1 PP
SANTA LUCIA	168.35	284.3	20	11	3					25	10 PP

MAY 21 13.H 15.M 38.S EPICENTRE 37.13 95.73 DEPTH= 0.KM

A=-0.07978 B= 0.79525 C= 0.60102 D= 0.9950 E= 0.0998
G=-0.0600 H= 0.5980 K=-0.7992 HT= -0.6

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	
LHASA	8.43	209.0	2	11	5								
ESEN BULAK	9.27	2.2	2	20	2								
CHENGTU	9.43	130.8	2	24	4								
SIAN	11.11	101.1	2	39	-4								
PAOTOW	11.67	68.4	2	48	-3								
SHILLONG	11.98	197.0	2	53	-2								
CHATRA	12.57	217.7	3	3	0								
KUNMING	13.39	151.4	3	14	0								
ULAN-BATOR	13.55	33.8	3	19	3								
CHITTAGONG	15.10	194.0	3	31	-5	6	15	-10			3	49	PPP
DEHRA DUN	16.19	250.4	3	49	-1								
PEKING	16.24	73.5	3	52	1								
FRUNSE	17.14	295.9	4	2A	-1								
SEMIPALATNSK	17.30	324.9	4	6	1								
NEW DELHI	17.73	246.6	4	3K	-7								
LAHORE	18.51	258.8	4	18	-2	7	45	1					
NANKING	19.62	98.1	4	32	-1								
WARSAK DAM	19.90	268.2	4	35A	-1								
CANTON	20.64	127.8	4	42	-2								
HONG KONG	21.73	127.7	4	54	-1								
ZO-SE	21.88	98.4	4	56	0								
CHANGCHUN	23.40	64.1	5	11	0								
QUETTA	24.88	262.3	5	28	2	10	1	14					
PORT BLAIR	25.49	186.9	5	39	7						10	3	
BOMBAY	27.06	234.1									10	32	
YAKUTSK	32.59	29.3	6	35A	0								
MATUSIRO	33.80	77.9	6	42	-4				8	15			
Y.-SAKHLINSK	35.77	58.9	8	1	58						9	30	PCP
SHIRAZ	36.59	271.2	7	10A	0	13	10	17			8	21	PP
AMDERMA	37.45	341.3	7	16A	-1								
TIKSI	38.54	16.2	7	25	-1	13	20	-3			8	56	PP
MOSCOW	42.73	314.9	8	1A	0						9	43	PP
PETROPAVLOVK	45.67	48.8	8	22	-2						10	1	PCP
APATITY	45.76	331.7	8	25A	0								
KHEYS	45.84	352.0	8	26A	0	15	12	2			11	4	PPP
PULKOVO	46.63	320.7	8	32	0								
KAJAANI	47.83	326.6	8	41A	0						10	34	PP
KSARA	48.15	284.9	8	47	3								
SODANKYLA	48.35	331.1	8	45	0						10	41	PP
HELSINKI	49.29	321.5	8	54A	1								
NURMIJARVI	49.41	322.0	8	54A	0						10	45	PP
KIRUNA	50.73	331.7	9	3A	-1								
ISTANBUL UN.	50.81	296.3	9	4A	0								
UMEA	51.14	326.5	9	6A	-1						10	22	PCP
TROMSOE	51.18	334.1	10	8	1								
LWOW	51.65	308.4	9	11A	0								
UPPSALA	52.99	321.8	9	20A	-1								
KRAKOW	54.14	309.5	9	29	0								
SKALSTUGAN	54.67	327.0	9	34A	1								
KARLSKRONA	54.92	317.7	9	34	-1								
RACIBORZ	55.19	310.0	9	37	0								
ATHENS	55.71	294.5	9	40A	-1								
GOTEBORG	56.37	320.1	9	44	-1								
BRATISLAVA	56.50	308.1	9	48	2						12	59	PP
COPENHAGEN	56.75	317.7	9	48A	0								
VIENNA-H.	56.93	308.4	9	50	1								
PRUHONICE	57.45	310.8	9	53	0						10	37	
COLLMBERG	57.91	312.7	9	56	0						11	56	
KASPERSKE H.	58.34	310.1	10	0A	1						12	11	
HALLE	58.45	313.2	9	59	-1						12	6	PP
JENA	58.87	312.7	10	3	0						12	14	PP
LJUBLJANA	58.91	306.5	10	3A	0						10	34	
TRIESTE	59.56	306.3	10	7	-1						18	50	SP
ALERT	60.13	356.8	10	12	0								
STUTTGART	61.09	311.0	10	18	0								
BENSBERG	61.43	314.0	10	20	-1								
STRASBOURG	62.08	311.3	10	26	1								
DOURBES	63.28	313.9	10	34	1								
BESANCON	63.75	310.6	10	36	0								
ROSELEND	64.06	308.8	10	39	1								

THULE	66.27	355.9	10 49	-3			
SIDA	66.72	333.7	10 56	1			
PORT MORESBY	66.78	122.9	10 56A	0			
FOLINIERE	66.83	314.3	10 55	-1			
COLLEGE	66.96	24.5	10 56	-1			13 58
RESOLUTE	68.25	3.0	11 4	-1			
BAGNÈRES	69.39	308.8	11 12	0			
TANANARIVE	71.89	227.9	11 29	2			
LWIRO	73.17	253.8	11 35A	0			
TOLEDO	73.78	307.8	11 39A	1			
CHARTERS TS.	74.20	131.1	11 40	-1			
ALMERIA	74.49	304.5	11 42	0			
COIMBRA	76.31	310.1	11 54	1			
BANGUI	77.09	265.7	11 57	0	12 8		
BRISBANE	83.60	131.3	12 33	1			16 26
BULAWAYO	85.05	240.3	12 39A	0			
ALBERNI	86.77	25.2	12 48	1			
MELBOURNE	87.36	143.1	12 51	1			
CANBERRA	87.42	139.0	12 50K	-1	12 56		
BANFF	87.89	19.1	13 13	20			
VICTORIA	87.89	24.8	12 53A	0			
PENTICTON	88.40	22.3	12 56A	1			
TARRALEAH	91.59	144.9	13 10	0			
FORT NELSON	92.49	144.8	13 14A	0			
BANDEIRA	92.96	253.7	13 16K	0			
MINERAL	95.63	27.8	13 30A	1			
SHAWINIGAN	96.06	352.0	13 31	0			
EUREKA	98.38	24.3	13 42	1			
FLAMING GRGE	98.98	19.0	13 45	1			
ALBUQUERQUE	105.38	18.8	14 13	777			
BYRD STATION	134.88	171.8	20 10	49			
LA PAZ	154.98	320.9	19 56	1			

MAY 21 21.H 15.M 32.S EPICENTRE -19.92-177.22 DEPTH= 351.KM

A=-0.93980 B=-0.04565 C=-0.33867 D=-0.0485 E= 0.9988
G= 0.3383 H= 0.0164 K=-0.9409 HT= 4.7

DEPTH OF FOCUS= 0.050R

SE= 2.93

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SUVA	4.48	292.4	1 20	6					
AFIAMALU	7.92	41.9	1 51K	-3	3 18	-6			
APIA	8.01	41.4	1 52	-3					
PORT VILA	13.86	276.7	3 4K	0	5 59	27			
NOUMEA	15.42	258.3	3 20	-1	6 35	32			
KOUMAC	17.37	264.7	3 45A	4	6 53	13			
ONERAHI	17.44	203.4	3 49	7	7 1	20		11 41	PCS
KARAPIRO	19.02	197.8	3 58	0				10 42	SCP
TUAI	19.44	193.3	3 56	-6	7 31	13		10 40	SCP
TARATA	20.53	198.9	4 15	2				7 3	
WELLINGTON	22.36	196.0	4 32	2	8 20	12		11 27	PCS
KAIMATA	24.49	200.6	4 53	3	9 13	30		15 5	
GEBBIES PASS	25.18	197.4	4 52	-4	9 5	11		15 14	SCS
ROXBURGH	27.81	200.5	5 20	0	9 54	18	6 47	11 28	PCS
BRISBANE	28.42	249.1	5 22	-3	8 38	-68			
RIVERVIEW	31.29	237.2	5 49A	-1	10 36	5		7 15	*SP
CANBERRA	33.44	235.6	6 7K	-1	11 6	2	7 23	7 33	PP
RABAUL	33.67	293.6	6 8K	-2				13 18	
CHARTERS TS.	34.27	263.3	6 14K	-1					
PORT MORESBY	35.95	281.7	6 28K	-1					
MELBOURNE	37.30	233.2	6 39K	-2					
MOORLANDS	37.43	225.1	6 41A	-1				8 6	PP
FORT NELSON	37.54	224.3	6 41	-2	12 16	10			
TARRALEAH	37.86	225.7	6 41	-4				8 9	PP
MACQUARIE I.	39.00	202.0	6 56	1	12 40	12		7 24	
ADELAIDE	41.54	239.5	7 14	-1	13 2	-3			
HAWAII V.OB.	44.63	30.1	7 42	2	13 52	3			
HONOLULU	45.03	25.6	7 43	0	13 56	1	8 48	11 53	*SPP
KIPAPA	45.17	25.6	7 44K	0				9 8	
GUAM	50.01	308.5	7 53K	-28				11 34	
DARWIN	50.30	270.3	8 21	-2					
CAPE HALLETT	52.90	184.8	8 42	-1					
DUMONT	54.14	199.5	8 49	-3	15 56	-4			

SCOTT BASE	58.50	183.9	9	22	0	17	31	34		
TORISIMA	64.65	319.8	10	4	2					
WILKES	64.81	205.1	10	2K	-1	18	5	-10	10 48	18 16 SP
BYRD STATION	65.09	170.6	10	4	-1	18	14	-5		13 23
MERA	68.10	322.9	10	21	-3					
TYOSI	68.11	324.1	10	26	2					
OSIMA	68.25	322.5	10	22K	-3					
YOKOHAMA	68.57	323.1	10	25	-2					19 39
AJIRO	68.61	322.5	10	25	-2					
TOKYO C.M.O.	68.70	323.4	10	29	1	18	53	-9		
MISIMA	68.75	322.5	10	26	-2					
OMAESAKI	68.80	321.6	10	28	0					
MITO	68.81	324.4	10	29	1					40 30
KAKIOKA	68.86	324.1	10	28	-1					
TUKURASAN	68.89	324.0	10	27K	-2	19	1	-3	11 49	13 2 PP
SHIZUOKA	68.96	322.0	10	30	1	18	59	-6		
ONAHAMA	68.99	325.0	10	29	0	19	9	4		
HUNATU	69.12	322.6	10	29	-1	19	5	-2		
HAMAMATU	69.18	321.4	10	29	-2					
KUMAGAYA	69.24	323.5	10	32A	1	19	12	4		
UTUNOMIYA	69.26	324.1	10	31	0					
TITIBU	69.29	323.2	10	31	0					
KOHU	69.36	322.6	10	31	-1	19	11	2		
SIOMISAKI	69.48	319.2	10	30	-2	19	9	-2		
SHIRAKAWA	69.48	324.7	10	32	0	19	13	2		
MAEBASI	69.60	323.5	10	31K	-2	19	8	-4		13 7 PP
OWASE	69.64	320.0	10	38	5	19	13	1		
IIDA	69.68	322.1	10	29	-5					16 9
HUKUSIMA	69.81	325.4	10	33	-1	19	15	0		
OIWAKE	69.84	323.1	10	36	1	19	9	-6		
ISINOMAKI	69.87	326.4	10	30	-5					
TU	69.87	320.7	10	36	1					
NAGOYA	69.93	321.3	10	33	-2	19	16	0		40 16
SENDAI	69.97	326.0	10	34	-1	19	20	4		
KAMEYAMA	70.01	320.7	10	37K	1	19	18	1		
MATUMOTO	70.11	322.7	10	37	1					
MATUSIRO	70.18	323.1	10	34K	-3	19	7	-12		
GIHU	70.21	321.3	10	36	-1					
YAMAGATA	70.25	325.6	10	35	-2	19	18	-1		
NARA	70.27	320.2	10	36	-1					
NAGANO	70.28	323.2	10	38	1					38 46
MUROTO	70.33	318.1	10	37	-1					12 11
WAKAYAMA	70.37	319.5	10	41	3	19	24	3		
HIKONE	70.43	320.9	10	39	1	19	24	2		
OSAKA	70.44	320.0	10	36	-2	19	24	2		
MIYAKO	70.45	327.6	10	39	1	19	25	3		
TAKAYAMA	70.45	322.2	10	37	-1					
NAHA	70.45	308.5	10	43	5					
MIZUSAWA	70.49	326.7	10	39	1	19	15	-7		
TAKADA	70.56	323.5	10	32	-7					
ABUYAMA	70.56	320.2	10	37K	-2					
KYOTO	70.57	320.4	10	37	-2					16 4
SUMOTO	70.60	319.4	10	41	2	19	23	-1		12 10 PP
TOKUSIMA	70.63	319.0	10	43	4					
KOBE	70.67	319.8	10	40	0	19	31	7		
NIIGATA	70.70	324.6	10	42	2					11 27
ASHIZURI	70.73	317.0	10	40	0	19	23	-2		
TSURUGA	70.80	321.1	10	42	2					
TOYAMA	70.87	322.6	10	40	-1	18	37	-50		
MORIOKA	70.90	327.2	10	47A	6					18 37
KOTI	70.94	318.0	10	40	-1	19	18	-9		13 2 PP
YAKUSIMA	70.95	313.7	10	42	1	19	29	1		
BAGUIO CITY	70.97	296.1	10	37	-4	20	46	78		
HUKUI	70.98	321.5	10	44	3					
SAKATA	71.00	325.8	10	22	-20					
KANAZAWA	71.06	322.1	10	44	2					
TAKAMATU	71.12	318.9	10	43	1	19	22	-7		
AIKAWA	71.21	324.2	10	41	-2					
MIYAZAKI	71.25	315.5	10	45	2	19	36	5		
HATINOHE	71.34	328.0	10	43	-1					
AKITA	71.46	326.5	10	49	5	20	22	49		
WAZIMA	71.52	322.9	10	47	2					
MATUYAMA	71.60	317.8	10	49	4	19	41	6		
KAGOSIMA	71.61	314.7	10	46	1	19	40	5		
NEMURO	71.62	332.3	10	45K	0	19	29	-6		
TOTTORI	71.83	319.9	10	52	6					
MIRNY	71.83	204.9	10	43	-3	19	29	-8		13 29 PP
KUSIRO	71.87	331.3	10	45K	-2	19	32	-6		

AOMORI	71.93	327.7	10	48	1						
OOITA	71.95	316.6	10	49	2	19	39	0			
URAKAWA	71.97	329.8	10	48	1						
ASOSAN	72.10	316.1	10	48	0	19	46	6			
YONAGO	72.28	319.4	10	49	0	19	47	4			
KUMAMOTO	72.29	315.8	10	46	-3	19	41	-2			
OBIHIRO	72.37	330.6	10	28	-22						
HAKODATE	72.68	328.4	10	49	-2					12	22
HAMADA	72.73	318.2	10	57	5	19	50	2			
NAGASAKI	72.77	315.3	10	50A	-2	19	48	0			
SAIGO	72.81	320.0	10	57	5						
SAGA	72.82	315.9	11	1	9					13	25
SIMONOSEKI	72.85	316.8	10	48	-4						
TOMAKOMAI	72.91	329.4	10	53	0						
MURORAN	72.96	328.9	10	53	0					12	23
HUKUOKA	72.97	316.2	10	51	-2	19	52	2		40	11
MORI	73.00	328.5	11	7	14						
ASAHIGAWA	73.42	330.7	10	55A	-1					12	3
HENGCHUN	73.54	301.3	10	58	2					15	19
TAWU	73.59	301.7	10	56	-1					13	27
TAITUNG	73.59	302.1	10	29	-28					12	9
HSINKONG	73.59	302.6	11	0	3						
SUTTSU	73.69	328.8	11	2	5					12	34
LEMBANG	73.78	268.5	10	56	-2	20	6	7			
HWALIEN	73.84	303.5	10	58	0	20	4	4			
YUSHAN	74.12	302.7	11	28	28						
ILAN	74.15	304.2	11	16	16					18	32
TAINAN	74.46	301.9	11	8	6						
TAIPEI	74.46	304.3	11	4	2	20	10	3			
TAICHUNG	74.67	303.2	11	5	2						
DJAKARTA	74.73	268.9	10	59K	-4	20	7	-3			
WAKKANAI	74.99	331.4	11	13	8						
PETROPAVLOVK	75.59	345.2	11	5	-3	20	14	-5	12 38	14	9 PP
Y.-SAKHLINSK	75.78	333.0	11	7	-2						
PRIEST	77.24	43.8	11	18K	1						
BERKELEY	77.26	41.6	11	18K	1	20	40	3	12 49	14	25 PP
LICK	77.33	42.4	11	19A	1						
UKIAH	77.45	40.1	11	18A	0	20	44	5	12 48		
CALISTOGA	77.54	40.9	11	19A	0						
PASADENA	77.76	46.7	11	20	0	20	50	8	12 52	13	48 PP
ZO-SE	77.89	309.5	11	19K	-2	20	43	0	12 51	23	19 *SS
VLADIVOSTOK	78.23	324.5	11	19K	-4	20	44	-3	12 54		
HONG KONG	79.05	298.6	11	25K	-2	20	57	1	13 7	11	34 PCP
MINERAL	79.18	40.0	11	28A	0					13	8
RENO	79.80	41.5	11	32	1	21	8	5			
CANTON	80.08	298.9	11	32K	0	21	6	0	13 6		
NANKING	80.14	309.2	11	32K	-1	21	8	1	13 7	13	51 *SP
BOULDER CITY	81.05	46.7	10	37A	-60						
ARGENTINE I.	81.21	156.9	11	42	4						
TUCSON	81.98	51.6	11	44K	2	21	37	12	13 18	15	12 PP
TUCSON TELE.	82.11	51.6	11	44K	1	21	38	11	13 16		
EUREKA	82.19	43.2	11	40K	-3	21	34	6	13 10	38	8 PKPPKP
MAWSON	82.35	199.6	11	41K	-3	21	34	5	13 35	16	22 PPP
CHANGCHUN	82.39	322.0	11	43K	-1	21	30	1	13 16	13	59 *SP
ALBERNI	83.10	31.5	11	47	-1						
VICTORIA	83.31	32.7	11	48	-1						
MAGADAN	83.39	344.2	11	47	-2	21	34	-5	13 27	24	23 *SS
GLEN CANYON	83.79	47.2	11	52	1	21	46	3			
SITKA	84.31	21.5	11	52	-2						
SALT LAKE C.	85.55	43.8	12	0	0						
PENTICTON	85.77	33.6	12	0K	-1						
PEKING	86.00	315.1	12	1K	-1	22	4	0	13 34	15	27 PP
ALBUQUERQUE	86.47	51.0	12	4	0	21	52	-17			
FLAMING GRGE	87.25	44.6	12	8A	0	22	5	-11	13 41		
COLLEGE	87.49	12.1	12	6K	-3	22	24	6	13 42	16	0 PP
BUTTE	87.83	39.1	12	10K	-1	22	7	-15		28	17 SS
HUNGRY HORSE	88.24	36.6	12	13	0	22	6	-19	13 48		
SIAN	88.46	307.3	12	16K	2	22	34	7	13 51	14	30 *SP
BOZEMAN	88.56	39.9	12	15K	1				13 50		
KERGUELEN I.	88.93	217.1				22	31	-1		14	7
BANFF	88.97	33.7	12	14	-2						
LUBBOCK	89.31	53.9	12	19	1						
KUNMING	89.74	296.8	12	20K	0	22	14	-25	13 55	14	44 *SP
CHENGTU	90.80	302.3	12	30	5	23	1	13	14 2	14	47 *SP
SANTA LUCIA	92.22	126.7	12	37	6					14	6 PP
WICHITA MTS.	92.25	53.9	12	31	0	23	7	6	14 6	16	28 PP
SAN SALVADOR	92.75	76.5	12	44	10					14	16
RAPID CITY	92.76	43.9	12	34	0				14 9		
HOUSTON	92.90	59.6	12	46	12						

LANCHOW	93.00	307.2	12	34	-1	22	29	-38	14 10		
SANTIAGO MA.	93.36	77.0	12	45	8					14	13
PORT BLAIR	93.96	280.9	12	47	8	22	35	-41		15	52 PP
MANHATTEN	95.41	50.4	12	50	4					25	6
ULAN-BATOR	95.52	319.1	12	42	-4						
LAWRENCE	96.30	50.9	12	52	2						
TOCKLAI	97.03	295.8	13	2	9						
LITTLE ROCK	97.07	55.7	12	54	1						
CHITTAGONG	98.20	290.7	12	54	-5	23	3	2		16	50 PP
TIKSI	98.36	345.0	12	51	-8					17	3 PP
ROLLA	98.42	52.8	13	5	5					25	22
AREQUIPA	98.59	110.9	13	5	5						
IRKUTSK	98.71	322.5								19	13 PPP
SHILLONG	99.14	293.8	13	1K	-2	23	1	-5		16	0 PP
FLORISSANT	99.84	52.4	13	6	0						
ST. LOUIS 1	99.90	52.5	13	9	3				14 34		
BALBOA HTS.	100.15	84.1	13	11	4					14	57
LHASA	101.04	297.6	13	17	6	23	16	1	14 48	15	34 *SP
CALCUTTA	101.30	289.9	13	4	-8	23	4	-12		21	48
LA PAZ	101.51	112.3	13	18	5					17	32 PP
ESEN BULAK	101.83	315.1	13	19	4				14 57		
MOULD BAY	102.06	12.0	13	13	-3						
CHINCHINA	102.57	89.2	13	28	10	23	23	1	15 2	17	42 PP
BLOOMINGTON	102.85	52.8	13	25	6					25	38
CHATPA	103.55	293.8	13	26	4					17	46
BOGOTA	103.91	90.1	13	34	10					17	53 PP
BOKARO	103.93	290.5	13	33	9					23	30
VISHAKHAPTNM	104.49	283.8	13	35	9					18	4
FUQUENE	104.51	89.4	13	41	14				15 0		
GALERAZAMBA	104.74	83.7				23	46	14		18	9 PP
MADRAS	106.01	278.3	13	26	777	23	43	5		22	4
RESOLUTE	107.04	16.0	13	38	777						
CLEVELAND	107.07	51.5	14	17	777	23	46	4	15 22		
LONDON ONT.	107.63	49.9	13	48A	777						
CHAPEL HILL	107.84	57.6	13	43	777						
MORGANTOWN	107.88	53.6	13	40	777	23	41	-5			
HYDERABAD	108.85	282.2	13	57	777					23	55
PENNSYLVANIA	109.66	52.7	13	52	777						
GEORGETOWN	109.95	54.8	14	7	777					27	28
WASHINGTON	109.95	54.8	14	2	777				15 34	18	36 PP
PHILADELPHIA	111.57	53.9	14	10	-222					17	46 PKP
DEHRA DUN	112.15	295.5	14	9	-225					22	43
CARACAS	112.47	86.6	18	4A	10	25	12	68			
NEW DELHI	112.55	293.5	13	58K	-236					24	40
PALISADES	112.66	52.9	17	59	4				18 55	45	9 PKPSKS
FORDHAM	112.66	53.1	14	17	-218						
ALERT	112.81	7.5	13	59	-236						
BREBEUF	113.35	48.1	14	10A	-226	24	7	-1	15 38	26	9 SKS
POONA	113.37	282.1	14	13	-223					18	58
THULE	113.65	14.1	14	8	-229					18	47 PP
SHAWINIGAN	114.02	47.0	17	56	-1					14	22 P
BOMBAY	114.40	282.3								19	1
KHEYS	114.96	351.4	18	2	3						
SAN JUAN	115.33	78.6	17	58	-2					19	0 PP
TRINIDAD	117.71	88.2	18	5	1					19	33 PP
GRENADA	117.80	86.6	18	4	-1						
WARSAK DAM	118.14	298.6	18	2	-3						
ST. KITTS	118.22	80.6	18	5	0					28	31
ST. VINCENT	118.54	85.5	18	9	3					20	44 PP
ST. CLAUDE	118.86	82.3								19	17
FORT FRANCE	119.05	83.8	18	13	6	24	36	7			
BARBADOS	120.09	86.1	18	15	6						
TASHKENT	120.36	306.8	18	13	3					26	12
HALIFAX	120.42	49.4	18	8	-2						
TANANARIVE	121.55	231.5	18	14	2					19	56 PP
QUETTA	121.63	293.7	18	10	-2					19	45
GRAHAMSTOWN	122.39	203.6								19	14
HERMANUS	123.74	196.4								20	32 PP
KIMBERLEY	127.16	204.4	18	23K	0						
SCORESBY SD.	127.32	10.2	18	22	-1						
PRETORIA	128.33	209.5	18	25	0						
APATITY	128.58	345.5	18	20K	-5				20 14	20	39 PP
ASHKABAD	128.90	303.1	18	26	0					20	46 PP
TROMSOE	129.32	352.8	18	24	-3						
SODANKYLA	130.19	348.2	18	21	-8					21	55 PKS
KIRUNA	130.82	351.3	18	25	-5				20 19	20	50 PP
KAJAANI	132.78	345.4	18	23	-10					20	27 *SPKP
REYKJAVIK	132.80	14.5	18	27	-6					23	50
BULAWAYO	132.83	213.9	18	7	-27					18	39

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SIDA	133.95	12.7	18	37	1					21	34	SKP
SHIRAZ	134.11	292.3	18	26	-10	24	12	-59		20	28	PPP
UMEA	134.56	349.2	18	25	-12				20 15	21	5	PP
TEHERAN	134.67	300.9	18	24	-13					20	28	PPP
WINDHOEK	135.52	199.0	18	31	-7							
PULKOVO	135.58	340.5	15	47	-172				17 31	21	21	PPP
MOSCOW	135.73	332.4	18	32	-7					24	39	
SKALSTUGAN	135.89	353.9	18	31	-8				20 23			
NURMIJARVI	136.58	344.4	18	28	-12					21	35	SKP
HELSINKI	136.79	344.0	18	29	-12					20	31	*SPKP
BROKEN HILL	137.51	218.4	17	49	-53					18	37	
GORIS	137.92	307.3	18	42	-1					22	19	PKS
TIFLIS	138.40	311.0	18	52	8				20 34	33	43	
UPPSALA	138.72	348.7	18	34	-10				20 34	22	24	PKS
BERGEN	139.52	358.1	18	45	-1							
GOTEBORG	141.67	352.0	18	43	-7				20 25			
KARLSKRONA	142.56	348.2	18	49	-3				20 41			
ABERDEEN	142.63	4.4	18	54A	2					22	9	PP
BANDEIRA	143.88	197.4								22	20	PP
SIMFEROPOL	144.01	321.1	18	51	-3				20 37	22	19	PKS
WARSAW	144.75	340.5	19	0	5					22	21	PP
DURHAM	145.05	4.4	18	55A	-1				20 44	22	16	PP
LWOW	145.69	335.4	18	56	-1					26	59	
LWIRO	146.27	232.1	19	1K	3					22	54	PKS
KRAKOW	146.98	339.6	19	1	2					19	9	PKP2
WITTEVEEN	147.02	355.7	19	1	2							
RACIBORZ	147.50	341.4	19	2	2					19	7	PKP2
KSARA	147.55	302.1	18	58	-2				20 47	22	30	PP
SKALNATE PL.	147.62	338.4	19	4	4							
COLMBERG	147.67	348.0	18	59A	-1							
HALLE	147.67	349.3	18	59	-1					19	16	PKP2
MUNSTER	147.79	354.4	19	0	0					20	48	
DE BILT	147.83	357.2	19	0	0				20 54	40	58	SS
ANGRA DO HO.	148.06	47.8	19	10A	10				20 50	32	36	PS
JENA	148.28	349.4	18	59	-2				20 40	23	43	PP
KEW	148.42	3.7	19	4	3				20 40	22	44	PP
PRAGUE	148.52	345.6	19	1	0					22	58	
PRUHONICE	148.57	345.4	19	1	0					20	54	
RENSBERG	148.83	354.6	19	1	-1				20 47	27	8	
CHEB	148.95	348.0	19	6	4					22	59	PP
ISTANBUL UN.	149.32	319.1	18	56	-6					20	54	PP
FELDBERG	149.43	352.8	19	6	4					21	6	
HURBANOVO	149.44	339.4	19	19	17	26	55	20		23	3	PP
BUDAPEST	149.50	338.1	19	7	4				20 55	20	58	PP
BRATISLAVA	149.53	340.9	19	4	1					26	7	
PONTA DELGDA	149.57	48.2	19	16	13				20 57			
KASPERSKE H.	149.59	345.9	19	2	-1					22	20	
LUANDA	149.62	200.8	19	9K	6				20 58	22	58	PP
VIENNA-H.	149.68	341.9	19	4	1					23	4	PP
KECSKEMET	149.73	336.7	19	18	15				20 54			
DOURRES	149.85	357.7	19	2	-1				20 50			
TIMISOARA	150.09	333.6	19	11	8					22	59	PP
SZEGED	150.12	335.5	19	6	2				20 43	20	18	
HEIDELBERG	150.20	352.2	19	4	0					21	6	
KALOCSA	150.32	337.1	19	17	13				20 35	21	3	
JERSEY	150.55	6.5	19	13	9					23	46	PP
KARLSRUHE	150.63	352.4	19	4	0					20	56	PP
STUTTGART	150.74	351.2	19	4	0				20 38	22	56	PP
TUBINGEN	151.01	351.4	19	10	5					21	22	
FOLINIERE	151.10	4.5	19	4	-1							
STRASBOURG	151.13	353.1	19	4	-1	25	44	7	20 50	22	58	PP
BELGRADE	151.16	333.4	19	9	4					23	3	PP
PARIS	151.18	0.4	19	5	0				20 2	20	50	PP
EBINGEN	151.37	351.3	19	9	4					21	2	
SOFIA	151.44	327.2	19	6	0				20 53	23	40	PP
RAVENSBURG	151.66	350.3	19	6	0					20	55	
ZAGREB	151.97	340.1	19	12A	6				21 4			
BASLE	152.18	353.0	19	11A	4	25	46	8		21	4	
LJUBLJANA	152.20	342.3	19	6	-1				20 43	23	0	PP
CHUR	152.58	349.9	19	12	5				20 56			
BESANCON	152.61	355.3	19	8	1				21 0			
GARCHY	152.71	359.6	19	16	9					20	56	
NEUCHATEL	152.77	353.8	19	19	12				21 8			
TRIESTE	152.79	343.0	19	8	1				20 44	22	51	PP
SKOPJE	152.93	328.4	19	12	4					21	56	
PADOVA	153.49	345.6	19	18A	10	25	28	-11	21 10	23	18	PP
TITOGRAD	153.59	331.8	19	23	14					19	52	PKP2
CLERMONT-FD.	154.22	359.5	19	9	0	25	35	-5				

PAVIA	154.26	349.6	19	16	7						21	26	
ATHENS	154.42	319.1	19	8K	-2						25	35	
CHIAVARI	155.06	348.8	19	51	40	26	6	25			24	18	*PPP
PRATO	155.12	345.6	19	22	11	25	4	-37					
FLORENCE X.	155.17	345.3	19	18	7	25	2	-39	20	54	43	58	SS
ISOLA	155.55	352.6	19	15	4								
MONACO	155.94	351.7	19	16	4				21	4			
TARANTO	156.06	332.0	19	23	11						43	28	SS
ROME	156.59	341.5	19	12K	-1	25	22	-21	21	6	42	58	SS
SERRA PILAR	156.74	22.2	19	14K	1	25	44	1			23	32	PP
PAGNERES	156.81	4.9	19	13	0				21	7	21	43	*SPKP
COIMBRA	157.62	23.0	19	19A	5						23	37	PP
LISBON	158.61	26.3	19	16A	1	25	13	-32	20	2	23	32	PP
MESSINA	158.68	331.4	19	8	-7	25	32	-13	20	58	23	30	PP
REGGIO CALA.	158.71	331.1	19	30	15						21	6	
TORTOSA	159.08	4.9	19	33	17								
TOLEDO	159.26	15.0	19	18	2				21	37	23	43	PP
M.BOUR	160.35	103.2	19	27	10						22	55	PKS
ALICANTE	161.42	8.1	19	16	-2	25	37	-10			21	19	
GRANADA	161.92	16.6	19	29K	10	26	42	54			23	57	PP
MALAGA	162.12	19.1	19	18K	-1	26	22	34			23	58	PP
ALMERIA	162.52	14.1	19	19A	0	26	6	18	21	2	24	4	PP
LOME	166.20	173.5	19	32	9						24	40	PP

MAY 22 8.H 6.M 38.S EPICENTRE -12.24 166.66 DEPTH= 121.KM

A=-0.95120 B= 0.22549 C=-0.21066 D= 0.2307 E= 0.9730
G= 0.2050 H=-0.0486 K=-0.9776 HT= 6.2

DEPTH OF FOCUS= 0.014R

SE= 1.70

	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	
PORT VILA	5.69	163.9	1	24	1	2	26	-2					
HONIARA	7.16	292.3	1	43	0								
KOUMAC	8.58	195.1	2	0	-2	3	34	-4					
NOUMEA	10.01	181.1	2	22	1	4	8	-4					
SUVA	12.78	118.8	2	57	-1	5	29	11					
RABAUL	16.41	297.9	3	44K	0						6	42	
PORT MORESBY	19.37	276.5	4	19A	1	7	55	10					
BRISBANE	19.91	218.8	4	24	0	7	56	0					
AFIAMALU	21.06	96.9	4	37A	2	8	29	11					
CHARTERS TS.	21.08	245.7	4	36A	0	8	23	5					
ONEPAHI	24.44	164.7	5	14	6								
RIVERVIEW	25.73	210.9	5	21A	1	9	38	0	5	44	6	6	PP
KARAPIRO	26.78	164.3	5	29	-1						6	36	PP
TARATA	27.70	167.0	5	40	2								
CHATEAU	27.98	165.2	5	41	0								
CANBERRA	28.00	211.9	5	41A	0	10	17	2	6	11	6	37	PP
TUAI	28.05	162.4	5	39	-3	10	18	2			7	6	PP
WELLINGTON	29.79	167.6	5	56	-1	10	40	-3	6	28	12	50	SS
KAIMATA	30.45	173.1	6	4	1	10	57	3					
GEBBIES PASS	31.77	171.7	6	13	-1	11	16	2			17	30	
MELBOURNE	32.02	213.5	6	16	-1	11	18	0	6	46			
ROXBURGH	33.20	176.6	6	27A	0	11	36	-1			8	14	PP
GUAM	33.53	318.9	6	29	-1	11	39	-3					
ADELAIDE	33.96	223.5	6	33	0	11	46	-2	7	8			
MOORLANDS	34.53	205.8	6	38K	0						12	11	PCP
TARRALEAH	34.73	206.7	6	40	0								
DARWIN	34.99	265.9	6	43	1						18	8	
MACQUARIE I.	42.59	186.6	7	45	0				8	24	8	10	
HONOLULU	48.05	46.3	8	31	3	15	22	6	8	59	16	18	
KIPAPA	48.18	46.3	8	29	0				9	0			
HAWAII V.OB.	48.95	50.5	8	36	1						15	35	
MUNDARING	50.21	238.5	9	4K	19								
MANILA	52.47	299.3									11	3	
MERA	53.36	332.5	9	5	-4								
OSIMA	53.44	332.0	9	9A	0								
BAGUIO CITY	53.73	301.0	9	9	-2	16	33	-1					
YOKOSUKA	53.78	332.6	9	21A	9								
AJIRO	53.80	331.9	9	9	-3								
OMAESAKI	53.84	330.9	9	14	2								
NAHA	53.85	315.5	9	17	5								
YOKOHAMA	53.87	332.7	9	15	3								
MISIMA	53.93	331.9	9	12	-1								

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TOKYO C.M.O.	54.03	332.9	9	11	-2	16	33	-5				
SHIZUOKA	54.06	331.3	9	14	0						12	36
SIOMISAKI	54.14	328.0	9	14	0	16	41	1				
HAMAMATU	54.16	330.5	9	11	-3							
KAKIOKA	54.30	333.6	9	15	0							
MITO	54.30	334.0	9	16	1							
HUNATU	54.32	332.0	9	15	-1							
TUKUBASAN	54.33	333.6	9	13K	-3	16	38	-4	9	39	11	22 PP
OWASE	54.41	328.8	9	15	-1							
KOHU	54.56	331.9	9	17	0							
TITIBU	54.58	332.6	9	18	0							
KUMAGAYA	54.59	332.9	9	17	-1							
ONAHAMA	54.61	334.7	9	16A	-2							
IIDA	54.78	331.2	9	19	0							
KAMEYAMA	54.89	329.6	9	20A	0	16	53	3				
NAGOYA	54.91	330.3	9	19A	-1	16	50	0				
MAEBASI	54.93	332.8	9	21K	1	16	46	-4			11	10 PP
SHIRAKAWA	55.04	334.3	9	22	1							
ASHIZURI	55.07	325.3	9	20	-1	16	53	1				
NARA	55.08	329.0	9	23	2							
OIWAKE	55.11	332.4	9	21	0						11	12
OSAKA	55.21	328.7	9	22	0	16	56	2				
SUMOTO	55.28	328.0	9	22	-1							
MATUMOTO	55.31	331.8	9	23	0							
HIKONE	55.34	329.8	9	23	0							
ABUYAMA	55.36	328.9	9	22	-1							
MIYAZAKI	55.38	323.4	9	24	1							
KYOTO	55.40	329.2	9	19	-4	16	56	-1				
KOTI	55.41	326.3	9	23	0	16	59	2				
KOBE	55.41	328.5	9	25	1							
MATUSIRO	55.44	332.2	9	23A	-1	16	56	-1				
HUKUSIMA	55.47	334.9	9	23	-1	16	31	-27				
NAGANO	55.55	332.3	9	26	1						39	39
KAGOSIMA	55.64	322.5	9	29K	4	17	5	5				
ISINOMAKI	55.70	336.0	9	24	-2							
TSURUGA	55.73	329.9	9	25	-1							
SENDAI	55.73	335.5	9	26A	0	16	58	-3				
TAKADA	55.88	332.6	9	26	-1							
YAMAGATA	55.94	335.1	9	27	0	17	8	4				
TOYAMA	56.03	331.5	9	28	0							
MATUYAMA	56.03	326.0	9	29	1							
NIIGATA	56.21	333.8	9	30	1						10	13
OOITA	56.23	324.6	9	29A	0	17	10	2				
ASOSAN	56.30	323.9	9	29	-1							
MIZUSAWA	56.38	336.3	9	29	-1							
HENGCHUN	56.44	306.9	9	35	4							
KUMAMOTO	56.45	323.6	9	30	-1							
MIYAKO	56.51	337.2	9	30	-1	17	13	2				
TAWU	56.52	307.3	9	30	-1							
TAITUNG	56.54	307.9	9	32	0							
TOTTORI	56.57	328.3	9	36	4							
AIKAWA	56.64	333.3	9	32	0							
WAZIMA	56.73	331.8	9	33	0							
HWALIEN	56.86	309.4	9	35	1	17	23	7				
MORIOKA	56.86	336.6	9	33	-1							
NAGASAKI	56.87	322.9	9	34A	0	17	14	-2				
SAGA	57.00	323.7	9	37	2							
SIMONOSEKI	57.14	324.7	9	32	-4							
HUKUOKA	57.19	324.0	9	35A	-1	17	18	-2			13	6
ILAN	57.21	310.2	9	37	1							
HAMADA	57.22	326.3	9	37	1	17	23	2				
DUMONT	57.23	192.3	9	34	-2	17	22	1	10	2		
AKITA	57.30	335.8	9	33	-4							
TAINAN	57.39	307.6	9	41	3							
HATINOHE	57.44	337.4	9	36	-2							
TAIPEI	57.53	310.3	9	34	-5	17	19	-6				
TAICHUNG	57.67	309.0	9	41	1							
AOMORI	57.97	337.0	9	43	1							
LEMBANG	58.38	269.5	9	44	-1	17	36	0				
NEMURO	58.56	342.1	9	44A	-2						18	44
KUSIRO	58.61	341.0	9	42	-4							
HAKODATE	58.84	337.6	9	47	-1						10	14
OBIHIRO	58.95	340.0	9	49	1							
MORI	59.16	337.6	9	51	1							
DJAKARTA	59.27	270.0	9	50A	-1	17	48	1				
TANGERANG	59.47	270.0	9	51A	-1	17	51	1				
SAPPORO	59.72	338.7	9	53A	-1	17	52	-1				
ASAHIGAWA	59.99	339.9	9	57A	1							

CAPE HALLETT	60.07	178.7	9	55	-1							
ZO-SE	61.34	315.8	10	4A	-1	18	15	1	10	29	10 44	*SP
HONG KONG	61.85	303.6	10	9A	1	18	17	-3	10	35	10 57	PCP
Y.-SAKHLINSK	62.76	341.8	10	13A	-1	18	30	-2	10	42		
CANTON	62.90	303.9	10	16A	1	18	38	5	10	44	10 52	*SP
NANKING	63.55	315.3	10	19A	0	18	41	-1	10	44	11 0	*SP
VLADIVOSTOK	63.61	332.2	10	20A	0	18	46	4	10	45	14 12	PPP
PETROPAVLOVK	65.36	354.7	10	30A	-1	19	5	1				
SCOTT BASE	65.61	180.0	10	32	-1	19	14	7				
WILKES	65.64	201.6	10	31A	-2	19	2	-5	10	58	19 42	*SS
CHANGCHUN	67.31	328.8	10	44A	1	19	30	3			20 17	*SS
MEDAN	69.35	278.6	10	55	-1	19	55	3				
PEKING	69.97	320.9	11	0A	0	20	0	1	11	27	13 30	PP
SIAN	71.69	312.4	11	11A	1	20	20	1	11	40		
MIRNY	72.36	203.8	11	12	-2	20	26	0			13 53	PP
KUNMING	72.51	301.4	11	17A	2	20	32	4	11	46	12 1	*SP
MAGADAN	72.68	351.6	11	15A	-1	20	28	-2			21 10	SCS
CHENGTU	73.74	307.1	11	23A	1	20	43	1	11	51	12 7	*SP
PAOTOW	74.16	318.6	11	26A	1	20	49	3	11	53	12 7	*SP
BYRD STATION	75.23	170.0	11	30	-1	21	3	5				
LANCHOW	76.22	312.1	11	39A	3	21	14	5	12	7	22 3	*SS
PORT BLAIR	77.14	285.1	11	43A	2	21	20	1			14 33	PP
SOUTH POLE	77.84	180.0	11	44	-1							
YAKUTSK	79.47	343.2	11	53	-1	21	44	0			15 6	PP
ULAN-BATOR	79.91	323.8	11	57	1	21	50	2				
CHITTAGONG	80.97	295.2	12	3A	1	22	4	5			12 32	PP
SHILLONG	81.88	298.3	12	6A	-1	22	6	-3			13 26	PP
UKIAH	82.75	47.5	12	10	-1				12	42		
BERKELEY	82.99	49.0	12	13A	1	22	25	5			15 26	PP
CALISTOGA	83.03	48.1	12	13A	0							
LICK	83.25	49.6	12	14A	0						12 46	
IRKUTSK	83.53	326.8	12	14A	-1	22	26	1			23 17	*SS
PRIEST	83.57	51.0	12	16A	1							
LHASA	83.82	302.0	12	18A	1	22	28	0	12	48	13 3	*SP
SITKA	83.88	27.8	12	17	0							
MAWSON	83.96	202.0	12	17A	0	22	29	0	12	50	15 25	PP
CALCUTTA	84.08	294.5	12	19	1						22 27	
COLLEGE	84.14	17.8	12	17	-1	22	30	-1	12	51	15 40	PP
MINERAL	84.36	46.8	12	19A	0						12 50	
PASADENA	84.85	53.6	12	21	-1	22	36	-2	12	52	15 40	PP
RENO	85.37	48.1	12	25A	1						15 44	PP
ALBERNI	85.68	37.7	12	27	1							
ESEN BULAK	85.71	319.2	12	26	0	22	43	-4				
VICTORIA	86.23	38.7	12	28	-1							
CHATRA	86.29	298.3	12	31A	2	22	44	-8				
BOKARO	86.70	295.1	12	31	0						23 37	
TIKSI	87.41	348.8	12	33A	-1	22	47	-16	13	1		
VISHAKHAPTNM	87.48	288.6	12	34K	-1	23	6	3			16 1	PP
BOULDER CITY	88.01	52.7	12	38	1							
EUREKA	88.16	49.1	12	38	0				13	8	16 35	PP
PENTICTON	88.85	38.9	12	41	0							
MADRAS	89.35	283.4	12	44A	1	23	5	-16			16 3	PP
TUCSON	90.22	57.2	12	49	1				13	19		
TUCSON TELE.	90.33	57.1	12	49	1	23	27	-3	13	21		
GLEN CANYON	90.79	52.4	12	51	1							
KODAIKANAL	91.35	280.1	12	54	1	23	33	-6			24 24	S
SALT LAKE C.	91.55	48.7	12	54	0				13	25		
BANFF	91.92	38.0	12	54	-1							
HYDERABAD	91.93	287.3	12	55A	0	23	19	-25			16 25	PP
HUNGRY HORSE	92.06	41.0	12	56	0	23	50	5	13	30		
BOZEMAN	93.34	44.1	13	3	1							
FLAMING GRGE	93.40	49.0	13	2	0				13	34	17 18	
ALBUQUERQUE	94.38	55.4	13	7	0	23	10	-55	13	39	16 56	PP
DEHRA DUN	94.90	299.8	13	10	1						16 54	PP
NEW DELHI	95.29	298.0	13	8A	-3	23	29	-5			17 28	PP
POONA	96.43	287.5	13	16	0						16 17	
SEMIPALATNSK	97.05	319.9	13	17A	-2	23	43	0			17 14	PP
BOMBAY	97.46	287.7	13	21	0	23	49	4			16 25	PP
MOULD BAY	98.05	13.4	13	23	0							
LAHORE	98.26	300.5									23 26	
RAPID CITY	98.49	46.8	13	23	-2	23	55	4			17 28	PP
FRUNSE	99.69	311.8	13	30A	-1	24	0	3	13	58	17 38	PP
WICHITA MTS.	100.72	56.7	13	34	-1	24	7	5	14	6	17 43	PP
WARSAK DAM	100.93	302.6									23 35	
KHOROG	101.37	306.1	13	39	1							
HOUSTON	102.79	62.1	13	45	0							
MANHATTEN	102.82	52.3	13	45	0							
LAWRENCE	103.84	52.6	13	51	2							
RESOLUTE	103.96	15.7	13	49	-1							

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QUETTA	104.37	298.2								23	48	
KHEYS	105.01	350.7								25	8	SKKS
LITTLE ROCK	105.84	57.1	13	59	777							
ROLLA	106.39	53.9	14	0	777							
AMDERMA	106.58	339.5	14	1A	777							
ALERT	107.05	6.0	14	3	777							
ST. LOUIS 1	107.73	53.2	14	8	777							
C. GIRARDEAU	108.25	54.6	14	8	777							
SVERDLOVSK	108.93	326.0	13	58	777					14	41	PP
SANTA LUCIA	109.03	131.9								30	0	
THULE	109.71	11.9	18	14	777							
TERRE HAUTE	109.97	52.5	18	22	777							
BLOOMINGTON	110.65	52.6	14	29	-229							
ASHKABAD	111.83	306.1								28	43	PS
TANANARIVE	112.48	243.5	18	27	6					19	4	PP
CLEVELAND	114.32	50.0	18	26K	1							
LONDON ONT.	114.43	48.2	18	25	0							
COLUMBIA	115.18	58.1	19	28	61					29	4	
MORGANTOWN	115.69	51.9	18	29	1					19	34	PP
CHAPEL HILL	116.71	55.9	18	30	1							
APATITY	116.85	341.7	18	30A	0	25	13	-		19	42	PP
SHIRAZ	116.86	297.1	14	47	-223				19 3	19	32	PP
PENNSYLVANIA	117.14	50.4	18	31	1							
TEHERAN	117.52	304.0	18	33	2					19	44	SKP
WASHINGTON	117.99	52.4	18	30	-2					19	48	PP
CHINCHINA	118.11	90.9	18	35K	3					19	47	PP
LA PAZ	118.76	116.6	18	36	3					19	56	
SODANKYLA	118.96	343.5	18	34	0					28	51	PKKP
TROMSOE	119.13	347.6	18	34	0							
PHILADELPHIA	119.30	51.0	19	1	26					19	55	
BREBEUF	119.38	44.5	18	34	-1					29	36	PS
GALERAZAMBA	119.41	84.4								29	40	PS
BOGOTA	119.55	91.6	18	38	3					20	1	PP
SHAWINIGAN	119.71	43.2	18	35	0							
FUQUENE	120.05	90.7	18	36	0					20	6	PP
PALISADES	120.08	49.6	18	36	0	25	23	2	19 9	15	3	P
FORDHAM	120.13	49.8	18	36	0					19	43	
KIRUNA	120.22	345.9	18	36A	0				19 7	20	1	PP
KAJAANI	120.88	340.3	18	38	0				19 9	28	43	PKKP
GORIS	121.03	308.8	18	39	1					20	12	PP
MOSCOW	121.46	329.0	18	39	0				19 10	26	59	SKKS
SCORESBY SD.	121.55	3.4	18	41	2							
TIFLIS	121.74	311.6	18	41	2	25	33	7	19 13	20	43	
PULKOVO	122.65	335.5	18	40	-1				19 15	29	53	SKSP
UMEA	123.37	342.9	18	42A	0				19 14	20	27	PP
HERMANUS	124.23	212.6								20	27	PP
NURMIJARVI	124.35	338.3	18	44A	0				19 16	22	0	PKS
HELSINKI	124.47	337.9	18	45A	0				19 17	28	30	PKKP
KIMBERLEY	125.07	221.5	18	47K	1							
SKALSTUGAN	125.64	346.2	18	47A	0							
HALIFAX	126.42	43.0	18	49K	1							
UPPSALA	127.23	341.0	18	50A	0				19 22	20	49	PP
CARACAS	127.50	86.1	18	50	0					30	53	PS
BULAWAYO	127.67	232.5	18	51	0							
REYKJAVIK	127.84	4.7	18	53A	2							
SIMFEROPOL	128.15	318.3	18	52	0				19 24	23	40	PPP
SAN JUAN	128.87	76.2	18	53	0					32	2	
KSARA	130.41	304.1	18	58	2	26	5	13	19 27	21	16	PP
GOTEBORG	130.71	342.4	18	58A	2				19 29	22	12	SKP
KARLSKRONA	130.79	339.1	18	59A	2				19 29	21	16	PP
BROKEN HILL	130.82	238.6	19	0	3							
WARSAW	131.49	332.4								21	11	PP
LWOW	131.59	328.3	18	59	1					21	21	PP
ST. KITTS	132.07	77.7	19	1	2							
TRINIDAD	132.91	86.8	19	3	2					21	28	PP
ST. CLAUDE	133.03	79.5	19	5	4					24	11	
ISTANBUL UN.	133.20	315.7	19	2A	1					26	4	
BUCHAREST	133.47	321.2	19	1	-1							
KRAKOW	133.47	330.8	19	4	2					21	33	PP
RACIBORZ	134.26	331.9	19	7	4					21	37	PP
BUDAPEST	135.64	328.7	19	10	4					21	48	PP
LWIRO	135.74	253.8	19	10A	4					21	45	PP
HURBANOVO	135.79	329.7	19	14	8					21	51	PP
HALLE	135.80	337.5	19	7	1					21	47	PP
PRAGUE	135.93	334.4	19	4	-2					21	46	
PRUHONICE	135.95	334.3	18	56	-10					22	33	PKS
SOFIA	136.09	320.6	19	10	3					21	50	PP
BRATISLAVA	136.11	330.7	19	9	2				19 39			

JENA	136.40	337.3	19	0	-7			19	50	21 48	PP
VIENNA-H.	136.40	331.3	19	10	3					21 53	PP
BELGRADE	136.57	324.9	19	10K	3					21 44	PP
DURHAM	136.57	350.1	19	9A	2			19	43	21 51	PP
CHEB	136.76	335.9	19	11	3					21 51	PP
MUNSTER	136.91	341.1	19	8	0					21 54	
KASPERSKE H.	137.00	334.1	19	9	1					21 49	PP
DE BILT	137.53	343.1	19	0	-9					21 54	PP
SKOPJE	137.66	320.8	19	0	-9					22 46	
BENSBERG	137.92	340.7	19	10A	0			19	43	21 56	PP
FELDBERG	138.12	339.1	19	9	-1						
ATHENS	138.21	314.4	19	6	-4					21 55	PP
ZAGREB	138.30	329.0	19	13K	2					22 3	PP
TITOGRAD	138.71	322.8	19	8	-3					22 49	PKS
HEIDELBERG	138.71	338.2	19	4	-7						
LJUBLJANA	138.86	330.4	19	1	-11			19	45	22 6	PP
UCCLE	138.92	342.9	19	11	-1					22 3	PP
STUTTGART	139.02	337.2	19	3	-9			19	38	22 5	PP
KARLSRUHE	139.15	338.1	19	18	6					22 52	
TUBINGEN	139.30	337.1	19	13	1					22 9	PP
DOURBES	139.47	342.2	19	5	-8					21 58	PP
KEW	139.47	347.5	19	11	-2					22 1	PP
TRIESTE	139.52	330.5	19	14	1			19	45	22 10	PP
EBINGEN	139.63	336.9	19	6	-7					22 12	PP
RAVENSBURG	139.70	336.0	19	11	-2					22 11	PP
STRASBOURG	139.74	338.3	19	8	-5			19	54	22 12	PP
CHUR	140.48	335.2	19	12	-3					22 17	PP
PADOVA	140.59	331.8	19	18K	3					22 22	PP
BASLE	140.69	337.5	19	4	-11					22 16	
PARIS	141.24	343.3	19	9A	-7					22 21	PP
NEUCHATEL	141.37	337.7	19	13	-3						
BESANCON	141.51	338.8	19	4	-13					22 22	PP
PAVIA	141.97	333.9	19	8	-9					22 52	PP
FOLINIERE	142.05	346.2	19	13	-4						
PRATO	142.10	330.9	19	14	-4					21 58	PP
FLORENCE X.	142.10	330.6	19	16	-2			19	42	29 42	SKKS
BANDEIRA	142.27	225.1	19	14A	-4					22 27	PP
GARCHY	142.45	341.6	19	21	3					22 27	PP
ROSELEND	142.59	336.8	19	17	-1						
ROME	142.86	327.4	19	16A	-3			19	42	22 30	PP
REGGIO CALA.	143.52	320.0	19	19	-1						
MESSINA	143.52	320.2	19	18A	-2	26 11	-4	19	52	22 34	PP
ISOLA	143.67	335.0	19	19	-1					22 36	
CLERMONT-FD.	143.77	340.4	19	20A	0					22 40	
MONACO	143.87	334.2	19	19	-2					22 37	PP
LUANDA	146.29	232.8	19	26A	1			19	58	22 50	PP
BAGNERES	147.14	341.6	19	26	0						
TORTOSA	149.04	339.3	19	32	3					23 5	PP
SERRA PILAR	150.92	352.6								22 45	PP
ANGRA DO HO.	150.94	22.8	19	37A	5					23 36	PP
TOLEDO	151.27	345.0	19	35A	3			20	20	22 32	PKS
ALICANTE	151.58	338.4	19	38	5	26 2	-24			23 4	
COIMBRA	151.82	352.0	19	36	3					23 25	PP
LISBON	153.37	352.7	19	36	1					20 0	
ALMERIA	153.62	340.1	19	38A	2			20	28	23 32	PP
GRANADA	153.67	342.3	19	38A	2	26 41	12	19	57	24 3	PP
MALAGA	154.33	343.3	19	38A	1	26 36	7			23 37	PP
M.BOUR	175.87	58.6	19	56	1					21 29	PKP2

MAY 22 22.H 3.M 26.S EPICENTRE -5.35 151.74 DEPTH= 0.KM

A=-0.87702 B= 0.47144 C=-0.09264 D= 0.4735 E= 0.8808
G= 0.0816 H=-0.0439 K=-0.9957 HT= 7.0

SE= 2.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
RABAUL	1.22	20.6	0	28K	4							
HONIARA	9.09	116.9	2	13K	-2							
CHARTERS TS.	15.59	199.5	3	42	-1	6	43	6				
KOUMAC	19.42	142.3	4	28	-2							
GUAM	19.94	339.7	4	39	3							
PORT VILA	20.35	128.6	4	38K	-3	8	27	3				
DARWIN	21.80	249.9	4	59	4						6	22
BRISBANE	21.94	177.5	4	56	-1	8	52	-3				
NOUMEA	22.05	141.2	4	58	0	8	58	1				

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RIVERVIEW	28.34	181.0	5	57A	0	10	40	-4	6	11	9	1	PCP
SUVA	29.01	118.3	6	9	6	10	34	-20					
CANBERRA	29.93	184.5	6	9A	-3	11	1	-8			12	52	PCS
ADELAIDE	31.84	200.5	6	33	4	11	34	-5					
MELBOURNE	32.91	189.9	6	36	-2						8	0	PP
AFIAMALU	36.91	106.0	7	11K	-1						8	34	PP
TARRALEAH	37.09	186.5	7	14K	0						8	37	PP
MOORLANDS	37.15	185.6	7	13K	-1						8	39	PP
FORT NELSON	37.62	185.3	7	16	-2						8	39	PP
BAGUIO CITY	37.65	305.6	7	20	2	13	22	13					
KARAPIRO	39.00	149.5	7	29	-1						8	57	
TUAI	40.48	148.9	7	41	-1						8	14	
WELLINGTON	41.28	153.5	7	56	8	13	59	-4			9	14	PP
TUKUBASAN	42.77	346.1	7	57A	-4	14	28	3			9	23	PCP
ROXBURGH	42.81	161.8	8	10	9	14	20	-6			17	48	
MATUSIRO	43.55	344.1	8	4	-4	14	16	-21					
LEMBANG	43.88	265.7	8	10K	0	14	38	-4					
DJAKARTA	44.68	266.6				14	46	-7			8	32	
TANGERANG	44.88	266.6	8	15	-3	14	47	-9					
HONG KONG	45.90	308.2	8	29A	3	15	27	16			9	51	PCP
ZO-SE	46.54	323.1	8	32A	1	15	19	-1					
CANTON	46.97	308.5	8	36A	2	15	24	-2					
NANKING	48.67	322.0	8	49	1	15	48	-2					
VLADIVOSTOK	51.49	341.5	9	7	-2						16	31	PS
Y.-SAKHLINSK	52.75	352.3	9	16	-3						11	13	PP
CHANGCHUN	54.45	336.7	9	30	-1								
PEKING	55.77	327.3	9	40A	-1	17	21	-6					
HONOLULU	55.85	59.9	9	42	1	17	41	13			19	12	
KIPAPA	55.96	59.8	9	42	0						11	4	
SIAN	56.42	317.5	9	46	0								
KUNMING	56.42	304.8	9	48	2						11	52	PP
CHENGTU	57.99	311.2	9	57A	0	17	53	-3					
PETROPAVLOVK	58.44	4.9	9	52	-8								
PAOTOW	59.59	324.0	10	8	0	18	16	-1					
LANCHOW	60.88	316.5	10	16	-1	18	31	-3					
DUMONT	61.75	185.3	10	20	-3	18	40	-5	10	32			
MAGADAN	64.70	359.5	10	41	-1								
CHITTAGONG	64.73	297.6	10	38	-4				11	5			
SHILLONG	65.69	301.0	10	47A	-1								
ULAN-BATOR	66.02	328.7	10	50	0						12	13	
WILKES	67.23	196.8	11	3	5	19	41	-12			12	20	
LHASA	67.75	304.9	11	2	1	20	1	2					
CAPE HALLETT	67.86	174.0	11	1	-1								
YAKUTSK	69.29	349.1	11	10	-1						20	29	PS
CHATRA	70.09	300.9	11	16K	0								
ESEN BULAK	71.12	322.9	11	21	-1								
SCOTT BASE	72.89	176.7	11	31	-2								
MIRNY	73.04	201.0	11	42	8						13	13	
MADRAS	73.36	285.2	11	37	2						22	39	
TIKSI	78.29	352.8	12	3	0								
DEHRA DUN	78.74	302.2	12	3	-3								
NEW DELHI	79.08	300.3	12	6A	-2								
LAHORE	82.12	302.7	12	22	-2								
SEMIPALATNSK	82.47	322.3	12	25	-1								
COLLEGE	82.76	22.0	12	25	-2								
FRUNSE	84.23	313.9	12	35A	0								
BYRD STATION	84.55	169.9	12	20	-16	22	57	-6	12	50			
MAWSON	84.65	202.6	12	36K	-1						13	58	
SOUTH POLE	84.68	180.0	12	33	-4								
WARSAK DAM	84.87	304.7	12	37A	-1								
SITKA	85.29	31.6	12	40	0								
KHOROG	85.49	308.2	12	41	0								
TASHKENT	87.85	311.6	12	53A	1	23	19	-15			23	51	SCS
QUETTA	88.17	300.4	12	53	-1								
ALBERNI	89.74	40.6	13	2	1								
CALISTOGA	89.94	51.3	13	8A	6								
BERKELEY	90.10	52.1	13	6A	3						14	23	
LICK	90.53	52.7	13	7A	2						14	29	
VICTORIA	90.55	41.5	13	5A	0								
PRIEST	91.18	54.0	13	9A	1								
RENO	92.17	50.7	13	14	1								
PASADENA	93.04	56.1	13	16	-1	24	36	15					
PENTICTON	93.13	40.9	13	16	-1								
MOULD BAY	94.90	13.9	13	24	-1								
AMDERMA	95.00	339.6									17	15	
SVERDLOVSK	95.05	326.5	13	24	-2								
EUREKA	95.13	50.9	13	26	0						30	18	PKKP
BANFF	95.84	39.2	13	28	-1								

KHEYS	95.85	350.5	13	26	-3	23	59	-7	24	18	SKKS
BOULDER CITY	95.88	54.5	13	30	0						
ASHKABAD	95.93	307.5	13	27	-3						
FLAMING GRGE	100.18	49.5	13	49	0						
SHIRAZ	100.63	299.0	13	52	1	24	27	-3	16	0	PP
RESOLUTE	101.20	14.4	13	53	-1						
GORIS	105.27	309.4	18	36	777				22	17	PKS
APATITY	105.48	339.5				26	57	124	26	30	SKKS
TIFLIS	106.18	311.8	14	16	777				18	49	PP
WICHITA MTS.	109.18	55.2	14	34	777				19	2	PP
KIRUNA	109.58	342.4							29	46	PPS
LAWRENCE	111.19	50.3	18	14	-21						
UMEA	112.07	339.0	18	38	1				19	23	PP
SIMFEROPOL	113.14	316.8							19	30	PP
ROLLA	113.98	50.9	18	13	-28						
KSARA	114.39	304.7							19	42	PP
UPPSALA	115.46	336.3							19	47	PP
LWOW	117.71	324.6	18	51	3						
BLOOMINGTON	117.75	48.3	18	32	-16						
ISTANBUL UN.	117.91	314.0							19	48	
BULAWAYO	118.66	243.7	18	50	0						
HERMANUS	120.27	224.9				25	52	1	27	21	SKKS
BROKEN HILL	120.41	249.9	18	54	1						
BELGRADE	122.19	320.8	19	0	3				21	4	
BRATISLAVA	122.49	325.6	18	58	1				20	21	
COLLMBERG	122.82	330.5	18	58	0						
PRUHONICE	122.84	328.5	18	58	0				39	22	SS
PRAGUE	122.85	328.7	18	16	-42				22	6	
VIENNA-H.	122.86	326.0	19	0	2						
HALLE	123.20	331.2	18	53	-6						
JENA	123.75	330.8	19	1	1				20	40	PP
SHAWINIGAN	123.86	35.6	19	0	0						
KASPERSKE H.	123.86	328.2	19	0	0				20	23	
BREBEUF	123.91	37.1	19	OK	0						
MUNSTER	124.88	333.8	19	4	2						
LJUBLJANA	125.13	324.7	19	4	1				20	26	
BENSBERG	125.79	333.1	19	4	0				20	27	PP
TRIESTE	125.80	324.6	19	6	2				42	24	SSS
PALISADES	125.97	42.0							20	53	PP
STUTTGART	126.29	330.0	19	5	0				21	12	PP
UCCLE	127.15	334.6	19	9	3						
STRASBOURG	127.16	330.7	19	8	2				21	6	
DOURBES	127.55	333.8	19	9	2						
FLORENCE X.	128.34	324.0	19	5	-4				20	28	
MESSINA	128.55	315.8	19	20	11	26	5	-11	21	5	PP
ROME	128.67	321.4							21	34	PP
GARCHY	130.31	332.3	19	14A	2				20	36	
ISOLA	130.46	326.9	18	43	-30						
FOLINIERE	130.71	336.0	19	15	2						
CHINCHINA	132.84	88.2	19	17	0				20	41	PP
GALERAZAMRA	133.18	80.3							22	25	PKS
BANGUI	133.29	271.0	19	20	2				22	47	SKP
BANDEIRA	134.15	243.4							22	49	SKP
BOGOTA	134.37	88.8							22	51	PKS
FUQUENE	134.74	87.6	19	24	3				22	59	PKS
BAGNERES	134.81	330.6	19	23	2				24	29	
LA PAZ	134.99	119.6	19	24	3				24	6	PP
TOLEDO	139.29	331.1	19	23	-6				23	46	PP
ALMERIA	140.76	326.5	19	35K	3				21	39	
SAN JUAN	140.86	67.4	19	34	2				20	55	PP
GRANADA	141.12	327.9							23	3	PP
CARACAS	141.38	79.9	19	29	-4				24	14	SS
MALAGA	141.89	328.2	19	29K	-5				22	42	PP
ST. KITTS	144.24	67.7	19	32	-6						
DOMINICA	145.98	70.6	19	53	12						
GRENADA	146.28	76.4	19	42	1				21	4	
ST. VINCENT	146.54	74.2	19	43	1				21	5	
TRINIDAD	146.78	78.8	19	44	2				21	8	
ANGRA DO HO.	146.84	358.5	19	49K	7				<1	12	
M.BOUR	165.72	309.7	20	6	0				24	56	PP

MAY 23 1.H 42.M 11.S EPICENTRE 37.11 95.84 DEPTH= 13.KM

A=-0.08137 B= 0.79528 C= 0.60076 D= 0.9948 E= 0.1018
G=-0.0611 H= 0.5976 K=-0.7994 HT= -0.6

SE= 2.29

	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	
LANCHOW	6.51	97.0	1	16	-22	2	53	0			2	5	PG
LHASA	8.46	209.7	2	9	4								
ESEN BULAK	9.29	1.8	2	12	-4								
CHENGTU	9.35	131.1	2	23	6								
SIAN	11.01	101.1	2	36	-4	4	42	-2					
PAOTOW	11.59	68.3	2	46	-2								
KUNMING	13.33	151.8	3	10	-1	5	41	1					
ULAN-BATOR	13.52	33.5	3	15	1								
CHITTAGONG	15.11	194.4	3	31	-3								
PEKING	16.16	73.4	3	51	3	6	59	12					
IRKUTSK	16.29	18.8	3	51	1						7	7	SS
FRUNSE	17.22	295.9	3	59	-2								
SEMIPALATNSK	17.37	324.8	4	4	1								
NEW DELHI	17.80	246.9	4	5K	-4								
LAHORE	18.60	259.0	4	17	-2								
KHOROG	19.34	278.5	4	26	-1	8	4	5					
NANKING	19.53	98.2	4	28	-1								
WARSAK DAM	19.99	268.3	4	33K	-2								
TASHKENT	20.97	289.8	4	44A	-1	8	45	12					
HONG KONG	21.65	127.9	4	51	-1						11	28	
ZO-SE	21.79	98.5	4	52	-1	8	48	-1					
CHANGCHUN	23.32	64.1	5	7	-1	9	16	-1					
QUETTA	24.96	262.4	5	24	0								
ASHKABAD	29.62	283.2	6	5	-2								
SVERDLOVSK	30.58	321.5	6	15K	0								
YAKUTSK	32.57	29.2	6	31A	-2								
MATUSIRO	33.72	77.9	6	39	-4								
SHIRAZ	36.68	271.2	7	7A	-1	13	15	24					
AMDERMA	37.50	341.3	7	12K	-3								
TIKSI	38.53	16.1	7	21	-2	13	13	-6			9	9	PPP
TIFLIS	39.23	293.0	7	29	0								
MOSCOW	42.81	315.0	7	57	-2								
APATITY	45.82	331.7	8	21	-2								
KHEYS	45.87	351.9	8	22K	-1								
KAJAANI	47.89	326.6	8	38A	-1								
KSARA	48.24	285.0	8	43K	1								
SODANKYLA	48.41	331.1	8	42	-1								
HELSINKI	49.36	321.5	8	50A	-1								
NURMIJARVI	49.48	322.0	8	51A	-1								
KIRUNA	50.79	331.7	9	1A	-1								
UMEA	51.20	326.5	9	3A	-2								
TROMSOE	51.24	334.1	9	5	0								
LWOW	51.73	308.4	9	8A	-1								
UPPSALA	53.06	321.8	9	17A	-2								
SKALSTUGAN	54.73	327.0	9	29A	-2								
ATHENS	55.80	294.6	9	29A	-10								
BRATISLAVA	56.58	308.1	9	43	-1								
VIENNA-H.	57.01	308.4	9	49	2								
PRUHONICE	57.53	310.8	9	50	-1								
COLLMBERG	57.98	312.7	9	53A	-1								
KASPERSKF H.	58.42	310.2	9	56	-1						10	19	
HALLE	58.53	313.2	9	57	-1								
JENA	58.95	312.7	9	59	-2								
LJUBLJANA	58.99	306.6	10	0	-1								
TRIESTE	59.65	306.4	10	5	-1								
STUTTGART	61.17	311.1	10	15	-1								
MOULD BAY	64.74	8.8	10	38	-2								
THULE	66.30	356.0	10	46	-4								
COLLEGE	66.94	24.6	10	52	-2								
RESOLUTE	68.27	3.1	11	1	-1								
LWIRO	73.25	253.9	11	32K	0								
CHARTERS TS.	74.12	131.1	11	36	-1								
BANGUI	77.18	265.8	11	53	-2								
BROKEN HILL	81.43	244.7	12	16A	-2								
BULAWAYO	85.12	240.4	12	35A	-2								
ALBERNI	86.75	25.3	12	45	0								
CANBERRA	87.35	139.1	12	46A	-2								
RIVERVIEW	87.37	136.8	12	39	-9								
VICTORIA	87.87	24.9	12	50K	0								
BANFF	87.88	19.2	12	48	-2								

PENTICTON	88.38	22.3	12	52A	0
EUREKA	98.36	24.4	13	38	0
SOUTH POLE	126.92	180.0	19	2	-1
BYRD STATION	134.85	171.8	19	5	-14

MAY 25 0.H 49.M 5.S EPICENTRE 59.00 -31.06 DEPTH= 83.KM

A= 0.44335 B=-0.26703 C= 0.85565 D=-0.5159 E=-0.8566
G= 0.7330 H=-0.4415 K=-0.5176 HT= -8.6

DEPTH OF FOCUS= 0.008R

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	
REYKJAVIK	6.75	36.5	1	33	-5	2	54	0					
SIDA	7.86	47.0	1	50	-3	3	13	-8					
SCORESBY SD.	12.14	14.7	2	51	0								
ABERDEEN	15.37	84.3									8	0	
DURHAM	16.58	92.0	3	51	3								
KEW	18.94	100.0	4	14	-3	7	50	9					
FOLINIERE	20.54	106.4	4	32	-1								
SKALSTUGAN	20.99	59.0	4	40	2								
UCCLE	21.73	96.6	4	48	3								
THULE	21.75	337.3	4	46	0						5	8	
PARIS	22.00	102.8	4	46	-2								
DOURBES	22.27	97.8	4	48	-3	8	58	13					
MUNSTER	22.75	91.0	4	35	-20								
BENSBERG	23.09	93.5	4	59	0						5	36	
GARCHY	23.31	105.1	5	0	-1								
TROMSOF	23.37	42.5	5	4	3								
KIRUNA	23.95	47.0	5	9	2								
CLERMONT-FD.	24.39	107.7	5	12	1								
UMEA	24.44	56.8	5	12	0								
STRASBOURG	24.84	97.6	5	18	2						9	13	
BAGNERES	24.96	115.9	5	20	3								
ALERT	24.98	350.7	5	18	1								
HALLE	25.25	88.3	5	19	0						6	1	PP
JENA	25.38	89.7	5	19	-2	10	7	28			9	40	
STUTTGART	25.50	95.8	5	20	-2								
TOLEDO	25.67	126.2	5	23	0								
COLLMBERG	25.91	87.8	5	25	-1								
NURMIJARVI	27.40	62.7	5	42	3								
PRUHONICE	27.48	88.9	5	44	4								
KASPERSKE H.	27.49	91.2	5	39	-1						6	23	
KAJAANI	27.56	54.3	5	44	3								
SHAWINIGAN	27.64	261.8	5	41	-1								
RESOLUTE	27.68	329.1	5	42	0								
CHIAVARI	28.51	103.0									8	57	
TRIESTE	29.84	96.6	6	2	1								
LJUBLJANA	29.97	95.2	6	2	0						9	4	
MOULD BAY	33.44	334.2	6	33	0								
MESSINA	36.19	104.2	6	55	-1	12	35	6					
DUBUQUE	39.68	272.6	7	26	1								
BLOOMINGTON	39.95	265.4	7	28	1								
ISTANBUL UN.	40.97	88.7	7	38	2								
ROLLA	43.71	268.9	7	59	1								
LITTLE ROCK	46.33	266.5	8	21	2								
COLLEGE	47.61	328.9	8	30	1								
PENTICTON	49.04	300.0	8	35	-5								
WICHITA MTS.	49.60	271.8	8	44	0								
EUREKA	54.73	289.2	9	21	-2								
WOODY	59.12	288.6	9	53	-1								
SHIRAZ	61.87	78.8	10	13K	1						21	55	SP
WARSAK DAM	67.52	61.3	10	48	-1								
QUETTA	68.56	67.1	10	57	2								
LA PAZ	81.10	215.8	12	9	2								
MATUSIRO	84.39	8.7	12	17	-7								
BYRD STATION	147.15	198.8	19	33	2								
BRISBANE	148.29	353.5	19	37	4						29	50	
SOUTH POLE	148.83	180.0	19	37	3								

MAY 25 4.H 19.M 26.S EPICENTRE -20.31-173.63 DEPTH= 0.KM

A=-0.93278 B=-0.10415 C=-0.34506 D=-0.1110 E= 0.9938
G= 0.3429 H= 0.0383 K=-0.9386 HT= 4.6

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	
AFIAMALU	6.61	15.8	1	34	-6	2	48	-9					
PORT VILA	17.26	275.5	4	6K	3						7	23	
NOUMEA	18.67	260.3	4	20	-1	7	20	-27					
KARAPIRO	19.92	205.9	4	34	-2								
TUAI	20.07	201.4	4	32	-5						8	24	
KOUMAC	20.70	265.4	4	44	0								
CHATEAU	21.01	204.0	4	45	-2						8	32	
TARATA	21.46	206.2	4	53	1								
WELLINGTON	23.11	202.7	5	9	1	9	13	-3					
KAIMATA	25.48	206 3	5	37	6	10	11	15					
GERBIES PASS	25.99	203.1	5	38	2	10	6	1					
HONIARA	27.69	289.1	5	48	-3								
ROXBURGH	28.77	205.4	6	5	4						9	22	
BRISBANE	31.45	250.5	6	20	-5						10	22	
RIVERVIEW	33.95	239.3									8	38	
CANBERRA	36.04	237.5	7	1K	-3				7	58	9	24	PP
CHARTERS TS.	37.58	263.2	7	14	-3	12	58	-9					
PORT MORESBY	39.33	280.1	7	30K	-2								
FORT NELSON	39.67	226.4	8	34A	59								
MELBOURNE	39.81	234.9	7	34	-2								
HONOLULU	44.05	21.0				14	57	13			18	25	
CAPE HALLETT	52.83	186.1	9	19	0								
DUMONT	54.93	200.6	8	57	-37						10	3	
SCOTT BASE	58.36	184.8	9	59	0								
WILKES	65.90	205.4	10	48	-1						19	40	SCS
SOUTH POLE	69.81	180.0	11	7	-7								
MATUSIRO	72.56	321.0	11	29	-1	21	0	5					
MIRNY	72.89	204.7	11	31	-1	21	0	1					
MANILA	72.97	293.1	11	34	1	19	54	-65					
ABUYAMA	73.06	318.2	11	33A	0								
BAGUIO CITY	74.19	294.5	11	36	-4	21	18	5					
PRIEST	75.23	41.9	11	48K	2								
BERKELEY	75.36	39.7	11	48K	1	21	31	5			13	9	
LICK	75.39	40.5	11	51K	4								
PASADENA	75.61	44.9	11	50	2	21	36	7					
PETROPAVLOVK	76.88	343.2	11	54A	-1	21	44	1			14	53	PP
LEMBANG	77.14	267.4	11	57K	0								
MINERAL	77.36	38.1	11	58A	0								
Y.-SAKHLINSK	77.70	331.1	12	0A	0	21	52	0			14	53	PP
RENO	77.90	39.7	12	3	2								
UGLEGORSK	79.53	332.2	12	9	-1	22	16	5					
TUCSON	79.61	50.0	12	12	2								
TUCSON TELE.	79.74	50.0	12	13	2								
EUREKA	80.21	41.6	12	15	2								
VLADIVOSTOK	80.54	322.8	12	16	1						15	15	PP
ZO-SE	80.77	307.9	12	16A	0	22	27	3					
HONG KONG	82.21	297.1	12	26A	2	22	42	3					
NHATRANG	82.45	285.9	12	25	0								
NANKING	83.02	307.7	12	29A	1								
MAWSON	83.10	198.8	12	29A	1								
CANTON	83.24	297.5	12	30	1								
ALBUQUERQUE	84.12	49.6	12	36	2								
MAGADAN	84.73	342.7	12	36	-1	23	6	2					
CHANGCHUN	84.80	320.5	12	38A	1	23	14	9					
FLAMING GRGE	85.19	43.2	12	40	1								
COLLEGE	87.20	10.7	12	49	0								
PEKING	88.68	313.7	12	58A	2	23	51	9			23	26	SKS
WICHITA MTS.	89.77	52.7	13	2	1								
SIAN	91.40	306.0	13	11A	2	24	19	13			24	19	SKS
KUNMING	92.94	295.6	13	19	3	24	32	12			23	55	SKS
PAOTOW	93.14	312.2	13	17A	0	24	30	8			23	53	SKS
YAKUTSK	93.49	336.8	13	19	1						16	55	PP
CHENGTU	93.87	301.1	13	23	3	24	38	10			23	52	SKS
LANCHOW	95.94	306.1	13	31A	1	24	6	0			25	0	S
ULAN-BATOR	98.05	318.1	17	35	236								
TIKSI	99.63	344.3	13	48	2	24	27	2			17	48	
IRKUTSK	101.10	321.7				24	21	-11					
LHASA	104.22	296.6				24	48	1					
ESEN BULAK	104.50	314.4	18	19	251								
TASHKENT	123.29	306.7	19	0	1						20	41	PP

SVERDLOVSK	126.13	326.5	19	2	-2						
KIRUNA	131.67	352.9							22	41	PKS
ASHKABAD	131.94	303.1	19	18	3				21	35	PP
KAJAANI	133.96	347.2	19	22	3						
UMEA	135.52	351.3	19	27	5						
SHIRAZ	137.38	292.0	19	27	2				20	22	PP
MOSCOW	137.60	334.2							22	11	PP
NURMIJARVI	137.80	346.6	19	27	1						
BROKEN HILL	139.19	213.9	19	2	-27						
GORIS	140.83	308.1	19	34	2	26	30	-10	22	34	PP
TIFLIS	141.19	312.1	19	33	1				23	13	PKS
BANDEIRA	144.35	191.6	19	42K	4						
COPENHAGEN	144.39	354.1	19	38	0						
DURHAM	145.07	8.0	19	43A	4						
ANGRA DO HO.	145.77	50.4	19	48	8						
WARSAW	146.16	343.8	19	42K	1						
SIMFEROPOL	146.39	323.3	19	45	4				30	2	SKKS
LWOW	147.37	338.6	19	47	4				20	42	
DE BILT	148.26	1.4	20	18	34						
MUNSTER	148.39	358.5	19	50	6						
KRAKOW	148.43	343.2	19	52	8						
HALLE	148.57	353.3	19	46	1				19	50	PKP2
LWIRO	148.59	227.0	19	52K	7				22	23	
COLLMBERG	148.64	352.0	19	50K	5				23	19	
RACIBORZ	148.84	345.2	19	52	7						
UZHGOROD	148.98	339.3	19	49	4						
JENA	149.17	353.6	19	52	6	20	55		23	52	PP
BENSBERG	149.41	359.0	19	52K	6				23	20	
UCCLE	149.53	2.5	19	53	7				42	37	SS
PRAGUE	149.62	349.7	19	50	4				22	44	
PRUHONICE	149.69	349.5	19	54	8						
DOURBES	150.24	2.3	19	55	8						
LUANDA	150.25	193.8	19	57	10						
KSARA	150.60	303.4	19	56	8						
KASPERSKE H.	150.67	350.3	19	50	2				21	12	*SPKP
BRATISLAVA	150.89	345.2	19	51	3				23	26	PKS
HEIDELBERG	150.92	356.8	19	55	7						
FOLINIERE	151.08	9.4	19	53	4						
PARIS	151.40	5.4	20	1	12						
STUTTGART	151.51	356.0	19	51	2						
ISTANBUL UN.	151.77	322.0	19	50	0				22	54	PP
STRASBOURG	151.77	358.0	19	52	2						
BELGRADE	152.91	337.7	19	59K	7				20	35	
GARCHY	152.96	4.9	19	55	4						
BESANCON	153.13	0.6	19	50	-2						
ZAGREB	153.36	344.9	20	17	25						
LJUBLJANA	153.47	347.2	19	53	1				20	26	
SOFIA	153.51	331.2	19	56	4				20	26	
TRIESTE	154.01	348.1	19	57	4				20	23	
CLERMONT-FD.	154.47	5.3	20	20	27						
FLORENCE X.	156.25	351.2	19	54	-2	26	36	-24	44	4	SS
M.BOUR	156.97	101.1	20	37	40				24	21	PP
ROME	157.86	347.8	20	1	3	26	34	-28	24	14	PP
BANGUI	160.18	218.6	20	3	2				20	43	
MESSINA	160.48	337.9							24	20	
GRANADA	161.08	25.2	20	50K	49				44	52	SS
MALAGA	161.13	27.7	20	33	32	27	37	32	24	58	PP

MAY 26 2.H 13.M 2.5 EPICENTRE -19.70-177.82 DEPTH= 568.KM

A=-0.94149 B=-0.03581 C=-0.33513 D=-0.0380 E= 0.9993
G= 0.3349 H= 0.0127 K=-0.9422 HT= 4.7

DEPTH OF FOCUS= 0.084R

SE= 1.65

	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	
AFIAMALU	8.16	46.0	1	59A	-2	3	33	-4					
PORT VILA	13.28	276.2	2	53A	1	5	18	8					
NOUMEA	14.91	257.3	3	8A	0	5	43	4					
KOUMAC	16.83	264.0	3	28A	1	6	18	5					
ONERAHI	17.42	201.7	3	35	3								
KARAPIRO	19.06	196.3	3	48A	0						10	25	SCP
TUAI	19.52	191.8	3	50	-2	6	54	-4					
CHATEAU	20.26	195.0	3	57	-2	7	13	2			10	27	SCP

TARATA	20.56	197.5	4	2	0						
WELLINGTON	22.42	194.8	4	16	-2						
KAIMATA	24.50	199.4	4	43	6	8	29	10			
GEBBIES PASS	25.23	196.4	4	43	0	8	24	-6			
ROXBURGH	27.82	199.6	5	6	0						
BRISBANE	27.97	248.5	5	5	-2					10	52
CANBERRA	33.10	235.0	5	51	0	10	35	3			
CHARTERS TS.	33.74	263.1	5	57	1	10	32	-10			
PORT MORESBY	35.35	281.8	6	10K	0						
MOORLANDS	37.18	224.6	6	25	0						
TARRALEAH	37.61	225.2	6	29	1						
DUMONT	54.16	199.3	8	32	-2						
SCOTT BASE	58.67	183.8	9	6	1						
BYRD STATION	65.40	170.6	9	48	-1						
MANILA	69.12	294.9	10	11	-1	18	41	8			
MATUSIRO	69.67	323.4	10	14K	-1						
SOUTH POLE	70.42	180.0	10	20	1						
MIRNY	71.79	204.9	10	27	0						
LEMBANG	73.22	268.6	10	34K	-1						
TANGERANG	74.36	269.0	10	40K	-2						
WOODY	78.42	45.4	11	5	1						
MINERAL	79.39	40.3	11	10	1						
EUREKA	82.43	43.5	11	25	1						
PENTICTON	85.90	33.9	11	43	2						
COLLEGE	87.40	12.3	11	48	U				13	54	
SODANKYLA	129.86	348.0								20	36 SKP
KIRUNA	130.52	351.0	18	6	-1						
SHIRAZ	133.50	292.5								20	48
UMEA	134.24	348.9	18	6	-8						
NURMIJARVI	136.22	344.1	18	7	-10					21	51 PKS
HELSINKI	136.43	343.7	18	10	-8					21	0 SKP
UPPSALA	138.39	348.3	18	14	-7						
KARLSKRONA	142.23	347.8	18	24	-5						
COPENHAGEN	143.25	350.3	18	29	-2						
BANDEIRA	143.91	198.5	18	32K	0					21	18
LWIRO	145.95	233.1	18	40K	5						
WITTEVEEN	146.76	355.0	18	41	5						
KSARA	146.95	302.1	18	41	5						
RACIBORZ	147.11	340.9	18	40	4					18	44 PKP2
COLLMBERG	147.34	347.4	18	37K	U					22	27
HALLE	147.35	348.7	18	41	4						
MUNSTER	147.52	353.7	18	42	5						
JENA	147.96	348.8	18	38	0				21	13	19 29
PRUHONICE	148.22	344.8	18	44	6						
BENSBERG	148.56	353.9	18	44K	5					20	21
ISTANBUL UN.	148.79	318.8	18	44K	5						
UCCLE	148.92	357.3	18	40	1						
BRATISLAVA	149.14	340.4	18	46	6						
KASPERSKE H.	149.24	345.3	18	46	6						
DOURBES	149.61	356.9	18	47	7						
STUTTGART	150.44	350.5	19	43	61						
BELGRADE	150.71	332.9	18	49A	7					21	7
STRASBOURG	150.84	352.4	18	50	8						
FOLINIFRE	150.92	3.6	18	50	8						
PARIS	150.96	359.6	18	51K	9						
LJUBLJANA	151.82	341.6	18	51	7						
GARCHY	152.48	358.7	18	54K	9					19	7 PKP2
RANGUI	157.89	228.6	18	53	1					19	20

MAY 26 19.H 44.M 23.S EPICENTRE 6.58 94.53 DEPTH= 94.KM

A=-0.07841 B= 0.99041 C= 0.11379 D= 0.9969 E= 0.0789
G=-0.0090 H= 0.1134 K=-0.9935 HT= 6.9

DEPTH OF FOCUS= 0.010R

SL= 2.02

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT BLAIR	5.36	340.7	1	19A	0	2	23	3			1	27	PP
MADRAS	15.51	295.4	3	36K	2	6	17	-7			3	45	PP
VISHAKHAPTNM	15.58	316.3	3	38K	3	6	16	-9			3	48	PP
CALCUTTA	16.93	340.1	3	38	-14						6	59	
TANGERANG	17.50	136.1	3	56K	-3	7	5	-4					
DJAKARTA	17.65	135.7	3	57	-4	7	9	-3					

LEMBANG	18.66	135.3	4	9K	-4	7	33	-1			4	43 PPP
HYDERABAD	19.05	305.9	4	18K	1	7	51	8				
SHILLONG	19.06	352.6	4	12K	-5	7	32	-11				
BOKARO	19.09	334.9	4	18K	0	7	45	1			4	43 PPP
KUNMING	20.04	22.2	4	31	3	8	9	6			4	53 PP
TOCKLAI	20.06	0.6	4	28	0	7	59	-4				
CHATRA	21.32	341.7	4	39	-2	8	26	-1				
LHASA	23.17	352.3	4	59	0	9	1	1				
POONA	23.38	302.4	5	4	3	9	12	9			10	8 SS
SEHORE	23.54	316.3	5	6	4	9	33	27			9	21 PCP
BOMBAY	24.42	302.1	5	1	-10						9	28
CANTON	24.45	45.9	5	15A	4							
HONG KONG	24.57	48.5	5	14	2	9	31	8			10	28 *SS
CHENGTU	25.56	19.2	5	22	0	9	38	-2			5	47 *SP
MANILA	27.28	70.7	5	41	3	10	5	-3				
NEW DELHI	27.34	325.2	5	39K	1	10	8	-1				
DEHRA DUN	28.24	328.8	5	45	-1	10	21	-3				
LANCHOW	30.55	14.9	6	7A	0	10	56	-4			7	7 PP
SIAN	30.58	23.9	6	7A	0	10	58	-3				
LAHORE	31.21	325.3	6	11	-1	11	1	-9				
NANKING	33.98	38.6	6	38A	2	11	54	0				
WARSAK DAM	34.59	325.2	6	42K	0	12	0	-3				
ZO-SF	34.90	42.3	6	46A	2	12	9	1			8	6 PP
QUETTA	34.97	315.6	6	46K	1	12	8	-1				
PAOTOW	36.59	20.0	6	59	0	12	30	-4			8	50 PPP
PEKING	38.56	27.0	7	17A	2	13	5	1			7	46 *SP
ESEN BULAK	39.70	1.9	7	25	1	13	17	-4				
DARWIN	40.71	117.5	7	34	1						12	30
TASHKENT	41.26	330.8	7	38	1	13	42	-2				
ULAN-BATOR	42.53	12.3	7	47A	-1	13	58	-5				
ASHKABAD	45.28	318.9	8	10	0							
SEMIPALATNSK	45.28	347.2	8	7	-3							
VANNOVSKAYA	45.44	318.8	8	12	1							
CHANGCHUN	45.87	31.1	8	15A	0	14	50	-1			10	6 PP
ABUYAMA	47.09	47.5	8	25K	1							
TEHERAN	49.01	312.5	8	39	0							
MATUSIRO	49.75	46.8	8	44A	-1	15	49	4				
TANANARIVE	52.77	240.4	9	12A	4						9	51
GORIS	54.23	314.7	9	18	0							
PORT MORESBY	54.78	106.3	9	23A	1						10	25
TIFLIS	56.20	316.6	9	30	-3							
SVERDLOVSK	56.74	338.5	9	36K	0	17	19	-1				
CHARTERS TS.	57.35	118.8	9	38	-3						14	22
ADELAIDE	58.66	137.9	9	50A	0							
KSARA	60.44	305.2									30	4
YAKUTSK	61.10	18.1	10	5K	-1	18	13	-3				
MELBOURNE	64.44	137.4	10	30	1							
SIMFEROPOL	64.63	316.9	10	29	-1	18	54	-6				
BRISBANE	65.62	123.9	10	38	2							
CANBERRA	66.01	133.2	10	39A	0				10	53		
LWIRO	66.19	264.6	10	41	1						11	9
MOSCOW	66.37	328.9	10	40	-1	19	17	-5				
AMDERMA	66.61	348.1	10	41A	-1	19	21	-4				
ISTANBUL UN.	67.32	311.7	10	45A	-2	19	23	-10				
TIKSI	68.41	11.1	10	52A	-2	19	40	-6				
KISHINEV	68.73	318.0	10	55	-1							
BROKEN HILL	68.75	251.8	10	57	1							
BULAWAYO	70.00	245.9	11	4A	1						11	35
PULKOVO	71.52	331.3	11	12	-1	20	18	-4				
SOFIA	71.76	312.7	11	15	1							
LWOW	72.45	320.2	11	18	0						21	14
MIRNY	72.95	180.6	11	20	-1							
APATITY	73.17	339.4	11	21A	-1	20	37	-4	12	14	22	2 *SS
UZHGOROD	73.36	318.7	11	22	-1							
KAJAANI	74.09	335.2	11	26	-2	20	48	-3				
HELSINKI	74.21	330.9	11	28A	0						11	54
NURMIJARVI	74.45	331.2	11	29A	-1	20	50	-5				
BANGUI	75.53	272.8	11	37	1						11	51 PCP
SODANKYLA	75.55	338.3	11	36A	0	21	5	-2			11	59
KIMBERLEY	75.67	238.2	11	44K	7							
KHEYS	75.92	354.2	11	38A	0							
NOUMEA	75.96	114.8	11	39A	1							
RACIBORZ	76.21	319.9	11	40	0						11	49 PCP
BRATISLAVA	76.74	317.8	11	41K	-2				12	12		
UMEA	77.21	334.0	11	45A	0	21	15	-11			12	10
VIENNA-H.	77.24	317.9	11	46A	1							
MESSINA	77.31	307.6	11	45	-1							
NAWSON	77.35	191.9	11	47A	1				12	10		
UPPSALA	77.76	329.8	11	47A	-1	21	27	-4				

KIRUNA	77.96	338.1	11	49A	0	21	31	-3		22	4
LJUBLJANA	78.36	315.6	11	52A	0						
KARLSKRONA	78.41	325.9	11	51A	-1						
TROMSOE	78.87	339.8	11	53	-1						
KASPERSKE H.	79.14	318.7	11	56A	0					13	59
COLLMBERG	79.60	320.9	11	58	0					15	37
COPENHAGEN	80.13	325.3	11	59	-2	21	54	-3			
HALLE	80.27	321.0	12	2	0						
JENA	80.48	320.4	12	2	-1					13	42
GOTEBORG	80.49	327.3	12	2	-1						
CHUR	81.82	316.3	12	10	0	22	8	-6			
BANDEIRA	83.25	254.2	12	21A	4					12	49
BENSBERG	83.27	320.5	12	17	0						
MONACO	83.40	313.2	12	18	0						
ROSELEND	83.87	315.2	12	19	-1						
GARCHY	86.21	317.0	13	32A	60						
TARATA	86.31	130.0	12	34	1						
KARAPIRO	86.96	128.5	12	37	1						
CHATEAU	87.19	129.8	12	37	0						
FOLINIERE	88.40	318.8	12	43	0						
SCOTT BASE	92.69	168.3	13	4	1						
MOULD BAY	95.00	7.7	13	12A	-1						
COLLEGE	95.39	22.3	13	16	1					30	7 PKKP
RESOLUTE	98.68	2.5	13	30	0						
PENTICTON	116.87	24.3	15	20	-194						
MINERAL	122.68	32.4	18	45	0						
RENO	124.21	31.8	18	50	2						
SHAWINIGAN	125.91	349.2	18	52	1						
EUREKA	126.19	29.1	18	52	0					28	27 PKKP
WOODY	127.52	34.4	18	51	-3						
FLAMING GRGE	127.87	22.9	18	55	0						
LARAMIE	128.90	19.4	19	4	7						
DUBUQUE	130.92	5.1	19	3	2						
ALBUQUERQUE	134.19	24.2	18	54	-13					22	26
ROLLA	135.35	7.2	19	10	1						
C. GIRARDEAU	136.17	4.7	19	9	-1						
WICHITA MTS.	137.10	15.9	19	1	-11					31	26 PKKP
LITTLE ROCK	138.36	8.5	19	4	-10						
ANTIGUA	146.82	315.5	19	19	-10						
ST. KITTS	147.29	316.9	19	34	4						
DOMINICA	147.73	312.5	19	34	3						
SAN JUAN	148.70	322.7	19	38	6						
ST. VINCENT	148.97	309.2	19	41	8						
GRENADA	150.00	308.0	19	42	8						
TRINIDAD	150.55	305.4	19	44A	9						
LA PAZ	160.37	238.4	19	52A	4					20	32 PKP2

MAY 30 10.H 2.M 48.S EPICENTRE 30.05 -42.70 DEPTH= 0.KM

A= 0.63720 B=-0.58798 C= 0.49826 D=-0.6782 E=-0.7349
G= 0.3662 H=-0.3379 K=-0.8670 HT= 1.8

SE= 3.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ANGRA DO HO.	15.37	52.0	3	48K	8								
HALIFAX	21.99	317.1	4	58K	0								
SAN JUAN	24.26	246.7	5	30	10								
TRINIDAD	26.00	226.0	5	40	4						10	18	
PALISADES	27.52	301.9	5	52	2	10	35	4			9	11	PCP
M.BOUR	28.37	117.7	5	47	-11	10	48	4					
SHAWINIGAN	28.55	313.6	5	59	-1								
BREBEUF	28.68	311.1				10	52	3					
SERRA PILAR	29.68	58.8	6	9K	-1						7	2	PP
CARACAS	29.80	134.3	5	16	-55	10	12	-55					
PENNSYLVANIA	30.42	300.3	6	17A	1								
MALAGA	32.51	67.9	6	34	-1	11	54	4			7	34	PP
COLUMBIA	32.61	287.0	6	37	1								
TOLEDO	32.94	62.1	6	38A	0	11	54	-2			7	42	PP
GRANADA	33.15	67.1	6	56A	16	12	2	2			8	3	PP
LONDON ONT.	33.23	303.6	6	35A	-6								
ALMERIA	34.05	67.7	6	50	2						7	59	PP
BAGNERES	36.40	57.1	7	4	-4						7	28	PP
TORTOSA	36.47	60.9				12	47	-4					
BLOOMINGTON	36.88	296.3	7	12	0	13	3	6					

KEW	37.87	43.4	7	21	0	13	9	-4	8 49 PP
FUQUENE	38.11	236.2	7	27	4				
DURHAM	38.32	37.9				13	22	3	
CLERMONT-FD.	38.85	53.2	7	29	0				
PARIS	38.94	48.3	7	31K	1	13	25	-4	
BOGOTA	38.94	235.6	7	30	0	13	35	6	8 58 PP
GARCHY	39.04	50.8	7	28K	-2				8 4
ABERDEEN	39.06	34.2				13	28	-3	16 25 SSS
C. GIRARDEAU	39.31	293.4	7	31	-2	13	33	-1	
ST. LOUIS 1	39.80	295.5	7	37	0	13	42	0	
CHINCHINA	39.83	237.7	7	37	U				
FLORISSANT	39.90	295.8	7	37	-1	13	43	U	
DUBUQUE	40.13	301.5	7	41	2	13	49	2	
UCCLE	40.54	45.6				13	50	-3	
DOURBES	40.55	46.7	7	41	-2	13	52	-1	
BESANCON	41.00	51.3	7	46	-1				8 8
ROLLA	41.15	294.5	7	48	U	13	53	-9	
ROSELEND	41.29	53.7	7	50	1				
DE BILT	41.33	43.9	7	48	-1	14	12	7	
MONACO	41.74	56.7	7	53	0				
BASLE	42.11	51.0	7	51	-5				
SCORESBY SD.	42.11	10.2	7	56	0	14	25	9	
BENSBERG	42.32	45.9	7	58K	1				
STRASBOURG	42.35	49.5	7	59	1				
MUNSTER	42.78	44.5	8	0	-1				
PAVIA	43.04	54.6				14	45	15	9 38 PP
HEIDELBERG	43.07	48.4	8	1	-3				
CHIAVARI	43.12	55.9	7	57	-7	14	26	-5	
STUTTGART	43.37	49.4	8	4	-2	14	33	-1	9 44 PP
LAWRENCE	43.69	296.4	8	8	-1				
FLORENCE X.	44.51	56.7	8	25	10	15	17	26	10 7 PP
MANHATTEN	44.70	296.8	8	16	-1				
JENA	45.08	46.5	8	14	-6				9 51 PP
HALLE	45.37	45.8	8	21	-1				10 3 PCP
ROME	45.48	59.3	8	24K	1	15	10	5	10 6 PP
COLLMBERG	46.01	46.1	8	25	-2	15	23	10	
KASPERSKE H.	46.22	49.2	8	27K	-2				9 17
TRIESTE	46.27	54.0	8	29	0	15	20	4	10 15 PP
LJUBLANA	46.80	53.4	8	32K	-1				10 20 PP
PRAGUF	46.82	47.9	8	36K	2	15	29	5	10 24 PP
PRUHONICE	46.90	48.0	8	34	0	15	25	0	
WICHITA MTS.	46.92	291.0	8	34	0	15	31	5	18 56 SS
ZAGREB	47.83	53.7	8	44	3				
VIENNA-H.	48.05	50.4	8	37	-6				
SKALSTUGAN	48.07	29.5	8	49	6				
MESSINA	48.22	64.0							10 25
BRATISLAVA	48.54	50.5	8	45	-2				10 26 PP
RAPID CITY	49.22	304.1	8	52	0				
SKALNATE PL.	50.60	49.1	9	5	2				
RESOLUTE	51.57	344.4				16	33	3	
UMEA	51.57	30.3	9	17	7				
UZHGOROD	51.98	49.7	9	12	-1				
LA PAZ	52.37	211.3	9	17	1	16	44	3	
KIRUNA	52.43	25.3	9	19	2				
ALERT	53.03	356.8	9	21	0				
ALBUQUERQUE	53.20	293.0	9	23	1				
NURMIJARVI	53.26	34.7	9	24	1				
FLAMING GRGE	54.19	300.9	9	29	-1				10 45
BOZEMAN	54.58	306.9	9	33	0				
ATHENS	54.59	62.7	9	31A	-2				
SODANKYLA	54.70	26.3	9	34	1				
SALT LAKE C.	56.05	301.2	9	42	-1				
PULKOVO	56.09	35.7	9	43	0	17	38	6	
GLEN CANYON	56.74	296.7	9	40	-8				
APATITY	57.33	26.3	9	51A	-1				
TUCSON	57.44	291.1	9	53	0			11	19
ISTANBUL UN.	57.86	58.0	9	53	-3	17	54	-1	
MOULD BAY	57.87	344.0	9	54	-2				
EUREKA	59.42	300.6	10	9	2				
PENTICTON	59.66	312.4	10	1	-8				
MOSCOW	60.44	39.9	10	12	-2				
SIMFEROPOL	60.58	52.5	10	15	0	18	30	0	
VICTORIA	62.28	312.2	10	27	1				
WOODY	62.72	297.2	10	27	-2				
BANGUI	63.08	101.2	10	29	-3				10 53
LICK	64.31	299.8							28 45
BERKELEY	64.60	300.5							19 27
KSARA	65.23	64.0	10	46	0				
AYDERMA	66.91	21.5	10	57K	1	19	57	8	

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SANTA LUCIA	68.46	204.9	11	2	-4							
TIFLIS	68.98	53.2	11	9	0	20	18	4				
COLLEGE	69.27	333.8	11	11	0							
BANDEIRA	70.04	121.5	11	16A	0							
GORIS	70.91	54.9	11	23K	2							
SVERDLOVSK	72.16	34.2	11	28	-1							
LWIRO	75.20	101.4	11	47K	1						30	21
SHIRAZ	79.83	61.7	12	12	0						14	6 PP
BROKEN HILL	81.51	112.0	12	21	0							
BULAWAYO	84.81	116.7	12	37	-1						15	52
TASHKENT	85.22	44.5	12	42K	2	23	16	6				
DUZHANBE	86.53	47.0	12	49	3							
YAKUTSK	88.05	3.6	12	56	2							
QUETTA	90.19	54.6	13	6	2							
WARSAK DAM	91.06	49.3	13	9	1							
RABAUL	150.69	328.5	19	44	-5							

MAY 31 1.H 56.M 59.S EPICENTRE 24.68 66.U8 DEPTH= 0.KM

A= 0.36878 B= 0.83159 C= 0.41529 D= 0.9141 E=-0.4054
G= 0.1684 H= 0.3796 K=-0.9097 HT= 3.4

SE= 1.83

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
QUETTA	5.53	7.8	1	27	1	2	27	-4					
BOMBAY	8.50	131.3	2	10	2						4	31	
POONA	9.47	128.8	2	21	0								
LAHORE	9.98	44.9	2	26A	-2								
WARSAK DAM	10.43	25.9	2	35K	1	4	29	-4					
NEW DELHI	10.67	66.3	2	36	-2								
DEHRA DUN	12.01	59.5	2	53	-3	5	11	-1			5	26	SS
SHIRAZ	13.05	295.3	3	6	-4	5	28	-8	3	41	8	26	
KHOROG	13.58	18.8	3	21	4	5	48	-1					
DUZHANBE	14.03	8.7	3	22	-1	5	48	-12					
VANNOVSKAYA	14.87	334.7	3	32	-2								
TEHERAN	16.79	314.4	3	58	0								
TASHKENT	16.80	8.4	3	57	-2								
ANDIJAN	16.86	16.7	3	59A	0								
NAMANGAN	16.91	14.7	4	0A	0								
BOKAPO	18.00	88.6	4	13	-1						10	6	
CHATPA	19.11	79.1	4	27K	0								
FRUNSE	19.42	19.2	4	31	0								
CALCUTTA	20.53	91.4									8	1	
ALMATA-2	20.73	23.8	4	45	0								
GORIS	22.25	316.3	5	3A	3								
LHASA	22.73	71.9	5	7K	2								
SHILLONG	23.35	82.4	5	12K	1								
MAKHACH-KALA	23.80	324.6	5	19	3								
TIFLIS	24.51	319.1	5	25	3								
KSARA	27.80	296.1	6	1	8								
SEMIPALATNSK	27.92	19.5	5	54	0								
SVERDLOVSK	32.36	354.4	6	33	-1								
KUNMING	33.19	81.4	6	41	0								
LANCHOW	34.28	61.7	6	51	1								
ISTANBUL UN.	34.86	307.1	6	54	-1								
MOSCOW	37.35	333.6	7	17	1								
UZHGOROD	41.72	316.4	7	54	1								
PULKOVO	42.97	334.3	8	4	1								
PEKING	44.42	57.3	8	16	1								
HELSINKI	45.39	332.5	8	24	2								
NURMIJARVI	45.70	332.8	8	25	0								
KAJAANI	46.65	338.0	8	31	-1								
PRUHONICE	46.96	316.2	8	31	-4						9	32	
APATITY	47.34	343.6	8	37A	-1								
KASPERSKE H.	47.40	314.9	8	38	0						9	15	
COLLMBERG	48.22	317.7	8	46	1						10	44	
UPPSALA	48.47	329.7	8	46	-1								
JENA	49.02	317.0	8	50	-1						9	21	
SODANKYLA	49.10	341.0	8	51K	0						10	15	PCP
UMEA	49.21	335.1	8	52	0								
BANGUI	49.85	254.0	8	56	-1				9	7			
STUTTGART	50.14	313.8	8	58	-1								
KIRUNA	51.28	339.6	9	8	0								
ROSELEND	51.67	309.7	9	11	0								

SKALSTUGAN	52.28	332.8	9 13	-3			
TROMSOF	52.73	341.2	9 18	-1			
BROKEN HILL	53.48	227.4	9 23	-2			
GARCHY	54.18	311.6					10 23
PARIS	54.62	313.4	9 33	0			
KEW	56.51	316.6	9 47	0			
FOLINIERE	56.58	313.3	9 46	-1			
BULAWAYO	57.57	222.6	9 53	-1			
TIKSI	58.28	19.4	9 58	-1			
MATUSIRO	61.90	60.3	10 23	-1			
MOULD BAY	79.27	1.3	12 9	0			
COLLEGE	86.96	13.8	12 49	0			
CHARTERS TS.	89.77	112.2	13 2	0			
WICHITA MTS.	119.16	345.6	18 53	2			29 5 PKKP
BYRD STATION	124.53	178.8	19 2	0			

MAY 31 6.H 28.M 28.S EPICENTRE 22.U1 142.81 DEPTH= 278.KM
A=-0.73931 B= 0.56089 C= 0.37259 D= 0.6044 E= 0.7967
G=-0.2968 H= 0.2252 K=-0.9280 HT= 4.2

DEPTH OF FOCUS= 0.039R

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	
GUAM	8.70	167.5	2	2	-1	3	42	2					
TORISIMA	8.73	345.6	2	1	-3	3	38	-3					
SHIZUOKA	13.48	344.3	3	11	8	5	42	15					
YOKOHAMA	13.66	349.0	3	1	-4	5	27	-4					
ASHIZURI	13.77	322.9	3	7	1	5	37	4					
TU	13.80	337.7	3	6	0								
YAKUSIMA	13.87	309.8	3	7	0	5	47	12					
HUNATU	13.90	346.1	3	5	-3	5	35	-1					14 56 SCS
HONGO	13.91	349.6	3	5	-3								5 43
WAKAYAMA	13.91	332.7	3	10	2	5	42	6					
KAMEYAMA	13.95	337.9	4	47	-21	5	42	5					
NARA	14.03	335.6	3	11	4								
KOHU	14.11	345.7	3	8	-2	5	39	-2					
SUMOTO	14.12	332.2	3	12	2	5	45	4					
KOTI	14.12	326.5	3	12	2	5	40	-1					
TSURUGISAN	14.12	328.5	3	45	35	6	20	39			5	1	
OSAKA	14.12	334.6	3	9	-1	5	54	13			15	24	SCS
IIDA	14.15	343.1	3	10	-1	5	39	-2					
MIYAZAKI	14.15	316.6	3	12	1	5	54	12					
KOBE	14.29	333.7	3	14	2	5	51	6					
ABUYAMA	14.30	335.2	3	10K	-2								
KAKIOKA	14.35	351.4	3	10	-3	5	39	-7					
TUKUBASAN	14.36	351.1	3	8K	-5	5	43	-3					
KYOTO	14.37	335.9	3	12K	-1	5	46	0					
KUMAGAYA	14.40	348.8	3	12A	-2	5	46	-1					
HIKONE	14.41	337.9	3	15	1	5	52	5					
NAHA	14.46	289.8									4	22	
HIMEJI	14.47	331.1	3	19	4	5	59	10					
TAKAMATU	14.49	329.7	3	7	-8	5	54	5			14	58	SCS
KAGOSIMA	14.50	313.6	3	17K	2	6	7	18					
MAEBASI	14.71	348.0	3	16K	-1	5	55	1					
UTUNOMIYA	14.71	350.6	3	17	0	5	54	0					
MATUYAMA	14.74	325.2	3	21	3	6	5	11					
OIWAKE	14.74	346.4	3	14	-4	5	59	5					
MATUMOTO	14.80	344.5	3	20	1	5	58	2					
TSURUGA	14.81	338.0	3	19	0								
MAIZURU	14.90	335.8	3	20	0	6	4	6					
TAKAYAMA	14.90	342.2	3	18	-2								
OOITA	14.93	320.8	3	23A	3	6	8	9					
ONAHAMA	14.98	354.1	3	19K	-2	6	2	2					
MATUSIRO	15.02	345.6	3	17	-4	5	57	-4					
ASOSAN	15.03	318.7	3	23	2	6	12	11					
HUKUI	15.12	339.1	3	23	1	6	1	-2					
NAGANO	15.15	345.7	3	20	-3	6	6	3					
KUMAMOTO	15.21	317.6	3	24	1	6	11	7					
SHIRAKAWA	15.23	352.1	3	22	-1	6	1	-4					
TOTTORI	15.42	332.6	3	26	0	6	12	3					
TOYAMA	15.43	342.8	3	24	-2	6	6	-3					
TAKADA	15.55	346.3	3	25	-2	6	16	4					
NAGASAKI	15.67	315.7	3	28A	0	6	23	9					

YONAGO	15.72	330.3	3	32	3	6	20	4			
SAGA	15.74	318.0	3	31	2	6	22	6			
HUKUSIMA	15.82	353.2	3	29K	-1	6	23	5			
SIMONOSEKI	15.85	321.2	3	32	2	6	27	9			
HUKUOKA	15.92	319.0	3	31	0	6	26	6			4 50
HAMADA	15.93	326.1	3	32	1	6	27	7			
WAZIMA	16.15	342.8	3	34	0	6	24	-1			
NIIGATA	16.19	349.3	3	33	-1	6	29	4			
SENDAI	16.29	354.6	3	34K	-1	6	24	-3			
YAMAGATA	16.32	353.1	3	36K	0	6	29	1			
SAIGO	16.37	331.8	3	34	-2	6	33	4			
ISINOMAKI	16.42	355.8	3	35K	-2	6	33	3			
AIKAWA	16.43	347.2	3	38	1	6	26	-4			
ITUHARA	17.01	318.5	3	43	0	6	23	-19			
SAKATA	17.03	352.0	3	45	2	6	47	5			
MIZUSAWA	17.13	355.5	3	46	2	6	47	3			
MIYAKO	17.60	357.8	3	48	-1	6	57	4			
MORIOKA	17.69	355.8	3	58	8	7	8	13			
AKITA	17.81	353.1	3	53A	2	7	2	5			
HATINOHE	18.50	356.9	4	0	2	7	14	4			
AOMORI	18.83	355.2	4	9	7	7	26	10			
ILAN	19.53	282.2	4	24	15						5 30
HWALIEN	19.61	279.8	4	14	5						9 35
HAKODATE	19.82	355.5	4	12	1	7	39	5			
TAITUNG	20.05	276.2	4	17	3						5 41
URAKAWA	20.08	359.9	4	17	3	7	52	13			
MORI	20.12	355.1	4	16	2	7	45	5			
HIROO	20.22	1.1	4	18	3	7	48	7			
TAWU	20.30	275.1	4	15	-1						5 19
MURORAN	20.31	356.1	4	19	3	7	48	5			
ALISHAN	20.36	278.5	4	17	0						6 0
HENGCHUN	20.46	274.1	4	21	3						
TAICHUNG	20.47	280.3	4	21	3						
TOMAKOMAI	20.59	357.4	4	24	5	7	53	5			
SUTTSU	20.84	354.6	4	22	0	7	59	6			
ORIHIRO	20.85	0.8	4	32	10						8 45
TAINAN	20.90	277.0	4	32	10						
KUSIRO	20.95	3.3	4	25	2	7	59	5			
SAPPORO	21.04	357.0	4	24K	1	7	58	2			5 21 SCS
ZO-SE	21.34	299.6	4	25A	-1	7	58	-3			5 41 *SP
NEMURO	21.39	5.5	4	28	1	8	3	1			
BAGUIO CITY	21.71	259.0	4	29	-1	8	12	4			
ASAHIGAWA	21.71	359.1	4	33K	3	8	19	11			
MANILA	21.87	254.2	4	29	-3	8	9	-1			
RUMOE	21.90	357.7	4	33	1						
VLADIVOSTOK	22.93	339.2	4	41A	-1	8	34	6	5	32	
NANKING	23.59	300.2	4	46A	-2	8	36	-3			6 1 *SP
Y.-SAKHLINSK	24.95	359.8	5	0	0	9	0	-2	5	40	
CHANGCHUN	26.15	330.4	5	10	-1	9	14	-7			6 14 PPP
HONG KONG	26.52	276.1	5	14	-1	10	24	57	6	4	6 42 *SP
UGLEGORSK	27.02	358.9	5	19	0	9	40	5	6	7	
CANTON	27.22	277.9	5	20A	-1	9	40	2			6 26 *SP
RABAUL	27.61	159.5	5	21	-3	9	34	-10			
PEKING	28.89	314.5	5	34A	-2	10	3	-1			11 16 *SS
SIAN	32.13	299.7	6	3A	-1						
PETROPAVLOVK	33.25	17.5									7 33 PP
PAOTOW	33.31	311.3	6	14A	0	11	20	7			7 32 *SP
CHENGTU	35.69	292.2	6	33A	-1	11	49	-1			7 49 *SP
DARWIN	36.14	200.1	6	39	1						
LANCHOW	36.59	301.2	6	41A	-1	12	1	-3	7	25	7 57 *SP
KUNMING	36.77	282.9	6	44	1	12	10	4			8 0 *SP
MAGADAN	37.93	6.6	6	53A	0	12	24	0			8 32 PP
ULAN-BATOR	38.62	320.8	6	58A	-1	13	24	50			
YAKUTSK	40.99	350.6	7	16A	-2	13	6	-3			9 37 PPP
CHARTERS TS.	41.98	175.2	7	25	-1	13	21	-2			
IRKUTSK	42.24	325.3	7	28A	0	13	30	3			15 7 *SS
ESEN BULAK	44.72	314.4	7	48A	0	14	5	2			
LEMBANG	44.84	234.3	7	49A	0	14	12	7			
DJAKARTA	45.03	235.7	7	48A	-2	14	8	1			
TANGERANG	45.17	235.9	7	51	-1	14	11	2			
SHILLONG	46.52	284.9	8	1A	-1						8 17 PPP
MEDAN	46.54	253.2	8	1A	-1	14	36	7			
LHASA	46.90	290.5	8	4A	-1						
CHITTAGONG	47.03	280.5	8	5A	-1	14	33	-2	8	58	10 1 PP
KOUMAC	47.22	152.1	8	6K	-1						11 3
NOUMEA	49.70	150.9	8	26K	0						10 46
BRISBANE	50.05	168.4	8	28	-1	15	16	-1			
CALCUTTA	50.14	281.5	8	25	-5						
TIKSI	50.29	354.3	8	28	-3	15	21	0			17 49 SCS

CHATRA	50.56	287.2	8	32	-1					12	3	
BOKARO	52.24	283.7	8	46A	1					17	34	
SUVA	52.99	136.1				16	7	10		9	57	
HONOLULU	54.61	78.9	9	3	1	16	28	9	9 56			
KIPAPA	54.66	78.8	9	4	1					10	7	
SEMIPALATNSK	55.95	316.7	9	10A	-2	16	36	-1		10	43	
RIVERVIEW	56.09	171.6	9	13A	0	16	42	4		20	28	SS
ADELAIDE	56.80	184.0	9	17A	-1	16	50	2		20	36	SS
CANBERRA	57.31	174.0	9	21K	0	16	57	3	10 18	10	15	PCP
HAWAII V.OB.	57.62	80.4	9	24	0	16	51	-7				
DEHRA DUN	58.04	292.8	9	26	-1	17	10	6				
NEW DELHI	59.05	290.9	9	32A	-1	17	16	-1		11	2	PP
MUNDARING	59.41	206.2	9	40	4							
PERTH	59.55	206.6	9	45	8	17	50	27		12	10	PP
MELBOURNE	59.55	178.0	9	37	0	17	27	4				
FRUNSE	59.60	307.6	9	36	-1	17	27	3		11	13	
MADRAS	60.06	272.7	9	39	-1	17	33	3		11	54	PP
LAHORE	61.01	294.8	8	45	-62							
COLLEGE	61.54	27.0	9	48	-2	17	48	0	10 50	11	27	
WARSAK DAM	62.93	297.9	9	59A	0	18	14	8				
TASHKENT	63.69	306.3	10	4A	0	18	19	4				
TARRALEAH	64.07	177.0	10	7A	0					12	22	PP
MOORLANDS	64.25	176.4	10	7	-1							
POONA	64.29	280.6	10	7	-1	18	25	3				
FORT NELSON	64.75	176.3	10	6A	-5					12	22	PP
BOMBAY	65.13	281.3	10	15	2	18	35	2		20	15	
AMDERMA	66.48	338.0	10	20A	-2							
KARAPIRO	67.09	152.3	10	26	0							
SITKA	67.43	35.9	10	27	-1							
QUETTA	67.50	294.7	10	28A	0	19	6	5		21	2	*SS
KHEYS	67.58	349.8	10	28A	-1	19	1	-1		12	56	PP
SVERDLOVSK	67.63	323.9	10	28K	-1	19	4	1		23	26	SS
TARATA	67.67	153.9	10	33	4					12	7	
TUAI	68.51	151.7	10	33	-2					11	27	
KAIMATA	69.42	157.8	10	43	3							
WELLINGTON	69.60	154.8	10	40	-1	19	26	0		20	20	PS
MOULD BAY	70.65	14.6	10	46	-2							
GERRIES PASS	70.89	157.5	10	50	1							
ROXBURGH	71.37	160.6	10	51	-1	19	46	0		12	3	
ASHKABAD	72.61	304.5	10	59	0	20	2	2				
ALERT	75.01	3.3	11	13A	0							
ALBERNI	75.14	42.6	11	15	1							
VICTORIA	76.24	43.1	11	20A	0							
RESOLUTE	76.86	13.3	11	23	0	20	47	0		13	29	PCP
APATITY	76.95	338.2	11	22A	-2	20	47	-1	12 36	11	39	PCP
PENTICTON	78.36	41.5	11	31A	-1							
TEHERAN	78.59	303.9	11	34	1	21	3	-2		22	51	SS
SODANKYLA	79.33	339.3	11	36A	-1	21	13	0	12 41	30	23	PKKP
UKIAH	79.38	52.1	11	36	-1							
SHIRAZ	79.67	297.8	11	38A	-1	21	15	-1		23	23	PS
THULE	79.96	7.1	11	38	-2							
CALISTOGA	80.02	52.4	11	41A	1							
BANFF	80.12	38.7	11	41	0							
MOSCOW	80.23	326.4	11	42	1	21	23	1		23	1	*SS
TROMSOE	80.34	342.9	11	41	-1							
BERKELEY	80.52	53.1	11	44A	1	21	27	2		16	11	PPP
KAJAANI	80.70	336.2	11	43	-1	21	25	-2				
KIRUNA	81.02	341.1	11	45A	-1	21	30	0		23	21	*SS
GORIS	81.09	308.9	11	46A	0	21	32	1		15	7	PP
LICK	81.17	53.4	11	47A	1					12	44	
TIFLIS	81.36	311.4	11	48A	1	21	37	4		11	52	PCP
RENO	81.71	50.8	11	50A	1	21	40	3				
PULKOVO	81.85	331.8	11	49A	-1	21	37	-1		21	54	SCS
HUNGRY HORSE	82.14	41.0	11	52	1	21	44	3				
PRIEST	82.33	54.2	11	54A	2							
UMEA	83.55	337.9	11	57A	-2	21	52	-3	13 8	13	33	*SP
NURMIJARVI	83.85	334.0	11	59A	-1	21	56	-2		24	1	*SS
HELSINKI	83.92	333.6	12	0	0					13	38	
BUTTE	84.03	42.7	12	2	1	21	54	-6				
EUREKA	84.48	49.7	12	4	1	22	5	1				
PASADENA	84.98	55.3	12	6	0	22	5	-4	13 4	13	43	*SP
BOZEMAN	85.14	42.5	12	7	1	22	6	-5				
SKALSTUGAN	86.36	340.1	12	11A	-1							
SALT LAKE C.	86.79	47.2	12	15	0							
UPPSALA	87.04	335.6	12	13A	-3	22	25	-4	13 28	24	24	*SS
SIMFEROPOL	87.07	317.7	12	15A	-1	22	32	3		24	7	PS
SCORESBY SD.	87.14	354.9	12	17	1	22	20	-10				
FLAMING GRGE	88.38	46.2	12	23	1	22	46	5				

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DUMONT	88.43	181.1	12	22	0	22	45	3	13	21	
GLEN CANYON	88.67	50.5	12	24	1						
LWOW	90.32	325.4	12	31A	0	23	0	1	13	30	22 37 SKKS
WARSAW	90.40	328.5	12	29A	-2	22	58	-1	13	26	16 12 PP
GOTEBORG	90.66	336.0	12	30	-3						
RAPID CITY	90.78	41.2	12	34	1	23	6	3			13 15
KSARA	91.07	307.2	12	35	0	22	46	-19			
TUCSON	91.35	54.4	12	37	1				13	36	
WILKES	91.39	192.5	12	36	0	22	42	-26	13	40	29 19 SS
COPENHAGEN	91.91	334.4	12	37A	-1	22	47	-26			
ISTANBUL UN.	92.28	316.2	12	39	-1	23	27	11			
KRAKOW	92.29	327.2	12	40	0	22	50	-26			16 24 PP
SIDA	93.19	351.6	12	51	7						17 28
ALBUQUERQUE	93.29	50.3	12	45	0				13	44	
REYKJAVIK	93.32	353.3	12	45K	0						14 14
COLLMBERG	94.76	331.1	12	50A	-2						14 2 PP
PRUHONICE	94.96	329.4	12	52	0	23	41	2			
VIENNA-H.	95.24	327.3	12	54	0	23	38	37			
BELGRADE	95.27	322.9	12	54K	0						16 51 PP
JENA	95.66	331.4	12	53	-3	23	41	38	13	53	16 48 PP
ABERDEEN	95.81	341.6				23	48	44			17 40 PP
MIRNY	95.84	197.9	12	50	-6				13	57	19 49
KASPERSKE H.	96.00	329.2	12	56A	-1						16 52 PP
ATHENS	97.37	315.9	13	0A	-3						
DE BILT	97.45	335.2	13	2	-2						17 2 PP
BENSBERG	97.53	333.5									17 6
FELDBERG	97.54	332.4	13	11	7						
MANHATTEN	97.62	42.4	13	4	0						
LJUBLJANA	97.65	326.5	13	3A	-2						17 14 PP
DURHAM	97.67	340.1				23	19	5			25 16 S
STUTTGART	98.25	331.0	13	7	0						15 8
TRIESTE	98.32	326.6				23	19	2			30 42 SS
WICHITA MTS.	98.90	47.1	13	10	0	23	23	3	14	11	17 13 PP
DUBUQUE	99.05	37.0	13	11	0	24	17	56			
STRASBOURG	99.06	331.6	13	10	-1	24	18	57			17 19 PP
DOURBES	99.24	334.2	13	10	-2	23	26	4			
PADOVA	99.43	327.4				23	32	9			17 32 PP
CHUR	99.54	329.6									17 20
KEW	100.00	337.6				23	29	4			24 19 S
SCOTT BASE	100.63	175.0	13	18	0						
BESANCON	100.86	331.7	13	16	-3						17 29 PP
FLORENCE X.	100.90	326.5	13	19	0	24	44	74			17 34 PP
PAVIA	100.93	328.6									17 27 PP
PARIS	101.10	334.5	13	20	0						17 32 PP
ROLLA	101.31	41.2	13	22	1	24	31	59			
ROME	101.57	324.5	13	19A	-3	24	43	70			17 34 PP
FLORISSANT	101.66	39.7	13	17	6						
ROSELEND	101.75	330.3	13	22	-1						17 35 PP
GARCHY	102.08	333.3	13	23A	-2				14	37	17 34
FOLINIERE	102.29	336.1	13	27	2						
MESSINA	102.31	320.1	13	18	-8	23	42	5			17 42 PP
MONACO	102.84	328.5									15 30 PP
C. GIRARDEAU	103.12	40.4	13	26	-3						
BLOOMINGTON	103.63	37.3	13	32	1						
LONDON ONT.	103.66	31.6	17	51	260						
SHAWINIGAN	104.55	24.5	17	49	254						
BREBEUF	105.08	25.6	13	56	777	23	52	3			26 46 PS
HAWSON	106.38	203.2	13	50	777						18 10 PP
BAGNERES	106.69	332.4									17 51 PP
PENNSYLVANIA	106.96	31.2	18	12	777						
PALISADES	108.62	28.5	13	55	777	23	59	-6			
WASHINGTON	108.82	31.9	18	28	777						
COLUMBIA	110.41	37.9	17	44	-15						18 42
TOLEDO	111.10	333.2				24	26	11			18 39 PP
SOUTH POLE	111.88	180.0	18	3	1						
BYRD STATION	112.86	169.2	14	21	-223	24	32	10			28 54
LWIRO	113.07	277.2	18	8K	3						19 1 PP
GRANADA	113.16	331.3	15	22K	-163						19 4 PP
MALAGA	113.89	331.6	19	5	59						20 22 PP
BROKEN HILL	117.58	264.7	18	15	2						
BULAWAYO	119.01	258.5	18	17A	1						
BANGUI	119.46	288.7	18	12	-5				19	42	
KIMBERLEY	124.14	249.5	18	28	2						
HERMANUS	129.35	242.9									23 46 PP
WINDHOEK	130.01	258.5									21 6
SAN JUAN	130.88	37.4	18	40	1						
BANDEIRA	131.75	269.4	18	36	-5						21 42 SKP
ARGENTINE I.	133.30	164.7									21 49

ST. KITTS	133.58	34.6	18	47	3					21	50	
CHINCHINA	133.80	59.1	18	46	2					21	51	PP
ANTIGUA	134.21	33.8	18	34	-11					21	37	
FUQUENE	134.99	56.9	18	48	1					21	55	PP
BOGOTA	135.24	58.2	18	50	3					21	55	PP
CARACAS	136.47	45.1	18	46K	-3	26	6	35				
M.BOUR	138.76	329.5	18	56	2					22	33	PKS
TRINIDAD	139.78	38.6	18	57	2					22	8	PP
AREQUIPA	147.19	86.4	19	11	3							
ANTOFAGASTA	149.37	99.6	19	14	3					22	19	
LA PAZ	150.31	84.8	19	16	3					23	2	PKS

JUNE 2 12.H 26.M 7.S EPICENTRE 49.99-129.64 DEPTH= 0.KM

A=-0.41177 B=-0.49701 C= 0.76382 D=-0.7700 E= 0.6380
G=-0.4873 H=-0.5882 K=-0.6454 HT= -5.4

SE= 2.16

	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	
ALBERNI	3.22	101.2	0	52	-1								
VICTORIA	4.33	107.5	1	9K	1								
PENTICTON	6.54	92.1	1	39	-1								
BANFF	9.05	77.1	2	15	0								
MINERAL	11.18	146.5	2	44K	0								
UKIAH	11.78	154.8	2	53	1								
BUTTE	12.10	102.6	2	55	-1	5	51	38					
CALISTOGA	12.42	153.4	2	59K	-2								
RENO	12.56	142.6	3	5	2	6	3	39					
BOZEMAN	13.21	102.0	3	32	21	6	14	34					
BERKELEY	13.23	153.6	3	14K	3	5	47	7					
LICK	13.90	152.5	3	22A	2								
EUREKA	14.29	132.2	3	26	1								
PRIEST	15.31	151.4	3	35A	-4								
SALT LAKE C.	15.50	119.7	3	44	3						4	30	
COLLEGE	17.72	334.0	4	11	1	7	40	14					
PASADENA	17.94	147.6	4	14	2								
GLEN CANYON	18.40	128.2	4	18	0								
LARAMIE	18.86	108.2	4	23	-1								
RAPID CITY	18.91	98.1	4	18	-6	7	38	-15					
TUCSON TELE.	22.56	134.3	5	4	1	9	14	8					
TUCSON	22.59	134.6	5	4	1	9	17	10					
MANHATTEN	25.70	102.1	5	32	-1	10	9	9					
LAWRENCE	26.67	101.2	5	42	0								
WICHITA MTS.	27.31	112.2	5	48	0	10	41	14			8	2	
DUBUQUE	27.71	90.6	5	51	-1	10	40	7					
RESOLUTE	28.68	18.4	6	0	0								
ROLLA	29.43	99.7	6	5	-2								
FLORISSANT	29.88	96.8	6	10	-1								
ST. LOUIS 1	30.06	97.0	6	14	1								
C. GIRARDEAU	31.28	98.4	6	21	-3								
TERRE HAUTE	31.49	93.3	6	13	-12								
BLOOMINGTON	32.15	92.9	6	30	-1								
BREBEUF	37.19	74.8	7	13	-1	13	5	3			8	39	PP
SHAWINIGAN	37.23	72.8	7	16	1								
WASHINGTON	38.39	86.2	7	22	-2								
PALISADES	39.26	81.2	7	29	-3	13	52	19					
FORDHAM	39.36	81.4				13	25	-10					
PETROPAVLOVK	43.02	302.8	7	59	-4	14	27	-2					
HALIFAX	43.79	70.6	8	9	0								
TIKSI	46.87	334.8	8	32K	-1	15	27	3					
KHEYS	49.57	358.3	8	54	0	16	6	4					
YAKUTSK	51.88	323.9	9	9	-3								
UGLEGORSK	53.97	305.6				17	3	0					
AMDERMA	60.27	355.5	10	11	-1	18	31	5					
KIRUNA	60.37	12.6				18	29	2					
SODANKYLA	61.60	10.2	10	19	-2								
MATUSIRO	64.32	296.8	10	35A	-4	19	17	0					
ABERDEEN	64.77	28.5				19	28	6			33	27	
DURHAM	66.92	29.7				19	55	6					
UPPSALA	67.34	17.2				19	42	-12					
NURMIJARVI	67.91	13.4	11	1	-1								
KEW	70.11	31.0				20	32	5					
ULAN-BATOR	70.98	323.6	11	36	15								
UCCLE	72.19	28.7				21	1	10					

DOURRES	72.88	28.9	12	1	29	21	5	6		
SVERDLOVSK	73.20	354.1	11	35K	1					
HALLE	73.74	23.9	11	41	4	21	15	7		
MOSCOW	74.11	7.4	11	41	1					
JENA	74.16	24.3	11	44	4	21	17	4	26	23 55
COLLMBERG	74.19	23.3	11	43	3					
GARCHY	74.85	31.2							18	23
STRASBOURG	75.20	27.7				21	33	8		
STUTTGART	75.47	26.7				21	34	6		
PRUHONICE	75.79	22.9	11	51	2	21	37	6		
KASPERSKE H.	76.33	23.9	11	58	6					
KRAKOW	76.99	19.6				21	51	7		
TOLEDO	79.54	39.7	12	5	0	22	7	6		
UZHGOROD	78.83	18.5	12	9	3					
MALAGA	81.06	41.6	12	19	1					
AQUILA	82.51	26.7							13	55
ROME	82.65	27.5				22	55	11		
ALMATA-2	84.16	340.5	12	33	-1					
FRUNSE	85.15	342.3	12	39	0					
TIFLIS	88.54	4.2	12	57	1					
BROKEN HILL	140.32	34.4	19	40	9					

JUNE 2 17.H 15.M 17.S EPICENTRE 29.94 130.65 DEPTH= 75.KM

A=-0.56539 B= 0.65857 C= 0.49660 D= 0.7587 E= 0.6514
G=-0.3235 H= 0.3768 K=-0.8680 HT= 1.8

DEPTH OF FOCUS= 0.007R

SE= 3.58

	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
YAKUSIMA	0.52	345.9	0	2K	-13	0	11	-15				
KAGOSIMA	1.62	357.1	0	28A	1	0	50	2				
MIYAZAKI	2.08	18.4	0	34	1	1	2	4				
UNZENDAKE	2.80	353.1	0	44	1	1	8	-8				
NAGASAKI	2.86	346.9	0	43	-1	1	21	3				
ASOSAN	2.97	6.9	0	45	-1	1	28	7				
HUKUE	3.16	331.0	0	57	9	1	33	8				
SAGA	3.31	355.0	0	51	1	1	34	5				
OOITA	3.38	14.0	0	52K	1	1	36	5				
ASHIZURI	3.42	35.4	0	52	0	1	25	-7				
HUKUOKA	3.63	356.5	0	57	2	1	40	3				
SIMONOSEKI	4.00	3.4	1	4	4	1	49	3				
MATUYAMA	4.29	24.5	1	2	-2	1	51	-2				
KOTI	4.35	33.6	1	12	7	2	5	10				
ITUHARA	4.40	345.1	1	8	2	2	1	5				
MAWASHI	4.53	215.9	1	32	25	2	17	18				
HIROSIMA	4.67	18.4	1	6	-3	2	1	-2				
TSURUGISAN	4.83	35.4	1	24	12	2	50	43				
HAMADA	5.09	13.3	1	18	3	2	14	1				
TAKAMATU	5.23	32.6	1	16	-1							
TOKUSIMA	5.30	38.1	1	18	0	2	17	-1				
OKAYAMA	5.48	29.5	1	19	-1	2	17	-6				
HIMEJI	5.55	34.0	1	26	5	3	4	39				
SIOMISAKI	5.59	50.0	1	16	-6	2	20	-6				
SUMOTO	5.68	38.4	1	21	-2	2	22	-6				
WAKAYAMA	5.74	40.8	1	26	2							
MATSUE	5.86	19.8									2	0
YONAGO	5.93	21.9				3	1	27			1	53
KOBE	6.09	37.9	1	30	1	3	25	47				
OSAKA	6.25	40.1	1	35	4	2	51	9				
OWASE	6.26	47.5	1	28	-3	2	20	-22				
TOTTORI	6.30	27.3	1	27	-5	2	41	-2				
ABUYAMA	6.44	39.0	1	29A	-5							
SAIGO	6.63	19.1				3	5	13			3	45
KYOTO	6.64	39.0	1	34	-3	3	29	37				
TU	6.87	44.8	1	42	2							
KAMEYAMA	6.94	43.7	1	41	0	3	20	21				
HIKONE	7.11	40.2	1	45	2	3	53	50				
TSURUGA	7.29	37.3	1	43	-3							
NAGOYA	7.46	44.0	1	46	-2						3	4
GIHU	7.50	41.9	1	47	-1	3	50	37				
HAMAMATU	7.65	49.7	1	48	-2	4	21	65				
HUKUI	7.69	36.1	1	49	-2							
OMAESAKI	7.92	52.1	1	52	-2						5	1

IIDA	8.22	45.5	1	55	-3	4	40	70		
SHIZUOKA	8.25	50.6	1	57	-2					
ZO-SE	8.25	280.4	1	57A	-2	3	36	5	2	10 *SP
KANAZAWA	8.27	35.8	1	58	-1					
TAKAYAMA	8.31	40.1	1	56	-4					
HATIDYOZIMA	8.42	65.7	2	0	-1					
TOYAMA	8.69	37.4	2	19	14				5	50
MISIMA	8.70	51.5	2	0	-5	4	48	66		
AJIRO	8.77	52.3	2	2	-4	4	46	62		
KOHU	8.77	47.3	2	26	20	4	54	70		
MATUMOTO	8.79	42.4	2	9	3	4	58	74		
HUNATU	8.80	48.9	2	3	-3	4	37	52		
OSIMA	8.82	54.7	2	2	-4					
WAZIMA	9.06	33.4	2	21	11	5	4	73		
MATUSIRO	9.13	41.9	2	8A	-3				5	15
OIWAKE	9.19	44.1	2	12	0	5	2	68		
MERA	9.21	55.0	2	12	0					
NAGANO	9.21	41.3	2	6	-6	4	42	47		
TITIBU	9.29	47.4	2	14	1	5	7	70		
YOKOHAMA	9.35	51.9	2	19	5	5	20	82		
ILAN	9.44	239.0	2	28	13					
TAIPEI	9.46	241.0	1	14	-61					
TAKADA	9.55	39.6	2	14	-2					
MAEBASI	9.55	45.4	2	14	-2	5	22	79		
TOKYO C.M.O.	9.56	50.9	2	15	-2	4	16	13		
KUMAGAYA	9.59	47.5	2	17	0	4	25	21		
HWALIEN	10.01	235.7	2	33	10	4	56	42		
TUKUBASAN	10.10	49.2	2	21A	-3				5	59
UTUNOMIYA	10.15	47.1	2	24	-1					
KAKIOKA	10.16	49.4							5	32
AIKAWA	10.23	36.0							5	38
NANKING	10.40	284.7	2	27A	-1	4	35	11	2	40 *SP
MITO	10.44	49.5	2	42	14	4	12	-12		
NIIGATA	10.58	39.0							3	22
SHIRAKAWA	10.72	45.6	2	34	2					
ONAHAMA	11.05	48.1	2	40	3	4	45	6		
TAITUNG	11.12	232.1	2	56	18	5	34	53		
HUKUSIMA	11.28	43.8	2	46	6					
YAMAGATA	11.54	41.6	2	42	-1				6	42
SENDAI	11.88	42.9	2	43	-5				6	31
ISINOMAKI	12.23	43.4	2	52	0				6	46
AKITA	12.46	36.0	3	15	19	6	29	76		
MIZUSAWA	12.59	40.5	3	6	9					
MORIOKA	13.01	38.8	3	6	3					
VLADIVOSTOK	13.19	4.0	3	5A	0					
HATINOHE	13.80	37.1	3	11	-2					
CHANGCHUN	14.50	344.4	3	23	1	6	16	15		
MORI	14.53	30.7	3	37	14					
SUTTSU	14.96	28.3	3	31	3					
PEKING	15.54	314.2	3	36A	1	6	41	16	3	47 *SP
SAPPORO	15.66	30.3	3	35	-2	6	31	3		
HONG KONG	16.63	246.6	3	34	-15	6	32	-18	4	3
CANTON	16.92	250.3	3	49	-4	7	4	7		
MANILA	17.57	212.2	4	4	3	7	34	22		
NEMURO	17.91	37.7							7	31
SIAN	18.89	288.8	4	15A	-2	7	53	12		
Y.-SAKHLINSK	19.45	25.4	4	19A	-4	7	51	-2	4	50 PP
PAOTOW	19.86	307.9	4	26	-1	8	17	16	4	35 *SP
KURILSK	20.41	36.9	4	32	-1				8	28
GUAM	20.95	138.5	4	34	-4	8	31	9		
UGLEGORSK	21.00	21.3	4	37	-2	8	30	7		
CHENGTU	22.99	278.5	4	57	-1	9	11	12		
LANCHOW	23.26	292.2	5	0A	-1	9	16	12		
ULAN-BATOR	25.59	321.2	5	22	-1	9	36	-7		
IRKUTSK	29.56	326.5	5	57A	-2					
PETROPAVLOVK	30.83	33.6				11	15	8		
ESEN BULAK	31.34	311.3	6	15	0	11	53	38		
YAKUTSK	32.09	359.2	6	19K	-3	11	9	-18	7	16 PP
MAGADAN	32.61	19.0	6	28	2					
LHASA	34.26	279.6	6	40	0				7	56 PP
CHATPA	38.21	276.3	7	13A	-1					
RABAUL	39.72	145.1	7	23	-3					
BOKARO	40.27	272.3	7	29	-2					
TIKSI	41.75	359.2	7	42	-1				9	23 PP
PORT MORESBY	42.22	155.3	7	47	0					
SEMIPALATNSK	42.63	313.3	7	50	0					
TANGERANG	42.67	216.7	8	1	11	14	20	12		
LEMBANG	42.73	214.9	7	48K	-3	14	9	0		

DEHRA DUN	45.14	284.3	8	11	1				13	25
FRUNSE	46.12	302.2	8	18	0					
NEW DELHI	46.29	282.2	8	20K	1	15	17	17	10	19 PP
LAHORE	47.97	287.0	8	32	-1					
KHOROG	49.06	295.3	8	40	-1				10	40 PP
TASHKENT	50.21	300.6	8	50	0				16	21
DUZHANBE	51.02	297.2	9	0	4					
CHARTERS TS.	51.97	161.3	9	1	-2					
BOMBAY	53.31	272.1							11	7
QUETTA	54.45	287.4	9	20	-1					
SVERDLOVSK	54.70	320.7	9	22K	-1	17	3	7	21	1 SS
AMDERMA	54.97	336.6	9	23	-2					
KHEYS	57.83	349.3	9	43	-3				12	5 PP
ASHKABAD	59.15	298.7	9	56	1					
COLLEGE	59.76	29.3	9	59	0				12	21 PP
BRISBANE	60.81	157.4	10	5	-1	18	18	2		
APATITY	65.38	335.2	10	33	-3	19	18	5		
RIVERVIEW	66.32	161.4	10	50	8				20	44 SCS
SHIRAZ	66.43	291.7	10	41A	-2	19	34	8	12	54 PP
CANBERRA	67.18	163.8	10	50	2					
MOSCOW	67.44	322.3	10	48	-1				11	7 PCP
GORIS	67.60	303.6	10	50K	0	19	45	5		
ALERT	67.61	1.8	10	49	-1					
SODANKYLA	67.88	336.1	10	53	1					
TIFLIS	67.90	306.3	10	52	0				15	8 PPP
KAJAANI	68.86	332.7	10	55	-3					
PULKOVO	69.54	327.9	11	3	1	20	5	2		
KIRUNA	69.78	337.7	11	4	0	20	20	14	34	22 PKKS
RESOLUTE	71.51	11.5	11	14	0	20	33	7		
NURMIJARVI	71.74	329.9	11	13	-3				11	36 PCP
HELSINKI	71.77	329.5	11	14	-2					
UMEA	71.89	334.1	11	14	-2				20	56 PS
THULE	73.23	4.6	11	7	-17					
SIMFEROPOL	73.76	312.7	11	28	1				16	10 PPP
FORT NELSON	74.12	167.3	11	39	9					
UPPSALA	75.09	331.3	11	36	1	21	35	29	11	50 PCP
KSARA	77.58	301.8	11	51	2					
KARLSKRONA	78.11	328.8	11	52	0					
ISTANBUL UN.	78.92	311.0	11	46	-10	21	46	-1		
PENTICTON	79.41	38.8	12	0	1					
KRAKOW	79.53	322.2	11	59	-1				12	10 PCP
SKALNATE PL.	79.85	321.3							12	38
BRATISLAVA	82.14	321.7	12	14	1				12	34
BELGRADE	82.21	317.6							22	18 PPS
COLLMBERG	82.32	325.9	12	14A	0				12	17 PCP
PRUHONICE	82.37	324.2	12	15	0	22	57	34		
MINERAL	83.22	47.1	12	4	-15					
JENA	83.24	326.2	12	19	0	22	52	20	28	29 SS
KASPERSKE H.	83.40	323.9	12	20	0					
ATHENS	84.00	310.5	12	20A	-3				22	43
RENO	84.82	47.0	12	30	3					
BENSBERG	85.30	328.0	12	30	1					
DE BILT	85.40	329.7	12	23	-7					
HEIDELBERG	85.64	326.2	12	34	3					
STUTTGART	85.79	325.5	12	42	10	23	10	13	15	52 PP
DURHAM	86.17	334.5	12	33	-1	23	11	10	22	58 SKS
ROZEMAN	86.25	38.2	12	37	3				24	13
STRASBOURG	86.65	326.0				23	13	8		
TARANTO	86.67	315.5							32	56 SSS
DOURBES	87.08	328.6				23	23	14		
EUREKA	87.26	45.3	12	41	2					
AQUILA	87.78	318.7				23	21	5		
KFW	88.19	331.8				23	24	4		
ROME	88.59	318.8				23	21	-2	15	57 PP
CHIAVARI	88.75	322.2	12	54	8	24	47	82	34	22 SSS
SALT LAKE C.	88.93	42.4	12	58	11					
PASADENA	89.00	50.7	12	58	11	23	32	5		
FLAMING GRGE	90.25	41.0	12	54	1					
FOLINIERE	90.30	330.1	12	57	4					
WILKES	97.21	188.0	13	18	-7				31	23 SS
TOLEDO	98.78	326.4				24	32	30	26	53 PS
GRANADA	100.65	324.4							34	37
WICHITA MTS.	100.68	39.4	13	41	0				30	9 PKKP
PALISADES	105.83	19.1				24	50	15		
BANGUI	106.67	285.2	18	25	777					
SOUTH POLE	119.78	180.0	18	40	-1					
BYRD STATION	122.71	168.8	18	47	0					
HUANCAYO	150.03	59.1	19	46	10					

JUNE 3 15.H 2.M 25.S EPICENTRE 22.51 -45.08 DEPTH= 11.KM

A= 0.65292 B=-0.65485 C= 0.38063 D=-0.7081 E=-0.7061
G= 0.2687 H=-0.2695 K=-0.9247 HT= 4.0

SE= 2.56

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ANTIGUA	16.64	254.3	3 55	0				
ST. CLAUDE	16.95	250.6	3 56	-3	7 18	12		
FORT FRANCE	17.07	245.8	4 2	2	8 3	54		
ST. KITTS	17.37	255.9	4 2	-2				
GRENADA	18.98	239.5	4 23	-1				
TRINIDAD	19.56	235.6	4 30	-1				9 11
SAN JUAN	20.13	262.1	4 34	-3	8 27	9		
ANGRA DO HO.	22.19	39.5	5 9	11	9 21	24		10 15 SS
CARACAS	24.07	243.8	5 17A	1	9 37	6		
HALIFAX	26.79	329.8	5 43A	1				
M.BOUR	27.83	102.0	5 51	-1	10 1	-32		
FORDHAM	30.37	313.7	6 11	-3	11 19	6		
PALISADES	30.47	314.0	6 15A	0	10 50	-25		11 22
GALERAZAMBA	31.11	253.0	6 28	7	11 30	5		
WASHINGTON	31.78	308.3	6 25	-2				
GEORGETOWN	31.78	308.3	6 28	1	11 43	7		
CHAPEL HILL	32.34	302.0	6 32	0				
BREBEUF	32.65	321.5	6 33K	-1	11 57	8		13 39 SS
SHAWINIGAN	32.80	323.7	6 35K	-1				
PENNSYLVANIA	33.08	311.1	6 38	0				
BOGOTA	33.20	241.9	6 36	-3				
COIMBRA	35.62	51.7	7 0A	0				
SERRA PILAR	35.80	50.2	7 1K	0	12 47	9		8 31 PP
LONDON ONT.	36.23	313.0	7 5A	0				
MALAGA	37.81	58.7	7 19A	1	13 15	6		8 47 PP
GRANADA	38.53	58.1	7 24K	0	13 24	4		8 47 PP
TOLEDO	38.75	53.8	7 26A	0	13 15	-8		8 53 PP
ALMERIA	39.36	58.9	7 33K	2	13 40	8		9 6 PP
ALICANTE	41.16	57.0			14 4	5		
ST. LOUIS 1	41.63	303.3	7 51	1	14 12	6		
FLORISSANT	41.76	303.5	7 50	-1	14 5	-3		
TORTOSA	42.35	53.6	7 56	0	14 23	6		
BAGNERES	42.59	50.2	7 57	-1				
ROLLA	42.82	301.9	7 59K	-1	14 26	2		
FOLINIERE	43.86	42.1	8 8	0				
LA PAZ	44.85	212.2	8 15K	-1	14 49	-4		
KEW	44.96	38.6	8 17	0	14 59	4		
CLERMONT-FD.	45.31	47.2	8 20	0	15 12	12		
HUANCAYO	45.37	223.8	8 19	-1				
HOUSTON	45.46	290.1	8 24	3				
LAWRENCE	45.56	303.0	8 20	-2				
DURHAM	45.66	33.9	8 12A	-11	15 0	-5		
GARCHY	45.67	45.2	8 23K	0				11 8
PARIS	45.73	43.0	8 23K	0	15 11	5		10 19 PP
TULSA	45.78	298.7	8 23	-2				12 11
ABERDEEN	46.55	30.8			15 23	6		10 8 PP
AREQUIPA	46.56	216.0	8 25	-5				
MANHATTEN	46.61	303.2	8 28	-2	15 21	3		
DOURBES	47.43	41.8	8 35	-2	15 32	2		
UCCLE	47.48	40.8	8 37	0	15 30	-1		
BESANCON	47.58	45.9	8 37	-1				
WICHITA MTS.	48.02	297.0	8 40K	-1	15 33	-5		10 31 PP
DE BILT	48.38	39.4	8 45	1	15 51	8		
BASLE	48.70	45.8	8 45	-1				12 43
STRASBOURG	49.05	44.5	8 49	0	15 53	0		10 43 PPP
BENSBERG	49.24	41.3	8 50K	-1				9 23
CHIAVARI	49.36	50.3	9 10	19	16 35	38		19 40 SS
PAVIA	49.37	49.1	8 47	-5	16 15	18		23 15
WITTEVEEN	49.46	38.8	8 53	1				
MUNSTER	49.78	40.1	8 54	-1				
HEIDELBERG	49.84	43.6	8 54	-1				
CHUR	49.88	47.0	8 55	-1				
STUTTGART	50.07	44.5	8 55	-2	16 8	1		
FLORENCE X.	50.67	51.2	9 10	8	16 27	12		
PADOVA	51.29	49.2			16 15			10 30
ROME	51.43	53.7	9 7	0	16 34	8		11 14 PP
JENA	51.95	42.2	9 10	-1	16 38	5		11 5 PP
RAPID CITY	51.98	309.0	9 12	1	16 43	10		
AQUILA	52.14	53.2	9 12	-1	16 45	10		
HALLE	52.29	41.5	9 13	-1	16 35	-2		

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CHEB	52.30	43.4	9	11	-3						
TRIESTE	52.63	49.0	9	15	-1	16	47	5			
COLLMBERG	52.90	41.9	9	17K	-1	16	57	11			
KASPERSKE H.	52.92	44.7	9	17K	-2					11	55
LJUBLJANA	53.20	48.6	9	20	-1					11	27 PP
COPENHAGEN	53.50	36.5	9	22	-1	17	1	7			
LARAMIE	53.60	305.5	9	23	-1						
PRUHONICE	53.67	43.7	9	23	-1	17	1	5			
MESSINA	53.72	58.4	9	9	-15	16	30	-27	9 33	11	13 PP
ZAGREB	54.20	49.0	9	23	-5	16	51	-12			
ALBUQUERQUE	54.48	297.6	8	30	-60						
VIENNA-H.	54.66	46.0	9	29	-2					11	36 PP
TARANTO	55.00	55.6	8	46	-48					16	46
BRATISLAVA	55.14	46.2	9	32A	-3					10	11
KARLSKRONA	55.33	36.4	9	30	-6					9	46
RACIBORZ	56.02	43.9	9	37	-4					10	51 PCP
FLAMING GRGE	56.48	305.0	9	43	-1						
KRAKOW	57.13	44.1	9	49	0	17	51	9		10	38 PCP
UPPSALA	57.14	32.3	9	53	4	17	44	1			
SKALNATE PL.	57.29	45.1	9	55	5					10	18
BOZEMAN	57.62	310.7	9	51	-2						
WARSAW	57.96	41.6	9	55	0	17	58	5		18	3 PS
RESOLUTE	58.29	346.2	9	56	-1	18	5	7			
TUCSON TELE.	58.29	295.0	9	57	0						
SALT LAKE C.	58.35	304.9	9	57	-1					10	16
TUCSON	58.40	294.9	9	58	0						
UZHGOROD	58.62	45.8	10	7K	7	18	27	25			
BUTTE	58.68	311.1	9	59	-1						
UMEA	59.18	28.0	10	2	-1	18	7	-2			
SOFIA	59.47	52.7	10	9	4	18	31	18	10 15	12	25 PP
HUNGRY HORSE	59.66	313.8	10	5	-2						
TROMSOE	60.11	21.3	10	8	-2						
KIRUNA	60.16	23.5	10	8	-2	18	3	-19		18	33 PPS
ATHENS	60.17	58.1	10	9A	-1					18	27
ALERT	60.42	357.4	10	10K	-2						
BANFF	60.63	317.1	10	10	-3						
SANTIAGO	60.73	204.4	10	14	0						
SANTA LUCIA	60.74	204.4	10	14	0						
BOULDER CITY	61.16	299.7	10	17	0						
EUREKA	61.62	303.8	10	19	-1						
SODANKYLA	62.40	24.5	10	23	-2						
KAJAANI	62.48	28.3	10	25	-1						
KISHINEV	63.07	47.5	10	28	-2						
PENTICTON	63.31	315.1	10	30K	-1						
PULKOVO	63.50	33.2	10	32	-1	19	8	4			
ISTANBUL UN.	63.84	54.1	10	33K	-2	19	15	7			
BANGUI	64.07	96.3	10	36	0					11	34
PASADENA	64.16	298.2	10	42	5	19	16	4			
RENO	64.55	304.3	10	42K	3	19	33	16		14	33 PP
MOULD BAY	64.55	345.2	10	39	0						
APATITY	65.03	24.5	10	41A	-2	19	30	7		13	35 PP
MINERAL	65.78	305.4	10	46K	-1						
PRIEST	65.80	300.7	10	55A	8						
VICTORIA	65.88	314.5	10	46A	-2						
LICK	66.34	302.2	10	47K	-4						
ALBERNI	66.70	315.4	10	50	-3						
BERKELEY	66.73	302.9	10	52K	-1	19	50	6		13	54 PP
CALISTOGA	66.85	303.7	10	55A	-1						
SIMFEROPOL	66.98	49.3	10	54	-1	19	52	5			
MOSCOW	67.65	37.4	10	57	-2						
BANDEIRA	68.21	117.5	11	3A	0	20	17	15			
KHEYS	70.06	9.8	11	14	0	20	36	13			
AMDERMA	74.69	20.2	11	40K	-2	21	23	7			
COLLEGE	75.10	334.5	11	43	-1					12	3
TIFLIS	75.30	50.7	11	45	0	21	34	11			
LWIRO	76.02	98.4	11	49K	0	21	38	7		22	11 SCS
GORIS	77.09	52.5	11	55K	0						
SVERDLOVSK	79.61	32.5	12	9A	0	22	17	7			
BROKEN HILL	80.84	109.8	12	15K	-1						
TEHERAN	82.15	54.7	12	23	1	22	44	8			
HERMANUS	83.27	131.4								23	5 SCS
BULAWAYO	83.47	114.8	12	27	-2						
KIMBERLEY	84.41	124.1	12	31A	-3						
SHIRAZ	85.36	60.0	12	39K	0	22	33	-35		27	27
TIKSI	86.02	1.9	12	42K	0	23	22	8			
ASHKABAD	86.37	50.4	12	45	1						
TASHKENT	92.12	43.4	13	11K	0	24	20	10			
FRUNSE	94.55	39.9	13	20	-2						
QUETTA	96.32	53.9	13	31	1						

WARSAK DAM	97.62	48.5	13	35	-1						
PETROPAVLOVK	102.01	345.6	13	50	-6						
ESEN BULAK	103.00	26.3	18	14	254						
NEW DELHI	104.67	50.2	18	28	261						
ULAN-BATOR	105.51	19.1	18	41	777						
BOMBAY	106.69	60.9								24	15
BYRD STATION	109.36	190.3	18	58	777						
MATUSIRO	121.19	356.9	18	53A	0					20	32 PP
AFIAMALU	128.87	270.0	19	9K	1						
WILKES	133.48	166.7	19	11	-6					22	2 PP
BAGUIO CITY	138.84	21.2	19	25	-2						
LEMBANG	149.43	63.5	19	48A	3					20	11
NOUMEA	150.87	264.3	19	54A	7						
KOUMAC	152.63	268.5	19	56A	6						
RABAUL	155.29	314.9	19	55	2						
PORT MORESBY	162.46	316.1	20	3	1						
CHARTERS TS.	169.15	280.7	20	6	-1						

JUNE 5 16.H 43.M 50.S EPICENTRE -6.97 129.27 DEPTH= 168.KM

A=-0.62835 B= 0.76852 C=-0.12061 D= 0.7742 E= 0.6330
G= 0.0763 H=-0.0934 K=-0.9927 HT= 6.9

DEPTH OF FOCUS= 0.021R

SE= 1.52

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	17.86	99.0	4	0	1	7	20	10				
CHARTERS TS.	21.01	130.0	4	32	0	8	17	6				
LEMBANG	21.49	269.1	4	34K	-2	8	18	-1				
DJAKARTA	22.31	270.7	4	48	4	8	19	-14				
TANGERANG	22.51	270.7	4	43	-3	8	33	-4				
RABAUL	22.96	84.3	4	46	-4	8	48	3				
MUNDARING	27.69	204.4	5	32K	-3							
ADELAIDE	29.19	163.9	5	46K	-2						11	41
BRISBANE	30.16	135.1	5	57	0	10	42	0				
HONIARA	30.46	96.7	5	59K	0	10	47	1				
RIVERVIEW	33.52	145.8	6	26K	0						7	45 PP
CANBERRA	33.53	150.0	6	25K	-1						7	44 PP
CANTON	33.70	332.9	7	3	36							
MELBOURNE	33.86	157.4	6	29	0	11	55	16				
KOUMAC	36.48	115.3	6	52A	1						8	49
NOUMEA	38.92	117.0	7	12K	1						9	20
FORT NELSON	39.20	158.9	7	14A	1							
KUNMING	41.04	321.9	7	30A	2	13	28	0	8	8		
MATUSIRO	44.09	10.4	7	52A	-1	14	30	18				
CHENGTU	44.57	328.4				14	14	-5	8	34		
SIAN	45.30	336.1				15	27	57	8	41		
PEKING	48.31	346.5	8	26	0				9	3		
SHILLONG	48.66	313.1	8	29K	0							
LANCHOW	49.02	332.5	8	33A	1	15	20	-2	9	11		
TARATA	51.66	135.4	8	53	1							
ROXBURGH	51.66	144.7	8	53	1							
LHASA	51.72	316.7	8	52A	0	15	56	-3	9	31	9	37 *SP
KARAPIRO	51.94	133.5	8	54	0						9	58
CHATEAU	52.47	134.9	8	57	-1							
GEBBIES PASS	52.67	141.2	8	59	0							
CHATRA	52.84	311.3	9	0K	0							
MACQUARIE I.	53.06	158.8	9	1	-1							
TUAI	53.45	133.8	9	4	-1							
Y.-SAKHLINSK	55.07	11.2	9	17	0							
ULAN-BATOR	58.11	342.5									10	18
AFIAMALU	58.26	102.0	9	41	2							
DUMONT	60.06	175.1	8	43	-69							
WILKES	60.68	188.6	9	53	-3				9	59		
ESEN BULAK	60.73	334.4									10	37
NEW DELHI	61.36	307.8	9	59A	-1							
DEHRA DUN	61.51	309.9	10	0	-1							
MIRNY	64.48	195.2									14	17
PETROPAVLOVK	64.76	19.1	10	24A	1							
WARSAK DAM	68.08	310.8	9	44	-60							
YAKUTSK	68.79	0.2	10	48K	0	19	39	3				
QUETTA	70.18	305.4	10	56	-1	19	48	-5				
TASHKENT	72.86	317.0	11	11	-1	20	21	-2				

MAWSON	74.71	201.4	11	22A	-1				12	8	*SP
TIKSI	78.44	359.9	11	45	1	21	24	0			
ASHKABAD	79.47	310.5	11	51	2	21	37	2			
TANANARIVE	79.97	252.0	11	55	3						
SHIRAZ	82.03	301.2	12	2	-1	21	58	-3	22	32	PS
SOUTH POLE	83.07	180.0	12	6	-2				22	6	
SVERDLOVSK	84.38	329.0	12	15	0						
BYRD STATION	86.78	170.6	12	26	0				22	1	
AMDERMA	88.94	341.2	12	36K	-1						
TIFLIS	90.48	311.8	12	44	0						
COLLEGE	93.25	25.1	12	57	0						
BANGUI	110.99	272.0	18	15	2						
EUREKA	113.46	50.0	18	21	3				29	4	PKKP
UCCLE	116.99	324.3	18	5	-20						
FLAMING GRGE	118.03	47.1	18	29	2						
ALBUQUERQUE	121.87	53.1	18	37	3						
WICHITA MTS.	128.10	50.9	18	49	3				20	52	PP
COIMBRA	129.79	317.9							21	56	
ROLLA	131.68	44.2	18	53	0						
BLOOMINGTON	134.58	39.6	19	0	1						
M.BOUR	146.05	285.3	19	21	2						
HUANCAYO	149.09	127.6	19	30	6						
LA PAZ	151.01	143.7	19	31K	4				19	36	
SAN JUAN	161.21	51.5	19	42	2				20	28	

JUNE 6 17.H 50.M 6.S EPICENTRE 38.94-123.35 DEPTH= 0.KM

A=-0.42874 B=-0.65145 C= 0.62594 D=-0.8353 E= 0.5498
G=-0.3441 H=-0.5229 K=-0.7799 HT= -1.3

SE= 3.21

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
UKIAH	0.22	28.1	0	6	-3							
CALISTOGA	0.67	116.2	0	14K	-2							
PT. REYES	0.94	156.2	0	20K	0							
SAN FRANCSCO	1.37	148.5	0	25K	-1							
BERKELEY	1.37	140.9	0	25K	-1	0	44	-1				
CONCORD	1.40	133.5	0	26K	0							
BRANNER	1.78	148.4	0	32K	0	1	6	11				
FERNDALE	1.78	337.1	0	40	8							
SHASTA	1.91	22.5	0	30K	-4							
MINERAL	1.95	43.3	0	30K	-4							
LICK	2.09	139.3	0	35	-1	0	58	-5				
STA. CRUZ C.	2.21	150.7	0	38K	0							
VINEYARD TE.	2.68	144.0	0	44K	-1							
PARAISO	2.72	163.1	0	49K	4							
RENO	2.81	76.6	0	44A	-3	1	27	5			3	40
LLANADA	3.00	139.8	0	48K	-1							
PRIEST	3.52	141.8	0	56K	-1							
FRESNO	3.55	126.5	0	56	-1							
ISABELLA	5.08	128.6	1	19	0							
CORVALLIS	5.64	0.4	1	26	-1							
EUREKA	5.76	82.3	1	25	-3							
PASADENA	6.34	137.3	1	34	-3							
SALT LAKE C.	9.03	74.7	2	17	3							
GLEN CANYON	9.49	98.3	2	23	2							
VICTORIA	9.58	359.7	2	29A	7							
ALBERNI	10.38	354.6	2	31	-2							
BUTTE	10.64	44.9	2	38	2						3	53
PENTICTON	10.72	13.2	2	35	-2							
FLAMING GRGE	10.90	75.1	2	42	2							
BOZEMAN	11.31	49.6	2	46	0	4	1	-53				
HUNGRY HORSE	11.57	32.6	2	51	2							
TUCSON	12.18	119.4	2	56	-1							
BANFF	13.41	21.7	3	12	-2							
ALBUQUERQUE	14.08	101.2	3	24	1							
WICHITA MTS.	20.24	94.3	4	39	0	8	36	14			9	24
MANHATTEN	20.77	80.8	4	46	1	8	38	6				
LAWRENCE	21.82	81.0	4	56	1							
TULSA	22.06	89.2	5	0	-1	9	10	13				
HOUSTON	24.77	103.3	5	31	7							
DUBUQUE	24.93	71.3	5	26	0	9	50	3				
FLORISSANT	25.60	79.8	5	32	0	10	11	12				
ST. LOUIS 1	25.74	80.1	5	35	2	10	11	10				

BLOOMINGTON	28.49	77.7	6	9	10					
COLLEGE	29.64	339.0	6	7	-2				9	12
MOULD BAY	37.43	1.6	7	15	-1					
PALISADES	37.54	70.7				13	38	31		
RESOLUTE	38.21	11.8	7	21	-2					
CARACAS	57.48	103.7	9	53	0				10	57 PCP
KIRUNA	70.10	13.8	11	13	-3					
SODANKYLA	71.59	11.8	11	22	-3					
SKALSTUGAN	71.92	19.2	11	20	-7					
UMEA	73.59	15.9	11	32	-4					
MATUSIRO	73.81	303.9	11	37A	-1	21	11	2		
KAJAANI	74.79	12.7	11	41K	-2					
LA PAZ	75.52	125.5	11	48	0					
UPPSALA	76.44	19.1	11	50	-3					
NURMIJARVI	77.49	15.6	11	57	-2					
HELSINKI	77.86	15.6	11	59	-2					
DOURBES	80.21	31.0	12	17	4	22	23	5		
BENSBERG	80.54	29.2	12	16	1					
GARCHY	81.77	33.6	12	21A	-1				12	36
JENA	82.18	26.9	12	30	6	22	36	-3		
COLLMBERG	82.36	25.9	12	23	-2					
STUTTGART	83.11	29.4	12	29	0					
TOLEDO	83.91	42.4	12	32K	-1					
PRUHONICE	84.00	25.8	12	32	-1					
KASPERSKE H.	84.39	26.8	12	34	-1					
LJUBLJANA	87.34	27.9	12	52	2					
TRIESTE	87.40	28.6	13	0	10					
FLORENCE X.	88.00	31.1	13	14	21					
SOFIA	93.29	23.9							24	52
SOUTH POLE	128.75	180.0	19	5	-4					
LWIRO	135.51	41.8							19	50
BROKEN HILL	145.20	53.3	19	40	1					

JUNE 8 1.H 32.M 0.S EPICENTRE -18.06-178.47 DEPTH= 600.KM

A=-0.95099 B=-0.02548 C=-0.30817 D=-0.0268 E= 0.9996
G= 0.3081 H= 0.0083 K=-0.9513 HT= 5.1

DEPTH OF FOCUS= 0.090R

SE= 1.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
APIA	7.70	57.6	1	57	0								
PORT VILA	12.59	269.5	2	5K	-39								
NOUMEA	14.77	250.9	3	7A	1	6	13	38					
KOUMAC	16.48	258.5	3	53K	31	6	44	40					
KARAPIRO	20.48	193.7	4	0	1								
TUAI	21.01	189.6	4	2	-2								
WELLINGTON	23.86	192.7	4	28	-1								
GEBBIES PASS	26.64	194.5	4	53	-1								
BRISBANE	28.04	245.5	5	6	0						13	0	
ROXBURGH	29.17	197.8	5	15	-1						5	36	
RIVERVIEW	31.36	234.0	5	35K	1								
CHARTERS TS.	33.36	260.8	5	52K	1						11	5	
CANBERRA	33.57	232.7	5	54K	1						8	16	PCP
PORT MORESBY	34.44	279.8	6	1K	1								
MELBOURNE	37.51	230.8	6	26	1								
FORT NELSON	38.08	222.0	6	31A	1								
TARRALEAH	38.35	223.4	6	34	2								
ADELAIDE	41.50	237.4	6	58K	1								
DUMONT	55.50	198.7	8	40	-1								
SCOTT BASE	60.26	183.6	9	14	1								
WILKES	65.99	204.7	9	48K	-2								
BYRD STATION	67.10	170.7	9	57	1								
MATUSIRO	68.00	323.4	10	0	-2								
SOUTH POLE	72.05	180.0	10	26	1								
MIRNY	73.01	204.7	10	31	0								
BERKELEY	76.68	42.5	10	51A	0								
PRIEST	76.74	44.7	10	52	0								
LICK	76.77	43.3	10	52A	0								
CALISTOGA	76.93	41.7	10	52A	-1								
PASADENA	77.36	47.6	10	54	-1								
MINERAL	78.54	40.8	11	1K	0								
RENO	79.21	42.2	11	5	0								
EUREKA	81.67	43.9	11	17	0								

TUCSON	81.77	52.3	11 19	1			11 34	
TUCSON TELE.	81.90	52.3	11 19	1				
GLEN CANYON	83.41	47.9	11 29	3				
PENTICTON	84.89	34.2	11 32A	-1				
COLLEGE	85.94	12.6	11 36	-2	13 40		11 56	
FLAMING GRGE	86.77	45.1	11 42	0				
BOZEMAN	87.91	40.4	11 48	0	13 58			
BANFF	88.10	34.1	11 48	0				
WICHITA MTS.	92.12	54.2	12 7	0				
SODANKYLA	128.14	348.0					20 23	SKP
KIRUNA	128.81	350.9					20 27	SKP
KAJAANI	130.70	345.2	18 2	-2			20 33	SKP
UMEA	132.52	348.9					20 39	SKP
BULAWAYO	133.66	216.2	18 10	1				
NURMIJARVI	134.48	344.2	18 9	-2			20 46	SKP
HELSINKI	134.69	343.8					20 47	
UPPSALA	136.67	348.2					20 52	SKP
BROKEN HILL	138.18	221.2	18 10	-7				
ADDIS ABABA	142.77	261.1	18 27	1				
WITTEVEEN	145.08	354.6	18 31	1				
BANDEIRA	145.25	200.3	18 34K	4				
COLLMBERG	145.61	347.2	18 32	1			21 31	
HALLE	145.63	348.5	18 33	2				
MUNSTER	145.83	353.3	18 33	2				
LWIRO	146.41	235.8	18 38K	6				
KASPERSKE H.	147.51	345.2	18 38A	4	20 58			
STUTTGART	148.73	350.1	18 41	6				
PARIS	149.32	358.8	18 43A	7			18 49	PKP2
FOLINIERE	149.33	2.6	18 42	6				
GARCHY	150.83	357.9	18 46A	8	21 19		22 30	PP
ROSELEND	152.13	352.3	18 50	10				

JUNE 8 16.H 4.M 22.S EPICENTRE 37.56 141.67 DEPTH= 44.KM

A=-0.62342 B= 0.49285 C= 0.60700 D= 0.6202 E= 0.7845
G=-0.4762 H= 0.3764 K=-0.7947 HT= -0.8

DEPTH OF FOCUS= 0.002R

SE= 2.46

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ONAHAMA	0.87	225.6	0	15K	-2	0	24	-5				
ISINOMAKI	0.91	342.4	0	17K	0	0	29	-1				
SENDAI	0.94	319.5	0	17K	-1	0	29	-2				
HUKUSIMA	0.97	281.6	0	18K	0	0	30	-1				
SHIRAKAWA	1.24	249.7	0	21K	-1	0	35	-3				
YAMAGATA	1.25	303.8	0	22K	0	0	38	0				
MITO	1.52	219.6	0	24A	-2	0	40	-5				
MIZUSAWA	1.63	345.0	0	28	1	0	41	-6				
UTUNOMIYA	1.76	235.6	0	28	-1	0	46	-5				
TUKUBASAN	1.83	223.3	0	28K	-2							
TYOSI	1.95	200.1	0	31	-1	0	53	-2				
SAKATA	1.97	313.3	0	33	1	0	53	-3				
MIYAKO	2.10	6.3	0	35	1	0	57	-2				
NIIGATA	2.11	280.6	0	35K	1	1	1	2				
MORIOKA	2.17	349.7	0	36K	1	1	1	0				
KUMAGAYA	2.31	233.3	0	36K	-1	1	1	-4				
MAEBASI	2.38	241.7	0	36K	-2	1	5	-1				
HONGO	2.40	220.2	0	42	4							
TOKYO C.M.O.	2.43	220.1	0	39	0	1	4	-3				
AKITA	2.48	330.8	0	42	3	1	18	9				
TITIBU	2.61	233.6	0	40	-1	1	8	-4				
AIKAWA	2.75	280.7	0	42	-1							
TAKADA	2.77	261.5	0	43	0	1	17	1				
OIWAKE	2.79	244.8	0	43	-1	1	22	6				
NAGANO	2.91	253.3	0	47	2							
MATUSIRO	2.95	250.9	0	45	-1	1	18	-3				
HATINOHE	2.97	357.9	0	49	3	1	27	6				
MERA	3.03	210.0	0	48	1						1	55
HUNATU	3.11	229.5	0	49	1	1	28	3				
KOHU	3.13	233.9	0	49	0	1	34	9				
MATUMOTO	3.24	247.3	0	52	2	1	26	-2				
AJIRO	3.25	220.4	0	49	-1	1	26	-2				
MISIMA	3.28	222.9	0	51	0	1	28	-1				
AOMORI	3.33	348.3	0	53	2	1	35	5				

OSIMA	3.34	214.4	0	52	0	1	26	-5		
TOYAMA	3.68	257.9	1	1	5	1	22	-17		
SHIZUOKA	3.70	226.6	0	58	1	1	40	1		
IIDA	3.70	237.8	0	57	0	1	41	1		
WAZIMA	3.80	268.7	0	58	0					
OMAESAKI	4.07	224.5	1	15	13					
HAMAMATU	4.27	229.6	1	6	1	1	55	1		
HAKODATE	4.30	350.9	1	10	5	2	4	9		
NAGOYA	4.48	239.3	1	8	0	1	59	0		
GIHU	4.50	242.9	1	9	1					
MORI	4.61	349.8	1	17	8					
URAKAWA	4.66	10.2	1	11	1	2	17	13		
HATIDYOZIMA	4.71	199.6	1	10	-1					
MURORAN	4.78	353.8	1	18	6	2	15	8		
HIROO	4.88	14.5							2	1
TSURUGA	4.89	248.8	1	18	5					
HIKONE	4.93	244.0	1	17	3	2	11	0		
KAMEYAMA	5.00	238.8	1	14	-1	2	11	-1		
TOMAKOMAI	5.07	359.2							1	37
SUTTSU	5.35	348.5							2	19
KYOTO	5.43	243.9	1	17	-4	2	19	-4		
OBIHIRO	5.48	11.8							2	26
SAPPORO	5.51	357.5	1	28	6	2	37	12		
ABUYAMA	5.62	243.3	1	22A	-1					
OSAKA	5.76	241.6	1	36	11	2	50	19		
KUSIRO	5.80	20.2	1	27	1	2	28	-4		
NEMURO	6.49	26.1							2	42
KOTI	7.75	241.3							2	31
VLADIVOSTOK	9.30	309.7	2	16	1					
Y.-SAKHLINSK	9.49	4.4	2	15	-2					
YAKUTSK	25.59	346.9	5	25A	-2	9	57	8		
SHILLONG	43.63	268.9	8	0K	-2					
CHATRA	46.78	273.3	8	26A	-1					
ALMATA-2	48.22	298.0	8	37	-2					
COLLEGE	48.54	32.5	8	42	1					
AMDERMA	51.89	334.2	9	4A	-3					
NEW DELHI	53.84	280.6	9	18	-3					
SVERDLOVSK	54.89	318.4	9	27K	-2					
MOULD BAY	55.98	16.6	9	35	-2					
QUETTA	60.99	287.2	10	9	-3					
RESOLUTE	62.05	14.5	10	17	-2					
APATITY	62.30	335.7	10	18A	-2					
SODANKYLA	64.56	337.2	10	33	-2					
KIRUNA	66.10	339.2	10	42	-3					
KAJAANI	66.21	334.0	10	43	-3					
UMEA	68.89	336.1	11	1A	-1					
NURMIJARVI	69.58	331.9	11	5	-2				11	34
SKALSTUGAN	71.50	338.6	11	16	-2					
SHIRAZ	72.00	293.8	11	19A	-2	20	21	-17		
UPPSALA	72.58	334.0	11	23	-2					
EUREKA	75.36	51.4	11	42	1					
COLLMBERG	80.75	330.2	12	9	-2				12	37
PRUHONICE	81.15	328.6	12	12	-1					
KASPERSKE H.	82.20	328.5	12	17	-1					
STUTTGART	84.22	330.6	12	27	-1					
GARCHY	87.78	333.2	12	46	0					
WICHITA MTS.	88.89	45.7	12	52	1					
LA PAZ	146.40	59.5	19	39	4					

JUNE 8 19.H 17.M 13.S EPICENTRE 10.70 126.26 DEPTH= 0.KM
A=-0.58125 B= 0.79256 C= 0.18439 D= 0.8064 E= 0.5914
G=-0.1090 H= 0.1487 K=-0.9829 HT= 6.4

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
BAGUIO CITY	7.93	316.5	1	57	-2	3	47	17				
NHATRANG	16.78	276.8	4	2	4							
GUAM	18.45	79.3	4	18	0							
ZO-SE	20.84	347.7	4	45	0	8	34	0				
NANKING	22.35	343.1	5	2	1	9	4	2				
DARWIN	23.37	168.7	5	22	11							
LEMBANG	25.44	227.6	5	41	10							
TANGERANG	25.74	230.3	5	38	5							

KUNMING	26.51	305.9	5	41	0						
MATUSIRO	27.91	20.9	5	52	-1	10	37	1			
SIAN	28.30	328.6	5	57A	0						
CHENGTU	28.66	317.1				10	53	4			
RABAUL	29.74	118.5							14	20	
PEKING	30.56	344.7	6	16	-1	11	13	-6			
LANCHOW	32.40	324.8	6	34A	1	11	51	3			
VLADIVOSTOK	32.67	7.7	6	37	1						
CHANGCHUN	33.02	358.7	6	38	-1	11	53	-4			
SHILLONG	35.73	299.1	7	1A	-1						
CHARTERS TS.	36.38	147.2	7	16	8						
LHASA	37.83	305.1	7	21A	1						
Y.-SAKHLINSK	38.80	18.0	7	29	1						
CHATRA	40.14	299.1	7	38K	-1						
ULAN-BATOR	40.52	339.9	7	43A	1	13	49	-3			
MUNDARING	43.50	192.4	7	56	-10				11	42	
ESEN BULAK	43.77	330.0	8	9	0	14	29	-11			
BRISBANE	45.77	146.3	8	35	10				10	57	PP
ADELAIDE	46.93	166.0	8	43K	9						
DEHRA DUN	48.77	301.0	8	49	1						
NEW DELHI	49.14	298.6	8	49A	-2						
CANBERRA	50.57	155.8	9	10K	8						
YAKUTSK	51.30	2.1	9	7	-1						
LAHORE	52.16	301.7	9	13	-1						
ALMATA	53.56	316.5	9	35	11						
SEMIPALATNSK	54.65	325.6	9	32	-1						
KHOROG	55.72	308.2	9	41	1						
DUZHANBE	58.09	308.9	9	57	0						
QUETTA	58.22	298.8	9	57	-1						
TASHKENT	58.35	312.1	9	58	-1						
VANNOVSKAYA	66.29	306.7	10	49	-3						
SVERDLOVSK	67.85	327.3	11	2K	0						
SHIRAZ	70.71	297.7	11	18A	-1						
AMDERMA	71.36	340.6	11	23A	0						
KHEYS	76.01	351.0	11	52	2						
TIFLIS	76.61	310.4	11	55	1						
WILKES	77.70	186.4							12	4	PP
MOSCOW	80.48	325.0	12	15	0						
MIRNY	80.80	192.8	12	20	3						
APATITY	81.28	337.2	12	19A	0	22	23	-6			
PULKOVO	83.82	329.6	12	33	1						
SODANKYLA	83.89	337.4	12	33	0						
KAJAANI	84.18	334.1	12	34	0						
MOULD BAY	85.31	12.6	12	41	1						
KIRUNA	86.05	338.5	12	39	-4						
HELSINKI	86.36	330.6	12	46K	1						
NURMIJARVI	86.42	330.9	12	46K	1						
UPPSALA	89.96	331.4	13	2	0						
SKALSTUGAN	90.79	335.9	13	5	-1						
RESOLUTE	91.09	10.1	13	9	2						
UZHGOROD	91.11	319.9	13	9	2						
PRUHONICE	95.39	323.0	13	28	1						
KASPERSKÉ H.	96.31	322.4	13	33	2						
SOUTH POLE	100.63	180.0							15	15	
BYRD STATION	104.59	170.5							15	49	
WICHITA MTS.	118.00	41.1	18	54	5				20	22	PP
PREBEUF	121.26	16.2							22	46	
PENNSYLVANIA	124.12	22.0							22	57	
ANTOFAGASTA	159.51	131.3							22	9	
LA PAZ	164.88	114.0	20	17	12						

JUNE 9 19.H 57.M 28.S EPICENTRE 13.00 -91.07 DEPTH= 67.KM

A=-0.01819 B=-0.97454 C= 0.22349 D=-0.9998 E= 0.0187
G=-0.0042 H=-0.2235 K=-0.9747 HT= 6.1

DEPTH OF FOCUS= 0.005R

SE= 1.34

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SAN SALVADOR	1.94	69.4	0	30	-2	0	59	4				
SANTIAGO MA.	2.58	78.8	0	42	1	1	16	5				
COMITAN	3.39	342.5	0	56	4	1	39	8				
VERA CRUZ	7.85	322.4				3	16	-6			5	27
MERIDA	8.03	9.7				3	26	-1			4	19

TACUBAYA	10.07	310.2			4 31	5	5 22
CHINCHINA	17.21	116.2	3 55	-2			
FUQUENE	18.67	112.0	4 15	0			8 4 SSS
BOGOTA	18.74	114.9	4 18	2	7 43	4	8 19 SSS
WICHITA MTS.	22.67	343.8	4 54	-2	9 5	10	12 26 PCS
COLUMBIA	22.81	21.9	4 58	0			
CARACAS	23.76	93.4	5 7	0	9 26	12	
C. GIRARDEAU	24.26	3.0	5 11	-1			
SAN JUAN	24.60	74.2	5 12	-3			
ROLLA	24.81	358.4	5 16	-1	9 40	8	
ST. LOUIS 1	25.55	1.5	5 23	-1			
FLORISSANT	25.70	1.3	5 23	-3	10 8	21	
ALBUQUERQUE	25.92	330.1	5 27	-1			
LAWRENCE	26.13	352.6	5 28	-1			
TUCSON TELE.	26.36	320.1	5 31	-1			6 19 PP
TUCSON	26.37	319.8	5 31	-1			
BLOOMINGTON	26.40	8.0	5 30K	-2	10 22	24	
MANHATTEN	26.55	350.4	5 32	-1	10 44	43	
PENNSYLVANIA	30.02	20.3	6 3K	-2			
GLEN CANYON	30.13	326.0	6 5	0			
PALISADES	31.69	25.2			11 35	12	11 59 *SS
FLAMING GRGE	32.12	333.4	6 22	-1			
PASADENA	32.38	315.1	6 24	-1			9 10 PCP
SALT LAKE C.	33.12	330.5	6 32	0			9 12 PCP
EUREKA	34.33	324.7	6 42	0			
PRIEST	35.18	316.1	6 49A	0			
LICK	36.50	317.0	7 1A	0			
SHAWINIGAN	36.83	21.2	7 2	-1			
LA PAZ	37.06	141.6	7 2	-3			
BERKELEY	37.20	317.3	7 6A	0			
BUTTE	37.61	335.3	7 10	0			
CALISTOGA	37.84	318.1	7 12K	0			
MINERAL	38.21	321.1	6 55A	-20			
HUNGRY HORSE	40.08	336.2	8 12	42			
BANFF	42.93	337.5	7 53	-1			
PENTICTON	43.18	332.8	7 55K	-1			
VICTORIA	44.41	329.4	8 5K	-1			
ALBERNI	45.60	329.4	8 15	0			
COLLEGE	64.51	336.7	10 30	-2			11 3 PCP
MOULD BAY	65.00	352.8	10 34	-1			
BAGNERES	82.13	47.7	12 12	-3			
GARCHY	83.35	43.1	12 21K	0		12 49	
CLERMONT-FD.	83.70	44.6	12 22	-1			12 47
DOURBES	83.74	40.1	12 22	-1	22 44	5	
SKALSTUGAN	84.31	25.9	12 27	1			
TROMSOE	84.69	19.3	12 29	1			
BESANCON	85.29	42.7	12 32	1			
KIRUNA	85.92	20.7	12 35	1			
GÖTEBORG	85.96	31.6	12 35	1			
ROSELEND	86.11	44.1	12 35	0			
FELDBERG	86.12	39.4	12 37	2			
STRASBOURG	86.12	41.1	12 36	1			
HEIDELBERG	86.51	40.2	12 37	0			
TUBINGEN	86.97	40.9	12 40	1			
EBINGEN	87.00	41.3	12 40	1			
STUTTGART	87.03	40.7	12 40	1			
MONACO	87.16	45.9	12 41	1			
UMEA	87.53	24.4	12 42	0			
RAVENSBURG	87.53	41.6	12 42	0			
JENA	87.82	38.2	12 43	0			13 10
HALLE	87.87	37.5	12 45	2			
UPPSALA	87.98	28.6	12 44	0	23 27	7	
SODANKYLA	88.24	20.0	12 45A	0			
KARLSKRONA	88.34	32.4	12 45	0			
COLLMBERG	88.56	37.5	12 48A	-1			
KASPERSKE H.	89.62	39.5	12 53K	1			
PRUHONICE	89.93	38.4	12 54K	1			
KAJAANI	90.31	22.7	12 54A	-1			
APATITY	90.33	18.5	12 55A	0			
NURMIJARVI	90.87	26.5	12 58A	1			
HELSINKI	91.17	26.7	12 58	-1			
LJUBLJANA	91.26	42.1	13 0	1			
VIENNA-H.	91.66	39.6	13 2K	1			
BRATISLAVA	92.15	39.5	13 7	4			13 27
SKALNATE PL.	93.66	37.8	13 11	1			
BANGUI	108.09	81.0	13 58	777			
KIMBERLEY	118.69	115.7	18 41	1			
BROKEN HILL	121.40	99.1	18 47K	1			
BULAWAYO	122.00	105.7	18 48	1			

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CHARTERS TS.	124.81	254.5	18 52	0
SHIPAZ	124.95	39.1	18 53	0
QUETTA	132.13	25.9	19 9	3
SHILLONG	141.56	355.7	19 24K	0
MUNDARING	148.66	228.5	19 36	0

JUNE 11 4.H 35.M 1.S EPICENTRE -19.81-177.55 DEPTH= 375.KM

A=-0.94070 B=-0.04028 C=-0.33685 D=-0.0428 E= 0.9991
G= 0.3365 H= 0.0144 K=-0.9416 HT= 4.7

DEPTH OF FOCUS= 0.054R

SE= 1.79

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	4.15	292.8	2 13	6U				
AFIAMALU	8.05	44.2	1 56	0	3 24	-4		
PORT VILA	13.54	276.5	2 59A	-1				
NOUMEA	15.14	257.8	3 17K	-1				
KOUMAC	17.08	264.4	3 40K	2				
ONERAHI	17.42	202.4	3 44	3				
KARAPIRO	19.03	197.0	3 58	1				
TUAI	19.47	192.5	4 0	-2	7 25	9		
CHATEAU	20.23	195.7	4 8	-1	7 33	3		
TARATA	20.53	198.1	4 14	2				
WELLINGTON	22.38	195.3	4 27	-2				
BRISBANE	28.17	248.8	5 29	7				5 50
CANBERRA	33.25	235.3	6 4A	-1				
CHARTERS TS.	33.98	263.2	6 10A	-2	11 10	1		
MELBOURNE	37.12	233.0	6 37	-1				
MOORLANDS	37.29	224.9	6 38K	-1				12 1 SCP
FORT NELSON	37.40	224.1	6 39	-1				12 1 SCP
TAPPALEAH	37.72	225.5	6 42	-1				12 2 SCP
ADELAIDE	41.33	239.3	7 10A	-2				
HONOLULU	45.07	26.0	7 42	0				
KIPAPA	45.21	26.0	7 42	-1				
SCOTT BASE	58.59	183.9	9 22	1				
BYRD STATION	65.25	170.6	10 5	0				
MATUSIRO	69.91	323.3	10 31A	-2				
SOUTH POLE	70.31	180.0	10 36	0				
PRIEST	77.38	44.0	11 15A	-1				
LICK	77.46	42.5	11 18A	1				
CALISTOGA	77.66	41.0	11 18A	0				
PASADENA	77.91	46.9	11 19	0				
MINERAL	79.30	40.1	11 27A	1				
RENO	79.92	41.6	11 30	0				
TUCSON	82.16	51.8	11 43	2				
TUCSON TELE.	82.28	51.8	11 43	1				
EUREKA	82.33	43.4	11 41	-1				
MAWSON	82.36	199.7	11 41K	-1				
ALBUQUERQUE	86.64	51.1	12 4	1			13 22	
FLAMING GRGE	87.39	44.8	12 7	0				
COLLEGE	87.45	12.2	12 5	-2			13 37	
BOZEMAN	88.68	40.0	12 14	1				15 57 PP
WICHITA MTS.	92.43	54.0	12 30	0			14 3	29 43 PKKP
MANHATTEN	95.58	50.4	12 45A	0				
SODANKYLA	130.02	348.1	18 26	0				
KAJAANI	132.60	345.2	18 30	-1				21 57 PKS
BULAWAYO	132.75	214.3						21 23 PP
NURMIJARVI	136.39	344.3	18 32	-6				22 9 PKS
HELSINKI	136.60	343.8	18 36	-2				
BANDEIRA	143.89	198.0	18 51K	-1				21 54
DURHAM	144.96	4.1	18 54K	0				
LWIRO	146.10	232.7	18 59K	4				20 35
COLLMBERG	147.49	347.7	18 55	-3				
HALLE	147.50	348.9	19 1	3				19 43
JENA	148.12	349.0	19 0	2				19 48
KEW	148.33	3.3	19 1	2				
PRUHONICE	148.39	345.0	19 3K	4				
BENSBERG	148.69	354.3	19 5	6				
UCCLE	149.04	357.7	19 5	5				
FELDBERG	149.28	352.4	19 7	7				
BRATISLAVA	149.32	340.6	18 52	-8				
KASPERSKE H.	149.41	345.6	19 5	5				19 41
VIENNA-H.	149.47	341.5	19 1	1				

DOURBES	149.73	357.3	19	6	5						
STUTTGART	150.59	350.8	19	2	0						
STRASBOURG	150.98	352.7	19	11	8						
FOLINIERE	151.01	4.0	19	3	0						
PARIS	151.07	359.9	19	10A	7					19	14 PKP2
ERINGEN	151.21	350.9	19	10	7						
LJUBLJANA	152.00	341.9	19	11	7						
BESANCON	152.48	354.8	19	17	12						
GARCHY	152.59	359.1	19	13K	8			20	43	19	25 PKP2
ROSELEND	153.96	353.3	19	17	10						
CLERMONT-FD.	154.10	358.9	19	16	9						
BAGNERES	156.73	4.3								19	52
BANGUI	158.01	227.9	19	13	1					19	49

JUNE 11 7.H 15.M 37.S EPICENTRE 43.65 18.31 DEPTH= 0.KM

A= 0.68918 B= 0.22800 C= 0.68779 D= 0.3141 E=-0.9494
G= 0.6530 H= 0.2160 K=-0.7259 HT= -3.0
SE= 2.17

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SARAJEVO	0.24	22.1									0	9	PG
TITOGRAD	1.40	149.8									0	26	PG
BELGRADE	1.94	52.0	0	35	1						0	39	PG
ZAGREB	2.73	323.5	0	47A	2						1	44	SG
SKOPJE	2.85	125.0	0	47	0						0	52	P*
SZEGED	2.91	25.8	0	46	-2	0	50	-34			0	57	S*
KALOCSA	2.92	9.2	0	50	2	1	26	2			1	36	SG
TIMISOARA	2.96	43.7	0	50	1	1	22	-3			0	55	P*
TARANTO	3.27	194.3	0	59	6						1	43	SS
KECSKEMET	3.42	16.3	0	58	3	1	45	8			1	5	P*
LJUBLJANA	3.61	313.0	1	0A	2						1	10	PG
SOFIA	3.80	102.7	1	2	1						2	7	S*
TRIESTE	3.82	303.2	1	2A	1	1	45	-2			1	12	PG
AQUILA	3.82	251.9	1	6	5						2	1	S*
BUDAPEST	3.86	7.2	1	2	0	1	48	0			1	16	PG
HURBANOVO	4.22	359.0	1	2	-5	1	57	0			1	11	P*
POVE	4.63	249.8	1	15K	3	2	5	-3			1	24	P*
VIENNA-H.	4.80	344.3	1	15A	0	2	11	-1			1	27	P*
PADOVA	4.93	293.2	1	16A	-1	2	9	-6			1	33	PG
BOLOGNA	5.10	282.0	1	22	3	2	21	2			1	43	PG
FLORENCE X.	5.12	273.9	1	30	11	2	37	17			2	5	
PRATO	5.22	275.0	1	21	0	2	16	-7					
SKALNATE PL.	5.69	13.0	1	30	3	2	40	6			1	59	PG
MESSINA	5.83	201.9	1	27K	-2	2	30	-8					
REGGIO CALA.	5.90	200.8	1	28	-2	2	34	-6					
NIEDZICA	5.94	12.8	1	33	2								
KASPERSKE H.	6.38	330.9	1	37A	0								
RACIBORZ	6.43	359.4	1	37	-1	2	54	1			1	45	PP
KRAKOW	6.50	9.3	1	40	1	3	2	7			2	4	P*
CHIAVARI	6.52	279.0	1	41K	2	2	45	-10			2	5	PG
PAVIA	6.72	286.3	1	51	9	3	20	20			2	2	PP
PRUHONICE	6.84	339.2	1	43	-1	2	38	-25					
PRAGUE	6.95	338.9	1	46A	1						2	22	PG
CHUP	6.97	300.4	1	46A	1	3	36	30					
ATHENS	7.00	142.3	1	45A	-1	3	4	-3					
LWOW	7.32	30.5	1	53	3						3	45	
RAVENSBURG	7.35	307.2	1	51A	0						4	11	SG
CHEB	7.61	329.8	1	47	-7	3	18	-4					
MONACO	7.88	274.3	1	58	0	3	29	0					
EBINGEN	7.93	308.1	1	59A	0						4	35	
CUGLIERI	8.04	247.8	1	58	-2	3	23	-10			3	53	
TUBINGEN	8.06	310.5	2	0	-1						4	36	
STUTTGART	8.09	312.4	2	0A	-1						4	11	
COLLMBERG	8.45	336.7	2	5A	-1	3	40	-3					
BASLE	8.46	301.0	2	6	0	2	45	-59					
ROSELEND	8.57	287.8	2	8	0								
JENA	8.60	330.3	2	8	0	3	35	-12			2	54	PG
NEUCHATEL	8.67	296.7	2	8	-1	4	6	17					
KARLSRUHE	8.69	311.5	2	8	-1	3	46	-3					
HEIDELBERG	8.76	314.4	2	9A	-1						5	12	
WARSAW	8.78	11.0	2	16	5	3	55	4			2	23	PP
STRASBOURG	8.82	307.7	2	10	-1	3	45	-8			2	52	PG
HALLE	8.95	333.6	2	13	0						4	53	SG
BESANCON	9.38	296.9	2	17	-2	4	8	2					

FELDBERG	9.41	317.7	2	4	-15				4	40	
BENSBERG	10.51	318.0	2	33A	-2	4	27	-7	2	41	PP
MUNSTER	10.99	323.0	2	39	-2				5	58	
CLERMONT-FD.	11.02	286.4	2	38	-3	4	53	6			
GARCHY	11.30	294.0	2	43	-2				4	53	
DOURBES	11.38	309.3	2	46	0	4	58	3			
SIMFEROPOL	11.41	78.0	2	46	-1	4	55	-1	6	41	
UCCLE	11.87	311.9	2	53	0	5	10	3			
WITTEVEEN	12.00	323.9	2	55	0						
PARIS	12.10	300.8							5	29	
DE BILT	12.20	318.5	2	57	0						
COPENHAGEN	12.62	344.7	3	8	5	5	38	12			
KARLSKRONA	12.65	353.0	3	0A	-3						
BAGNERES	13.23	273.8	3	10	-1						
TORTOSA	13.49	264.0	3	14	-1	5	51	4			
FOLINIERE	13.97	298.1	3	20	-1						
GOTEBORG	14.62	346.4	3	30A	0						
KEW	14.78	308.5	3	31A	-1	6	31	14			
ALICANTE	15.13	255.9	3	34	-2	6	7	-19	6	20	SS
UPPSALA	16.23	358.8	3	50K	0	6	40	-11	7	1	SS
KSARA	16.83	119.8	3	59	1	6	58	-7			
HELSINKI	17.03	11.4	3	59	-2						
DURHAM	17.04	317.7	4	0K	-1	7	7	-3	5	15	
TOLEDO	17.09	264.9	4	0	-1	7	9	-2	4	24	PPP
ALMERIA	17.23	253.9	4	5	2	7	23	9	4	17	PP
MOSCOW	17.32	39.0	4	3	-1				7	23	SS
NURMIJARVI	17.32	10.6	4	3A	-1	7	11	-5	9	28	
PULKOVO	17.73	20.2	4	9K	0				4	21	PP
GRANADA	17.86	256.3	4	13A	2	7	43	14	4	31	PP
BERGEN	18.53	339.4	4	20	1	7	56	12			
MALAGA	18.65	255.9	4	21K	0	7	54	8	4	37	PP
ABERDEEN	18.67	323.6	4	24K	3	7	53	6	8	45	SS
TIFLIS	19.55	86.5	4	33	2	8	12	5	4	58	PP
SERRA PILAR	20.00	272.1	4	36A	-1	8	11	-6	4	53	PPP
COIMBRA	20.16	269.4	4	38K	0	8	20	0			
UMEA	20.24	2.5	4	38A	-1	8	17	-5			
SKALSTUGAN	20.27	352.2	4	38A	-1						
KAJAANI	21.16	11.5	4	48	-1	8	38	-2			
LISBON	21.20	266.0	4	52K	3	8	55	14	5	0	5 16 PP
GORIS	21.33	91.6	4	53A	3				5	21	PP
SODANKYLA	24.19	7.9	5	20A	1						
KIRUNA	24.27	2.0	5	21	2	9	36	0	12	40	
APATITY	25.29	13.6	5	30K	1	9	55	2	5	42	
TROMSOE	26.05	0.5	5	37K	1						
TEHERAN	26.52	96.0	5	42	1	10	26	12			
SIDA	28.85	326.9	6	1	-1						
SVERDLOVSK	29.59	48.6	6	7	-1	11	0	-3			
REYKJAVIK	30.54	326.1	6	17A	0						
SHIRAZ	30.56	105.7	6	15K	-2	11	31	12	6	37	7 22 PP
ASHKABAD	30.62	86.8	6	18	0	11	24	4			
SCORESBY SD.	33.49	336.8	6	43	0	12	3	-1			
AMDERMA	34.07	25.2	6	47K	-1						
TASHKENT	37.19	75.5	7	15	1	13	4	3	8	40	PP
ADDIS ABABA	38.83	146.6	7	30	2	13	33	7			
BANGUI	39.11	179.5	7	24	-6				8	55	PP
KHEYS	39.64	9.5	7	36	1	13	36	-3	9	4	PP
KHOROG	40.32	80.0	7	42	2	13	50	1	9	22	PP
FRUNSE	40.35	71.0	7	42K	1				9	44	PPP
QUETTA	40.59	92.7	6	46	-56	13	58	5			
SEMIPALATNSK	41.67	58.2	7	50	-1				9	31	PP
ALMATA	41.78	69.4	7	53K	1	14	3	-8	9	34	PP
M.BOUR	41.92	236.9	7	55	2	14	13	0			
WAPSAK DAM	41.95	84.7	7	53K	-1						
ALERT	45.79	349.6	8	25	0						
LWIRO	46.65	165.5	8	31K	0	15	24	3	10	24	PP
THULE	47.28	341.3	8	34	-2				10	5	PCP
DEHRA DUN	48.57	85.0	8	45	-1						
NEW DELHI	48.92	87.5	8	46	-3	15	47	-6	11	16	PPP
BOMBAY	51.66	100.6	9	13	3				17	57	
RESOLUTE	54.06	342.4	9	28	0	17	5	1			
IRKUTSK	55.00	48.5	9	35A	0				17	26	PS
TIKSI	55.15	21.2	9	35K	-1	17	19	1	11	41	PP
HALIFAX	56.33	301.8	9	44	0						
CHATRA	57.14	82.9	9	49A	-1						
MOULD BAY	57.37	348.9	9	50	-2						
LHASA	58.27	77.8	9	58	0	17	57	-3			
BANDEIRA	58.44	185.7	9	57K	-2				12	9	PP
ULAN-BATOR	58.61	52.0	10	3A	2	18	11	7			

SHAWINIGAN	60.77	307.7	10	15	0					
YAKUTSK	61.22	30.1	10	15	-4	18	37	-1		
SHILLONG	61.27	81.1	10	17K	-2	18	42	4		
BREBEUF	61.85	307.1	10	26K	3	18	49	3	13	9 PP
LANCHOW	63.33	64.7	10	31	-2	19	5	1		
BULAWAYO	64.17	169.2	10	37K	-1					
PALISADES	64.64	303.2	10	44	3	19	20	-1		
CHENGTU	66.68	69.3	10	53	-1	19	48	2		
PENNSYLVANIA	67.15	305.0	10	57K	0					
LONDON ONT.	67.67	308.6	11	0K	-1					
SIAN	67.74	63.5	11	1	0	20	1	3		
TANANARIVE	67.80	150.0	11	3	2				11	23 PCP
PEKING	68.63	54.8	11	6K	-1	20	9	0		
KUNMING	69.26	74.7	11	10	0	20	17	1		
MAGADAN	69.99	23.6	11	14	-1	20	27	2		
CHAPEL HILL	70.96	301.6	11	20	-1					
CHANGCHUN	71.28	46.9	11	22	-1	20	40	0		
COLLEGE	71.28	353.8	11	23	0				11	57 PCP
KIMBERLEY	72.29	174.0	11	27A	-2					
BLOOMINGTON	73.22	308.3	11	33	-1	21	7	5		
COLUMBIA	73.44	301.2	11	35	0					
ST. VINCENT	73.52	272.6	11	39	3					
SAN JUAN	73.59	279.8	11	36	0					
VLADIVOSTOK	75.19	44.0	11	45	-1	21	24	0	14	39 PP
TRINIDAD	75.30	270.7	11	45	-1					
NANKING	75.45	59.6	11	46	-1					
FLORISSANT	75.67	310.2	11	47	-1					
ST. LOUIS 1	75.70	310.0	11	48	-1	21	27	-3		
ROLLA	77.15	310.4	11	56	-1	21	44	-2		
Y.-SAKHLINSK	77.24	35.4				21	50	3		
SITKA	77.26	345.6	11	58	1					
BANFF	77.42	332.3	11	58	0					
ZO-SE	77.60	58.9	11	58	-1	21	47	-3		
PETROPAVLOVK	77.85	23.2	11	58K	-3				15	1 PPP
LAWRENCE	78.19	313.1	12	3	1					
RAPID CITY	78.26	321.1	12	3	0					
MANHATTEN	78.72	314.0	12	5	0	22	3	0		
CARACAS	79.41	274.4	12	9	0				14	53 PP
BOZEMAN	80.35	326.6	12	15	1					
PENTICTON	80.36	333.6	12	15A	1					
BUTTE	80.66	327.7	12	16	0					
LARAMIE	81.52	320.8	12	22	2					
ALBERNI	81.99	336.6	12	24	1					
VICTORIA	82.25	335.4	12	25A	1					
SEATTLE	82.68	334.4	12	30	4					
WICHITA MTS.	83.14	312.3	12	29	0				15	50 PP
MATUSIRO	83.32	44.7	12	28K	-2	22	55	5		
FLAMING GRGE	83.54	322.9	12	31	0					
SALT LAKE C.	84.73	324.3	12	37	0					
ALBUQUERQUE	87.01	317.5	12	47	-1					
EUPEKA	87.52	326.3	12	51	1					
BOGOTA	88.57	275.0				23	41	0		
MINERAL	88.90	330.5	12	54K	-3					
CHINCHINA	89.45	276.3	13	1	1	23	54	5		
BOULDER CITY	90.02	323.7	12	57	-5					
TUCSON TELE.	91.19	318.9	13	8	0					
CHINA LAKE	91.32	325.6	13	10	2					
TUCSON	91.32	318.9	13	8	0					
PASADENA	92.99	325.1	13	21	5				25	44
LA PAZ	98.68	255.6	13	43	1				17	41 PP
MAWSON	115.92	162.6	18	43A	-1			18 47	19	46 PP
RABAUL	123.49	59.6							20	34
MIRNY	123.62	152.4	19	1	2					
CHARTERS TS.	130.88	78.6	19	14	1				22	44
SOUTH POLE	133.46	180.0	19	15	-3					
BRISBANE	140.08	81.4							20	50
BYRD STATION	140.45	190.6	19	28	-3					
CANBERRA	141.53	94.7	19	30	-3					
MOORLANDS	143.11	106.3	19	35	0					
SCOTT BASE	143.44	169.3	19	31	-5					

JUNE 12 9.H 46.M 30.S EPICENTRE 64.93 -16.93 DEPTH= 47.KM

A= 0.40762 B=-0.12408 C= 0.90468 D=-0.2912 E=-0.9567
G= 0.8655 H=-0.2634 K=-0.4261 HT=-10.4

DEPTH OF FOCUS= 0.002R

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AKUREYRI	0.89	327.1	0 20	3	0 35	5		
SIDA	1.25	203.6	0 20K	-2	0 40	2		
VIK	1.77	212.1	0 27	-2	0 54	3		
REYKJAVIK	2.29	251.8	0 37	0	1 9	5		0 46 P*
SCORESBY SD.	5.89	343.4	1 24	-3				
SKALSTUGAN	12.71	82.7	3 4	3	5 21	-1		
DURHAM	12.73	135.9	3 4K	3	5 26	4		8 40
TROMSOE	14.46	55.2	3 19	-5				
KIRUNA	15.09	62.2	3 36	4	6 40	22		
GOTEBORG	15.53	104.2	3 36	-2				
UMEA	15.97	77.0	3 45	2				
UPPSALA	16.65	91.7	3 52	0				
SODANKYLA	17.51	62.4	4 1	-1	7 27	13		
KARLSKRONA	18.04	103.8	4 8	-1				
FOLINIERE	18.42	143.6	4 15	1				
DOURBES	18.67	132.4			8 6	26		
BENSBERG	18.78	126.7	4 16	-2				
KAJAANI	18.94	72.1	4 18	-2				
PARIS	19.19	138.0						12 40
NURMIJARVI	19.29	83.8	4 22K	-2				
HELSINKI	19.60	84.5	4 24	-3				
APATITY	20.00	59.9	4 30A	-2				
HALLE	20.05	118.3	4 32	0				5 12
JENA	20.38	119.8	4 35	0				4 50 PP
COLLMBERG	20.61	117.1	4 37	-1				5 6
GARCHY	20.74	138.9	4 38	-1				4 58 PP
VIBORG	20.95	79.7	4 38	4				
STRASBOURG	21.02	129.3	4 46	4				13 50
STUTTGART	21.36	126.7	4 46	0				
BESANCON	21.62	134.0	4 50	2				
PULKOVO	22.08	81.3	4 55	2	9 4	16		
PRUHONICE	22.26	117.1	4 55	1				
KASPERSKE H.	22.59	119.8	4 59	1				5 52
BAGNERES	23.93	148.0	5 13	2				
KRAKOW	24.30	110.0	5 16	2				
KHEYS	24.42	22.5	5 14	-1				
MOSCOW	27.65	83.2	5 47	1				
AQUILA	28.38	128.0						15 40
AMDERMA	28.66	45.3	5 54K	-1				
TIFLIS	41.33	93.3	7 45	2				
COLLEGE	45.66	333.2	8 20	2				8 38
ALMATA-2	53.52	64.9	9 15	-3				
SHIRAZ	54.87	94.7	9 28A	0				
WICHITA MTS.	55.68	279.3	9 34	0				
EUREKA	58.60	296.4	9 56	1				
SOUTH POLE	154.78	180.0						20 15

JUNE 14 7.H 51.M 50.5 EPICENTRE 54.55 169.18 DEPTH= 0.KM

A=-0.57222 B= 0.10939 C= 0.81277 D= 0.1878 E= 0.9822
G=-0.7983 H= 0.1526 K=-0.5826 HT= -7.1

SE= 3.36

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	6.43	260.5	1 35A	-3	2 43	-10		
MAGADAN	11.17	304.0	2 44	0				3 40
OKHA	15.42	277.0	3 40	0	6 38	6		
KURILSK	16.54	244.4	3 51A	-3				7 10 SS
UGLEGORSK	17.57	263.0	4 8A	1				4 37 PPP
Y.-SAKHLINSK	18.27	256.5	4 15A	-1	7 41	3		
NEMURO	19.04	243.6	4 17	-9	7 56	1		
ABASHIRI	19.25	247.1	4 21	-7				
WAKKANAI	19.79	253.8	4 34K	0	8 30	18		
KUSIRO	19.90	244.6	4 31	-4	8 27	12		

ASAHIGAWA	20.45	249.2	4	39	-2	8	34	8		
OBIHIRO	20.58	246.3	4	41	-2					
HIROO	20.96	244.8	4	43	-4					
URAKAWA	21.34	245.3	4	48	-2	8	40	-3		
SAPPORO	21.47	249.1	4	49A	-3	8	48	2		
YAKUTSK	21.74	306.0	4	54K	-1	8	47	-4		
MURORAN	22.18	248.2							8	53
SUTTSU	22.27	250.1	4	59	-1	8	54	-7		
MORI	22.55	248.3	5	2	-1	9	3	-3		
HAKODATE	22.65	247.5	5	1	-3	8	56	-12		
HATINOHE	23.15	244.1	5	7	-1	9	2	-15		
AOMORI	23.34	245.7	5	15	5	9	9	-11		
COLLEGE	23.53	46.9	5	14	2					
MIYAKO	23.57	242.0	5	5	-8	9	8	-16		
MORIOKA	23.95	243.2	5	16	0	9	13	-18		
TIKSI	24.26	330.1	5	21K	2				5	57 PP
MIZUSAWA	24.39	242.3	5	20	-1	9	17	-21		
AKITA	24.49	244.7	5	23	2				9	34
ISINOMAKI	24.82	241.0	5	24A	-1	9	22	-23		
SENDAI	25.16	241.3	5	30	2				10	30
SAKATA	25.24	243.8	5	30	1					
YAMAGATA	25.45	242.0	5	29	-2	9	25	-31		
HUKUSIMA	25.77	241.1	5	33	-1	9	29	-32		
ONAHAMA	26.17	239.4							9	37
NIIGATA	26.38	243.3							6	44
SHIRAKAWA	26.38	240.6	5	50	11	9	54	-18		
VLADIVOSTOK	26.75	260.2	5	40	-3	10	12	-6	6	23 PP
MITO	26.83	239.2	5	40	-3	9	41	-38		
UTUNOMIYA	27.00	240.3	5	46	1				9	43
KAKIOKA	27.09	239.4	5	43	-3					
TUKUBASAN	27.14	239.5	5	44K	-2				6	2 *SP
TAKADA	27.41	243.2							9	41
MAEBASI	27.52	241.1							6	11
KUMAGAYA	27.56	240.4	5	48	-2	10	13	-18		
TOKYO C.M.O.	27.74	239.2				10	17	-17	6	13
NAGANO	27.76	242.7	5	52	0	10	2	-32		
OIWAKE	27.84	241.7	5	51	-2	9	53	-42		
TITIBU	27.84	240.6	6	4	11					
MATUSIRO	27.86	242.5	5	51A	-2	10	25	-11		
WAZIMA	27.91	245.3				10	52	16	6	55
YOKOHAMA	27.99	239.1				11	27	49	6	20
MATUMOTO	28.20	242.4	5	56	0					
TOYAMA	28.26	244.0	5	59	3					
KOHU	28.35	240.8							10	0
HUNATU	28.38	240.3	5	46	-12	10	4	-40		
MISIMA	28.58	239.6	6	2	3					
IIDA	28.84	241.6	6	1	-1	10	25	-26		
OMAESAKI	29.36	239.9							6	40
GIHU	29.48	242.8	6	17	10					
HAMAMATU	29.52	240.7							9	46
NAGOYA	29.55	242.3	6	22	14				10	8
KAMEYAMA	30.06	242.5	6	26	13				10	49
CHANGCHUN	30.13	267.5	6	10	-3	11	8	-4		
KYOTO	30.31	243.7	6	6	-9	10	10	-65		
ABUYAMA	30.51	243.7	6	15A	-2					
SITKA	30.57	62.3	6	12	-5					
OSAKA	30.70	243.5	6	27	9	10	12	-69		
TAKAMATU	31.73	244.9	6	16	-11	10	23	-74		
KOTI	32.60	244.6	6	33	-2	10	34	-77		
MOULD BAY	33.55	24.3	6	44K	1					
OOITA	33.86	246.5	6	47	1				10	23
HUKUOKA	34.26	248.3	6	57	8					
KUMAMOTO	34.67	247.1	7	8	15					
NAGASAKI	35.18	247.9	6	57A	0				10	56
YAKUSIMA	36.62	244.8	7	9	0					
IRKUTSK	37.50	294.0	7	17	0					
PEKING	37.83	269.8	7	18	-2	13	13	2	8	52 PP
ULAN-BATOR	38.40	286.5	7	28	4	12	58	-22		
ALBERNI	39.71	69.5	7	35	0					
RESOLUTE	39.87	24.4	7	38	1					
KHEYS	39.89	346.2	7	37K	0	13	50	8	9	41 PPP
ALERT	40.71	9.1	7	44K	0					
VICTORIA	40.89	69.7	7	45A	0					
PAOTOW	41.04	275.2	7	45A	-1	14	1	1		
ZO-SE	41.22	255.3	7	47	-1	14	5	3		
HONOLULU	41.36	130.3	7	49	0	14	8	4	9	28 PP
NANKING	41.87	258.6	7	52	-1	14	13	1		
PENTICTON	42.49	66.5	7	58A	0					
BANFF	43.56	62.1	8	5	-2					

NORD	44.05	1.2	8	10	-1							
HAWAII V.OB.	44.27	128.2	8	11	-2	14	53	6				
AMDERMA	45.49	332.3	8	22K	0							
SIAN	45.99	269.4	8	26	0							
UKIAH	46.88	80.1	8	25	-8							
LANCHOW	47.69	275.2	8	39	-1	15	37	1				
BUTTE	48.27	66.1	8	44	0							
BERKELEY	48.29	80.7	8	39A	-5	15	43	-1	9	5	9	36 PCP
BOZEMAN	49.31	65.5	8	53	1							
EUREKA	50.76	74.7	9	2	-1							
SEMIPALATNSK	50.84	304.4	9	2	-2							
CHENGTU	51.45	270.1	9	8	-1	16	27	-1				
CANTON	51.82	255.8	9	10	-1	16	38	5				
HONG KONG	51.97	254.4	9	12	-1	16	39	4				
SALT LAKE C.	52.17	70.7	9	13	-1							
PASADENA	53.26	81.1	9	20	-2	16	50	-3				
BAGUIO CITY	53.27	243.9	9	19	-3							
FLAMING GRGE	53.40	68.9	9	22	-1							
APATITY	53.83	340.6	9	25	-1	17	0	-1			17	17 PS
BOULDER CITY	53.86	77.0	9	25	-2							
TROMSOE	54.25	347.6	9	29	-1							
MANILA	54.47	242.3	9	31	0						13	28
RAPID CITY	54.49	62.2	9	31	0							
SVERDLOVSK	54.75	320.3	9	32	-1						11	28 PP
GLEN CANYON	54.98	73.9	9	31	-4							
SCORESBY SD.	55.02	4.5	9	35	0	17	8	-9			17	21 PS
LARAMIE	55.19	66.1	9	36	0						13	31
SODANKYLA	55.22	343.3	9	36K	-1						10	43 PCP
KIRUNA	55.74	346.2	9	39K	-1	17	16	-10			18	6
KUNMING	56.34	266.7	9	43	-2	17	35	1				
ALMATA	57.41	300.0	9	51	-1						18	0 PS
KAJAANI	58.01	341.2	9	57K	1						12	7 PP
TUCSON	58.84	77.2	10	2	0							
FRUNSE	58.90	301.1	10	1K	-2	18	7	-1				
ALBUQUERQUE	59.30	71.9	10	5	-1							
UMEA	59.53	344.6	10	6K	-1							
LHASA	59.72	279.4	10	8	0							
RABAUL	60.23	199.6	10	16	4						19	35
PULKOVO	61.38	337.7	10	19	-1	18	43	3			12	40 PP
MANHATTEN	61.44	61.9	10	18A	-2	18	41	0				
NURMIJARVI	61.86	341.0	10	22K	-1							
HELSINKI	62.12	340.7	10	23	-2							
LAWRENCE	62.29	61.2	10	24	-2							
SHILLONG	62.32	275.8	10	23	-3							
TASHKENT	62.67	303.4	10	27K	-1	18	56	0			14	31 PPP
LUBBOCK	62.86	69.7	10	28	-2							
MOSCOW	63.15	331.7	10	30K	-2	19	3	1			12	50 PP
UPPSALA	63.70	344.4	10	34K	-1							
WICHITA MTS.	63.76	66.6	10	35A	-1	19	16	6			12	55 PP
CHATRA	64.07	280.3	10	37	-1							
HONIARA	64.21	190.1	10	40	2	19	14	-1				
TULSA	64.33	63.8	10	38	-2							
KHOROG	64.48	299.1	10	38	-2	19	21	2			14	34 PPP
ROLLA	64.81	59.7	10	41A	-1	19	23	0				
FLORISSANT	64.87	58.1	10	41	-2	19	19	-5				
FAYETTEVILLE	65.03	62.6	10	56	12	19	30	5			14	37 PPP
ST. LOUIS 1	65.07	58.1	10	43	-1	19	26	0				
LONDON ONT.	65.85	49.2	10	53A	4							
PORT MORESBY	66.36	203.8	10	50	-2							
BLOOMINGTON	66.45	55.2	10	59	6	19	40	-3				
SHAWINIGAN	66.48	41.6	10	52	-1							
DEHRA DUN	66.53	289.5	10	52	-1							
GOTEBORG	66.59	346.9	10	53K	-1							
CLEVELAND	66.94	50.4	11	0A	4	19	50	1				
BREBEUF	67.02	42.8	10	56K	-1	19	46	-4	11	18	23	40 SS
WARSAK DAM	67.16	296.7	10	54	-3							
KARLSKRONA	67.56	344.4	11	2K	2							
LAHORE	67.59	293.1	10	58	-2							
NEW DELHI	68.34	289.0	11	1K	-4	19	35	-31				
ABERDEEN	68.41	354.9				20	12	6			27	13 SSS
COPENHAGEN	68.49	346.1	11	5	-1							
HOUSTON	69.33	67.8	11	13	2							
WARSAW	70.34	339.8	11	18	1	20	30	1			11	44 PCP
PALISADES	70.63	45.7	11	20	1	20	31	-2				
FORDHAM	70.77	45.7	11	21	1							
HALIFAX	71.50	36.8	11	28	4							
WITTEVEEN	72.02	348.9	11	27	0							
QUETTA	72.56	297.5	11	29	-1							

CHAPEL HILL	72.58	52.2	11	29	-2						
HALLE	72.62	345.3	11	30	-1					14	12 PP
KRAKOW	72.63	339.8	11	32	1	21	1	5		11	47 PCP
COLLMBERG	72.66	344.6	11	30	-1						
MUNSTER	72.74	348.2	11	32	0						
SUVA	72.84	170.8				21	4	6			
DE BILT	72.89	349.8	11	37	5	21	10	11		25	40 SS
RACIBORZ	72.94	340.9	11	32	-1				11 40		
TIFLIS	72.99	319.7	11	33	0						
COLUMBIA	73.23	54.7	11	14	-20					11	40 PCP
JENA	73.23	345.4	11	34	0					12	26 PP
PRAGUE	73.62	343.3	11	48K	11					15	42 PP
PRUHONICE	73.69	343.2	11	37A	0	21	18	10			
SIMFEROPOL	73.77	328.5	11	37	-1	21	13	5		26	16 SS
BENSBERG	73.79	348.3	11	33	-5					12	3
KEW	73.99	353.2	11	39	0	21	10	-1		26	6 SS
UCCLE	74.26	350.1				21	29	15			
GORIS	74.31	317.5	11	43	2					16	19 PPP
FELDBERG	74.36	347.3	11	54	13						
KASPERSKE H.	74.67	343.7	11	43K	0					14	21 PP
DOURBES	74.92	349.8	11	42	-2						
BRATISLAVA	74.98	341.1	11	37K	-7					14	39
VIENNA-H.	75.04	341.6	11	46	1					11	58 PCP
TEHERAN	75.42	312.0	11	48	1					14	43
STUTTGART	75.67	346.4	11	48	0	21	23	-7		22	15
MEDAN	75.85	256.0	11	53K	4						
STRASBOURG	76.05	347.4	11	51	0	21	40	6		14	43 PP
FOLINIERE	76.69	353.0	11	53	-1						
CHARTERS TS.	76.89	202.1	11	53	-2					13	25
ZAGREB	77.45	341.2	12	3	5						
BELGRADE	77.49	337.8	12	0	1	21	47	-2		22	6 SKS
LJUBLJANA	77.49	342.2	11	59	0					14	47 PP
BESANCON	77.58	348.4	12	8	9					12	36
TRIESTE	78.02	342.7	12	1	-1					30	11 SSS
POONA	78.15	285.1	12	1	-1						
BOMBAY	78.43	286.2	12	26	22						
PADOVA	78.56	343.9	12	10	5					17	40
SOFIA	78.83	335.0	12	6	0					13	55
ISTANBUL UN.	78.87	330.4	12	6	0	22	6	2			
ROSELEND	79.04	347.6	12	4	-3					13	19
PAVIA	79.20	345.7	12	42	34					17	27 PP
LEMBANG	79.66	242.6	12	11	1						
SHIRAZ	80.07	307.8	12	12K	-1	22	12	-5		15	10 PP
FLORENCE X.	80.25	344.0	12	12	-2	22	22	3			
ISOLA	80.47	347.1	12	16	1					14	15
MONACO	80.86	346.7	12	10	-7					16	31
ROME	81.88	342.6	12	23	1	22	32	-4		15	33 PP
BAGNERES	82.30	351.9	12	33	9						
TARANTO	82.34	338.8	13	0	35	23	10	30			
BRISBANE	82.82	194.7	12	27	0	22	52	7			
ATHENS	83.18	333.2	12	28A	-1	22	50	1			
KSARA	83.24	322.4	12	32	3					14	28
TORTOSA	84.51	351.4	12	38	2	23	10	8			
SERRA PILAR	84.67	358.3	12	37K	1					16	0 PP
MESSINA	84.88	339.4	12	36	-2	23	9	3		16	2 PP
TOLEDO	85.76	354.8	12	41	-1	23	6	-8		15	51 PP
ANGRA DO HO.	86.10	12.8				23	36	18		29	30 SS
MALAGA	88.93	354.8	12	58A	1	23	48	4		16	34 PP
RIVERVIEW	89.38	194.9	13	2	3	23	53	5		30	13
CANBERRA	91.18	196.4	13	16	8					13	37
ADELAIDE	92.94	204.6				24	27	7		30	36 SS
SAN JUAN	93.45	51.5	13	22	4						
ROXBURGH	99.65	179.9				24	29	4		32	32 SS
LWIRO	118.68	313.4								20	9 PP
LA PAZ	122.09	72.4	19	4	8					20	53 PP
WILKES	128.41	206.1	19	34	25					23	43
SCOTT BASE	132.15	180.7	19	22	6					22	39
BULAWAYO	134.51	303.2	20	1	41						
KIMBERLEY	143.60	300.5	19	2K	-34						
MAWSON	144.43	219.2	19	34K	-4				19 49		

JUNE 14 7.H 55.M 45.S EPICENTRE 54.24 169.39 DEPTH= 0.KM

A=-0.57690 B= 0.10803 C= 0.80964 D= 0.1841 E= 0.9829
G=-0.7958 H= 0.1490 K=-0.5869 HT= -7.0

SE= 2.85

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	6.51	263.5	1	35	-4						2	41	
TUKUBASAN	27.10	240.3	6	4K	18	11	7	43			6	36	
MATUSIRO	27.83	243.3	5	52	-1								
CHANGCHUN	30.25	268.2	6	11	-4	11	8	-6					
SITKA	30.60	61.9	6	22	4								
MOULD BAY	33.78	24.1	6	44	-2								
PEKING	37.95	270.4	7	19	-2	13	14	0					
ALBERNI	39.70	69.3	7	34	-2								
RESOLUTE	40.09	24.3	7	38	-1								
KHEYS	40.21	346.3	7	38K	-2	13	46	-2			9	6	PP
VICTORIA	40.88	69.5	7	45A	0								
KIPAPA	41.00	130.1	7	46	0								
PAOTOW	41.20	275.8	7	46	-2								
ZO-SE	41.27	255.9	7	48	-1	14	2	-1					
NANKING	41.93	259.1	7	52	-2								
PENTICTON	42.49	66.3	7	58A	-1								
BANFF	43.59	61.9	8	5	-3								
HAWAII V.OB.	43.98	128.2	8	11	0								
AMDERMA	45.82	332.5				15	5	-4					
UKIAH	46.81	80.0	8	32	-1								
MINERAL	46.93	77.6	8	34A	0								
CALISTOGA	47.51	80.0	8	39A	0								
LANCHOW	47.85	275.6	8	39	-2								
BERKELEY	48.22	80.6	8	56K	12								
RENO	48.50	77.2	8	46A	0								
PRIEST	50.33	81.0	9	1	0								
CHENGTU	51.58	270.5	9	9	-1	16	29	-1					
CANTON	51.87	256.2	9	15	3								
HONG KONG	52.01	254.8	9	17	4	16	43	7					
SALT LAKE C.	52.15	70.6	9	19	5								
PASADENA	53.18	81.0	9	20	-2	16	51	-1					
APATITY	54.16	340.8	9	26	-3								
RAPID CITY	54.52	62.1	9	31	-1						10	50	PCP
TROMSOE	54.58	347.8	9	29	-3								
SODANKYLA	55.55	343.5	9	36K	-3								
KIRUNA	56.07	346.4	9	39K	-4								
KUNMING	56.45	267.0	9	44	-2	17	35	-1					
KAJAANI	58.34	341.3	9	56K	-3								
TUCSON	58.79	77.2	10	2	0								
LHASA	59.90	279.7	10	8	-2								
MANHATTEN	61.47	61.9	10	19	-2	18	39	-2					
NURMIJARVI	62.19	341.2	10	23K	-3								
HELSINKI	62.45	340.8	10	24	-3								
SHILLONG	62.48	276.1	10	24K	-4								
LUBBOCK	62.85	69.7	10	28	-2								
MOSCOW	63.48	331.9	10	31	-3	18	58	-9			12	56	PP
WICHITA MTS.	63.77	66.6	10	35	-1	19	13	3			12	55	PP
UPPSALA	64.03	344.6	10	34K	-4								
CHATRA	64.25	280.6	10	37	-2								
ROLLA	64.85	59.8	10	41A	-2								
FLORISSANT	64.93	58.1	10	41	-3	19	22	-3					
ST. LOUIS 1	65.12	58.1	10	43	-2								
BLOOMINGTON	66.52	55.3	10	55	1								
SHAWINIGAN	66.62	41.7	10	52	-2								
DEHRA DUN	66.75	289.8	10	56	1								
GOTEBORG	66.92	347.0	10	53K	-3								
BREBEUF	67.15	42.8	10	59K	1				11	24			
BOKARO	67.34	279.5	11	0	1						19	49	
LAHORE	67.83	293.3	10	59	-3								
KARLSKRONA	67.89	344.5	11	3K	1								
NEW DELHI	68.56	289.2	11	6	-1								
ABERDEEN	68.73	355.0				20	15	4			24	15	SS
WARSAW	70.67	340.0	11	18	-2	20	35	2	11	27	11	50	PCP
DURHAM	71.10	354.5	11	23A	1								
HALIFAX	71.67	36.9	11	26	0								
QUETTA	72.82	297.7	11	30	-2								
HALLE	72.95	345.5	11	33	0						11	55	PCP
KRAKOW	72.96	340.0	11	32	-1	20	57	-3					
RACIBORZ	73.27	341.1	11	33	-2	21	24	21			11	57	PCP
TIFLIS	73.30	320.0	11	34	-1								

JENA	73.56	345.6	11	35	-2					14	27 PP
SIMFEROPOL	74.10	328.7	11	38	-2	21	7	-6		14	29 PP
BENSBERG	74.12	348.4	11	38	-2						
CHEB	74.27	344.8	11	45	4						
KEW	74.31	353.3	11	42	1						
UCCLE	74.58	350.2				21	31	13		21	57 SS
KASPERSKE H.	75.00	343.8	11	42K	-3					14	29 PP
TEHERAN	75.72	312.2	11	48	-1					14	48
STUTTGART	76.00	346.6	11	48	-3						
CHARTERS TS.	76.65	202.3	11	53	-1						
FOLINIERE	77.01	353.1	11	54	-2						
BELGRADE	77.82	337.9	12	4	3	21	50	-3		22	39 PPS
LJUBLJANA	77.82	342.4	12	3	2						
BESANCON	77.91	348.5	12	3	2						
TRIESTE	78.35	342.8	12	6	2						
POONA	78.35	285.4	12	10	6					15	0
MADRAS	79.12	277.0	12	12	4					22	11
SOFIA	79.16	335.2	12	5	-3						
SHIRAZ	80.35	308.0	12	12K	-3	22	12	-8		15	13 PP
BAGNERES	82.63	352.1	12	35	9						
KSARA	83.56	322.6	12	28	-3					19	23
SERRA PILAR	84.98	358.5	12	38	0					12	42 PCP
RIVERVIEW	89.12	195.1	13	3	4					23	58
SAN JUAN	93.54	51.7	13	22	3						
LWIRO	118.99	313.5								26	29
LA PAZ	122.06	72.7	19	10	13						
MAWSON	144.27	219.0	19	35K	-3				19 48		

JUNE 14 8.H 30.M 51.5 EPICENTRE 19.21 -64.95 DEPTH= 53.KM

A= 0.40010 B=-0.85614 C= 0.32701 D=-0.9060 E=-0.4234
G= 0.1385 H=-0.2963 K=-0.9450 HT= 4.9

DEPTH OF FOCUS= 0.003R

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	
SAN JUAN	1.38	233.5	0	23	0	0	42	1					
ST. KITTS	2.81	131.0	0	43A	0								
ANTIGUA	3.60	124.3	0	54A	-1	1	34	-2					
ST. CLAUDE	4.43	135.0	1	6	0	1	55	-2					
FORT FRANCE	5.75	140.2	1	25	0	2	43	13					
ST. VINCENT	6.97	149.0	1	43	1						6	53	
GRENADA	7.76	156.0	1	53	0						8	1	
BARBADOS	7.94	138.9	1	57	2								
CARACAS	8.86	192.7	2	9	1	3	41	-6					
TRINIDAD	9.17	157.5	2	14	2	3	57	2					
HOPE	11.25	265.8	2	37	-3								
FUQUENE	16.11	213.2	3	45	1								
BOGOTA	17.01	212.7	3	49	-6								
CHINCHINA	17.56	217.7	4	5	3								
COLUMBIA	20.54	319.0	4	33	-3								
CHAPEL HILL	20.78	326.1	4	27	-12								
FORDHAM	22.89	342.4	5	1	1								
PALISADES	23.04	342.5	5	2	1	9	6	2					
HALIFAX	25.36	2.3	5	25	2								
BREBEUF	27.19	346.6	5	54	14	10	45	32	6	16	7	7	PPP
BLOOMINGTON	27.27	321.5	5	46	5								
SHAWINIGAN	28.02	348.5	5	49	1								
ROLLA	29.95	314.1	6	5K	0								
HUANCAYO	32.70	199.0	6	31	2	11	48	7					
LAWRENCE	32.77	313.4	6	28	-2								
WICHITA MTS.	33.54	304.3	6	36	0	11	57	3			13	2	SCP
MANHATTEN	33.79	312.9	6	38	-1								
LA PAZ	35.62	185.2	6	56	2	12	30	4					
LUBBOCK	35.81	301.1	6	56	0								
AREQUIPA	36.02	190.7	6	56	-2								
ALBUQUERQUE	39.84	301.8	7	31	1								
RAPID CITY	40.40	316.5	7	35	1								
LARAMIE	40.94	311.5	7	40	1								
FLAMING GRGE	43.56	309.7	8	1	1								
GLEN CANYON	44.32	303.5	8	11	5								
SALT LAKE C.	45.32	308.7	8	16	2								
BOZEMAN	46.16	315.5	8	23	2								
BUTTE	47.28	315.5	8	31	1								

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

EUREKA	48.15	306.1	8 35	-1			
PASADENA	49.31	298.8	8 47	2			
SANTA LUCIA	52.63	186.0	9 11	0			
PENTICTON	52.78	317.9	9 3	-9			
VICTORIA	55.05	316.3	9 28	0			
ALBERNI	56.09	317.0	9 35	-1			
BAGNERES	59.07	50.8	9 56	-1			
GARCHY	61.29	46.0	10 5	-7			10 27
MOULD BAY	63.30	347.4	10 25	0			
ALERT	63.35	0.4	10 24	-2			
COLLMBERG	67.77	41.6	10 53	-1			
KASPERSKE H.	68.29	43.9	10 54	-3			11 40
COLLEGE	69.77	333.2	11 6	0			
KIRUNA	70.64	23.6	11 11	-1			
UMEA	70.84	27.9	11 12	-1			
SODANKYLA	73.06	23.9	11 26	0			
NURMIJARVI	73.30	31.1	11 28	1			
KAJAANI	74.07	27.2	11 32	0			
BANGUI	82.51	88.0	12 20	2	12 30		
BRISBANE	144.51	249.6	19 34	4			
RIVERVIEW	144.77	238.2	19 34	3			
CANBERRA	146.02	234.8	19 38K	5			
MELBOURNE	148.02	228.2	19 46	10			
CHARTERS TS.	150.61	263.0	19 51	11			

JUNE 14 22.H 14.M 15.S EPICENTRE 26.30 126.09 DEPTH= 10.KM

A=-0.52872 B= 0.72544 C= 0.44068 D= 0.8081 E= 0.5890
G=-0.2596 H= 0.3561 K=-0.8977 HT= 3.0

SE= 4.57

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MAWASHI	1.44	92.4	0 26K	0	0 43	-2		
ISIGAKIZIMA	2.62	221.9	0 37	-6				
ILAN	4.20	249.7	1 9	4	2 9	14		
TAIPEI	4.31	253.9	1 9	2				
HWALIEN	4.67	241.1	1 10	-2				
HSINCHU	4.86	253.2	1 21	6	2 16	4		
HSINKONG	5.34	234.4	1 22	0	2 22	-2		
TAICHUNG	5.34	247.5	1 28	7				
YUSHAN	5.44	240.0	1 35	12				
ALISHAN	5.54	241.2	1 36	12	2 31	2		
YAKUSIMA	5.68	42.2	1 24K	-2				4 7
TAITUNG	5.72	232.9	1 23	-4	2 59	26		
TAWU	6.15	231.4	1 19	-14	3 51	67		
TAINAN	6.27	239.6	1 42	8	2 57	10		
ZO-SE	6.44	319.1	1 29A	-8				
HENGCHUN	6.49	229.8	1 40	2				
KAGOSIMA	6.55	35.6	1 40A	2				4 29
HUKUE	6.81	19.9	1 46	4				4 49
NAGASAKI	7.21	26.4	1 46K	-2	4 28	77		
KUMAMOTO	7.64	30.6	1 52	-2	4 49	88		
SAGA	7.83	26.9	2 15	19	4 41	75		
ASOSAN	7.88	32.2	1 57	0				
HUKUOKA	8.15	26.1	2 0	-1	5 1	87		
OOITA	8.41	33.5	2 4K	0				5 18
NANKING	8.58	313.7	1 59	-8				
SIMONOSEKI	8.70	27.7	2 7	-1				
ASHIZURI	8.78	41.6	2 18	8				
MATUYAMA	9.49	36.1	2 29	10				6 10
KOTI	9.69	40.0	2 13	-9				3 0 PP
HIROSIMA	9.73	32.7	2 23	0				5 49
MUROTO	9.87	43.5	2 12	-13				6 33
HAMADA	10.00	29.6	2 27	1	5 49	89		
TAKAMATU	10.54	38.8	2 34	0				6 48
SIOMISAKI	11.01	47.4	3 8	28				8 11
SUMOTO	11.05	41.5	2 34	-7				
BAGUIO CITY	11.09	208.6	2 55	14				7 20
KOBE	11.45	41.0	2 50	4				
HONG KONG	11.57	252.4	2 44	-4	4 57	-1		
OSAKA	11.64	42.1	2 53	4				7 21
SAIGO	11.65	30.3	2 51	2				
OWASE	11.68	46.1	2 44	-5				8 3
ABUYAMA	11.81	41.4	2 44K	-7				

KYOTO	12.01	41.4	2 44	-10			4 34
CANTON	12.02	257.3	2 54A	0			
MANILA	12.48	203.0	3 8	8	6 18	57	
HIKONE	12.49	41.9	3 15	15			7 28
NAGOYA	12.87	44.0	3 0	-5			7 35
GIHU	12.89	42.7	3 0	-6			
HAMAMATU	13.07	47.3	3 7	-1			
OMAESAKI	13.33	48.8					4 40
IIDA	13.63	44.8	3 10	-5			8 31
SHIZUOKA	13.67	47.8					5 26
TOYAMA	14.04	39.7	3 24	3			
MISIMA	14.12	46.4	3 6	-16			
KOHU	14.19	45.8	3 17	-6			
HUNATU	14.22	46.8	3 11	-12			
MATUSIRO	14.52	42.4	3 21A	-6	6 25	16	
OIWAKE	14.60	43.8	3 23	-5			8 50
NAGANO	14.60	42.0	3 20	-8			
YOKOHAMA	14.77	48.7	3 27	-3			9 20
TOKYO C.M.O.	14.98	48.1	3 35	2			6 44
KUMAGAYA	15.01	45.9	3 31	-3			
TUKUBASAN	15.52	47.0	2 35A	-65			
UTUNOMIYA	15.57	45.6	3 35	-6			
KAKIOKA	15.58	47.2	3 33	-8			
MITO	15.86	47.2	3 41	-3	7 34	53	
NIIGATA	15.94	40.2	4 8	22			4 58
PEKING	16.00	331.3	3 42A	-4	6 47	3	6 54 SS
SIAN	16.80	302.2	3 52A	-4			
YAMAGATA	16.93	41.8	3 58	0			
CHANGCHUN	17.50	358.1	4 4A	-1	7 19	0	7 33 SS
AKITA	17.78	37.7	4 29	20			15 51
MIZUSAWA	17.97	40.9	4 12	1	7 22	-7	
MORIOKA	18.37	39.6	4 37	21	7 43	5	
MORI	19.75	33.4	4 47	15			
CHENGTU	19.88	287.7	4 29A	-5	8 12	0	4 57 PPP
SAPPORO	20.86	32.8	5 1	17	8 36	4	
KUNMING	21.07	271.9	4 43	-3	8 41	5	4 53 *SP
LANCHOW	21.34	302.5	4 46	-3	8 45	4	9 32 SS
GUAM	21.66	122.5	4 52	0			11 51
NEMURO	23.25	38.1	5 3	-5			9 19
Y.-SAKHLINSK	24.51	28.2	5 13	-7	9 26	-12	
UGLEGORSK	25.92	24.5	5 29	-5			
ULAN-BATOR	26.32	330.1	5 32A	-5	10 10	2	
IRKUTSK	30.69	333.5	6 12	-5	11 14	-4	7 26 PPP
SHILLONG	30.73	276.3	6 13A	-4	11 16	-3	
ESEN BULAK	31.02	318.1	6 14	-6	11 42	19	
LHASA	31.06	284.3	6 15	-5	11 23	-1	6 25 *SP
MEDAN	34.64	233.9	7 6	15	12 28	8	
CHATRA	34.72	279.8	6 48A	-4			
YAKUTSK	35.80	2.9	6 54	-7			
PETROPAVLOVK	36.08	33.5	6 57	-6	12 29	-13	8 23 PP
BOKARO	36.48	275.1	7 4	-3			8 44
LEMBANG	37.49	211.1	6 53A	-22	13 5	1	
RABAUL	39.46	136.4	7 29	-3			18 34
PORT MORESBY	40.97	147.3	7 41	-3			
DEHRA DUN	42.24	287.0	7 52	-3	14 17	2	17 25 SS
SEMIPALATNSK	42.37	317.1	7 50A	-6	14 9	-8	
ALMATA	43.12	306.1	7 58	-4	14 28	0	9 45 PP
NEW DELHI	43.21	284.6	7 57K	-5	14 21	-8	17 33 SS
LAHORE	45.26	289.3	8 15	-4			
TIKSI	45.39	1.2	8 9	-11			10 8 PP
KHOROG	47.07	297.7	8 29	-4			15 27 PS
WARSAK DAM	47.31	293.0	8 31	-4			
HONIARA	48.42	132.7	8 47	3			
POONA	48.64	272.1	8 45	-1			
TASHKENT	48.70	303.0	8 40	-6	15 45	-2	
CHARTERS TS.	50.10	155.0	8 54	-3			
QUETTA	51.74	288.8	9 5	-4			
SVERDLOVSK	55.03	322.4	9 28	-6	17 8	-6	20 57 SS
AMDERMA	56.77	338.0	9 40	-6	17 36	-1	
BRISBANE	59.24	152.3	10 1	-2			18 53
KOUMAC	59.52	137.8	10 2K	-3			
TEHERAN	63.32	298.6	10 32	1	19 5	3	
SHIRAZ	64.03	291.8	10 29K	-7	19 6	-4	13 0 PP
COLLEGE	64.88	28.1	10 36	-5			13 51 PP
CANBERRA	65.01	159.4	10 39	-3			
GORIS	66.25	303.7					19 41 PS
TIFLIS	66.80	306.4	10 49	-7			11 22 PCP
APATITY	66.99	335.4	10 58	3	19 42	-5	

MOSCOW	67.85	322.4	10 55	-5			13 27	PP
SODANKYLA	69.56	336.0	11 8	-3			13 31	PP
MOULD BAY	70.22	13.4	11 9	-6				
PULKOVO	70.46	327.7	11 13	-3	20 29	1	15 35	PPP
KIRUNA	71.59	337.3	11 22	-1	20 43	2	21 17	PS
HELSINKI	72.83	329.1	11 36	6				
NURMIJARVI	72.84	329.5	11 27	-3			14 3	PP
SIMFEROPOL	73.24	312.2					11 35	PCP
UMEA	73.37	333.6	11 28	-5	20 57	-4		
KSARA	76.03	300.9	11 49	0	21 32	1	14 39	PP
UPPSALA	76.29	330.5	11 46	-4	21 48	14	26 25	SS
SKALSTUGAN	76.58	335.1	11 56	4				
ISTANBUL UN.	78.21	309.9	12 3	2	21 54	0		
KARLSKRONA	79.08	327.7	12 5	-1				
GOTEBORG	79.93	330.1	12 9	-1				
SKALNATE PL.	80.11	320.1	12 10	-1			13 6	
RACIBORZ	80.83	321.6					12 19	PCP
COPENHAGEN	80.83	328.3	12 16	1				
SOFIA	81.28	313.3	12 23	6			15 39	PP
BUDAPEST	81.66	319.1	12 21	2			15 28	
ALBERNI	81.92	38.7	12 16	-5				
BRATISLAVA	82.42	320.3					15 18	PP
VIENNA-H.	82.80	320.6	12 21	-4				
PRUHONICE	82.89	322.8	12 22	-4			20 52	
PRAGUE	82.90	322.9					22 48	
COLLMBERG	82.99	324.4	12 22	-4			15 37	PP
VICTORIA	83.10	38.9	12 22	-5				
HALLE	83.42	325.0	12 24	-4			15 39	PP
ADDIS ABABA	83.67	276.9	12 35	5				
KASPERSKE H.	83.88	322.4	12 32	1			15 44	PP
JENA	83.94	324.6	12 32	1	22 51	-3	15 41	PP
PENTICTON	84.75	36.8	12 30K	-5				
LJUBLJANA	85.04	319.4	12 38	1			15 54	PP
WITTEVEEN	85.26	328.0	12 33	-5				
MUNSTER	85.32	326.9	12 34	-4				
TRIESTE	85.71	319.4	12 47	7	23 5	-6	16 0	PP
BANFF	85.77	33.7	12 36	-4				
ABERDEEN	86.14	334.6			22 10	-65	30 20	SSS
BENSBERG	86.17	326.3	12 41	-1			16 4	PP
STUTTGART	86.41	323.7	12 39	-4			15 59	PP
DE BILT	86.42	328.0					24 15	PS
STRASBOURG	87.32	324.2	12 55	7				
AQUILA	87.76	316.8	12 49	-1			34 19	
DOURBES	87.98	326.7			23 50	17		
FLORENCE X.	88.24	318.9			23 29	-6	16 13	PP
HUNGRY HORSE	88.28	35.4	12 50	-2				
TANANARIVE	88.46	248.1	12 58	5				
ROME	88.58	316.8					16 30	PP
MESSINA	88.67	312.4					13 24	
CALISTOGA	88.95	46.9	13 0A	4				
BERKELEY	89.59	47.4	13 1K	2				
RENO	90.23	44.9	12 58	-4				
LICK	90.29	47.5	13 4A	2				
FOLINIERE	91.34	327.9					16 40	
BOZEMAN	91.57	36.1	13 5	-3				
PRIEST	91.61	48.1	13 11A	3				
EUREKA	92.67	43.2	13 9	-4			16 44	PP
WILKES	93.11	186.2	13 22	7				
PASADENA	94.42	48.5	13 17	-4				
TOLEDO	99.43	323.4					32 46	SS
MALAGA	101.89	321.4					18 3	PP
WICHITA MTS.	106.02	37.1	14 13	777			18 43	PP
LA PAZ	163.57	56.4	20 4	2			20 59	PKP2

JUNE 15 6.H 30.M 45.S EPICENTRE -20.27 -70.59 DEPTH= 100.KM

A= 0.31198 B=-0.88549 C=-0.34435 D=-0.9432 E=-0.3323
G=-0.1144 H= 0.3248 K=-0.9388 HT= 4.6

DEPTH OF FOCUS= 0.011R

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
ANTOFAGASTA	3.42	177.4	0	36	-16							
LA PAZ	4.42	32.3	1	5A	-1	1	57	1				

HUANCAYO	9.35	330.2	2	12	-1	4	42	45		
SANTA LUCIA	13.12	180.2	3	11	8	5	44	17		6 20 SSS
BOGOTA	24.97	351.8	5	16A	1	9	42	13		
CHINCHINA	25.56	348.3	5	21	0	9	49	10	5 29	
FUQUENE	25.76	352.8	5	24	1					
CARACAS	30.78	7.0	6	8A	0	11	8	6		
GALERAZAMBA	31.19	351.1				11	24	15		
TRINIDAD	32.03	17.2	6	19	0					15 56
GRENADA	33.28	15.9	6	32	3					
ST. KITTS	38.16	12.2	7	10	-1					
SAN JUAN	38.66	6.8	7	13	-2					
COLUMBIA	54.87	349.4	9	22	0					
CHAPEL HILL	56.45	351.8	9	33	0					
GEORGETOWN	59.17	354.1	9	52	0					
FAYETTEVILLE	60.34	338.1	9	59	-1					
WICHITA MTS.	60.82	333.7	10	2	-1	18	21	10		12 23 PP
FORDHAM	60.88	357.1	10	4	0	18	20	8		
BLOOMINGTON	60.99	345.9	10	2	-3	18	17	4		
PALISADES	61.04	357.1	10	6	1	18	26	12		
PENNSYLVANIA	61.13	353.7	10	6A	0					
ROLLA	61.23	340.9	10	5A	-1	18	24	8		
ST. LOUIS 1	61.42	342.6	10	6	-2	18	26	7		
FLORISSANT	61.61	342.5	10	6	-3	18	26	5		
M.BOUR	62.96	61.2	10	15	-3	18	58	20		
LAWRENCE	63.29	338.6	10	19	-1					
BYRD STATION	63.47	188.5	10	19	-2	18	51	7		
LONDON ONT.	63.74	351.4	10	22A	-1					
CHICAGO USA.	63.84	345.9	10	20	-4					
MANHATTEN	63.96	337.7	10	18	-6	18	57	6		
ALBUQUERQUE	64.62	327.8	10	28	-1					
HALIFAX	64.88	5.5	10	31	1					
BREBEUF	65.51	357.7	10	34A	0				10 52	
SHAWINIGAN	66.53	358.4	10	42	1					
PASADENA	70.56	319.5	11	11	5	20	23	13		
RAPID CITY	70.65	335.7	11	7	1					
FLAMING GRGE	70.75	329.8	11	7	0					
SALT LAKE C.	71.82	328.2	11	14	1					
EUREKA	73.00	324.8	11	21	1					
PRIEST	73.41	319.6	11	25K	3					
LICK	74.79	320.0	11	18A	-1					
BOZEMAN	75.20	331.9	11	34	1					
BERKELEY	75.50	320.1	11	34A	-1	21	19	14	11 47	26 21 SS
BUTTE	76.15	331.3	11	40	2					
CALISTOGA	76.19	320.6	11	41A	3					
MINERAL	76.74	322.4	11	44	3					
SCOTT BASE	76.75	190.6	11	40	-2					
BANDEIRA	79.37	102.0	11	57A	1					
BANFF	81.33	333.3	12	6	0					
PENTICTON	81.81	330.1	12	10	1					
SERRA PILAR	83.83	42.1	12	21A	2					
MALAGA	84.29	47.6	12	23K	2	22	49	12		15 37 PP
KIMBERLEY	84.97	118.6	12	22K	-3					
GRANADA	85.07	47.6	12	26A	1	23	14	29		15 50 PP
MAWSON	85.96	163.8	12	27A	-3					12 58 *SP
TOLEDO	86.12	45.0	12	32K	2	23	10	15		15 56 PP
DUMONT	90.34	191.7	12	48	-3					
BULAWAYO	91.33	111.9	12	55	0					
FOLINIERE	92.69	38.5	13	2	1					
WILKES	93.66	180.4	13	5	-1	24	15	12		
LWIRO	98.03	95.4	13	28	2					17 13 PP
ROME	98.31	48.5								17 24 PP
AQUILA	99.11	48.3								16 18
MESSINA	99.34	52.8								17 37
KASPERSKE H.	101.36	41.8								17 47
COLLMBERG	101.67	39.6	13	44	2					
COLLEGE	102.87	334.7	13	49	2					18 0 PP
ATHENS	105.47	54.9								18 20 PP
UPPSALA	106.41	31.7				24	44	12		18 27 PP
ISTANBUL UN.	110.09	52.6								18 46
PULKOVO	112.76	32.6								24 33
SHIRAZ	128.02	67.7	18	55	1				19 21	20 42 PP
RABAUL	131.48	244.7								22 25
WARSAK DAM	143.85	59.8	19	18	-5					
GUAM	145.57	264.3	19	21	-5					
POONA	146.45	86.8	19	31K	3					
LAHORE	146.64	63.2	19	31	3					
NEW DELHI	149.60	67.9	19	36K	3					
DEHRA DUN	150.02	64.2	19	37	4					

MATUSIRO	150.08	308.9	19	40A	7				29	33	
CHANGCHUN	153.01	334.1	19	39	1						
LEMBANG	153.02	176.1	19	48K	10						
CHATRA	158.61	68.0							20	22	
PEKING	159.47	345.1	19	49	3				24	6	PP
PAOTOW	159.75	358.6	19	49	3				24	8	PP
MEDAN	160.39	146.4							20	32	
LHASA	160.93	57.1	19	50	3				24	16	PP
SHILLONG	163.01	68.6							20	42	
LANCHOW	163.53	16.1	19	53	3				24	30	PP
ZO-SF	164.88	317.9	19	54	3				24	41	PP
NANKING	165.56	326.3	19	55	3				24	40	PP
SIAN	166.07	1.7	19	55	3				24	42	PP
CHENGTU	168.56	24.1	19	56	2				24	52	PP
KUNMING	172.18	50.7	19	59	3				25	16	PP
CANTON	175.39	308.2	20	1	4				25	35	PP

JUNE 16 5.H 21.M 9.5 EPICENTRE 26.40 126.01 DEPTH= 0.KM

A=-0.52737 B= 0.72550 C= 0.44219 D= 0.8089 E= 0.5880
G=-0.2600 H= 0.3577 K=-0.8969 HT= 2.9

SE= 3.54

	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	
ILAN	4.18	248.1	1	7	0								
TAIPEI	4.28	252.4	1	9	1	2	11	12					
HWALIFN	4.66	239.7	1	12	-1	2	30	21					
TAICHUNG	5.32	246.3	1	29	6								
HSINKONG	5.35	233.1	1	8	-15								
TAITUNG	5.73	231.7	1	27	-1	2	25	-11					
TAWU	6.16	230.2	1	31	-4								
ZO-SE	6.32	319.0	1	33	-4								
HENGCHUN	6.50	228.8	1	37	-2								
HONG KONG	11.54	251.8	2	16	-33	4	57	-3					
ABUYAMA	11.78	41.9	2	48K	-4								
MANILA	12.55	202.5	3	11	8	6	11	47					
MATUSIRO	14.50	42.8	3	24	-5	6	32	21					
PEKING	15.88	331.3	3	45A	-2	6	50	6			3	57	*SP
SIAN	16.69	302.0	3	57	0	7	9	7					
VLADIVOSTOK	17.36	14.6	4	5	0						7	27	SS
CHANGCHUN	17.40	358.3	4	5	-1								
PAOTOW	19.39	320.8	4	28	-2								
CHENGTU	19.79	287.5	4	32	-3								
KUNMING	21.00	271.7	4	45K	-2								
NHATRANG	21.19	231.4	4	59	10								
LANCHOW	21.23	302.3	4	48A	-2	8	46	4					
GUAM	21.77	122.6	4	53	-2	8	57	5					
SHILLONG	30.65	276.1	6	21K	3								
ESEN BULAK	30.90	318.0	6	17	-4	11	27	2					
LHASA	30.97	284.2	6	24	3								
CHATRA	34.64	279.6	6	57K	4								
MEDAN	34.65	233.7	6	44	-9								
YAKUTSK	35.70	3.0									13	23	PCS
TANGERANG	37.44	212.9	7	16	-1								
LEMBANG	37.54	210.9	7	15	-3								
RABAUL	39.58	136.4	7	38	3								
PORT MORESBY	41.08	147.2	7	47A	0								
DEHRA DUN	42.15	286.8	7	58	2								
NEW DELHI	43.12	284.5	8	3A	-1								
FRUNSE	44.66	305.1	8	19A	3								
TIKSI	45.30	1.3	8	18	-3						10	1	PP
KHOROG	46.96	297.6	8	38	3								
WARSAK DAM	47.22	292.9	8	39	2								
TASHKENT	48.59	302.9	8	51	4								
CHARTERS TS.	50.21	155.0	8	59	-1						9	24	
QUETTA	51.65	288.7	9	13	2								
SVERDLOVSK	54.92	322.4	9	31A	-4								
AMDERMA	56.65	338.0	9	40	-7								
BRISBANE	59.36	152.3	10	10	4						25	23	
ADELAIDE	62.21	168.2	10	29	3								
SHIRAZ	63.93	291.7	10	38	1						13	0	PP
COLLEGE	64.82	28.1	10	44	1								
CANBERRA	65.12	159.4	10	41	-4								
GORIS	66.15	303.7	10	54	3								

TIFLIS	66.69	306.3	10	58	3							
APATITY	66.87	335.3	10	55	-1							
MOSCOW	67.73	322.3	11	3	1							
SODANKYLA	69.44	335.9	11	10	-2							
KAJAANI	70.11	332.5	11	16	0							
MOULD BAY	70.14	13.4	11	18	2							
KIRUNA	71.48	337.3	11	21	-3							
NURMIJARVI	72.73	329.5	11	33	1							
KSARA	75.92	300.9	11	51	1							
UPPSALA	76.18	330.4	11	50	-2							
SKALSTUGAN	76.47	335.1	11	55	2							
KARAPIRO	79.06	142.2	12	5	-3							
GOTEBORG	79.81	330.1	12	24	12							
NIEDZIKA	79.84	320.3									12	27
COPENHAGEN	80.72	328.3									12	33
COLLMBERG	82.87	324.4	12	37	9						15	41
KASPERSKE H.	83.77	322.4	12	45	13							
PENTICTON	84.71	36.8	12	40	3							
AQUILA	87.64	316.8									20	21
ROME	88.46	316.8									20	23
MINERAL	88.62	45.0	12	57K	1							
BUTTE	90.49	36.5	13	9	4							
BOZEMAN	91.53	36.1	13	7	-3							
EUREKA	92.64	43.2	13	19	4						17	2 PP
PASADENA	94.41	48.5	13	27	4							
WICHITA MTS.	105.98	37.0									18	47 PP
LA PAZ	163.57	56.0	20	15	11							

JUNE 17 4.H 27.M 38.S EPICENTRE -40.17 45.93 DEPTH= 0.KM

A= 0.53301 B= 0.55054 C=-0.64250 D= 0.7185 E=-0.6956
G=-0.4469 H=-0.4616 K=-0.7663 HT= -1.7

SE= 1.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KERGUELEN I.	19.38	126.3	4	30	0	8	18	15				
PRETORIA	20.64	308.8	4	43K	-1							
TANANARIVE	21.22	4.2	4	50	0	8	47	5			5	23 PP
HERMANUS	21.96	276.7									8	53 PCP
BULAWAYO	24.87	318.3	5	25A	-1							
BROKEN HILL	29.83	324.3	6	9A	-2							
MIRNY	37.09	150.9	7	14	0	13	4	4				
BANDEIRA	37.98	302.1	7	21A	0						8	52
LWIRO	40.82	333.2	7	45A	0						9	23 PP
WILKES	43.90	148.3	8	10	0	14	42	0				
ADDIS ABABA	49.40	350.7	8	54	1	16	10	10				
BANGUI	50.94	323.9	9	5A	0	16	25	3				
DUMONT	55.42	151.2	9	37	-1							
MUNDARING	56.06	105.3	9	43	0							
SCOTT BASE	56.99	167.5	9	50	0							
BYRD STATION	59.78	182.9	10	10	1							
LEMBANG	64.10	76.4	10	38A	0							
SHIRAZ	69.73	6.1	11	12A	-2						11	53
ADELAIDE	70.37	119.4	11	17	-1							
QUETTA	72.66	19.0	11	32	1							
KSARA	74.20	351.3	11	41K	1	21	34	20				
NEW DELHI	74.32	28.3	11	57A	16							
TEHERAN	75.70	4.6	11	48	-1							
CANBERRA	76.82	125.1	11	56	1							
CHATRA	76.91	37.2	11	57K	1							
WARSAK DAM	77.50	21.6	11	59	0							
SHILLONG	78.14	41.5	12	1A	-2							
VANNOVSKAYA	78.54	9.8	12	4	-1							
ASHKABAD	78.57	10.0	12	5	0							
RIVERVIEW	79.13	125.1	12	6	-2							
GORIS	79.29	0.3	12	6K	-3							
DUZHANBE	81.10	17.9	12	19	0							
TIFLIS	81.51	359.1	12	21	0							
ISTANBUL UN.	82.28	347.2	12	25	0	22	42	2				
MESSINA	82.81	336.3	12	29	2	22	47	1				
TASHKENT	83.84	17.5	12	32	-1							
ANDIJAN	84.06	19.9	12	36	2							
TARANTO	84.40	338.4				23	31	30			13	36
BRISBANE	84.46	121.2	12	38	2						35	22
CHARTERS TS.	84.82	111.8	12	38	0							

ROME	87.14	335.7	12	51K	2	23	33	5			24	33	PS
AQUILA	87.27	336.5	12	51	1						20	40	
BELGRADE	87.65	342.2	12	5%	1						13	0	PCP
KISHINEV	88.13	348.4	12	52	-2								
FLORENCE X.	89.23	335.7	12	45	-14						23	34	
GRANADA	89.39	322.6	12	45K	-15								
MALAGA	89.39	321.8									16	30	PP
TRIESTE	90.17	338.1	13	5	1								
LJUBLJANA	90.32	338.7	13	4A	0								
MONACO	90.45	333.2	13	6	1						21	9	
BUDAPEST	90.49	342.1	13	4	-1						14	12	
UZHGOROD	90.86	344.6	13	7	0								
ISOLA	90.97	333.1	13	8	1						20	22	
BRATISLAVA	91.60	341.2	13	12	2								
KASPERSKE H.	93.39	339.4	13	18	0						14	16	
STUTTGART	94.30	336.7	13	22	-1								
COLLMBERG	95.53	339.9	13	29	1								
MOSCOW	95.79	355.3	13	28	-1								
LA PAZ	96.79	241.9	13	38	4								
BENSBERG	96.88	336.5									17	29	
DURHAM	102.93	334.0	14	10K	8								
BREBEUF	136.26	297.7	19	29K	5								
RESOLUTE	141.02	344.5	19	36	4								
MOULD BAY	143.26	354.2	19	28	-8								
BLOOMINGTON	143.72	284.2	19	34	-3								
CHICAGO JSA.	145.27	288.3	19	34	-6								
ST. LOUIS 1	146.34	281.8	19	44	2								
FLORISSANT	146.49	282.0	19	43	1								
ROLLA	147.38	279.8	19	47	4								
LAWRENCE	150.21	280.4	19	48	0								
MANHATTEN	151.27	280.3	19	52	3								
WICHITA MTS.	151.43	270.4	19	52	2						23	25	PP
COLLEGE	154.00	13.4	20	1	8								
ALBUQUERQUE	157.54	265.4	20	0	2								
TUCSON TELE.	159.65	254.8	20	7	7						25	12	PP
TUCSON	159.69	254.4	20	6	5						25	13	PP
BANFF	163.06	316.6	20	54	50								
EUREKA	166.07	273.0	20	18	11						25	10	PP
PENTICTON	166.27	316.5	19	58	-9								
MINERAL	170.46	275.1	20	21	11								

JUNE 17 4.H 39.M 39.5 EPICENTRE 33.74 75.83 DEPTH= 88.KM

A= 0.20397 B= 0.80795 C= 0.55283 D= 0.9696 E=-0.2448
G= 0.1353 H= 0.5360 K=-0.8333 HT= 0.6

DEPTH OF FOCUS= 0.009R

SE= 3.39

	DELTA DEG.	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	2.52	210.5	0	28K	-12	0	55	-15					
WARSAK DAM	3.57	275.4	0	51A	-3								
DEHRA DUN	3.90	150.5	0	45	-14								
NEW DELHI	5.28	166.8	1	4K	-14	2	11	-7			1	14	PP
QUETTA	8.34	247.2	1	49	-11	3	23	-10					
ALMATA	9.56	4.9	2	19	3						5	18	
SEHORE	10.59	173.7	2	16	-14	4	0	-27			2	21	PP
CHATRA	11.97	122.1	2	40	-9	4	44	-17					
BOKARO	13.18	135.9	3	4	0	5	3	-26			3	14	PP
LHASA	13.58	103.4	3	2	-8	5	26	-13					
ASHKABAD	14.79	291.5	3	22	-3								
BOMBAY	15.02	191.1	3	13	-15	5	50	-23			6	17	
POONA	15.25	187.2	3	16A	-15	6	5	-13			6	17	SS
SHILLONG	16.13	116.1	3	29A	-13	6	15	-23					
HYDERABAD	16.41	171.1				6	10	-34			8	26	
SEMIPALATNSK	16.96	9.7	3	51	-2						7	12	
VISHAKHAPTNM	17.30	155.4	4	7	10	7	34	30			7	58	SS
ESEN BULAK	20.03	44.8	4	27A	-1	8	18	15					
TEHERAN	20.18	282.6	4	28	-1								
SHIRAZ	20.24	264.7	4	35	5				5	0	6	20	PP
MADRAS	21.02	168.1	4	27	-11	8	4	-18			4	44	PP
LANCHOW	23.05	76.3	4	56	-2	9	9	11					
CHENGTU	24.01	89.6	5	4A	-3	9	18	3					
KUNMING	24.91	103.0	5	12A	-4	9	33	3					
SVERDLOVSK	25.33	340.3	5	21K	1								

TIFLIS	25.70	297.1	5	24	1	9	55	12		
ULAN-BATOR	27.23	49.3	5	39	2	10	35	27		
SIAN	27.37	79.6				10	41	31		
IRKUTSK	27.60	39.2	5	42	1					
PAOTOW	27.97	65.9	5	44	0					
PEKING	32.66	67.1	6	24	-1					
KSARA	33.06	281.5	6	29	0					
SIMFEROPOL	33.80	301.9	6	35	0					
MOSCOW	34.28	321.6	6	40	1	12	6	7	7	57 PP
AMDERMA	36.93	351.9	7	1	-1					
ZO-SE	38.14	81.1	7	10	-2	12	30	-28		
PULKOVO	39.44	325.4	7	25	2				8	56 PP
APATITY	41.69	337.1	7	43K	2					
HELSINKI	42.12	324.7	7	46	1				9	22 PP
KAJAANI	42.18	330.8	7	46	1					
NURMIJARVI	42.36	325.1	7	48A	1				9	39 PCP
SODANKYLA	43.91	335.0	8	1A	2					
UPPSALA	45.66	323.1	8	13	0					
KIRUNA	46.29	334.4	8	19A	1					
KARLSKRONA	46.40	317.9	8	18A	-1					
TIKSI	46.91	20.3	8	23	0				9	55 PCP
PRUHONICE	47.10	309.4	8	25	1				11	2
TROMSOE	47.38	336.5	8	28	1					
KHEYS	47.51	356.1	8	30	2					
LJUBLJANA	47.52	304.1	8	28A	0				9	57
KASPERSKE H.	47.80	308.3	8	30A	0				10	25
COLLMBERG	48.00	311.3	8	30	-1				12	46
MESSINA	48.25	293.5	8	32	-1	15	36	11		
HALLE	48.64	311.6	8	34	-2				11	5
SKALSTUGAN	48.67	327.8	8	37	0					
JENA	48.92	310.9	8	38	-1				10	17 PP
MATUSIRO	50.29	68.1	8	47	-2				10	45 PP
STUTTGART	50.66	308.3	8	52	0				19	6 SS
HEIDELBERG	50.93	309.2	8	53	-1					
STRASBOURG	51.68	308.3							9	21
BENSBERG	51.68	311.3	9	1	1					
ROSELEND	53.01	304.9	9	9	-1					
DOURBES	53.45	310.6	9	13	0					
MAGADAN	54.14	37.4	9	16	-2					
GARCHY	55.04	307.5	9	23	-1					
KEW	56.21	313.1	9	33K	0					
LWIRO	56.91	240.8	9	36	-2					
FOLINIERE	56.97	309.9	9	37	-1					
BAGNERES	58.18	303.3	9	46	-1					
BANGUI	60.53	254.3	9	58	-5	10	8			
SIDA	61.95	329.9	10	15	3					
TOLEDO	62.24	301.1	10	14A	0				13	21 PP
ALMERIA	62.25	297.4	10	13K	-1				10	50 PCP
THULE	67.81	351.4	10	49	-1				11	47
MOULD BAY	69.88	3.8	11	3A	0					
BULAWAYO	69.97	227.2	10	59	-4					
RESOLUTE	71.68	357.4	11	15	1					
COLLEGE	75.97	17.7	11	39	0				12	4
BANDEIRA	76.67	241.8	11	41K	-2					
CHARTERS TS.	85.78	117.4	12	28	-2					
ADELAIDE	90.20	133.0	12	49	-2					
SHAWINIGAN	95.21	338.8	13	17A	3					
WICHITA MTS.	111.70	355.1	18	25	1				19	4 PP
LA PAZ	143.37	288.9	19	26	2					
HUANCAYO	145.97	302.5	19	33	5					

JUNE 18 23.H 42.M 38.S EPICENTRE -4.96 151.98 DEPTH= 103.KM

A=-0.87949 B= 0.46810 C=-0.08587 D= 0.4698 E= 0.8828
G= 0.0758 H=-0.0403 K=-0.9963 HT= 7.0

DEPTH OF FOCUS= 0.011R

SF= 2.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PABAUL	0.78	14.4	0	19A	0							
PORT MORESBY	6.51	227.1	1	36A	1	2	50	2				
HONIARA	9.07	119.8	2	8K	-1	3	52	2				
CHARTERS TS.	16.04	199.8	3	44K	4	6	40	5				
KOUMAC	19.58	143.4	4	17K	-5	8	39	47				

GUAM	19.66	338.6	4	23A	0	8	5	11	4	41			
PORT VILA	20.41	129.7	4	31K	0	8	14	6					
NOUMEA	22.20	142.3	4	48K	-1	8	51	10					
BRISBANE	22.32	178.1	4	52	2						9	19	
RIVERVIEW	28.74	181.4	5	50A	0	10	30	0	5	57	10	49	*SS
CANBERRA	30.34	184.8	6	3K	-1	10	58	3	6	11	9	1	PCP
ADELAIDE	32.28	200.6	6	20A	-1	11	22	-4			9	6	PCP
MELBOURNE	33.34	190.1	6	31	1	11	47	5					
MANILA	36.31	302.9	6	57	2	12	14	-14					
AFIAMALU	36.80	106.6	7	0	1								
TARRALEAH	37.50	186.7	7	6A	1								
MOORLANDS	37.56	185.8	7	7A	1								
BAGUIO CITY	37.62	305.0	7	5	-1						15	42	
KARAPIRO	39.22	150.0	7	21	2						9	27	PCP
CHATEAU	40.21	151.2	7	29	1						9	26	PCP
WELLINGTON	41.52	153.9	7	38	0	13	37	-9					
ABUYAMA	42.52	339.9	7	45A	-2								
GEBBIES PASS	42.68	157.8	7	48	0								
MUNDARING	42.92	226.8	7	48	-2	14	8	1					
PERTH	43.18	227.1	7	53	1	14	10	0			9	38	PP
MATUSIRO	43.24	343.8	7	50A	-3								
LEMBANG	44.15	265.3	7	59A	-1						13	35	
DJAKARTA	44.94	266.2	8	2	-4						14	2	
TANGERANG	45.14	266.2	8	6	-2						13	48	
NHATRANG	45.81	292.2	8	13	0								
HONG KONG	45.84	307.7	8	15	2	14	53	4	8	40	9	47	PCP
ZO-SE	46.37	322.6	8	18A	1	14	57	1	7	43	15	42	*SS
CANTON	46.91	308.1	8	23A	1						8	59	*SP
NANKING	48.51	321.6	8	35A	1	15	29	3	9	1	10	27	PP
Y.-SAKHLINSK	52.40	352.0	9	9	5								
CHANGCHUN	54.19	336.4	9	15	-2	16	39	-5	9	43	10	19	PCP
HONOLULU	55.45	60.0	9	26	0	17	8	7			12	40	PPP
KIPAPA	55.56	59.9	9	27A	0								
PEKING	55.57	327.0	9	26A	-1	17	0	-3	9	52	10	25	PCP
SIAN	56.29	317.2	9	32A	0	17	11	-1			18	1	*SS
KUNMING	56.39	304.5	9	35A	2	17	18	5	10	0	11	38	PP
HAWAII V.OB.	57.27	63.3	9	39	0	17	31	6					
CHENGTU	57.91	310.9	9	43A	0	17	33	0	10	10	10	31	PCP
PETROPAVLOVK	58.04	4.7	9	42	-2	17	37	2					
LANCHOW	60.76	316.2	10	4A	1	18	13	3	10	31	10	41	*SP
DUMONT	62.16	185.4	10	11	-1						25	55	
MAGADAN	64.31	359.3	10	25	-2						19	44	
CHITTAGONG	64.76	297.4	10	30	1	19	0	0	10	39	12	55	PP
SHILLONG	65.69	300.8	10	34K	-2	19	10	-2					
ULAN-BATOR	65.81	328.5	10	36A	0	19	13	0					
WILKES	67.67	196.8	10	46A	-2	19	32	-3	11	5	12	29	
LHASA	67.72	304.7	10	49A	1	19	37	1			13	22	PP
YAKUTSK	68.95	349.0	10	55	-1	19	49	-2					
IRKUTSK	69.84	331.1	11	1A	0	20	5	4					
CHATPA	70.10	300.7	11	2A	-1								
BOKAPO	70.49	297.3	11	13	8								
ESEN BULAK	70.96	322.8	11	9A	1				11	37			
SCOTT BASE	73.26	176.8	11	22	0								
MIRNY	73.49	201.0	11	22	-1								
DEHRA DUN	78.73	302.1	11	52	0	21	37	-3			23	6	
NEW DELHI	79.09	300.2	11	50A	-4	21	37	-7					
POONA	80.36	289.6	12	1A	0								
SEMIPALATNSK	82.30	322.2	12	11A	0						17	26	PP
COLLEGE	82.31	22.0	12	10A	-1				12	35	12	46	*SP
ALMATA	82.57	314.6	12	15A	2								
FRUNSE	84.13	313.8	12	20	-1	22	36	1					
SITKA	84.84	31.6	12	24	0								
WARSAK DAM	84.84	304.7	12	23	-1								
SOUTH POLE	85.07	180.0	12	25	0								
MAWSON	85.10	202.6	12	24K	-1				12	39	15	42	PP
ANDIJAN	85.37	311.4	12	28	1				13	4			
KHOROG	85.44	308.1	12	28	1								
DUZHANBE	87.76	308.8	12	39A	1								
TASHKENT	87.77	311.6	12	39A	1						23	13	SKKS
QUETTA	88.17	300.3	12	40	0	23	15	1			23	3	SKS
ALREPNI	89.29	40.6	12	45	-1								
BERKELEY	89.67	52.1	12	49A	2	23	11	-17					
LICK	90.10	52.7	12	58A	9								
VICTORIA	90.11	41.4	12	48	-1								
MINERAL	90.45	49.7	12	52A	1								
RENO	91.74	50.6	12	59	2	23	26	-20					
PASADENA	92.63	56.1	13	3	2	23	29	-25	13	30			
PENTICTON	92.68	40.9	13	1K	0								
MOULD BAY	94.47	13.9	13	7	-2								

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

EUREKA	94.70	50.9	13	11A	0						30	6	PKKP
AMDERMA	94.72	339.6	13	9A	-2								
BANFF	95.39	39.2	13	12	-2								
BOULDER CITY	95.47	54.4	13	16K	2								
KHEYS	95.50	350.5	13	11A	-3	23	40	1					
ASHKABAD	95.88	307.5	13	15	-1						26	8	PS
VANNOVSKAYA	96.07	307.5	13	15	-2						17	14	PP
HUNGRY HORSE	96.33	42.0	13	17A	-1								
BUTTE	97.33	44.4	13	22A	-1								
SALT LAKE C.	97.89	49.7	13	25A	0				13	43			
GLEN CANYON	98.10	53.5	13	29	3	24	1	8					
BOZEMAN	98.40	44.7	13	29A	2								
FLAMING GRGE	99.75	49.5	13	32K	-2				14	0			
SHIRAZ	100.65	299.1	13	36	-2	14	5	-1	14	0	17	34	PP
RESOLUTE	100.77	14.4	13	37	-1						18	2	
TEHERAN	101.47	305.3	13	40	-1				13	46			
ALBUQUERQUE	102.30	55.5	13	47A	2								
RAPID CITY	104.08	45.9	13	53K	0								
APATITY	105.20	339.5	13	54	777						18	11	PP
GORIS	105.21	309.5	13	56A	777								
TIFLIS	106.09	311.9	14	1	777	24	34	3					
EREVAN	106.52	310.3	17	38	777								
SODANKYLA	107.59	340.7	18	15	777						18	38	PP
MOSCOW	107.65	327.3	14	7	777						18	38	PP
WICHITA MTS.	108.77	55.1	18	20	777	24	51	9			21	44	SKP
KAJAANI	108.89	337.4	18	18	777						18	46	PP
KIRUNA	109.28	342.5	18	18	777	25	27	43			28	13	PS
MANHATTEN	109.70	50.2	18	40	777								
PULKOVO	109.79	332.8	18	19	777						26	19	
UMEA	111.79	339.1									19	3	PP
NURMIJARVI	111.93	334.9	18	24	1						19	7	PP
HELSINKI	111.97	334.5	18	24	1						19	7	PP
SIMFEROPOL	113.02	317.0	18	17	-8						28	50	
ADDIS ABABA	113.65	277.6	18	30	4								
SCORESBY SD.	114.45	357.8	18	29	1								
SKALSTUGAN	114.63	341.4	18	29	1								
UPPSALA	115.19	336.5	18	29	0						19	23	PP
KISHINEV	115.81	320.5	18	31	1						29	8	
ISTANBUL UN.	117.81	314.2	18	35K	1						29	32	
KARLSKRONA	118.34	334.0	18	33	-2								
GOTEBORG	118.83	336.8	18	36	0								
BULAWAYO	119.04	243.8	18	37	0								
UZHGOROD	119.09	324.2	18	48	11								
SKALNATE PL.	120.00	325.6	18	43	5								
RACIBORZ	120.65	327.3	18	42	2								
BROKEN HILL	120.77	250.1	18	41	1								
MORGANTOWN	121.94	45.8	18	44K	2								
BELGRADE	122.03	321.1	18	44	2						20	15	
COLLMBERG	122.60	330.7	18	44	1						22	50	PP
PRUHONICE	122.63	328.8	18	44	1						30	16	
VIENNA-H.	122.66	326.3	18	45	1								
ATHENS	122.69	312.5	18	44K	0						20	26	
LWIRO	122.78	264.1	18	46A	2						20	24	PP
PENNSYLVANIA	122.93	43.7	18	45A	1								
HALLE	122 98	331.4	18	45	1						20	30	PP
SHAWINIGAN	123.40	35.6	18	46A	1								
BREBEUF	123.46	37.0	18	46A	1								
JENA	123.52	331.1	18	45	0						20	25	PP
KASPERSKE H.	123.65	328.4	18	45	0						20	32	PP
MUNSTER	124.64	334.0	18	49	2								
LJUBLJANA	124.95	324.9	18	48	0								
FELDBERG	125.48	332.0	18	52	3								
PALISADES	125.52	41.9	18	50	1								
BENSBERG	125.55	333.4	18	50A	1				19	9			
DE BILT	125.58	335.5	18	48	-1								
HEIDELBERG	125.91	331.1	18	52	2								
STUTTGART	126.06	330.3	18	50A	0						20	48	
RAVENSBURG	126.55	329.2	18	51	0								
PADOVA	126.83	325.6									19	42	
UCCLE	126.89	334.9	18	55	3								
STRASBOURG	126.93	330.9	18	52	0						19	14	
DOURBES	127.31	334.1	18	54	2								
AQUILA	127.69	321.7	18	41	-12						21	3	
FLORENCE X.	128.16	324.3	18	50	-4						21	4	PP
KEW	128.22	338.3	18	56	2								
MESSINA	128.43	316.1	18	55A	0	26	14	23			21	2	PP
ROME	128.51	321.7	18	56A	1						21	3	PP
BESANCON	128.72	330.8	18	56	1								

CHIAVARI	128.93	326.0				25	16	-36			21 44 PP
PARIS	129.19	334.3	18	58A	2						23 13
ROSELEND	129.47	328.9	18	58	1						22 10 PP
HUANCAYO	130.02	110.1	19	3	5						
GARCHY	130.08	332.6	18	59A	1						20 12 PP
ISOLA	130.26	327.2	18	59	1						22 12
MONACO	130.35	326.5	18	59	1						22 13 PP
FOLINIERE	130.45	336.3	18	59	0						
BANGUI	133.51	271.3	18	53	-11						21 26 PP
BANDEIRA	134.53	243.6	18	52A	-14				19	9	22 30 SKP
LA PAZ	134.98	119.1	19	8	1						22 35 PKS
ALICANTE	138.39	326.8	19	19	6						22 49 PKS
SAN JUAN	140.49	67.1	19	14A	-3						22 17 PP
ALMERIA	140.56	327.0	19	11A	-6						22 18 PP
COIMBRA	140.73	336.1	19	12	-6						
GRANADA	140.91	328.4	19	24	6						22 52 PP
CARACAS	141.08	79.5	19	13K	-5						22 54 PP
MALAGA	141.68	328.7	19	14A	-5						22 48 PKS
LISBON	142.28	335.6	19	40	20						
GRENADA	145.96	75.9	19	27	0						
ST. VINCENT	146.21	73.8	19	28	1						19 57
ANGRA DO HO.	146.46	358.9	19	32K	4						19 34 PKP2
TRINIDAD	146.47	78.3	19	30K	2						
M.BOUR	165.64	311.5	19	55	3						24 40 PP

JUNE 19 16.H 39.M 22.S EPICENTRE -20.90-177.82 DEPTH= 414.KM

A=-0.93429 B=-0.03557 C=-0.35472 D=-0.0380 E= 0.9993
G= 0.3545 H= 0.0135 K=-0.9350 HT= 4.5

DEPTH OF FOCUS= 0.060R

SE= 1.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
AFIAMALU	9.03	40.6	2	7	-1	3	46	-3				
PORT VILA	13.46	281.2	3	0A	2							
NOUMEA	14.70	261.7	3	11A	0							
ONERAHI	16.32	203.2	3	29	1	6	23	8			4	59
KOUMAC	16.75	268.0	3	32A	0							
KARAPIRO	17.91	197.3	3	44	0							
TUAI	18.35	192.6	3	47	-1	7	0	8			7	23
CHATEAU	19.11	195.9	3	54	-1	7	9	3				
TARATA	19.42	198.5	4	1	3							
WELLINGTON	21.26	195.5				7	48	6				
KAIMATA	23.37	200.4				8	23	6				
GEBBIES PASS	24.08	197.1				8	33	4				
BRISBANE	27.55	250.7	5	12	-1						5	47
RIVERVIEW	30.29	238.3	5	37	0							
CANBERRA	32.43	236.6	5	55K	0							
CHARTERS TS.	33.61	264.9	6	5	0						8	35
PORT MORESBY	35.61	283.4	6	22K	0							
MELBOURNE	36.27	234.0	6	28	0						12	28
FORT NELSON	36.45	224.9	6	29	0							
ADELAIDE	40.56	240.3	7	2A	-1							
MUNDARING	59.30	244.5	9	20K	-2							
BYRD STATION	64.22	170.5	9	54	0							
SOUTH POLE	69.22	180.0	10	25	0							
MATUSIRO	70.63	323.7	10	33K	-1							
LEMBANG	73.20	269.0	10	48	-1							
CHINA LAKE	80.17	45.7	11	28	1						13	7
CHANGCHUN	82.82	322.3	11	40	-1							
EUREKA	83.29	43.4	11	44	1							
PEKING	86.29	315.3	11	58	0							
PENTICTON	86.90	33.8	12	1	1							
COLLEGE	88.57	12.3	12	8	0				13	49		
SIAN	88.60	307.5	12	9K	0							
KUNMING	89.68	297.0	12	15	1							
WICHITA MTS.	93.28	54.2	12	30	0				14	13		
SODANKYLA	131.03	347.7	18	23	-1						21	9 SKP
KAJAANI	133.58	344.8	18	27	-1							
SHIRAZ	133.95	291.4	18	30	1						21	19
BROKEN HILL	136.40	218.5	18	23	-11							
NURMIJARVI	137.37	343.8	18	25	-10						21	27 SKP
HELSINKI	137.57	343.3	18	35	-1						21	28 SKP

UPPSALA	139.56	348.0	18	32	-7					
KARLSKRONA	143.40	347.4	18	41	-6					
LWIRO	145.22	231.7	18	52	2					
KSARA	147.58	300.5	18	59	6					
SKALNATE PL.	148.31	337.2	19	4	10					
COLLMBERG	148.50	347.0	18	59K	5				20	50
HALLE	148.52	348.3	18	59	5					
JENA	149.14	348.4	19	0	5					
PRUHONICE	149.37	344.2	19	1K	5					
BENSBERG	149.75	353.7	19	2	6					
BRATISLAVA	150.26	339.7	19	5K	8					
KASPERSKE H.	150.40	344.8	18	57	0			20	52	
DOURBES	150.80	356.8	19	5	7					
LJUBLJANA	152.96	340.9	19	2	1				19	10 PKP2
RANGUI	157.08	226.4	19	11	4				19	40

JUNE 20 6.H 16.M 29.S EPICENTRE -6.92 127.17 DEPTH= 320.KM

A=-0.59984 B= 0.79112 C=-0.11966 D= 0.7968 E= 0.6042
G= 0.0723 H=-0.0954 K=-0.9928 HT= 6.9

DEPTH OF FOCUS= 0.045R

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
DARWIN	6.52	146.7	1	33	-3	6	56	4				
LEMBANG	19.41	269.1	4	2	-2	7	20	-1				
PORT MORESBY	19.93	98.5	4	12	3							
DJAKARTA	20.22	270.9	4	27	15	7	27	-9				
TANGERANG	20.42	270.9	4	15	1	7	39	0				
MANILA	22.28	344.3	4	43	11	8	23	12				
CHARTERS TS.	22.68	127.1	4	37	2	8	16	-2				
NHATRANG	26.08	316.7	5	6	-1							
ADELAIDE	29.87	160.7	5	40A	0						6	49 PP
BRISBANE	31.70	133.0	6	1	5						12	56
CANTON	32.75	336.0	6	4K	-1							
CANBERRA	34.66	147.7	6	22K	1				7	25	7	53 *SP
RIVERVIEW	34.77	143.6	6	24K	2						11	44
ZO-SE	38.23	351.7	6	51K	0	12	16	-5				
NANKING	39.58	348.8	7	3K	1							
KUNMING	39.74	324.1	7	5K	1	12	40	-4				
ABUYAMA	42.31	10.3	7	25K	1							
CHENGTU	43.46	330.5	7	32K	-2	13	29	-8				
SIAN	44.44	338.3	7	40K	-1	13	45	-6				
MATUSIRO	44.45	12.7	7	41K	0	13	43	-9				
SHILLONG	47.12	314.6	8	2	0							
PEKING	47.81	348.6	8	6	-1	14	31	-8				
CALCUTTA	47.95	308.7				14	36	-4				
LANCHOW	48.04	334.4	8	9	0	14	38	-4	9	31		
VISHAKHAPTNM	49.76	300.1				14	41	-25			14	25
PANTOW	49.83	342.9	8	21	-2							
LHASA	50.27	318.1	8	26K	0	15	7	-6				
CHANGCHUN	50.54	358.3	8	26	-2							
CHATRA	51.25	312.6	8	32A	-1						11	27
KARAPIRO	53.50	132.7	8	50	0						9	17
Y.-SAKHLINSK	55.45	12.9	9	3K	-1							
ULAN-BATOR	57.46	344.0	9	17K	-1	16	44	-5				
POONA	58.34	296.6									13	30
NEW DELHI	59.69	308.7	8	33	-60							
ESEN BULAK	59.80	335.7	9	32K	-2	17	14	-5				
LAHORE	63.28	310.4	9	16	-41							
PETROPAVLOVK	65.41	20.3	10	11K	1							
WARSAK DAM	66.47	311.6	10	16K	-1							
ALMATA-2	67.27	322.8	10	23	1							
KHOROG	68.08	314.9	10	26	-1							
QUETTA	68.46	306.1	10	19	-10				11	51		
YAKUTSK	68.76	1.3	10	31K	0	19	3	-5				
ANDIJAN	69.08	318.3	10	31K	-2							
SEMIPALATNSK	70.00	330.2	10	37	-2							
TASHKENT	71.41	317.7	10	46K	-1							
SCOTT BASE	73.80	171.9	10	57	-4							
MAWSON	74.00	201.1							11	0	12	25 PP
TANANARIVE	78.00	252.2	11	26	1							
VANNOVSKAYA	78.05	311.0	11	23	-2							
TIKSI	78.39	0.6	11	24K	-3							

SHIRAZ	80.22	301.6	11	35K	-1	21	5	-8	11	48	*5P
SOUTH POLE	83.13	180.0	11	49	-2						
SVERDLOVSK	83.26	329.5	11	50A	-2						
BYRD STATION	87.17	170.8	12	9	-2				13	38	
AMDERMA	88.22	341.5	12	13	-3						
TIFLIS	88.89	312.1	12	19K	0	22	33	-4			
COLLEGE	94.09	25.2	12	41	-2				16	4	PP
KAJAANI	100.32	333.9	13	8	-4						
SODANKYLA	100.41	337.2	13	9	-3						
CHINA LAKE	114.44	53.9	18	2	0						
EUREKA	115.02	49.6	18	4	1						
FLAMING GRGE	119.51	46.6	18	12	0						
ALBUQUERQUE	123.50	52.5	18	20	1						
MANHATTEN	129.24	43.9	18	30	0						
WICHITA MTS.	129.67	50.1	18	31	0				20	46	PP
DUBUQUE	131.32	37.2	18	33	-1						
FLORISSANT	133.62	41.1	18	39	0						
SHAWINIGAN	136.95	20.2	18	46	1						
HUANCAYO	150.75	130.0	19	11	3						
LA PAZ	152.24	147.1	19	12	2				20	54	

JUNE 21 4.H 43.M 41.S EPICENTRE 5.65 -82.78 DEPTH= 0.KM

A= 0.12501 B=-0.98733 C= 0.09778 D=-0.9921 E=-0.1256
G= 0.0123 H=-0.0970 K=-0.9952 HT= 7.0

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
BALBOA HTS.	4.59	44.0	1	9	-3	1	59	-8				
CHINCHINA	7.17	95.1	1	44A	-4	3	2	-10				
BOGOTA	8.74	96.3	2	10A	0	3	44	-7				
GALERAZAMBA	9.02	55.1	2	14	0	3	49	-9				
SAN SALVADOR	10.18	322.1	2	32	2							
COMITAN	13.96	319.7	3	34	13						12	13
CAPACAS	16.42	71.9	3	48K	-5	6	29	-27				
MERIDA	16.59	337.1	3	59	4						11	39
VERA CRUZ	18.72	317.2	4	19	-3	7	51	3				
HUANCAYO	19.08	157.2	4	25	-1							
SAN JUAN	20.61	50.7	4	41	-2	8	41	12				
TACUBAYA	21.03	312.0	4	40A	-8	8	56	18			10	41
TRINIDAD	21.74	75.4	4	51	-4	8	49	-2				
GRENADA	21.74	71.6	4	58	3							
ST. VINCENT	22.49	69.1	4	59	-3						5	31 PP
FORT FRANCE	23.10	65.4	5	10	2	9	23	7				
ST. CLAUDE	23.11	61.8	5	11	3	9	26	10				
AREQUIPA	24.64	153.2	5	23	0	9	40	-3				
LA PAZ	26.35	146.9	5	38	-1	10	9	-2				
HOUSTON	26.74	335.0	5	43	0							
COLUMBIA	28.26	3.1	6	5	8	11	13	31				
CHAPEL HILL	30.32	6.0	6	13	-2							
CHIHUAHUA	31.77	318.7									16	19
FAYETTEVILLE	32.06	342.4	6	23	-7							
WICHITA MTS.	32.41	335.3	6	32	-1	11	42	-6			7	31 PP
ROLLA	33.16	346.8	6	37	-3	11	58	-1				
WASHINGTON	33.50	8.1	6	43	0							
GEORGETOWN	33.50	8.1	6	42	-1	12	7	2				
BLOOMINGTON	33.56	354.8	6	41K	-2	12	2	-4				
FLORISSANT	33.71	349.3	6	42	-3	12	1	-7				
MORGANTOWN	33.93	3.9	6	46A	-1						8	41 PP
LAWRENCE	35.04	343.0	6	53	-3							
PENNSYLVANIA	35.27	6.5	6	57	-1							
FORDHAM	35.95	11.5	7	7	3	12	48	5				
PALISADES	36.09	11.4	7	7	2	12	43	-2				
ALBUQUERQUE	36.44	326.3	7	9	1							
TUCSON	37.23	318.8	7	15	0						8	45 PP
LONDON ONT.	37.26	1.9	7	12A	-3							
BREBEUF	40.49	9.9	7	40A	-2	13	53	1			9	26 PP
SANTA LUCIA	40.54	164.3	7	40	-2	13	51	-1			16	50
GLEN CANYON	40.80	323.8	7	46	2							
LARAMIE	40.93	333.5	7	48	2							
SHAWINIGAN	41.66	10.4	7	50A	-1							
BOULDER CITY	42.15	320.1	7	56	0							
RAPID CITY	42.27	338.1	7	57	0	14	21	3			9	37 PP
HALIFAX	42.29	20.4	7	57	0							
FLAMING GRGE	42.44	329.8	7	58	0							

PASADENA	43.32	315.6	8	6	1	14	41	8		
SALT LAKE C.	43.59	327.6	8	9	2					
EUREKA	45.05	323.2	8	20	1					
PRIEST	46.11	316.4	8	28A	1					
BOZEMAN	46.82	332.9	8	34	1					
LICK	47.41	317.2	8	39A	1				9	1
RENO	47.44	320.8	8	39A	1					
BUTTE	47.78	332.1	8	40	-1				10	40 PP
BERKELEY	48.11	317.5	8	44A	1	15	48	6	10	41 PP
CALISTOGA	48.73	318.2	8	48A	0					
MINERAL	49.03	320.6	8	50A	0					
HUNGRY HORSE	50.18	333.2	9	0	1					
PENTICTON	53.48	330.8	9	24A	0					
VICTORIA	54.89	328.0	9	33	-1					
ANGRA DO HO.	59.89	48.3				18	49	28	22	36 SS
MBOUR	65.21	76.8	10	52	7	19	31	3		
RESOLUTE	69.33	356.6	11	8	-3					
THULE	71.17	3.6	10	19	-63					
MOULD BAY	73.35	351.4	11	33	-2					
HONOLULU	74.30	290.4	11	39	-2	21	21	6	26	26 SS
SERRA PILAR	74.40	49.0	11	43A	2				11	58 PCP
COIMBRA	74.43	50.0	11	42	1					
COLLEGE	74.47	336.3	11	40	-2				12	7
SCORESBY SD.	75.22	17.7	11	47	1	21	32	7		
ALERT	77.30	2.7	11	55	-3					
MALAGA	77.34	53.8	11	59K	1	21	47	-1	15	1 PP
TOLEDO	77.76	50.6	12	0K	0	21	53	1	26	56 SS
GRANADA	78.00	53.3	12	7K	5	22	6	11	27	32 SS
ALMERIA	78.89	53.7	12	9K	3				12	28
DURHAM	80.34	35.5	12	12	-2	22	16	-4	22	22 SKS
FOLINIERE	80.71	41.6	12	16	0					
KEW	80.91	38.9	12	18	1	22	25	-1		
TORTOSA	81.26	49.7							21	6
PARIS	82.67	41.6	12	29	3					
GARCHY	83.07	43.2	12	29	0				15	47 PP
DOURBES	84.03	40.3	12	33	0	22	44	-13		
DE BILT	84.33	38.3	12	37	2	23	3	3		
BESANCON	85.06	43.1	12	40	1					
WITTEVEEN	85.21	37.5	12	40	1					
ROSELEND	85.59	44.7	12	43	2					
BENSBERG	85.63	39.4	12	42A	1				15	58 PP
MUNSTER	85.84	38.3	12	44	1					
STRASBOURG	86.17	41.7	12	45	1	23	19	1	24	19 PS
MONACO	86.29	46.6	12	47	2					
FELDBERG	86.49	40.0	12	46	0					
HEIDELBERG	86.73	40.9	12	48	1					
TUBINGEN	87.04	41.7	12	49	1					
STUTTGART	87.16	41.5	12	49	0	23	30	2	16	20 PP
SKALSTUGAN	87.24	26.5	12	50	1					
PAVIA	87.41	45.0							23	46
BYRD STATION	87.54	186.0	12	49	-2					
CHIAVARI	87.60	45.9	12	55	4	23	5	-27		
JENA	88.41	39.1	12	56	1	23	31	-9	16	29 PP
HALLE	88.57	38.5	12	56	0	23	45	4		
FLORENCE X.	89.04	46.3	13	4	6	24	6	21	16	37 PP
COLLMBERG	89.25	38.7	13	2	3				16	37 PP
PADOVA	89.28	44.6							17	49
KIRUNA	89.76	21.7	13	3	2	23	32	-20		
KASPERSKE H.	89.93	40.8	13	2	0				16	41 PP
ROME	90.18	48.0	13	4K	1	24	4	8	16	35 PP
UPPSALA	90.37	29.8				23	32	-26	29	56 SS
PRUHONICE	90.42	39.8	13	5	1	23	43	-15		
TRIESTE	90.56	44.2	13	8	3	24	4	5	23	43 SKS
UMEA	90.68	25.6	13	6	0	24	6	6		
AQUILA	90.79	47.5	13	4	-2	23	41	-20		
LJUBLJANA	91.03	43.7	13	10	3					
SODANKYLA	92.17	21.4	13	12	0					
MESSINA	93.06	51.3	13	27	10				16	25
SOUTH POLE	95.61	180.0	13	27	-1					
KSARA	110.08	51.1							19	14 PP
LWIRO	111.69	90.2							29	6
MIRNY	119.13	178.1	17	53	-58					
RIVERVIEW	122.81	233.2							25	31
SHIRAZ	124.59	48.0	19	4	3				20	50
ULAN-BATOR	125.98	352.0							20	57 PP
ESEN BULAK	128.17	0.9							21	10
WARSAK DAM	133.69	29.8	19	23	4					
QUETTA	134.06	37.4	19	25	6					

CHATRA	146.28	16.3	19 54	13
POONA	146.71	43.3	19 47A	5
HONG KONG	147.64	329.7	19 42	-1
BAGUIO CITY	148.14	313.9	19 48	4
MUNDARING	148.35	211.8	19 48	3
SHILLONG	148.54	9.3	19 47A	2
MANILA	148.90	310.7	19 54	9

JUNE 21 8.H 38.M 31.S EPICENTRE -20.89-175.57 DEPTH= 93.KM

A=-0.93229 B=-0.07219 C=-0.35444 D=-0.0772 E= 0.9970
G= 0.3534 H= 0.0274 K=-0.9351 HT= 4.5

DEPTH OF FOCUS= 0.010R

SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SUVA	6.28	294.7				2	48	5				
AFIAMALU	7.83	28.1	1	49	-4	3	13	-8				
PORT VILA	15.53	278.9	3	40A	5							
NOUMEA	16.78	261.9	3	54K	4							
KOUMAC	18.85	267.4	4	15A	0							
CHATEAU	19.79	200.8				7	56	-2				
WELLINGTON	21.92	199.8	4	49	2	8	40	2				
BRISBANE	29.54	251.1	5	56A	-2						13	19
RIVERVIEW	32.10	239.3	6	17A	-3	11	35	10			6	38
CANBERRA	34.20	237.5	6	37K	-1							
CHARTERS TS.	35.71	264.4	6	50	-1	12	55	35				
PORT MORESBY	37.66	282.0	7	7	-1							
TARRALEAH	38.32	227.4	7	8A	-5							
GUAM	51.82	307.8	9	0	-1							
SCOTT BASE	57.65	184.4	9	44	1							
BYRD STATION	63.89	170.7	10	26	1							
SOUTH POLE	69.24	180.0	10	58	-1							
MIRNY	71.61	204.9	11	13	0						29	34
MATUSIRO	71.88	322.3	11	13K	-2						11	33
PRIEST	76.88	42.9	11	45	1							
BERKELEY	76.97	40.6	11	45K	1							
LICK	77.01	41.4	11	46K	2						12	20
PASADENA	77.31	45.7	11	47	1							
MINERAL	78.95	39.0	11	56A	1							
RENO	79.51	40.6	11	59	1							
TUCSON	81.38	50.8	12	9	1							
EUREKA	81.85	42.4	12	11	1							
MAWSON	81.96	199.3	12	11K	0				12	20	12	14 PCP
GLEN CANYON	83.32	46.4	12	16	-2							
PENTICTON	85.72	32.9	12	30K	0							
ALBUQUERQUE	85.89	50.3	12	32	1				12	55		
FLAMING GRGE	86.86	44.0	12	35	0							
COLLEGE	88.12	11.5	12	40	-1				13	49		
WICHITA MTS.	91.57	53.4	12	58	0						13	32
ADDIS ABABA	144.88	255.6	19	30	4							
DURHAM	145.87	6.2	19	31	3							
DE BILT	148.84	359.1	19	37	4							
MUNSTER	148.88	356.2	19	37	4							
HALLE	148.89	350.9	19	37	4						20	12
COLLMBERG	148.91	349.6	19	32K	-1						20	15
SKALNATE PL.	149.07	339.6	19	44	11							
KSARA	149.37	301.5	19	40A	6							
JENA	149.49	351.1	19	39	5							
PRUHONICE	149.88	346.9	19	40K	6							
BENSBERG	149.91	356.5	19	40K	6						20	18
KASPERSKE H.	150.89	347.6	19	42	6						20	17
VIENNA-H.	151.06	343.4	19	37	1						20	52
FOLINIERE	151.90	6.9	19	45	8							
STUTTGART	151.91	353.2	19	45	8							
GARCHY	153.65	2.1	19	49A	9							

JUNE 22 11.H 48.M 51.5 EPICENTRE 32.08 142.50 DEPTH= 0.KM

A=-0.67349 B= 0.51680 C= 0.52852 D= 0.6088 E= 0.7933
G=-0.4193 H= 0.3217 K=-0.8489 HT= 1.1

SE= 2.70

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	2.47	230.3	0	42	0	1	16	2				
MERA	3.61	322.5	0	58	0							
OSIMA	3.74	316.7	1	1	1							
TYOSI	3.88	339.8	1	2	0	1	47	-2				
AJIRO	4.10	317.2	1	4	-2	1	53	-2				
MISIMA	4.24	316.6	1	7	0	1	54	-4				
TOKYO C.M.O.	4.26	328.3	1	7	-1	1	54	-5				
HONGO	4.27	328.7	1	12	4							
OMAESAKI	4.38	306.2	1	23	14							
KAKIOKA	4.57	335.7	1	11	-1							
TUKUBASAN	4.58	334.9	1	11	-1	2	4	-3				
MITO	4.61	339.2	1	12K	-1	2	2	-6				
HUNATU	4.61	318.7	1	14	1	2	4	-4				
HAMAMATU	4.79	304.7	1	24	9	2	31	19				
KUMAGAYA	4.81	328.3	1	16A	0	2	10	-3				
TITIBU	4.82	324.8	1	17	1	2	10	-3				
KOHU	4.85	318.6	1	17	1	2	11	-3				
UTUNOMIYA	4.96	334.7	1	17	-1	2	13	-4				
ONAHAMA	5.04	345.2	1	17K	-2	2	13	-6				
MAEBASI	5.16	327.6	1	21	0	2	14	-8				
IIDA	5.19	312.7	1	22	1	2	21	-1				
OIWAKE	5.36	323.4	1	24	1	2	21	-6				
SHIRAKAWA	5.37	340.1	1	22	-1	2	20	-7				
NAGOYA	5.55	305.3	1	27	1						2	10
MATUMOTO	5.60	319.2	1	28	1	2	35	2				
OWASE	5.65	292.3	1	20	-7							
MATUSIRO	5.69	322.6	1	27A	-1	2	28	-7				
KAMEYAMA	5.75	300.4	1	36	7	2	32	-4				
NAGANO	5.80	323.4	1	31	1						4	48
GIHU	5.81	306.3	1	31	1							
HUKUSIMA	5.90	344.1	1	30	-1	2	35	-5				
HIKONE	6.10	303.1	1	36	2	2	40	-5				
TAKADA	6.11	326.2	1	26	-8	2	22	-24				
NARA	6.15	296.7	1	49	14							
SENDAI	6.31	348.5	1	35	-2	2	40	-11				
TOYAMA	6.36	317.9	1	40	3	3	18	26				
KYOTO	6.37	299.3	1	39	1	2	48	-4				
OSAKA	6.37	295.6	1	54	16							
YAMAGATA	6.40	344.6	1	37	-1	2	48	-5				
ISINOMAKI	6.41	351.7	1	36	-2	2	43	-10				
ABUYAMA	6.42	297.5	1	38	0							
NIIGATA	6.48	335.1	1	39	0	3	8	13				
HUKUI	6.54	309.0	1	38	-2							
KANAZAWA	6.57	314.1	1	59	19							
SUMOTO	6.75	291.6	1	47	4	2	55	-6				
AIKAWA	6.87	330.7	1	44	-1							
KAZIMA	7.01	320.5	1	49	2							
MIZUSAWA	7.12	351.4	1	47	-1	2	59	-12				
SAKATA	7.14	343.0	1	49	0							
MIYAKO	7.57	356.9	1	50	-4	3	11	-11				
MORIOKA	7.68	352.3	1	53	-3	3	16	-9				
AKITA	7.87	346.4	2	0	1	3	22	-8				
AOMORI	8.83	351.5	2	12	0	3	45	-9				
HAKODATE	9.81	352.3									4	9
KUMAMOTO	10.00	277.4	2	30	2							
URAKAWA	10.05	1.2	2	27	-2	4	14	-10				
HIROO	10.20	3.4									4	13
NAGASAKI	10.69	276.8	2	35	-3	4	38	-1				
OBIHIRO	10.84	2.7	2	40	0							
KUSIRO	10.99	7.3	2	38	-4	4	33	-14				
SAPPORO	11.01	355.6	2	35	-7	4	43	-4				
NEMURO	11.49	11.4	2	44	-5	4	41	-18				
ASAHIGAWA	11.68	359.5	2	48A	-3	4	52	-12				
ABASHIRI	12.00	6.2									4	58
VLADIVOSTOK	13.84	325.7	3	20	0	5	54	-2				
Y.-SAKHLINSK	14.92	0.6	3	31K	-3	6	8	-13				
UGLEGORSK	16.99	359.0	4	7K	6							
CHANGCHUN	17.89	315.9	4	12	0	7	34	4				
ZO-SE	18.19	272.6	4	12A	-4	7	33	-4				
GUAM	18.65	173.2	4	20	-1	7	55	8				

NANKING	20.10	276.3	4	33	-5						
HWALIEN	20.10	251.5	4	35K	-3	8	14	-5			
PEKING	22.66	297.9	5	2	-2	9	7	-1			
BAGUIO CITY	25.27	237.1	5	24	-6				12	9	
MANILA	26.12	233.4	5	33	-5						
HONG KONG	26.95	255.9	5	46	1	10	25	4	6	29	PP
PAOTOW	27.38	297.2	5	48	-1	10	24	-4			
MAGADAN	28.03	9.0	5	55	0						
SIAN	28.12	283.6	5	55	-1	10	41	1			
YAKUTSK	31.07	348.3	6	22K	0	11	24	-3			
ULAN-BATOR	31.20	310.9	6	22	-1	11	24	-5			
LANCHOW	32.14	287.8	6	29	-2	11	34	-10			
CHENGTU	32.78	277.9	6	33	-4	11	43	-11			
KUNMING	35.44	269.0				12	30	-5			
NHATRANG	36.40	244.7	7	6	-2						
ESEN BULAK	38.02	305.7	7	21	-1	13	14	-1			
TIKSI	40.29	353.4	7	41K	0	13	47	-2			
LHASA	43.90	280.9				14	36	-6			
SHILLONG	44.50	275.0	8	13	-2						
HONIARA	44.52	155.0							17	13	
DARWIN	45.60	196.1	8	28	4						
SEMIPALATNSK	48.77	311.1	8	46	-3						
LEMBANG	51.02	226.9	9	3A	-3						
TANGERANG	51.13	228.4	9	3	-4						
ALMATA	51.86	302.3	9	13	1	16	35	1			
CHARTERS TS.	52.00	175.5	9	15	2						
COLLEGE	52.86	30.2	9	20	0				9	54	
HONOLULU	53.57	86.0				17	13	15			
FRUNSE	53.62	302.2	9	25	0	16	56	-2			
KHOROG	57.29	296.6	9	52	0	17	44	-3			
KHEYS	57.67	348.9	9	54K	-1	17	52	0			
TASHKENT	57.84	301.6	9	55	-1	17	50	-5			
MARSAK DAM	58.37	292.7	10	9	9						
DUZHANBE	59.03	298.6	10	5	1	18	7	-3			
SVERDLOVSK	59.50	320.8	10	5	-2						
BRISBANE	59.94	169.4	10	13	3						
MOULD BAY	61.04	15.7	10	17K	-1						
POONA	62.60	275.5	10	26	-2						
QUETTA	63.40	290.3	10	33	-1	19	4	-2			
ALERT	65.01	3.5	10	43K	-1						
RIVERVIEW	66.06	172.1	10	53	2	19	40	1			
ADELAIDE	66.79	183.4	10	55	-1						
ASHKABAD	66.92	301.3	10	56	0						
VANNOVSKAYA	67.10	301.3	10	56	-2						
RESOLUTE	67.18	14.1	10	58K	0						
CANBERRA	67.32	174.2	10	59K	0						
APATITY	67.58	336.9	10	59K	-2	19	55	-2			
ALBERNI	68.08	44.9	11	5K	1						
MUNDARING	68.38	203.9	11	6	0						
VICTORIA	69.23	45.2	11	12	1						
MELBOURNE	69.59	177.9	11	16	3						
SODANKYLA	69.88	338.2	11	14	-1						
TROMSOE	70.69	342.0	11	19	-1						
PENTICTON	71.13	43.2	11	23K	1						
KAJAANI	71.44	335.1	11	25K	1				13	52	PP
KIRUNA	71.46	340.2	11	23K	-1	20	40	-3			
MOSCOW	71.78	324.9	11	25	-1						
BANFF	72.55	40.2	11	30	-1						
TEHERAN	72.90	301.7	11	32	-1	20	58	-1			
MINERAL	74.09	52.2	11	41K	1						
UMEA	74.18	337.1	11	39	-1						
CALISTOGA	74.24	54.2	11	42	1						
TIFLIS	74.62	309.7	11	43	0	21	17	-2			
GORIS	74.68	307.1	11	35K	-8						
NURMIJARVI	74.74	333.0	11	43K	-1				11	57	PCP
BERKELEY	74.83	54.7	11	45	1						
HELSINKI	74.84	332.7	11	44	0						
SHIRAZ	74.91	295.6	11	44K	-1	21	16	-6	12	1	11 57 PCP
LICK	75.52	55.0	11	49K	1						
RENO	75.68	52.3	11	50	1						
KARAPIRO	76.16	153.6	11	53	1						
PRIEST	76.79	55.6	11	57K	2						
BUTTE	76.90	43.7	11	57	1				13	0	
SCORESBY SD.	77.12	354.7	11	59	2						
UPPSALA	77.81	334.9	12	0K	-1						
BOZEMAN	77.98	43.4	12	3	1						
EUREKA	78.27	50.8	12	5	2						
SIMFEROPOL	79.51	316.7	12	10	0	22	8	-4			
PASADENA	79.56	56.3	12	11	0						

SALT LAKE C.	80.22	47.9	12	16	2			
BOULDER CITY	80.90	53.3	12	19	1			
GOTEBORG	81.39	335.6	12	19	-1			
FLAMING GRGE	81.66	46.7	12	22	0			
LWOW	81.92	324.9	12	22	-1			
RAPID CITY	83.42	41.4	12	32	1			
UZHGOROD	83.56	324.8	12	31	0			
LARAMIE	83.75	44.7	12	36	4			
KSARA	84.80	306.8	12	38A	0			
TUCSON	85.74	54.5	12	44	2			
TUCSON TELE.	85.76	54.4	12	45	3			
COLLMBERG	85.85	330.9	12	43K	0		16 12	
HALLE	86.13	331.6	12	44	0			
PRAGUE	86.17	329.4	12	45	0		23 19	
PRUHONICE	86.18	329.3	12	44	-1		13 18	
BRATISLAVA	86.36	326.9	12	44	-1		13 43	
VIENNA-H.	86.64	327.3	12	37	-10			
JENA	86.71	331.4	12	47	0			
ALBUQUERQUE	87.08	50.1	12	50	1		16 12	PP
BELGRADE	87.10	322.8	12	47A	-2			
WITTEVEEN	87.11	334.9	12	50	1			
KASPERSKE H.	87.24	329.2	12	49	-1		16 13	
MUNSTER	87.44	334.0	12	35	-16			
BENSBERG	88.42	333.6	12	55	0		13 31	
LJUBLJANA	89.12	326.7	12	57K	-2			
STUTTGART	89.33	331.2	12	59	-1			
TRIESTE	89.77	326.8	13	1	-1			
WICHITA MTS.	92.20	46.2	13	13	0		16 51	PP
FLORENCE X.	92.35	327.0	13	2	-12			
AQUILA	92.42	324.8	13	15	1		28 11	
ROSELEND	92.87	330.7	13	16	0			
GARCHY	92.98	333.7	13	16K	-1			
FOLINIERE	92.99	336.5	13	17	0			
PALISADES	99.88	27.1				24 16 -11		
BULAWAYO	120.26	264.1	18	43	-10			
SOUTH POLE	121.91	180.0	18	56	-1			
BYRD STATION	122.75	168.1	19	0	2			
AREQUIPA	145.51	71.3	19	44	4			
LA PAZ	148.21	68.1	19	49	4			

JUNE 23 9.H 44.M 34.S EPICENTRE 25.51 128.32 DEPTH= 0.KM

A=-0.56026 B= 0.70902 C= 0.42825 D= 0.7846 E= 0.6200
G=-0.2655 H= 0.3360 K=-0.9037 HT= 3.2

SE= 2.93

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MAWASHI	0.91	322.1	0	25A	5	0	39	5				
ISIGAKIZIMA	3.94	253.6	1	3	0	1	46	-5				
YAKUSIMA	5.29	20.9	1	21A	-2	2	19	-6				
ILAN	6.00	264.4	1	33	1	1	47	-56				
TAIPEI	6.17	267.0	1	39	4	2	50	3				
HWALIEN	6.28	257.3	1	34	-2	2	37	-13				
KAGOSIMA	6.35	17.5	1	41	3	2	10	-42				
HSINCHU	6.69	265.5	2	2	20	3	34	34				
HSINKONG	6.77	250.7	1	28	-15	3	1	-1				
MIYAZAKI	6.95	22.4	1	44	-2	3	2	-5				
YUSHAN	7.01	254.8	1	46	-1	3	1	-7				
TAICHUNG	7.07	260.6	1	50	2							
TAITUNG	7.10	248.7	1	44	-4	3	1	-9				
ALISHAN	7.12	255.5	1	20	-28							
HUKUE	7.18	3.5	1	49	0	3	19	7				
NAGASAKI	7.33	10.4	1	50	-1	3	20	4				
UNZENDAKE	7.39	12.8	1	17	-35	1	59	-79				
TAWU	7.48	246.7	1	48	-5	4	22	62				
KUMAMOTO	7.58	15.4	1	55A	0	3	16	-6				
ASOSAN	7.75	17.4	1	57	0	3	22	-5				
HENGCHUN	7.76	244.8	1	55	-2	2	57	-30				
TAINAN	7.80	253.0	1	59	1							
KAOHSIUNG	7.89	250.3	1	56	-3							
SAGA	7.91	12.2	2	1	2	4	38	67				
OOITA	8.22	19.8	2	4	0	3	33	-5				
HUKUOKA	8.24	12.1	2	6	2	3	43	4				
ASHIZURI	8.27	28.6	1	59	-5	3	27	-13				

ZO-SE	8.40	313.2	2 5A	-1	3 48	5		
UWAZIMA	8.54	24.6	2 8	0	4 32	46		
ITUHARA	8.70	5.3	2 11	1	3 37	-13		
SIMONOSEKI	8.72	14.5	2 8	-3				
MATUYAMA	9.17	24.0	2 14	-3	3 52	-10		
KOTI	9.21	28.3	2 13	-4	5 0	57		
MUROTO	9.26	32.2	2 15	-3	4 40	36		
HIROSIMA	9.53	21.0	2 24	2	4 48	37		
TSURUGISAN	9.67	29.4	2 27	3			5 55	
HAMADA	9.91	18.2	2 27	0	5 1	41		
TAKAMATU	10.09	28.2	2 28	-2	4 16	-9		
SIOMISAKI	10.24	37.6	2 29	-3	4 24	-4		
OKAYAMA	10.35	26.6	2 35	2	4 23	-8		
SUMOTO	10.49	31.4	2 33A	-2	4 20	-15	18 20	
WAKAYAMA	10.53	32.8	2 37	1	4 25	-11		
NANKING	10.61	310.2	2 36A	-1	4 43	6		
MATSUE	10.72	21.3			4 35	-4		
YONAGO	10.80	22.5	2 42	3	5 22	40		
KOBE	10.90	31.4	2 41	0	5 40	55		
OSAKA	11.04	32.7	2 41	-2	4 53	5		
TOTTORI	11.18	25.5	2 33	-11			4 45	
NARA	11.22	33.6	2 43	-2				
ABUYAMA	11.24	32.2	2 41	-4				
KYOTO	11.44	32.3	2 45	-3	5 43	45		
TOYOOKA	11.45	27.7	2 45	-3				
SAIGO	11.49	20.8	2 53	4	5 29	30		
BAGUIO CITY	11.57	220.1	2 46	-4			6 46	
MAIZURU	11.65	29.9	2 48	-3				
KAMEYAMA	11.68	35.2	2 49	-2	5 3	-1		
TORISIMA	11.69	62.2					5 42	
HIKONE	11.89	33.2	2 52	-2			6 46	
TSURUGA	12.11	31.6	2 55	-2				
NAGOYA	12.18	35.7	2 57	-1	5 6	-10		
GIHU	12.26	34.5	2 58	-1				
HAMAMATU	12.26	39.3	2 56	-3				
HUKUI	12.51	31.0	3 1	-1				
MANILA	12.74	213.6	3 6	0	5 56	27		
SHIZUOKA	12.83	40.3	3 10	3	6 30	58		
IIDA	12.91	37.1	3 5	-3				
KANAZAWA	13.10	31.0	3 10	0				
MISIMA	13.26	41.3	3 10	-3	6 14	32		
OSIMA	13.27	43.4	3 12	0	6 7	26		
AJIRO	13.31	41.8	3 12	-1	6 9	26		
HONG KONG	13.33	259.1	3 13	0	6 3	20		
HUNATU	13.42	39.6	3 13	-2	6 13	27		
KOHU	13.42	38.6	3 19	4	6 16	30		
TOYAMA	13.50	32.1	3 19	3	6 19	31		
MATUMOTO	13.53	35.4	3 20	4				
MERA	13.67	44.0	3 18	0				
CANTON	13.87	263.1	3 18	-2	5 58	2	6 12	*SS
MATUSIRO	13.88	35.2	3 16K	-5	6 7	10		
YOKOHAMA	13.89	41.9	3 21	0	6 24	27		
OIWAKE	13.90	36.7	3 22	1	6 22	25		
WAZIMA	13.91	29.6	3 27	6	6 27	30		
TITIBU	13.94	39.0	3 28	7	6 26	28		
NAGANO	13.97	34.9	3 27	5	6 24	25		
TOKYO C.M.O.	14.12	41.4	3 29	5	5 59	-3		
HONGO	14.15	41.4	3 27	3				
KUMAGAYA	14.23	39.2	3 26	1	6 33	28		
MAEBASI	14.24	37.7	3 27	2	6 20	15		
TAKADA	14.33	33.9	3 27	0				
TUKUBASAN	14.70	40.6	3 29K	-2	6 14	-2	3 39	4 1 PPP
KAKIOKA	14.75	40.8	3 30	-2	6 23	6		
UTUNOMIYA	14.79	39.2	3 33	0	6 35	17		
TYOSI	14.82	43.7	3 35	2				
MITO	15.02	41.0	3 34	-2	6 41	17		
AIKAWA	15.05	31.6	3 33	-3				
NIIGATA	15.37	33.8	3 45	5			4 36	
SHIRAKAWA	15.39	38.4	3 44	4	6 46	13		
ONAHAMA	15.67	40.3	3 42	-2	6 35	-4		
HUKUSIMA	15.98	37.3	3 48	0				
YAMAGATA	16.29	35.8	3 50	-2	7 5	12		
SAKATA	16.51	33.2	3 59	4				
SENDAI	16.59	36.9	3 56	0	7 7	7		
ISINOMAKI	16.94	37.3	3 56	-4	7 13	5		
AKITA	17.28	32.0	4 1	-4	7 25	9		
MIZUSAWA	17.35	35.4	4 6	1	7 23	5		
PEKING	17.69	327.9	4 10	0	7 34	8	7 45	*SS

MORIOKA	17.79	34.2	4	12	1	7	30	2	19	32 SCS
VLADIVOSTOK	17.81	8.6	4	12	1					
MIYAKO	18.17	35.8	4	12	-4	7	32	-4		
CHANGCHUN	18.44	353.1	4	19	0	7	51	8	4	30 *SP
AOMORI	18.46	31.1	4	20	1	7	46	3		
HATINOHE	18.60	33.1	4	18	-3	7	45	-1		
SIAN	18.92	302.0	4	24A	-1	8	3	10	4	36 *SP
HAKODATE	19.24	29.3	4	27	-2	8	4	3		
MORI	19.40	28.4	4	32	2					
GUAM	19.55	124.7	4	31	-1	8	20	12	6	27
MURORAN	19.75	28.8	4	38	4					
SUTTSU	19.83	26.6	4	39	4	8	15	1		
URAKAWA	20.44	32.1	4	40	-2	8	27	1		
SAPPORO	20.52	28.1	4	42	-1	8	6	-22		
HIROO	20.80	32.7	4	42	-4	8	31	-3		
OBIHIRO	21.23	31.4	4	48	-2					
PAOTOW	21.40	319.1	4	50	-2	8	50	5	5	1 *SP
ASAHIGAWA	21.53	28.6	4	52K	-1	8	48	0		
KUSIRO	21.86	33.1	4	54	-2	9	4	10		
CHENGTU	22.03	289.0	4	56A	-2	9	0	3	5	7 *SP
ABASHIRI	22.58	31.1							6	7
WAKKANAI	22.60	25.1	5	8K	4	9	22	15		
NEMURO	22.70	34.1	5	7	2	9	15	6		
KUNMING	23.12	274.6	5	10	1	9	21	4	5	21 *SP
LANCHOW	23.46	302.5	5	11A	-1	9	24	1	5	27 *SP
Y.-SAKHLINSK	24.33	24.4	5	20	-1				9	48
ULAN-BATOR	28.02	328.5	5	51A	-4	10	36	-3		
IRKUTSK	32.31	332.1	6	30A	-3				7	45 PP
SHILLONG	32.82	278.1	6	38A	0	11	48	-7		
ESEN BULAK	32.95	317.5	6	37A	-2	11	45	-12		
LHASA	33.20	285.7	6	42	1	12	1	0	7	58 PP
CHITTAGONG	33.44	272.4	6	44	1					
PETROPAVLOVK	35.66	31.6	7	2K	0					
PORT BLAIR	36.30	254.4	7	9	2					
YAKUTSK	36.52	1.1	7	8K	-1	12	44	-8		
CALCUTTA	36.52	273.9	7	16	7	13	12	20	8	43 PP
CHATRA	36.84	281.3	7	14	2	12	59	2	7	33 PP
MAGADAN	37.46	18.7	7	15	-2	13	8	2	8	55 PPP
RABAUL	37.52	138.5	7	18K	0				12	46
DJAKARTA	37.79	216.5	7	22	2	13	14	3		
TANGERANG	37.89	216.7	7	21K	0	13	19	6		
LEMBANG	37.92	214.8	7	21K	0	13	14	1		
BOKARO	38.55	276.8	6	26	-60	13	18	-5	7	59 PP
PORT MORESBY	39.24	149.8	7	31	-1				9	43
VISHAKHAPTNM	42.40	268.7	7	59	1	14	25	5	9	40 PP
SEMIPALATNSK	44.31	317.0	8	8	-6				8	29
DEHRA DUN	44.39	288.1	8	11	-3	14	49	0	18	1 SS
ALMATA	45.20	306.5	8	23	2	14	58	-3	18	9
NEW DELHI	45.35	285.8	8	21	-1	14	59	-4	10	13 PP
TIKSI	46.16	0.2	8	25A	-3	15	8	-7		
HONIARA	46.42	134.4	8	29	-1	15	16	-2		
HYDERABAD	46.88	270.4	8	34	0	15	22	-3	9	32 PP
MADRAS	46.88	264.0	8	35	1	15	34	9	10	26 PP
LAHORE	47.42	290.3	8	38	0	15	28	-5		
CHARTERS TS.	48.56	157.3	8	46	-1	15	48	-1		
WARSAK DAM	49.47	293.9	8	55A	1	16	0	-2		
POONA	50.68	273.7	9	2	-2	16	17	-1	16	41 PPS
TASHKENT	50.81	303.6	9	5A	1	16	21	1		
BOMBAY	51.50	274.5	9	13	3	16	30	0	11	14 PP
QUETTA	53.90	289.8	9	28	0	17	1	-1		
SVERDLOVSK	56.88	322.6	9	47K	-2	17	39	-3		
KOUMAC	57.60	139.3	9	54A	0					
BRISBANE	57.63	154.2	9	55	0	17	49	-3		
AMDERMA	58.25	337.9	9	57A	-2	18	1	1		
MUNDARING	58.31	192.1	9	59A	0	18	0	-1		
PERTH	58.36	192.5	10	5	5	18	9	7	22	11 SS
ASHKABAD	59.54	300.5	10	8	0	18	23	6		
NOUMEA	60.22	138.8	10	12K	-1					
ADELAIDE	60.95	170.2	10	16K	-1	18	34	-1	18	50 PS
KHEYS	61.80	349.9	10	21	-2	18	44	-2	12	43 PP
RIVERVIEW	62.87	158.7	10	31A	1	19	0	1	19	22 PS
CANBERRA	63.59	161.2	10	35A	0	19	6	-2	10 46	12 53 PP
COLLEGE	64.63	28.0	10	42	0	19	24	3		
MELBOURNE	64.91	165.5	10	44	0				11	30
SUVA	65.27	126.6				19	21	-8	11	32
TEHERAN	65.46	299.4	10	44	-3	19	31	0		
SHIRAZ	66.18	292.7	10	51K	-1	19	34	-6	14	42 PPP
HONOLULU	66.87	76.6	10	58	2	19	50	1	13	48 PP
KIPAPA	66.90	76.4	10	57	0				11 10	

APATITY	68.54	335.7	11	5K	-2	20	8	-1			12	42 PP
TIFLIS	68.88	307.1	11	9	0	20	15	2			21	11 SCS
TARRALEAH	69.52	165.7	11	13K	0							
MOSCOW	69.69	322.9	11	12A	-2	20	19	-3			13	57 PP
HAWAII V.OB.	70.01	77.5	11	17	1							
KEVO	70.13	338.7	11	15	-2							
AFIAMALU	70.26	116.8	11	16	-1	20	38	9				
MOULD BAY	70.52	13.6	11	20	1							
SODANKYLA	71.09	336.4	11	21	-1	20	40	1			13	58 PP
NORD	71.65	354.9	11	25	-1	20	44	-1				
KAJAANI	71.85	333.0	11	26	-1	20	49	2			21	29 SCS
ALERT	72.09	1.5	11	26	-2							
SITKA	72.31	34.8	11	32	2							
TROMSOE	72.78	339.8	11	32	0							
KIRUNA	73.09	337.8	11	33	-1	20	55	-7			16	4
HELSINKI	74.54	329.7	11	43	0							
NURMIJARVI	74.54	330.1	11	40	-3	21	14	-4			14	29 PP
UMEA	74.96	334.1	11	44K	-1						14	29 PP
SIMFEROPOL	75.25	312.9	11	46	-1	21	23	-3			14	39 PP
RESOLUTE	76.25	10.8	11	51	-1	21	34	-3				
TARATA	77.42	145.0	12	0	1							
THULE	77.79	4.0	11	58	-3							
UPPSALA	77.96	331.1	12	1K	-1	21	52	-3				
SKALSTUGAN	78.14	335.7	12	2	-1							
KSARA	78.15	301.8	12	5	2	22	2	5			15	2 PP
TUAI	78.61	143.1	12	4	-1							
WELLINGTON	79.18	146.2	12	7	-2							
LWOW	79.52	320.3	12	12K	2	22	11	-1				
ROXBURGH	79.89	152.0				22	32	16				
WARSAW	80.07	323.4	12	23K	10	22	21	3			22	30 SKS
ISTANBUL UN.	80.25	310.8	12	17A	3	22	19	0				
KARLSKRONA	80.81	328.5	12	16	-1							
ALBERNI	81.26	39.4	12	19	-1							
GOTEBORG	81.60	330.9	12	20	-1						12	52
KRAKOW	81.74	321.8	12	24	2	22	38	3			12	26 PCP
SCORESBY SD.	81.98	350.3	12	23	0	22	41	4				
SKALNATE PL.	81.99	321.0	12	26	2	22	42	5			15	36 PP
VICTORIA	82.44	39.6	12	24	-2							
COPENHAGEN	82.55	329.1	12	28	2	22	44	1				
RACIBORZ	82.69	322.4	12	29	2	22	49	4			15	41 PP
BERGEN	82.69	335.2	12	36	9							
SOFIA	83.27	314.2	12	38	8	23	2	12	12	45	15	50 PP
BUDAPEST	83.56	319.9	12	33	1	22	53	0			15	54 PP
HURBANOVO	83.84	320.5	12	38	5	23	2	6				
BELGRADE	84.06	317.1	12	37A	3	22	58	0			12	47 PCP
PENTICTON	84.16	37.6	12	34	-1							
BRATISLAVA	84.30	321.2	12	35K	0	23	0	-1			15	51 PP
VIENNA-H.	84.67	321.5	12	39K	2	23	6	2			23	57 PS
PRUHONICE	84.72	323.6	12	38	1	23	2	-3				
PRAGUE	84.74	323.7	12	41K	3	23	2	-3			15	52 PP
COLLMBERG	84.79	325.3	12	38	0	23	3	-3				
SKOPJE	84.85	314.2	12	41	3						23	2
HALLE	85.21	325.8	12	37	-3	23	4	-6				
ATHENS	85.27	309.9	12	30	-10	23	3	-7			16	1 PP
BANFF	85.29	34.5	12	39	-1							
KASPERSKE H.	85.73	323.3	12	43	1	23	18	3			24	0 PS
JENA	85.74	325.5	12	44	1	23	6	-9			16	2 PP
ADDIS ABABA	85.76	277.9	12	46	3	23	18	3				
CHEB	85.82	324.5	12	44	1	23	9	-7				
ZAGREB	86.22	319.6	12	47K	2	23	11	-8				
LJUBLJANA	86.94	320.3	12	48	0						16	11 PP
WITTEVEEN	86.98	328.8	12	48	-1							
MUNSTER	87.07	327.8	12	51	2							
TRIESTE	87.61	320.3	12	53K	1	23	33	0			16	18 PP
REYKJAVIK	87.66	347.4	12	54	2							
ABERDEEN	87.71	335.5				23	19	-15			24	55 PPS
HUNGRY HORSE	87.75	36.3	13	0	8							
FELDBERG	87.76	326.1	13	1	9							
MINERAL	87.76	45.9	12	54	2							
BENSBERG	87.93	327.2	12	54K	1	23	41	5			16	22 PP
CALISTOGA	88.01	47.8	12	56K	2							
HEIDELBERG	88.13	325.4	12	54	0							
DE BILT	88.15	328.9	13	4	10	23	26	-12			16	26 PP
STUTTGART	88.23	324.6	12	54	-1	23	21	-17			16	22 PP
TARANTO	88.33	314.6									13	22
TUBINGEN	88.48	324.5	13	0	4							
KARLSRUHE	88.53	325.2	12	57	1	23	47	6				
BERKELEY	88.63	48.3	12	58K	1	23	26	-16			24	55 PPS

PADOVA	88.83	320.9	13	6	8	23	48	4	15	46 PP
STRASBOURG	89.13	325.1	13	1	2	23	29	-18	16	31 PP
DURHAM	89.25	333.6	13	2	3	23	49	1	23	30 SKS
CHUR	89.27	323.0	12	58	-2	23	51	3		
LICK	89.32	48.5	13	2K	2					
UCCLE	89.39	328.2	13	9	9	23	54	5		
AQUILA	89.69	317.7	13	2	1	24	0	8	16	38 PP
DOURBES	89.74	327.6	13	1	-1	23	53	1		
BASLE	89.89	324.4	13	5	2	23	57	3		
BUTTE	89.96	37.5	13	3	0	23	31	-23	13	39
TANANARIVE	90.04	249.1	13	6	3				16	42 PP
FLORENCE X.	90.15	319.8	13	17	13	23	35	-21	16	41 PP
PRATO	90.17	320.0	13	10	6	24	2	6		
PAVIA	90.49	321.8	13	11K	6	24	3	4	16	36 PP
ROME	90.52	317.8	13	18K	13	23	34	-25	16	40 PP
PRIEST	90.63	49.1	13	8A	2					
REGGIO CALA.	90.66	313.3	13	11	5	24	8	7	16	41 PP
MESSINA	90.67	313.4	13	8	2	23	58	-3	16	44 PP
BESANCON	90.90	324.9	13	8	1					
BOZEMAN	91.01	37.1	13	11	3					
KEW	91.08	330.7	13	7	-1	23	53	-11	16	47 PP
ROSELEND	91.56	323.4	13	12	2				16	29 PP
PARIS	91.62	327.6	13	23	12	24	18	9	16	51 PP
EUREKA	91.85	44.2	13	13	1				16	53 PP
ISOLA	92.29	322.0	13	21	7					
DUMONT	92.32	175.4	13	13	-1	24	15	0		
MONACO	92.37	321.5	13	16	2				16	57 PP
GARCHY	92.37	326.2	13	14	0				16	52 PP
WILKES	92.55	187.1	13	13	-2	23	43	-34	16	55 PP
FOLINIERE	93.06	328.9	13	16	-1					
CLERMONT-FD.	93.37	325.0	13	19	0					
PASADENA	93.42	49.6	13	20	1	24	30	5	23	54 SKS
SALT LAKE C.	93.60	41.3	13	20	0					
BOULDER CITY	94.62	46.6	13	16	-8				17	17 PP
FLAMING GRGE	94.95	40.0	12	27	-59					
MIRNY	95.59	193.4	13	29	-1	24	3	-2	17	19 PP
RAPID CITY	96.22	34.6	13	25	-7				17	30 PP
BAGNERES	96.77	324.5	13	37	3				26	18 PS
LARAMIE	96.86	37.8	13	37	2					
TUCSON	99.51	47.5	13	48	2				17	53 PP
TUCSON TELE.	99.53	47.4	13	48	1				17	37 PP
LWIRO	99.55	272.1	13	46	-1				17	50 PP
ALICANTE	100.40	321.5	13	47	-4	24	31	2	27	3 PS
ALBUQUERQUE	100.60	43.1	13	53	2				18	22 PP
TOLEDO	101.25	324.6	13	56K	2	24	37	4	18	7 PP
ALMERIA	102.58	321.5	13	57	-3					
GRANADA	102.97	322.4	14	3A	1	24	45	3	18	21 PP
MANHATTEN	103.17	34.3	14	3	0					
MALAGA	103.74	322.6	14	12	7				18	28 PP
MAWSON	104.57	201.1	14	9K	0				18	25 PP
BROKEN HILL	104.83	260.9	17	29	199					
WICHITA MTS.	105.41	38.6	14	20	777	24	56	3	18	37 PP
SCOTT BASE	105.58	172.1	18	29	777				27	36
ROLLA	106.49	32.2	14	25	777					
BREBEUF	106.56	15.9				24	58	0	18	48 PP
LONDON ONT.	106.58	22.1	18	49	777					
BULAWAYO	106.84	255.4	17	43	777					
HALIFAX	109.37	9.0	19	0	777					
MORGANTOWN	110.04	22.9							17	50
PALISADES	110.68	17.8	18	56	21	25	12	-3	15	1 P
FORDHAM	110.84	17.9							19	16 PP
WASHINGTON	111.67	21.1	18	5	-32				28	49
ANGRA DO HO.	112.19	339.5							29	0 PS
KIMBERLEY	112.99	248.0	18	42	3					
CHAPEL HILL	113.66	24.0	18	53	12					
COLUMBIA	114.58	26.6	19	10	27					
SOUTH POLE	115.36	180.0	19	3	19					
BYRD STATION	118.76	169.4	18	51	0				28	43
M.BOUR	127.89	315.6							21	12 PP
CARACAS	141.25	24.4	19	33	0				23	22
CHINCHINA	141.82	40.8	19	31	-3				22	52 PP
TRINIDAD	142.84	15.9	19	34	-2				23	1 PP
BOGOTA	143.00	39.1	19	33	-3					
HUANCAYO	153.98	63.4	19	58	4					
AREQUIPA	159.45	67.9	20	2	1					
LA PAZ	162.24	62.9	20	6	3				31	20 SKKS
ANTOFAGASTA	162.87	87.9	20	8	4					

JUNE 23 9.H 58.M 30.S EPICENTRE 19.14 121.31 DEPTH= 67.KM

A=-0.49131 B= 0.80772 C= 0.32588 D= 0.8544 E= 0.5197
G=-0.1694 H= 0.2784 K=-0.9454 HT= 4.9

DEPTH OF FOCUS= 0.005R

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BAGUIO CITY	2.79	194.6	0	39	-5								
HENGCHUN	2.90	349.6	0	44K	-1	1	16	-3					
TAWU	3.22	353.2	0	48K	-2	1	2	-25					
TAITUNG	3.60	357.6	0	56	1	1	33	-4					
KAOHSIUNG	3.60	344.5	0	51	-4	1	11	-26					
HSINKONG	3.94	0.8	0	41	-19								
YUSHAN	4.33	355.6	1	8	3	1	53	-2					
ALISHAN	4.39	353.9	0	37	-29	1	27	-30					
MANILA	4.45	182.9	1	7	0	2	15	17					
PENGHU	4.67	339.7	1	5	-5	1	56	-7					
HWALIEN	4.82	3.4	1	12	0	2	7	0					
TAICHUNG	5.02	353.4	1	16	1								
ILAN	5.62	4.1	1	28	5	1	46	-41					
TAIPEI	5.87	1.9	1	37	11	2	16	-17					
HONG KONG	7.39	296.4	1	43	-4								
CANTON	8.41	299.2	1	56K	-6								
KUNMING	18.20	292.4	4	9	0								
SIAN	18.66	326.2	4	16K	1								
ABUYAMA	20.14	36.0	4	32A	1								
PEKING	21.29	349.1	4	49K	6								
LANCHOW	22.82	321.1	5	1	3								
MATUSIRO	22.83	37.1	4	57A	-1	9	0	2					
GUAM	23.17	100.6	5	11	10								
TUKUBASAN	23.73	40.3	5	3	-4				5	11	5	47	PPP
MIZUSAWA	26.29	36.5	5	31	0								
CHITTAGONG	27.74	281.8	5	44	0								
SHILLONG	27.93	288.6	5	46A	0								
DJAKARTA	28.92	210.9									6	42	
TANGERANG	29.01	211.3	5	54A	-2								
LEMBANG	29.12	208.9	5	55A	-2						6	21	
LHASA	29.40	296.6	6	1	2								
CHATRA	32.27	290.1	6	26A	2								
Y.-SAKHLINSK	32.87	27.4	6	29	-1								
RARAUL	38.21	124.2									17	58	
MADRAS	39.92	267.5	7	37	8	13	34	5					
LAHORE	43.92	295.9	8	2	0								
PETROPAVLOVK	44.46	31.5	8	6	0								
MAGADAN	45.61	20.5	8	16	1								
FRUNSE	45.75	311.6	8	18	2								
WARSAK DAM	46.47	299.0	8	23K	1								
ANDIJAN	46.87	308.3	8	28	3	15	17	7					
TASHKENT	49.27	308.4	8	46	2								
QUETTA	50.21	293.7	8	51	0	16	3	6					
MUNDARING	51.05	185.6	8	59	2								
TIKSI	52.68	3.0	9	28	18								
BRISBANE	55.40	145.7	9	29	-1								
ADELAIDE	56.29	162.8	9	36	0								
VANNOVSKAYA	57.56	303.3	9	35	-10								
SVERDLOVSK	58.22	325.7	9	49	-1								
RIVERVIEW	59.86	151.4	10	1K	0						10	46	PCP
CANBERRA	60.20	154.0	10	2	-1								
MELBOURNE	60.88	158.7	10	7	-1						18	51	PS
AMDERMA	61.85	340.1	10	14A	0								
SHIRAZ	62.73	294.1	10	19	-1	18	44	2	10	29	14	10	PPP
TARRALEAH	65.39	159.7	10	38	0								
MOORLANDS	65.76	159.2	10	42	2								
KHEYS	66.97	350.8	10	46A	-2	19	37	3					
TIFLIS	67.60	308.1	10	51	-1	19	47	5					
MOSCOW	70.88	323.5	11	11	-1	20	19	-1					
APATITY	71.68	336.2	11	16A	0								
COLLEGE	73.23	26.5	11	24	-2								
AFIAMALU	73.61	111.4	11	26	-2								
KEVO	73.69	338.8	11	28	0								
SODANKYLA	74.30	336.4	11	31A	-1								
KAJAANI	74.54	332.9	11	33A	0	21	3	1					
SIMFEROPOL	74.79	312.7	11	34	-1	21	7	2					
KIPAPA	74.86	72.3	11	34	-1						11	47	
KSARA	75.92	301.2	11	44	3	21	25	8					
TROMSOE	76.45	339.4	11	44	0								

KIRUNA	76.48	337.5	11	43A	-1					
HELSINKI	76.70	329.3	11	46	0				12	18
NURMIJARVI	76.76	329.7	11	44A	-2	21	24	-2	12	17
UMEA	77.79	333.5	11	50A	-2					
TUAI	77.79	138.6	11	50	-2					
HAWAII V.OB.	77.88	73.5	11	55	3					
MOULD BAY	78.15	12.3	11	53A	-1					
ALERT	78.54	0.5	11	55A	-1					
ISTANBUL UN.	79.39	309.7	11	58A	-2	21	55	1		
ADDIS ABABA	80.09	276.2	12	7	3					
UPPSALA	80.30	330.2	12	4A	-1	22	3	-1		
SKALSTUGAN	81.17	334.7	12	9A	-1					
SITKA	81.17	32.6	12	11	1					
UZHGOROD	81.63	318.5	12	12	0					
TANANARIVE	81.65	246.7	12	14A	2				12	25 PCP
KRAKOW	82.60	320.4	12	17	0				12	28 PCP
SKALNATE PL.	82.71	319.5	12	19	1				15	51
KARLSKRONA	82.72	327.1	12	15	-3					
SOFIA	82.91	312.6	12	28	9	22	42	11	15	44 PP
RESOLUTE	83.61	9.1	12	22	0					
RACIBORZ	83.62	320.8	12	21	-1				12	31 PCP
GOTEBORG	83.86	329.4	12	24	0					
BELGRADE	84.14	315.4	12	26K	1	22	43	0	14	12
THULE	84.47	2.3	12	25	-2					
BRATISLAVA	85.02	319.4	12	28A	-1	22	48	-4	16	4
VIENNA-H.	85.44	319.6	12	32	1	22	55	-1		
BERGEN	85.58	333.4							12	56
COLLMBERG	86.15	323.3	12	35A	0				15	53
HALLE	86.65	323.8	12	37	0	22	55	-12		
ZAGREB	86.67	317.5	12	36K	-1	23	9	2	13	1
KASPERSKE H.	86.76	321.2	12	37	-1				15	43 PP
SCORESBY SD.	87.01	348.4	12	31	-8					
JENA	87.11	323.4	12	37	-3	23	0	-12	15	58 PP
LJUBLJANA	87.50	318.1	12	41A	0				13	8
TRIESTE	88.16	318.0	12	42A	-3	23	8	-13	15	34
MUNSTER	88.80	325.5	12	47	-1					
WITTEVEEN	88.87	326.5	12	49	1					
FELDBERG	89.21	323.7	12	56	6					
STUTTGART	89.44	322.2	12	50	-1					
PADOVA	89.45	318.4				23	20	-13		
BENSBERG	89.55	324.8	12	50	-1					
ALBERNI	90.25	36.8	12	54	0					
STRASBOURG	90.41	322.5	12	55	0	23	33	-9		
FLORENCE X.	90.59	317.1	12	43	-13	23	8	-36		
ROME	90.63	315.0	13	16	20	23	46	2	23	15 SKS
PRATO	90.64	317.3	13	0	4					
UCCLE	91.15	325.5	13	16	17					
DOURBES	91.40	324.9	13	0	0					
VICTORIA	91.43	37.0	13	0	0					
NEUCHATEL	91.68	321.4							34	30
BESANCON	92.12	322.0	13	3	0					
ROSELEND	92.54	320.4	13	6	1				13 16	16 55 PP
MONACO	93.04	318.4	13	8	1					
LWIRO	93.10	268.7	13	8	0					
PENTICTON	93.10	34.9	13	8A	0					
GARCHY	93.78	323.0	13	10A	-1				17	30
BANFF	94.15	31.9	13	12	0					
MAWSON	96.39	199.2	13	21A	-2				13 32	16 10 PP
MINERAL	96.83	43.3	13	25K	0					
BROKEN HILL	97.25	257.3	13	25	-2					
LICK	98.39	45.8	13	33K	1					
BULAWAYO	98.82	251.8	13	33A	-1					
BUTTE	98.89	34.7	13	34	0				15	58
BANGUI	100.51	278.4	13	36	-5				18	2 PP
EUREKA	100.90	41.5	13	43	0				30	18 PKKP
WOODY	101.15	46.0	13	42	-2					
FLAMING GRGE	103.95	37.2	12	57	-60					
SHAWINIGAN	113.39	10.5	18	42	12					
BYRD STATION	113.66	170.4	18	43	12				29	15
WICHITA MTS.	114.37	35.5	18	33	1				19	37 PP
PENNSYLVANIA	117.76	16.4	18	40A	1					
MORGANTOWN	118.26	18.5	18	41	1					
COLUMBIA	123.03	22.1	18	50	1					
BALBOA HTS.	145.32	38.2	19	31	1					
FORT FRANCE	146.26	4.3	19	34	2					
CARACAS	149.45	16.1	19	39A	2				19	54 PKP2
CHINCHINA	150.81	36.5	19	39	0				19	45 PKP2
BOGOTA	151.95	34.2	19	46	5				19	52 PKP2

HUANCAYO	162.50	68.7	19	58	4									
LA PAZ	170.63	75.2	20	4	4									

JUNE 24 1.H 21.M 21.S EPICENTRE 25.57 100.89 DEPTH= 50.KM

A=-0.17064 B= 0.88693 C= 0.42922 D= 0.9820 E= 0.1889
G=-0.0811 H= 0.4215 K=-0.9032 HT= 3.2

DEPTH OF FOCUS= 0.003R

SE= 2.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KUNMING	1.73	104.5	0	23	-5								
TOCKLAI	5.62	283.4	1	39	16						3	39	SG
CHENGTU	5.77	27.8	1	26K	1	2	38	7			1	50	PG
SHILLONG	8.15	272.0	1	57K	-1						4	1	SG
CHITTAGONG	8.89	250.8	2	11	3	3	52	4			2	18	PP
LHASA	9.63	297.1	1	46K	-33	3	13	-54					
LANCHOW	10.75	12.9	2	34K	0	4	40	6					
SIAN	11.10	36.9	2	35	-4	4	39	-3					
CANTON	11.62	99.6	2	37A	-9	4	48	-7					
CALCUTTA	11.83	257.8	2	48	-1	5	1	1					
CHATRA	12.38	278.8	2	54	-2	5	29	16			3	3	PP
HONG KONG	12.57	102.2	2	50	-8	5	12	-6					
BOKARO	13.83	266.0	3	14	-1						4	16	
PORT BLAIR	15.83	210.7	3	42	1								
PAOTOW	16.80	24.7	3	52	-1	7	2	5					
NANKING	16.95	63.5	3	51A	-4	6	57	-3					
TAINAN	17.81	94.2									9	9	
TAICHUNG	18.02	90.3				7	2	-22					
VISHAKHAPTNM	18.11	247.9	4	9	0						8	15	
HSINCHU	18.19	88.1									8	39	
ALISHAN	18.23	92.2	3	29	-42								
HENGCHUN	18.52	96.9				7	54	19					
TAWU	18.57	95.7	4	9	-6								
TAIPEI	18.66	87.2	4	39	23								
ZO-SE	18.68	68.2	4	13	-3	7	49	10					
TAITUNG	18.70	94.4	4	16	0								
HWALIEN	18.89	90.4	4	16	-3								
ILAN	18.90	87.9	4	19	0								
PEKING	19.27	37.8	4	22	-1	7	59	7					
BAGUIO CITY	20.49	112.5	4	36	0	8	21	3					
DEHRA DUN	20.72	288.4	4	37	-1	8	27	5			5	13	PPP
ESEN BULAK	21.12	351.1	4	44K	2	8	41	11					
NEW DELHI	21.30	283.4	4	41K	-3	8	17	-16			5	4	PP
MANILA	21.81	116.0	4	46	-3	8	30	-12					
HYDERABAD	22.37	253.2	4	52	-3	9	1	8			5	31	PP
ULAN-BATOR	22.81	10.5	5	0K	1	9	14	14					
MADRAS	23.16	241.2	5	0	-3	9	18	11			5	47	PP
LAHORE	24.05	290.5	5	13	2								
POONA	25.99	259.8	5	30K	0	10	3	8			11	9	SS
ALMATA	26.35	318.1	5	35	2						10	24	PP
WARSAK DAM	26.75	295.2	5	38K	1								
BOMBAY	26.78	261.4	5	40	3	10	14	6			6	37	PP
IRKUTSK	26.79	4.7	5	39K	2	10	18	10					
CHANGCHUN	26.95	41.3	5	39	0	10	17	7					
KHOROG	27.59	302.6	5	47	3								
QUETTA	30.28	286.5	6	9K	0								
TASHKENT	30.49	308.9	6	12K	2	11	16	9					
VLADIVOSTOK	30.78	47.5	6	9	-4	11	12	1					
TANGERANG	32.04	169.2	6	24K	0						18	3	
DJAKARTA	32.08	168.8	6	23K	-1						17	47	
LEMBANG	32.86	167.6	6	32K	1	11	4	-40					
MATUSIRO	33.60	61.9	6	35A	-3	11	45	-10					
TUKURASAN	35.07	62.8	6	43	-7	12	15	-3			8	12	PP
ASHKARAD	37.91	299.6	7	16	2								
Y.-SAKHLINSK	39.33	46.1	7	29A	-1	13	26	3					
UGLEGORSK	39.61	42.8	7	26	-2								
YAKUTSK	41.27	20.2	7	41	-1	13	53	1					
SVERDLOVSK	42.49	328.3	7	53A	1	14	11	1					
SHIRAZ	42.81	286.8	7	55K	0	14	24	9	8	14	9	48	PP
GUAM	42.86	97.8	7	55	0								
TEHERAN	43.38	295.8	8	0	1	15	3	40					
GORIS	47.38	301.1	8	20	-11	15	18	-2					
DARWIN	47.68	138.7	8	35	2								

MAGADAN	48.27	31.5	8	37	-1	15	37	4		
TIFLIS	48.56	304.0	8	41	1	15	48	11	10	33 PP
TIKSI	48.70	11.4	8	39K	-2				15	32
AMDERMA	49.77	343.3	8	49K	0	16	0	6		
PETROPAVLOVK	50.72	41.3	8	51	-6	16	9	2		
MOSCOW	54.28	321.5	9	23K	0				11	23 PP
KSARA	56.26	294.8	9	39	1	18	34	72	10	39 PCP
SIMFEROPOL	56.28	308.3	9	36	-2				19	12 SCS
PORT MORESBY	56.87	121.6	9	41K	-1					
RABAUL	57.84	113.2	9	47	-2					
KHEYS	57.86	352.4	9	48K	-1	17	48	5		
APATITY	58.04	335.3	9	49K	-1	17	53	8		
PULKOVO	58.52	326.0	9	53	0	17	58	6	21	57 SS
MUNDARING	59.05	164.8	9	57A	0					
KAJAANI	59.97	330.9	10	4K	0				12	17 PP
ISTANBUL UN.	60.46	304.3	10	6K	-1	18	25	8		
SODANKYLA	60.62	334.7	10	7K	-1				12	21 PP
ADDIS ABABA	61.05	266.2	10	13	2					
HELSINKI	61.21	326.4	10	12	0					
NURMIJARVI	61.36	326.8	10	12K	-1				10	46
LWOW	62.61	314.7	10	21K	0	18	46	2		
KIRUNA	63.00	335.2	10	23K	-1	18	56	7	14	19
CHARTERS TS.	63.27	131.5	10	23	-3					
UMEA	63.27	330.7	10	25K	-1					
TROMSOE	63.50	337.2	10	26	-1					
SOFIA	64.31	307.0	10	42	10				13	11 PP
UPPSALA	64.91	326.4	10	36K	0	19	18	6	20	20 SCS
ATHENS	65.07	301.8	10	36K	-1	19	21	7		
SKALNATE PL.	65.15	314.5	10	37	-1					
KRAKOW	65.19	315.5	10	43	5				19	27 PS
BELGRADE	65.90	309.8	10	42	-1				11	13 PCP
KARLSKRONA	66.60	322.6	10	45K	-2					
SKALSTUGAN	66.82	330.9	10	48K	0					
BRATISLAVA	67.40	313.9	10	50	-2				15	12
VIENNA-H.	67.86	314.1	10	54	-1					
TANANARIVE	68.15	234.9	10	58A	1				11	22
PRAGUE	68.64	316.3	11	1K	1	20	0	2	13	36 PP
NORD	68.71	352.0	10	58	-2					
KASPERSKE H.	69.42	315.5	11	4K	-1				12	46
LJUBLJANA	69.65	312.2	11	6	0				13	41 PP
HALLE	69.79	318.2	11	7	0	20	19	8		
ADELAIDE	70.06	147.6	11	6A	-3					
JENA	70.17	317.7	11	9	0	20	22	6	13	54 PP
TRIESTE	70.27	311.9	11	10	0	20	14	-3	13	46 PP
MESSINA	71.21	304.0	11	14	-2	20	29	1	11 21	13 53 PP
AQUILA	71.49	308.7	11	17	0				13	59 PP
ALERT	71.85	357.7	11	19K	0					
MUNSTER	72.22	319.6	11	22	0					
STUTTGART	72.24	316.0	11	22	0	20	48	9		
ROME	72.29	308.4				21	28	48	14	2 PP
FLORENCE X.	72.54	310.6				20	14	-29	13	46 PP
BRISBANE	72.59	132.8	11	25	1				21	27
BENSBERG	72.82	318.7	11	26	1				11	49
STRASBOURG	73.25	316.2	11	29	1					
BESANCON	74.84	315.3	11	35	-2					
LWIRO	74.88	260.0	11	38A	1				35	35
ROSELEND	74.98	313.6	11	37	-1					
MOULD BAY	75.43	9.2	11	40	0					
COLLEGE	75.64	24.3	11	40	-1	21	23	6	12	35
CANBERRA	75.75	141.1	11	42A	0					
RIVERVIEW	75.95	138.7	11	45A	2					
SCORESBY SD.	76.14	343.1	11	44	0	21	31	8		
PARIS	76.42	317.7	11	46	0					
GARCHY	76.66	316.1	11	47K	0				13	12
THULE	78.03	357.4	11	53	-2					
FOLINIERE	78.23	318.5	11	56	0					
SIDA	79.03	336.7	12	2A	2					
RESOLUTE	79.47	4.2	12	2	-1					
BAGNERES	80.29	313.1	12	10	3					
BROKEN HILL	80.92	249.3	12	10K	0					
BANGUI	81.16	270.6	12	12	0				15	20 PP
BULAWAYO	83.60	244.2	12	23	-1					
TOLEDO	84.55	311.7	12	30K	1	22	58	8		
ALMERIA	84.90	308.4	12	31K	0				15	44 PP
GRANADA	85.54	309.1	11	47A	-47					
MALAGA	86.32	309.0	12	39	1	23	15	7	16	1 PP
HONOLULU	90.33	66.3				25	1	76		
TUAI	95.75	130.3	13	19	-3					

PENTICTON	97.17	25.4	13	29	1							
EUREKA	106.71	29.0	14	4	777						18	6 PKP
WOODY	108.41	33.3	18	49	777							
GLEN CANYON	110.68	27.4	17	58	-29							
PALISADES	113.59	355.7				25	24	10				
SOUTH POLE	115.42	180.0	18	35	-1							
WICHITA MTS.	117.26	18.0	18	40	0						29	5 PKKP
CHINCHINA	149.46	353.1	19	43	4							
BOGOTA	149.60	350.0	19	44	5							
LA PAZ	166.35	309.3	20	2	3						24	59 PP

JUNE 25 1.H 31.M 42.S EPICENTRE -20.92-179.13 DEPTH= 640.KM

A=-0.93480 B=-0.01414 C=-0.35491 D=-0.0151 E= 0.9999
G= 0.3549 H= 0.0054 K=-0.9349 HT= 4.5

DEPTH OF FOCUS= 0.096R

SE= 1.59

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	#PP M	S	SUPP. M	S
AFIAMALU	9.89	46.4	2	16K	-2	4	6	-3				
PORT VILA	12.26	282.8	2	42A	1							
NOUMEA	13.48	261.5	2	54A	1							
KOUMAC	15.52	268.4	3	12A	0							
ONERAHI	15.86	199.7	3	19	4	6	5	13				
TUAI	18.11	189.4	3	35	-1	6	26	-4				
TARATA	19.05	195.6	3	47	2							
WELLINGTON	20.95	192.9	3	59	-3	7	4	-12				
BRISBANE	26.39	250.4	4	49K	-1							
RIVERVIEW	29.24	237.6	5	15	0							
CANBERRA	31.40	236.0	5	33K	0							
CHARTERS TS.	32.39	265.2	5	41	0						8	10
MELBOURNE	35.27	233.5	6	5	0							
ADELAIDE	39.49	240.1	6	38K	-1						8	24 PP
KIPAPA	46.86	27.4	7	36	0							
DARWIN	48.52	271.8	7	48	-1							
SCOTT BASE	57.39	183.5	8	52	1							
BYRD STATION	64.41	170.4	9	38	1							
SOUTH POLE	69.21	180.0	9	46	-20							
MATUSIRO	69.92	324.5	10	9A	-1							
BERKELEY	79.20	42.4	11	3K	1							
LICK	79.28	43.2	11	3K	1							
MAWSON	80.81	200.1	11	9K	-1				13	22		
CHINA LAKE	81.06	46.3	11	7	-4							
MINERAL	81.10	40.7	11	12K	1							
RENO	81.73	42.2	11	16	1							
TUCSON	84.01	52.3	11	28	2							
TUCSON TELE.	84.13	52.3	11	29	3							
EUREKA	84.15	44.0	11	27	0							
PENTICTON	87.59	34.4	11	43A	0							
ALBUQUERQUE	88.49	51.7	11	48	1				14	4		
COLLEGE	88.85	12.8	11	47	-2				14	5		
FLAMING GRGE	89.22	45.3	11	51	1							
WICHITA MTS.	94.28	54.6	12	13	-1	21	51	-38	14	32	29	11 PKKP
TROMSOE	130.07	351.8	17	57	-2							
SODANKYLA	130.78	347.2	17	58	-2						20	26 SKP
BULAWAYO	130.99	215.4	18	1	0						20	28
KIRUNA	131.51	350.2	18	1	0						20	29 SKP
SHIRAZ	132.81	291.5	18	6A	2				20	35		
KAJAANI	133.27	344.2	18	6	1						20	37 SKP
UMEA	135.18	348.0	18	2	-6						20	41 SKP
BROKEN HILL	135.61	219.9	18	2	-7							
SKALSTUGAN	136.67	352.6	18	2	-9						20	46 SKP
NURMIJARVI	137.03	343.0	18	3	-9						20	48 SKP
HELSINKI	137.22	342.5	18	13	1						20	48 SKP
UPPSALA	139.31	347.1	18	8	-8						20	53 SKP
BANDEIRA	142.37	199.9	18	20A	-2							
LWIRO	144.24	233.2	18	28K	3							
DURHAM	146.15	2.5	18	32K	4							
SKALNATE PL.	147.84	335.9	18	36	6							
WITTEVEEN	147.84	353.4	18	36A	6							
HALLE	148.27	346.8	18	37	6						19	13
JENA	148.88	346.8	18	38	6						20	30
PRUHONICE	149.03	342.7	18	39K	7						21	8 PP
BENSBERG	149.61	352.1	18	40	7							

BRATISLAVA	149.83	338.1	18 39	6	
VIENNA-H.	150.01	339.1	18 42	8	
UCCLE	150.05	355.6	18 44	10	
KASPERSKE H.	150.07	343.2	18 41	7	21 11 PP
DOURBES	150.73	355.1	18 43	8	
STUTTGART	151.40	348.3	18 44	8	
STRASBOURG	151.85	350.3	18 46	10	
PARIS	152.14	357.7	18 47	10	
FOLINIERE	152.19	1.9	18 46	9	
LJUBLJANA	152.55	339.1	18 39	2	
TRIESTE	153.15	339.7	18 39	1	19 2 PKP2
BESANCON	153.40	352.2	18 48	9	
GARCHY	153.64	356.6	18 40	1	19 4
ROSELEND	154.84	350.5	18 49	9	
CHIAVARI	155.63	345.2			19 58
BANGUI	156.17	228.8	18 44	2	19 17
BAGNERES	157.90	1.4	18 51	6	
GRANADA	163.33	12.5			24 33 PP

JUNE 25 6.H 26.M 50.S EPICENTRE -37.47 -72.95 DEPTH= 45.KM

A= 0.23333 B=-0.76070 C=-0.60572 D=-0.9560 E=-0.2932
G=-0.1776 H= 0.5791 K=-0.7957 HT= -0.8

DEPTH OF FOCUS= 0.002R

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
SANTA LUCIA	4.44	25.8	1 5A	-1	2 9	11		
AREQUIPA	20.96	3.9	4 41	0				
LA PAZ	21.31	12.8	4 46A	1	8 44	10		
HUANCAYO	25.40	354.6	5 26	2				
BOGOTA	41.88	358.3	7 50A	3	14 9	7		17 19 SS
CHINCHINA	42.29	356.0	7 50K	-1	14 9	1		
BYRD STATION	46.22	190.1	8 23	1				21 40
CARACAS	48.04	8.0	8 42A	6	15 51	21		
TRINIDAD	49.07	15.1	8 45	1				
GRENADA	50.37	14.3	8 57	3				
ST. VINCENT	51.55	14.6	9 1	-2				
SOUTH POLE	52.72	180.0	9 13	1				
SCOTT BASE	59.54	192.2	10 2	1				
MAWSON	70.08	163.5	11 10A	1			11 19	11 33 PCP
COLUMBIA	71.50	352.9	11 16	-2				
DUMONT	73.16	193.1	11 25	-2				
M.BOUR	73.62	56.8	11 32	2				
LUBBOCK	75.64	335.4	11 40	-2				
WICHITA MTS.	75.67	338.4	11 40	-2	21 19	0		13 30 PP
WASHINGTON	76.09	356.7	11 44	0				
MORGANTOWN	76.99	354.5	11 48K	-1				
ROLLA	77.01	344.7	11 47A	-3	21 28	-5		
BLOOMINGTON	77.29	349.2	11 49	-2	21 35	-1		
ST. LOUIS 1	77.39	346.2	11 51	-1	21 37	0		
FLORISSANT	77.57	346.1	11 50	-3	21 37	-2		
TUCSON	77.85	327.8	11 53	-1				
TUCSON TELE.	77.88	328.0	11 55	1				
PENNSYLVANIA	78.02	356.2	11 54A	-1				
PALISADES	78.10	359.3	11 51	-5	21 47	2		
ALBUQUERQUE	78.49	332.4	11 57	-1				
MANHATTEN	79.33	341.5	12 0	-2	21 58	0		
CHICAGO USA.	80.12	348.9	12 4	-3				
HALIFAX	82.14	6.7	12 18A	1				
BREBEUF	82.59	359.5	12 19K	0	22 34	2		
PASADENA	82.74	323.6	12 26	6	22 40	7		
BOULDER CITY	82.75	326.9	12 19	-1				
SHAWINIGAN	83.64	0.1	12 25	0				
LARAMIE	83.89	335.9	12 27	1				
FLAMING GRGE	84.85	333.1	12 29	-2				
SALT LAKE C.	85.62	331.4	12 34	-1				
RAPID CITY	85.67	338.6	12 35	0				
EUREKA	86.18	328.0	12 37	0				
BULAWAYO	86.70	112.8	12 42	2				
LICK	86.97	323.2	12 49A	8				
BERKELEY	87.69	323.1	12 50	5				
RENO	87.90	325.6	12 47	1				
MINERAL	89.36	325.0	12 52K	-1				

BROKEN HILL	90.14	108.3	13	0A	4						
PENTICTON	95.78	331.4	13	26	4						
HONOLULU	98.98	289.8				24	12	2			
BAGNERES	104.04	46.3							18	19	
ROSELEND	109.34	46.9							20	46	
ADDIS ABABA	112.66	96.1	18	39	8						
MOULD BAY	117.17	348.8	18	40	0						
COLLEGE	117.33	332.4	18	40	0						
SODANKYLA	127.57	28.8	19	1	1						
SHIRAZ	134.43	83.1	19	16K	3				21	49	PP
POONA	145.39	113.8	19	37A	4						
MEDAN	145.41	165.2	19	36K	3						
QUETTA	146.10	90.3	19	44	10						
WARSAK DAM	151.08	86.1	19	51	9						
LAHORE	152.49	92.6	19	53	9						
MATUSIRO	155.15	277.4	20	15	28				43	40	SKKS

JUNE 25 11.H 10.M 32.S EPICENTRE 24.06 122.19 DEPTH= 81.KM

A=-0.48696 B= 0.77362 C= 0.40544 D= 0.8463 E= 0.5327
G=-0.2150 H= 0.3431 K=-0.9141 HT= 3.6

DEPTH OF FOCUS= 0.008R

SE= 3.93

	DFLTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	#PP M	#PP S	SUPP. M	SUPP. S
HWALIEN	0.53	260.1	0	10	-6	0	22	-6				
ILAN	0.81	330.5	0	8K	-10	0	23	-9				
TAIPEI	1.14	327.9	0	20A	-2	0	33	-5				
HSINKONG	1.22	218.3	0	15K	-8	0	30	-9				
YUSHAN	1.27	243.2	0	24	1	0	47	6				
HSINCHU	1.33	303.7	0	22	-2	0	47	5				
TAICHUNG	1.38	273.9	0	24A	-1	0	48	5				
ALISHAN	1.38	247.3	0	32A	7	0	52	9				
TAITUNG	1.62	216.4	0	23K	-5	0	47	-1				
ISIGAKIZIMA	1.83	81.2	0	20K	-11	0	43	-10				
TAWU	2.08	215.1	0	30K	-4	0	48	-11				
TAINAN	2.09	240.1	0	35	1	1	12	13				
KAOHSIUNG	2.27	231.2	0	43	6	1	7	3				
HENGCHUN	2.44	213.1	0	39K	0	1	4	-4				
PENGHU	2.47	258.2	0	41	2	1	17	8				
ZO-SE	7.07	353.0	1	37	-6							
HONG KONG	7.58	258.2	1	48A	-2	2	50	-25				
BAGUIO CITY	7.75	191.5	1	45	-7						4	46
CANTON	8.17	265.0	1	57	-1	3	39	9				
NANKING	8.52	340.1	1	57	-6	3	40	2				
MANILA	9.40	186.6	2	10	-5	4	10	10				
YAKUSIMA	9.75	47.5	2	17	-2	4	35	27				
HUKUE	10.40	32.7	2	27	-1	4	51	27				
KAGOSIMA	10.52	42.8	2	31	1	4	32	5				
NAGASAKI	10.97	36.4	2	39	3	4	49	12				
MIYAZAKI	11.30	44.1	2	34	-6	4	57	12				
KUMAMOTO	11.49	38.7	2	49	6	4	50	0				
SAGA	11.59	36.0	2	51	7							
ASOSAN	11.76	39.6	1	48	-58	5	8	11				
ITUHARA	11.85	29.9	2	44	-4	5	16	17				
HUKUOKA	11.89	35.3	2	55	7	5	19	19				
OOITA	12.32	40.1	2	38	-16	5	23	13				
SIMONOSEKI	12.47	35.8	2	54	-2							
ASHIZURI	12.84	45.4	3	13	12						6	13
UWAZIMA	12.88	42.5	3	3	2							
MATUYAMA	13.44	41.2	3	10	1	6	0	24				
HIROSIMA	13.61	38.7	3	12	1	5	53	13				
KOTI	13.71	43.9	3	32	20	5	59	16				
HAMADA	13.80	36.3	3	19	6	6	4	19				
MUROTO	13.94	46.3	3	20	5						6	46
TAKAMATU	14.54	42.7	3	31	8	6	26	24				
MATSUE	14.75	37.2	3	20	-6	6	41	34				
YONAGO	14.90	38.0	3	28	1						7	2
SUMOTO	15.09	44.4	3	43	13						7	11
SIAN	15.39	314.3	3	34A	0							
TOTTORI	15.43	39.6	3	39	5							
SAIGO	15.45	35.9	3	32	-2							
KOBE	15.48	44.0	3	39	4	7	17	53				
OSAKA	15.69	44.7	3	16	-21	6	20	-9				

OWASE	15.78	47.7	2 50	-49			
ABUYAMA	15.85	44.2	3 39K	-1			
NARA	15.90	45.2	3 59	19			
KYOTO	16.05	44.0	3 52	10	7 23	46	
KAMEYAMA	16.42	45.9	3 56	9	7 17	31	
HIKONE	16.54	44.3	3 56	8	7 37	49	
PEKING	16.71	343.7	3 49A	-1	7 0	8	
NAGOYA	16.94	45.8	4 2	9			
GIHU	16.95	44.9	3 59	6			
HUKUI	17.02	42.2	4 0	6			
NHATRANG	17.04	228.5	3 56	2			
CHENGTU	17.42	296.1	3 59A	0	7 26	18	
OMAESAKI	17.46	49.4					6 38
KUNMING	17.72	277.4	4 6A	3	7 35	20	
SHIZUOKA	17.79	48.6	4 18	14	7 35	19	11 29
HATIDYOZIMA	17.87	55.8	4 7	2			
TOYAMA	18.04	42.2	4 8	1	7 44	22	
MATUMOTO	18.24	44.6	4 9	0			
MISIMA	18.25	49.0	4 10	1			
KOHU	18.29	47.0	4 15	5			
WAZIMA	18.30	40.1					7 31
AJIRO	18.31	49.4	4 4	-6			
OSIMA	18.36	50.6	4 11	1			
MATUSIRO	18.57	44.3	4 5A	-8	7 23	-11	
NAGANO	18.64	43.9	4 33	19			10 22
OIWAKE	18.66	45.3	4 15	1	7 48	12	
TITIBU	18.81	47.0	4 23	7			
YOKOHAMA	18.89	49.2	4 26	9			
MAEBASI	19.04	45.9	4 17	-1			5 9
TOKYO C.M.O.	19.10	48.7	4 15	-4	7 44	-1	
KUMAGAYA	19.11	47.0	4 16	-3			6 56
HONGO	19.13	48.6	4 16	-3			9 5
PAOTOW	19.38	331.1	4 21A	-1	8 6	15	
AIKAWA	19.53	40.8	4 35	12			
TUKUBASAN	19.63	47.8	4 16K	-9	7 47	-9	8 51 55
UTUNOMIYA	19.66	46.6	4 32	7			
KAKIOKA	19.69	47.8	4 24	-1	7 58	1	
LANCHOW	19.84	311.2	4 28A	1	8 17	16	
CHANGCHUN	19.88	6.7	4 24	-3	8 11	10	
NIIGATA	19.95	42.2					11 36
SHIRAKAWA	20.21	45.7	4 42	11			
ONAHAMA	20.57	47.0			8 21	6	5 1
HUKUSIMA	20.74	44.6	4 25	-11			
YAMAGATA	20.96	43.3	4 43	5	8 27	5	
SAKATA	21.04	41.2					12 59
SENDAI	21.32	44.0	4 57	15	8 31	2	
ISINOMAKI	21.68	44.2	4 42	-3	8 33	-2	
AKITA	21.73	39.8					5 9
MIZUSAWA	21.98	42.4	4 38	-10	8 46	5	
MORIOKA	22.35	41.3	4 57	5	8 49	2	
MIYAKO	22.81	42.4	4 54	-3	8 54	-2	
AOMORI	22.84	38.6	5 22	25			
MORI	23.59	35.9					5 34
SUTTSU	23.91	34.2					5 48
SAPPORO	24.68	35.2	5 5	-10			5 59
URAKAWA	24.85	38.5	5 12	-4			
OBIHIRO	25.58	37.6	5 23	0			
ASAHIGAWA	25.71	35.2	5 24	0			6 24
KUSIRO	26.30	38.8	5 27	-3	10 46	51	
WAKKANAI	26.52	31.8	5 32	0			
ULAN-BATOR	26.73	336.8	5 32	-2	10 34	32	
NEMURO	27.20	39.3	5 30	-8	10 54	45	
SHILLONG	27.53	279.5	5 43K	2	10 24	9	
CHITTAGONG	27.94	272.7	5 48	3	10 35	14	
Y.-SAKHLINSK	28.19	30.5	5 41	-6			
LHASA	28.29	288.2	5 50A	2	10 47	20	
UGLEGORSK	29.46	27.0	5 54	-4			
MEDAN	30.48	231.7	6 13	6			
ESEN BULAK	30.51	323.4	6 7A	-1	11 38	36	
PORT BLAIR	30.56	251.4	6 30	22			13 7
CALCUTTA	31.06	274.1	6 29	17	11 47	37	
IRKUTSK	31.30	338.7	6 12A	-3			7 21 PP
CHATRA	31.68	282.5	6 21K	3	12 33	73	7 24 PP
BOKARO	33.20	277.2	6 33	2	11 51	7	7 50 PP
DJAKARTA	33.58	208.4	6 33K	-1	12 0	10	
TANGERANG	33.66	208.8	6 36A	1	12 3	12	
LEMBANG	33.84	206.7	6 37K	0	12 0	6	
VISHAKHAPTNM	36.79	267.7	7 5	3	12 52	13	8 35 PP

DARWIN	37.19	165.9	7	4	-1					
YAKUTSK	38.29	5.7	7	9A	-5				13	14 SCP
DEHRA DUN	39.56	289.0	7	24	-1	13	32	11	9	14 PP
PETROPAVLOVK	39.89	34.0	7	22	-5				13	8 SCP
NEW DELHI	40.40	286.4	7	29A	-3	13	17	-17	9	8 PPP
RABAUL	40.52	129.9	7	28K	-5					
MADRAS	41.18	262.2	7	41	3	13	51	6	9	20 PP
PORT MORESBY	41.24	140.8	7	37	-2				13	50
HYDERABAD	41.30	269.3	7	42	3	13	54	7	9	12 PP
ALMATA	41.66	308.7	7	44A	2				9	22 PP
SEMIPALATNSK	41.69	320.0	7	42A	0				9	21 PP
LAHORE	42.71	291.1	7	52A	1					
KODAIKANAL	44.69	260.0	8	25	18				24	8
WARSAK DAM	44.98	294.7	8	12A	3					
KHOROG	45.04	299.6	8	12	3				10	4 PP
POONA	45.20	272.7	8	12A	1	14	50	6	18	7 SS
BOMBAY	46.04	273.5	8	20	3	15	5	9	10	10 PP
TASHKENT	47.00	304.8	8	27A	2	15	20	11		
TIKSI	47.75	2.9	8	26A	-5	15	18	-2	32	20
QUETTA	49.15	289.9	8	43	1					
CHARTERS TS.	49.76	149.9	8	45	-1	15	54	6		
SVERDLOVSK	54.69	323.7	9	22K	-1	16	59	4		
ASHKABAD	55.46	300.5	9	30	1				17	33 PS
MUNDARING	56.01	186.1	9	31	-2					
PERTH	56.03	186.5	9	30	-3	17	14	1	11	38 PP
AMDERMA	57.54	339.0	9	39A	-4	17	33	0		
BRISBANE	59.06	148.2	9	54	0	17	50	-3		
KOUMAC	60.39	133.7	10	3A	0					
ADELAIDE	60.77	164.5	10	5A	-1	18	19	4		
SHIRAZ	61.57	291.8	10	12A	1	10	36	11	10 30	13 25 PP
KHEYS	62.27	350.4	10	13A	-3	18	35	1	12	31 PP
NOUMEA	63.04	133.5	10	20A	-1					
RIVERVIEW	63.83	153.3	10	25A	-1	19	3	10		10 50 PCP
CANBERRA	64.29	155.8	10	28K	-1	19	5	6	10 37	12 52 PP
MELBOURNE	65.18	160.3	10	35	0	19	18	8	10 50	20 26 SCS
TIFLIS	65.28	306.5	10	35A	0	19	22	11		13 4 PP
MOSCOW	67.46	322.4	10	47	-2	19	41	4		13 13 PP
APATITY	67.55	335.4	10	48A	-2	19	43	5		15 15 PPP
COLLEGE	68.49	27.3	10	53	-3	20	10	20		12 10
KEVO	69.43	338.3	11	2	1					
TAPRALEAH	69.73	161.0	11	5K	2					14 20 SP
MOORLANDS	70.08	160.6	11	6	1					
SODANKYLA	70.15	335.8	11	3	-3					13 42 PP
PULKOVO	70.45	327.5	11	6	-2	20	16	3		
KAJAANI	70.56	332.3	11	7	-1	20	51	37	39	2 PKPPKP
SIMFEROPOL	72.10	311.8	11	17A	0	20	39	7	13	57 PP
TROMSOE	72.16	339.0	11	18	0					
KIRUNA	72.28	337.0	11	16A	-3	20	35	1	15	46
NORD	72.55	354.2	11	19	-1	21	19	42		
HONOLULU	72.62	74.0	11	20	-1	20	47	9	13	55 PP
KIPAPA	72.65	73.9	11	21	0					
HELSINKI	72.92	328.7	11	22	0					
NURMIJARVI	72.96	329.1	11	20	-3	21	0	19	21	22
MOULD BAY	73.19	12.7	11	19	-5					
ALERT	73.63	0.6	11	22	-4					
UMEA	73.77	333.1	11	25	-2				16	1
KSARA	74.12	300.3	11	31A	2	21	6	12	14	21 PP
AFIAMALU	74.71	113.1	11	33K	0	21	4	3		
HAWAII V.OR.	75.76	74.9	11	37	-2	21	23	11		
UPPSALA	76.47	329.8	11	42	-1	21	15	-5	16	24
SITKA	76.62	33.3	11	40	-4					
ISTANBUL UN.	76.90	309.2	11	45A	0	21	39	14		
LWOW	77.01	318.9	11	46A	0				12	17
SKALSTUGAN	77.09	334.4	11	46	0					
WARSAW	77.83	321.9	11	50	0				11	55 PCP
RESOLUTE	78.64	9.4	11	54	-1	21	46	2		
KRAKOW	79.35	320.1	11	59	0	21	54	3	12	21 PCP
KARAPIRO	79.44	139.8	12	0	1				13	12
SKALNATE PL.	79.52	319.2	12	2	3	22	14	21	14	59 PP
THULE	79.54	2.5	11	57	-3				13	47
TAPATA	79.61	141.4	12	1	1				12	34
GOTEBORG	80.07	329.2	12	4	2					
SOFIA	80.20	312.3	12	15	12	22	22	22	15	15 PP
CHATEAU	80.28	140.8	12	3	-1				14	52 PP
RACIBORZ	80.34	320.6	12	1	-3	22	10	8	12 10	12 22 PCP
ADDIS ABABA	80.40	275.6	12	8A	4	22	16	14		
TUAI	80.96	139.6	12	6	-1					
BUDAPEST	80.99	318.0	12	6	1	22	13	5	15	2 PP

BELGRADE	81.23	315.2	12	8	-1	22	18	7			17	6 PPP
WELLINGTON	81.25	142.7	12	6	-3	22	13	2			23	14 PS
ROXBURGH	81.41	148.6				22	18	5			27	50 SS
SKOPJE	81.78	312.2	12	9	-2	22	19	3				
ATHENS	81.84	307.8	12	12A	0	22	26	9				
BRATISLAVA	81.84	319.2	12	10A	-2	22	25	8			14	32
VIENNA-H.	82.24	319.5	12	15	1	22	32	11				
SCORESBY SD.	82.37	348.5	12	14	0	22	27	5				
PRUHONICE	82.48	321.6	12	15	0	22	26	3				
PRAGUE	82.51	321.8	12	17A	2	22	47	23			15	29 PP
COLLMBERG	82.71	323.3	12	15A	-1	22	34	8				
HALLE	83.18	323.8	12	18	-1	22	38	8				
KASPERSKE H.	83.45	321.2	12	20A	0	22	20	-13				
ZAGREB	83.61	317.5	12	21A	0	22	21	-14			22	41
CHEB	83.66	322.4	12	16	-5	22	27	-8				
JENA	83.67	323.4	12	20	-1	22	38	3			15	34 PP
TANANARIVE	84.34	246.5	12	29A	5						12	50
LJUBLJANA	84.39	318.2	12	25	0						15	37 PP
TRIESTE	85.06	318.1	12	28	0	22	47	-2			15	44 PP
MUNSTER	85.22	325.6	12	29	0							
WITTEVEEN	85.23	326.7	12	32	3							
TARANTO	85.28	312.3	12	5	-24						21	53
ALBERNI	85.84	37.2	12	30A	-2							
BENSBERG	86.01	324.9	12	32A	-1				12	44		
HEIDELBERG	86.04	323.1	12	34	1							
STUTTGART	86.07	322.3	12	33	0	23	5	6			15	53 PP
TUBINGEN	86.31	322.2	12	34	0							
PADOVA	86.32	318.6	12	41	7	22	58	-3			16	51
DE BILT	86.39	326.6	12	36	2	23	4	2				
RAVENSBURG	86.40	321.4	12	34	-1							
ABERDEEN	86.59	333.2	12	24	-11	23	0	-4			24	9 PS
AQUILA	86.91	315.3	12	38	1	22	54	-13			24	50 PPS
CHUR	86.95	320.6	12	38	1	23	3	-4				
STRASBOURG	87.01	322.7	12	38	0	23	16	8			16	0 PP
VICTORIA	87.03	37.3	12	37	-1							
REGGIO CALA.	87.49	310.8	12	40	0	22	59	-13				
MESSINA	87.51	310.9	12	34	-6	23	10	-3	12	43	16	2 PP
FLORENCE X.	87.54	317.4	12	42	2	23	4	-9			16	4 PP
UCCLE	87.57	325.8	12	46	6	23	17	4				
PRATO	87.58	317.5	12	42	2	22	58	-15				
BASLE	87.70	321.9	12	29	-12	23	9	-5				
ROME	87.73	315.3	12	41A	0	23	4	-11			16	4 PP
DOURBES	87.85	325.2	12	42	0	23	19	3				
DURHAM	87.94	331.2	12	47K	5	23	26	9			16	21 PP
PAVIA	88.06	319.4	12	42A	-1						16	14 PP
NEUCHATEL	88.35	321.7	12	28	-16							
PENTICTON	88.62	35.2	12	44A	-1							
BESANCON	88.75	322.3	12	45	-1							
ROSELEND	89.27	320.8	12	51	3						16	29 PP
KEW	89.48	328.2	12	41	-8	23	17	-14				
BANFF	89.56	32.2	12	45	-5							
PARIS	89.72	325.0	12	51	1	23	23	-10			16	22 PP
ISOLA	89.88	319.4	12	53	2						22	20
MONACO	89.90	318.8	12	56	5							
GARCHY	90.34	323.5	12	53	0						17	10 PP
WILKES	90.55	184.7	12	56K	2	23	19	-21	13	9	29	16 SS
CLERMONT-FD.	91.22	322.3	12	58	1							
FOLINIERE	91.28	326.1	13	0	2							
DUMONT	91.45	173.0	12	59	1	23	26	-22			16	46
HUNGRY HORSE	92.12	33.7	13	1	-1							
MINERAL	92.70	43.3	13	3A	-1						13	28
MIRNY	92.99	191.3	13	7	1	23	28	-34				
BERKELEY	93.68	45.7	13	8A	-1	23	52	-16			25	8 PPS
LWIRO	94.00	269.3	13	13	3	23	52	-19			17	2 PP
RENO	94.29	43.2	13	12	1							
LICK	94.39	45.8	13	14A	2						13	52
BUTTE	94.40	34.8	13	12	0	24	20	6			23	32 SKS
BAGNERES	94.56	321.5	13	34	21							
BOZEMAN	95.43	34.4	13	16	-1							
EUREKA	96.69	41.5	13	22	0						17	6 PP
PASADENA	98.53	46.8	13	28	-3	24	5	5			17	27 PP
TOLEDO	99.03	321.1	13	34A	1	24	10	7			17	37 PP
FLAMING GRGE	99.55	37.0	13	33	-2							
BOULDER CITY	99.58	43.6	13	35	-1						17	36 PP
RAPID CITY	100.46	31.4	13	39	-1							
GRANADA	100.54	318.8									18	23
GLEN CANYON	100.94	41.2									17	29
BULAWAYO	101.09	252.9	13	43	1							
MAWSON	101.28	199.6	13	53	10				14	4	17	46 PP

MALAGA	101.33	318.9	13	40	-3				17	50 PP
BENI ABBES	104.16	312.5	18	18	262				21	1 PPP
TUCSON	104.52	44.4							18	13 PP
TUCSON TELE.	104.53	44.2							18	14 PP
SCOTT BASE	104.97	171.1	18	20	261				20	36 PPP
ALBUQUERQUE	105.36	39.8	14	7	777				18	18 PP
MANHATTEN	107.37	30.7	14	8	777					
LAWRENCE	108.17	29.9	17	36	777					
CHICAGO USA.	108.80	23.1							18	45 PP
LUBBOCK	108.99	37.9	14	19	777					
BREBEUF	109.29	11.7				24	56	6	18	48 PP
WICHITA MTS.	109.90	34.9	14	26	777	25	2	10	18	52 PP
FLORISSANT	110.43	26.7	14	21	-242					
ROLLA	110.54	28.3	14	22	-241					
FAYETTEVILLE	111.00	31.0	19	4	40					
ANGRA DO HO.	111.35	334.7	19	10	46				28	38 PS
PENNSYLVANIA	112.83	16.4	18	44	17					
PALISADES	113.56	13.2	14	37	-232	25	17	10	19	39 *PPP
SOUTH POLE	113.92	180.0	18	32	2					
WASHINGTON	114.82	16.5							19	18
BYRD STATION	118.35	169.9	18	40	2				25	34
M.BOUR	124.76	309.5							20	41 PP
DOMINICA	140.72	5.5	19	30	9					
CARACAS	144.51	15.6	19	38	11					
TRINIDAD	145.32	6.2	19	28K	-1				23	14
CHINCHINA	146.33	33.3	19	31A	1					
BOGOTA	147.39	31.2	19	35A	3					
HUANCAYO	159.53	57.4	19	53	4					
APEQUIPA	165.11	62.0	19	58	3					
SANTA LUCIA	165.39	132.6							20	58
LA PAZ	167.74	54.0	20	0	4				23	29 PKS

JUNE 28 4.H 27.M 14.S EPICENTRE 19.86-155.62 DEPTH= 0.KM

A=-0.85735 B=-0.38848 C= 0.33770 D=-0.4127 E= 0.9109
G=-0.3076 H=-0.1394 K=-0.9413 HT= 4.7

SE= 2.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HONOLULU	2.73	302.1	0	44	-2		1	19 -1				
KIPAPA	2.73	305.1	0	45	-1							
BERKELEY	34.05	51.0	6	52K	4	12	18	4				
CALISTOGA	34.12	49.6	6	52A	3							
LICK	34.31	52.2	6	52A	1							
PRIEST	34.65	54.7	6	55A	2							
MINERAL	35.51	47.4	7	1A	0							
PASADENA	36.06	59.0	7	6	0	12	48	3				
RENO	36.45	49.6	7	1	-8							
AFIAMALU	37.13	206.6	7	14K	-1							
ALBERNI	38.30	32.8	7	24	0							
VICTORIA	38.58	34.6	7	28	1							
BOULDER CITY	39.15	57.1	7	43	12							
SITKA	40.07	17.1	7	41	2	13	54	8				
PENTICTON	41.09	35.8	7	48A	0							
TUCSON	41.81	63.6	7	53	0							
GLEN CANYON	41.91	56.4	7	56	2							
SALT LAKE C.	42.62	50.9	8	1	1							
BUTTE	43.82	43.4	8	10	0	14	43	2			19	33
HUNGRY HORSE	43.85	39.7	7	57	-13							
FLAMING GRGE	44.46	51.4	8	14	-1							
COLLEGE	45.29	4.7	8	22	0	14	53	-9			10	17 PP
ALBUQUERQUE	45.72	60.2	8	25	0							
LARAMIE	47.35	51.7	8	37	-1							
PETROPAVLOVK	48.24	324.6	8	46	1							
LUBBOCK	49.44	62.4	8	53	-1							
RAPID CITY	49.63	48.6	8	58	2							
WICHITA MTS.	52.17	61.1	9	12	-3	16	42	3			11	14 PP
MANHATTEN	53.93	55.5	9	25	-3	17	6	3				
MAGADAN	54.88	329.9	9	35A	0	17	25	9				
LAWRENCE	54.95	55.9	9	35	0							
HOUSTON	55.03	67.1	9	37	1							
FAYETTEVILLE	55.76	59.4	9	42	1						28	21
Y.-SAKHLINSK	56.49	313.8	9	47A	0	17	44	7				
UGLEGORSK	57.18	316.1	9	51	0	17	54	8				

GUAM	57.25	273.5	9	50	-2							
ROLLA	57.57	57.2	9	51	-3	17	49	-2				
FLORISSANT	58.76	56.1	10	0	-3	18	4	-3				
ST. LOUIS 1	58.87	56.3	10	3	0	18	8	0				
MOULD BAY	59.36	9.5	10	6A	-1							
MATUSIRO	59.57	301.3	10	8A	0	18	25	8				
CHICAGO JSA.	60.78	52.5	10	13	-3							
BLOOMINGTON	61.76	55.5	10	20	-3	18	45	0				
ABUYAMA	61.84	299.6	10	24A	0							
PORT MORESBY	63.39	248.1	10	34	0							
RESOLUTE	63.39	15.0	10	34	0	19	9	3				
CLEVELAND	65.38	52.6	10	48K	1	19	30	-1				
YAKUTSK	65.46	330.0	10	46A	-1	19	33	1				
LONDON ONT.	65.50	50.9	10	48	0							
TIKSI	66.74	340.5	10	55	-1	19	55	8				
MORGANTOWN	66.77	54.5	10	57A	1						34	46
CHAPEL HILL	68.00	58.4	11	3	-1							
PENNSYLVANIA	68.20	53.0	11	2K	-3							
BRISBANE	68.57	228.5	11	4	-3	19	38	-31				
GEORGETOWN	69.09	55.0	11	11	1							
WASHINGTON	69.09	55.0	11	10	0							
BREBEUF	70.60	47.6	11	21	1	20	32	-1	11	37	28	26 SSS
ALERT	70.87	8.0	11	19	-2							
SHAWINIGAN	71.02	46.4	11	20	-2							
PALISADES	71.13	52.3	11	20	-3	20	37	-2	11	24		
RIVERVIEW	73.62	224.0	11	38A	1	21	8	0				
ZO-SE	74.38	297.8	11	41	-1	21	19	3				
CANBERRA	75.94	223.9	11	49	-2				11	56	12	1 *SP
NANKING	76.13	299.3	11	52A	0	21	39	4				
PEKING	76.17	307.8	11	52A	0	21	40	4			14	44 PP
KHEYS	78.19	354.7	12	4	1	22	1	3				
CHINCHINA	78.94	88.7	12	12	5	22	9	3				
MANILA	78.97	281.7	12	8	0							
MELBOURNE	80.03	223.8	12	14	1							
ULAN-BATOR	80.36	317.4	12	16A	1	22	29	8				
IRKUTSK	80.48	322.2	12	15	-1	22	29	7				
BOGOTA	80.51	88.5	12	18	2	22	25	3				
PAOTOW	80.53	309.6	12	16	0	22	27	5				
ADELAIDE	82.76	229.0	12	28A	0							
HONG KONG	82.86	291.0	12	32	4							
CANTON	83.34	292.0	12	32	1	23	0	9				
SAN JUAN	83.48	72.9	12	29	-2							
SCORESBY SD.	84.29	14.1	12	35	0						23	6
HUANCAYO	85.11	104.6	12	41	1						18	17
CARACAS	85.28	80.6	12	41A	1	23	18	8				
LANCHOW	86.66	307.1	12	48A	1							
ESEN BULAK	87.64	318.8	12	52K	0	23	24	-9				
CHENGTU	88.54	302.0	12	56A	0	23	46	4			23	29 SKS
TRINIDAD	90.35	78.6									24	59
KUNMING	91.69	297.3	13	12	1	24	17	7			23	50 SKS
KIRUNA	92.52	1.5	13	17	2	23	49	-28				
SODANKYLA	93.01	359.1	13	19	2						17	6 PP
LA PAZ	93.20	106.3	13	18	0	24	16	-7				
SEMIPALATNSK	94.50	327.9	13	29	5							
SKALSTUGAN	96.30	5.4	13	34	2							
UMEA	96.53	1.8	13	34	1							
SVERDLOVSK	97.77	340.8	13	37	-2							
LHASA	99.12	305.9	13	51	6	24	29	6			25	27 S
SCOTT BASE	99.91	187.5	13	49	1						17	51 PP
NURMIJARVI	99.92	359.9	13	50	2						17	57 PP
UPPSALA	100.39	3.5	13	52A	1	24	31	2			25	27 S
MOSCOW	103.87	352.3									18	22 PP
TASHKENT	106.26	326.4									18	23 PP
COLLMBERG	108.45	7.5									18	57 PP
JENA	108.63	8.5									19	19 PP
PARIS	108.91	15.1									18	59
PRUHONICE	109.93	6.7									19	8 PP
STRASBOURG	110.27	11.7									19	12 PP
STUTTGART	110.37	10.6									29	46
GARCHY	110.47	15.3									19	10
KASPERSKE H.	110.65	7.6									19	6 PP
UZHGOROD	111.80	1.5									19	23 PP
ASHKABAD	114.22	331.0									19	35 PP
TOLEDO	114.92	23.8									19	44 PP
AQUILA	117.28	9.1									20	1 PP
MALAGA	117.51	25.9									20	2 PP
ROME	117.58	10.0									20	3 PP
ATHENS	122.48	0.6									30	32
SHIRAZ	123.80	330.4	19	0K	-1				19	4	20	45

KSARA	125.51	348.2								20	59 PP
ADDIS ABABA	147.98	332.4	19	52A	7						
BANGUI	155.26	13.8	19	56	1					23	57 PP
TANANARIVE	158.12	268.5	20	35	36						
LWIRO	161.97	345.6	20	9	6					24	36
BROKEN HILL	173.35	323.3	20	10	-1					21	41
BULAWAYO	176.01	265.3	20	11	-1					21	52

JUNE 28 6.H 51.M 6.S EPICENTRE 40.82 20.72 DEPTH= 38.KM

A= 0.70988 B= 0.26859 C= 0.65110 D= 0.3539 E=-0.9353
G= 0.6090 H= 0.2304 K=-0.7590 HT= -2.0

DEPTH OF FOCUS= 0.001R

SE= 3.55

	DELTA DEG.	AZ. DEG.	P M	P O-C S	S M	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SKOPJE	1.27	24.8	0	20 -2	0	41 3					
TITOGRAD	1.95	326.2	0	33 1					1	6	PS
TARANTO	2.67	263.7	0	43 1	1	22 9					
SOFIA	2.71	45.1	1	0 18	1	33 19			1	4	P*
SARAJEVO	3.49	331.6	0	46 -7	1	25 -9					
ATHENS	3.67	139.8	0	55A -1	1	38 -1			2	6	
BELGRADE	4.01	357.2	1	2 1					1	17	PG
MESSINA	4.78	238.5	1	8 -4	2	5 -2			1	18	P*
TIMISOARA	4.95	4.0	1	28 14					3	17	
SZEGED	5.45	355.7							1	31	P*
ZAGREB	6.08	326.9	1	32 2	2	43 4			1	50	P*
ISTANBUL UN.	6.26	85.3	1	32 0	3	31 47					
ROME	6.30	282.6	1	30A -3	2	47 2			1	52	P*
ISTANBUL KA.	6.32	85.0	1	33 0							
BUDAPEST	6.77	350.2	1	46 6	3	0 4			2	13	PG
LJUBLJANA	6.91	321.3	1	39K -3	3	1 1			2	10	PG
TRIESTE	7.02	315.8	1	42 -1	2	58 -5			2	7	PG
HURBANOVO	7.28	346.5			3	3 -6			4	4	SG
FLORENCE X.	7.62	296.0	1	36 -15					3	44	S*
PRATO	7.76	296.4	1	34 -19	2	47 -34					
BRATISLAVA	7.80	341.8	1	53 -1	3	49 27			2	38	PG
UZHGOROD	7.89	7.6	1	53 -2	3	36 12					
PADOVA	7.94	308.3	2	0 4	3	20 -5			3	42	SS
VIENNA-H.	8.06	338.8	1	59 2	3	35 7			2	38	PG
SKALNATE PL.	8.37	357.9	2	8 6					4	46	SG
KISHINEV	8.52	40.6	2	2 -2							
CHIAVARI	9.11	296.4			3	46 -9			4	12	SGSG
KRAKOW	9.25	356.8	2	14 0	4	10 12					
LWOW	9.30	13.4	2	18 3							
RACIBORZ	9.43	350.0	2	19 2	4	4 2			2	35	PP
PAVIA	9.52	301.1	2	39 21	4	24 19			5	7	S*
KASPERSKE H.	9.73	331.1	2	18K -3					3	17	PG
CHUR	10.08	310.4	2	24 -2	4	15 -4					
PRUHONICE	10.14	336.8	2	29 3	4	14 -6					
PRAGUE	10.25	336.6	2	31K 3	4	16 -7			3	20	PG
RAVENSBURG	10.57	314.9	2	28 -4					4	54	
ISOLA	10.64	292.9	2	32 -1					6	32	
SIMFEROPOL	10.66	62.8	2	33 0							
CHEB	10.95	330.5	2	48 11					5	59	SG
EBINGEN	11.16	315.2							6	18	
TUBINGEN	11.32	316.8	2	38 -4					5	2	
STUTTGART	11.36	318.2	2	39 -4					5	37	
ROSELEND	11.37	300.0	2	39 -4	4	42 -8			3	40	
WARSAW	11.42	0.9	2	41 -3	4	55 4			3	2	PPP
BASLE	11.57	309.8	2	40 -6					6	19	
NEUCHATEL	11.69	306.5	2	56 9					6	45	
COLLMBERG	11.77	335.6	2	50A 2					5	22	SG
JENA	11.94	330.9	2	58 7	5	21 17			4	16	PG
KARLSRUHE	11.96	317.3			5	13 9					
STRASBOURG	12.04	314.5	2	52 0	5	14 8			5	32	SS
HEIDELBERG	12.05	319.4	2	50 -2					5	42	
BESANCON	12.40	306.1	2	59 2	5	31 16			7	3	
FELDBERG	12.73	321.7	2	42 -19					6	16	
BENSBERG	13.83	321.7	3	28 12	6	6 17			4	20	
KSARA	13.93	115.3	3	20 3							
GARCHY	14.23	302.9	3	18 -3					3	57	
MUNSTER	14.33	325.5							7	39	

SOTCHI	14.35	72.6	3	23	0	6	19	18				
DOURBES	14.61	314.8	3	25	-1	6	13	6				
UCCLE	15.13	316.7	3	43	10							
PARIS	15.18	307.8									8	31
TORTOSA	15.32	276.6									5	40
BAGNERES	15.47	285.2	3	40	3						3	52 PP
ALICANTE	16.53	268.3	3	55	4						6	32
FOLINIERE	16.98	305.0	3	56	0							
GOTEBORG	17.81	344.5	4	11	4							
KEW	17.99	313.4	4	15	6	7	35	9				
EREVAN	18.09	84.2	4	12	2	7	45	17				
TIFLIS	18.11	79.2	4	12	2	7	43	15				
MOSCOW	18.61	31.0	4	16A	-1							
TOLEDO	18.90	275.3	4	22	2							
UPPSALA	19.16	355.2	4	23	0	7	57	5				
GRANADA	19.23	267.0	4	33A	9	8	3	10			8	46 SS
HELSINKI	19.56	6.3	4	27	0							
NURMIJARVI	19.87	5.7	4	29	-2	8	11	4				
PULKOVO	19.90	14.3	4	28	-3							
MALAGA	19.99	266.3	4	30A	-2	8	10	0				
MAKHACH-KALA	20.02	75.0	4	41	9							
DURHAM	20.36	320.8	4	49K	13	8	21	4				
BENI ABBES	21.43	247.4	5	8	21	9	38	60				
UMEA	23.04	359.5	5	1	-2							
SKALSTUGAN	23.34	350.5	5	5	-1							
KAJAANI	23.66	7.7	5	7	-2							
TEHERAN	24.53	92.0	5	18	1							
SODANKYLA	26.81	5.1	5	38	-1							
KIRUNA	27.07	359.8	5	40	-1						10	44
APATITY	27.68	10.5	5	46A	-1							
SHIRAZ	28.11	103.3	5	48A	-3	10	38	7	6	9	6	46 PP
VANNOVSKAYA	28.89	83.4	5	58	0							
SVERDLOVSK	30.24	44.5	6	9	0							
ADDIS ABABA	35.48	148.2	6	57A	2							
AMDERMA	35.92	22.9	6	57A	-2							
BANGUI	36.32	183.5	7	0	-2				7	10		
KHEYS	42.16	8.5	7	50	-1							
LWIRO	43.49	168.2	8	1A	-1							
NEW DELHI	47.27	86.5	8	24A	-8							
MOULD BAY	60.48	349.8	10	7	-2							
BULAWAYO	61.08	171.5	10	11	-2							
BREBEUF	65.01	309.3	10	39K	0							
COLLEGE	74.27	354.9	11	34	-1							
BLOOMINGTON	76.40	310.2	11	45	-2							
FLORISSANT	78.88	312.0	12	1	0							
ROLLA	80.37	312.2	12	9	0							
RAPID CITY	81.60	322.8	12	16	0							
MANHATTEN	81.99	315.8	12	18	0							
PENTICTON	83.69	335.2	12	26	0							
BUTTE	84.01	329.3	12	28	0							
LARAMIE	84.86	322.4	12	34	2							
WICHITA MTS.	86.39	314.0	12	41	1						16	0 PP
ALBUQUERQUE	90.32	319.1	12	59	1							
CHARTERS TS.	129.56	82.8									20	39
CANBERRA	139.39	99.5	19	43	19							

JUNE 28 18.H 50.M 31.S EPICENTRE -0.32 124.32 DEPTH= 91.KM

A=-0.56374 B= 0.82594 C=-0.00551 D= 0.8259 E= 0.5637
G= 0.0031 H=-0.0046 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.009R

SE= 1.51

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
DARWIN	13.62	151.9	3	9	-2							
MANILA	15.23	348.0	3	33	2	6	46	28				
LEMBANG	17.87	248.4	4	4	0	7	22	5				
DJAKARTA	18.40	251.2	4	10A	0	7	25	-4				
TANGFRANG	18.58	251.4	4	11	-1	7	45	12				
NHATRANG	19.49	310.2	4	25	3							
GUAM	24.43	55.2	5	12	0	9	38	16				
PORT MORESBY	24.45	112.3	5	12A	0							
HONG KONG	24.56	336.9	5	13	0	9	32	8			5	36 PP
CANTON	25.60	336.1	5	23	0	9	43	1			5	42 *SP

RARAUL	28.09	98.3	5	47	2						
ZO-SE	31.39	354.8	6	13	-2	11	9	-5			
MUNDARING	32.40	192.9	6	21K	-2						
NANKING	32.63	351.3	6	26	1					7	40 PP
KUNMING	32.79	322.0	6	29	2	11	38	2		7	41 PP
CHENGTU	36.36	329.7	6	58	1	12	32	1		8	26 PP
ABUYAMA	36.55	15.6	6	59K	0						
HONIARA	36.60	105.4	6	58	-1						
ADELAIDE	37.01	160.2	7	2A	-1						
SIAN	37.29	338.7	7	4	-1	12	40	-5		8	32 PP
BRISBANE	38.36	136.9	7	15	1	13	9	8			
CHITTAGONG	38.86	307.6	7	18	0	13	16	7	7 33	8	54 PP
MATUSIRO	38.88	17.9	7	17	-1	13	9	0			
SHILLONG	40.55	311.8	7	33K	1	13	36	2			
PEKING	40.84	350.4	7	34	0	13	36	-3		9	14 PP
LANCHOW	40.90	334.3	7	36	1	13	41	2		9	23 PP
CANBERRA	41.74	149.1	7	43A	1	13	59	7		9	39 PCP
RIVERVIEW	41.77	145.7	7	44A	2	14	2	10	7 54	9	40 PCP
MELBOURNE	41.90	155.3	7	44	1					9	49 PCP
MIZUSAWA	42.18	19.6	7	46	1	14	4	6			
PAOTOW	42.73	343.9	7	49	-1					9	29 PP
LHASA	43.52	316.1	7	58	2	14	21	3		17	52 SCS
KOUMAC	43.93	119.8	7	58A	-2						
CHANGCHUN	43.96	1.0	7	59	-1	14	22	-2		9	46 PP
VISHAKHAPTNM	44.15	296.1	8	0	-1					9	49
CHATRA	44.78	310.0	8	7	0	14	37	1			
MADRAS	45.71	288.5	8	17	3	14	53	4		10	8
TARRALEAH	46.30	157.2	8	19A	0					9	55 PCP
NOUMEA	46.46	121.0	8	20A	0						
PORT VILA	46.59	114.3	7	54A	-27						
MOORLANDS	46.71	156.7	8	24	2					9	55 PCP
Y.-SAKHLINSK	49.82	16.4	8	45K	-1	15	50	3			
ULAN-BATOR	50.38	344.8	8	50A	0						
UGLEGORSK	51.53	14.8	8	59A	0						
ESEN BULAK	52.65	335.8	9	8	1	16	30	4			
POONA	52.97	293.6	8	32K	-38						
NEW DELHI	53.42	306.6	9	7	-6	16	29	-8		14	7
LAHORE	56.90	308.7	9	35	-3	17	22	-1			
TARATA	59.85	136.4	9	59	0						
WARSAK DAM	60.03	310.2	9	59	-1	18	6	2			
KARAPIRO	60.09	134.7	10	1A	1					10	34
PETROPAVLOVK	60.37	23.1	10	3	1	18	15	7			
CHATEAU	60.65	136.0	10	4	0						
MACQUARIE I.	61.03	157.7	10	7K	0						
WELLINGTON	61.09	138.4	10	5A	-2						
KHOROG	61.46	313.8	10	10	1	18	26	4			
TUAI	61.61	134.9	10	10	0						
FRUNSE	61.83	320.5	10	13	1	18	35	9			
YAKUTSK	62.31	2.9	10	15A	0	18	36	3			
QUETTA	62.34	304.6	10	20	5	18	41	8			
SEMIPALATNSK	62.90	330.0	10	18	-1						
MAGADAN	63.18	14.7	10	23A	2	18	50	7			
DUZHANBE	63.89	314.0	10	26	0						
TASHKENT	64.66	316.9	10	29	-2	19	4	2			
WILKES	66.61	186.0	10	43A	0				11 0		
DUMONT	67.14	173.3	10	45	-1						
VANNOVSKAYA	71.61	310.3	11	13	-1						
TIKSI	71.89	1.5	11	14	-1	20	28	0			
SVERDLOVSK	76.17	329.5	11	39K	-1	21	14	-1			
TEHERAN	76.37	306.8	11	40	-1						
TANANARIVE	77.38	250.8	11	50A	3						
MAWSON	79.14	200.0	11	57A	0				12 14	14	54 PP
SCOTT BASE	80.69	171.7	12	5	0						
AMDERMA	81.10	341.8	12	6A	-1	22	8	0			
TIFLIS	82.38	312.0	12	14	0	22	29	8			
ADDIS ABABA	85.65	279.0				22	59	6			
KHEYS	86.53	351.3	12	34	0	23	4	3			
MOSCOW	88.39	325.6	12	43	0						
KSARA	88.87	303.7	12	47	2						
COLLEGE	89.37	25.3	12	48	0						
SOUTH POLE	89.68	180.0	12	51	2						
APATITY	90.63	337.4	12	52	-2						
PULKOVO	92.29	329.7	13	3	2	23	54	0			
KAJAANI	93.18	334.1	13	4	-1						
SODANKYLA	93.26	337.4	13	4	-2					30	13 PKKP
HELSINKI	94.93	330.3	13	13	0						
NURMIJARVI	95.04	330.7	13	12	-2						
BULAWAYO	95.25	249.9	13	15A	0						
LWIRO	95.50	267.7	13	18A	2						

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KIRUNA	95.52	338.3	13 14	-2	23 46	4		
RROKFN HILL	95.58	255.5	13 15A	-1				
TROMSOE	95.63	340.2	13 15	-2				
MOULD BAY	96.41	12.5	13 21	1				
UMFA	96.48	334.3	13 19	-1				25 54 PS
UZHGOROD	98.18	319.0	13 28	0				24 39
KIMBERLEY	98.21	241.0	13 35	7				
UPPSALA	98.61	330.7			24 2	3		
SKALSTUGAN	99.95	335.1	13 27	-9				
PRUHONICE	102.86	321.5	13 51	2	24 27	8		
COLLMBERG	103.44	323.0	14 8	16				
KASPERSKF H.	103.69	320.8	13 54	1				18 10
LJUBLJANA	103.88	317.5	13 45	-9				18 13 PP
TRIESTE	104.50	317.3	18 7	251	24 34	7		18 16 PP
AQUILA	105.56	314.0						24 41
ROME	106.34	313.8						24 43
STUTTGART	106.51	321.3						18 31 PP
FLORENCE X.	106.71	315.9						23 59
PENTICTON	106.96	37.9	18 16	777				
STRASBOURG	107.51	321.5						18 42 PP
DOURBES	108.87	323.8						19 56 PP
ROSELEND	109.24	318.9	18 29	777				18 52 PP
GARCHY	110.93	321.4	19 7	44				
WOODY	111.75	51.4	18 30	6				
EUREKA	112.78	46.8	18 31	5				29 18 PKKP
BOZEMAN	113.73	39.1	18 32	4				
BAGNERES	114.54	318.2	18 33	3				
FLAMING GRGE	116.88	43.2	18 37	3				
TOLEDO	118.76	316.5						20 2 PP
MALAGA	120.39	313.4	18 43K	2				
RFNI ARRFS	121.20	305.5						19 0
MANHATTEN	126.22	39.1	18 55	3				
WICHITA MTS.	127.34	44.9	18 58	4				20 55 PP
FAYETTEVILLE	129.57	40.9						19 2 PP
FLORISSANT	130.24	35.6	19 2	2				
SHAWINIGAN	131.58	15.7	19 5	2				22 25 PKS
LONDON ONT.	131.72	25.0	19 4	1				22 27 PKS
BREBEUF	132.30	17.0	19 16K	12				22 29 SKP
PENNSYLVANIA	134.95	23.9						22 39
PALISADES	136.25	20.0	19 7	-4	26 0	-11		
HUANCAYO	156.95	122.9	19 51	6				
AREQUIPA	157.17	137.6	20 1	16				
LA PAZ	159.26	144.3	19 53	5			20 31	
SAN JUAN	159.33	29.2	20 29	41				
CHINCHINA	159.56	76.6	19 54	6				20 33 PKP2
BOGOTA	161.15	76.6	19 55	5				20 39 PKP2

JUNE 28 20.H 47.M 30.S EPICENTRE -17.94-175.26 DEPTH= 230.KM

A=-0.94872 B=-0.07867 C=-0.30619 D=-0.0826 E= 0.9966
G= 0.3051 H= 0.0253 K=-0.9520 HT= 5.2

DEPTH OF FOCUS= 0.031R

SE= 4.16

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	5.22	40.4	1 16K	-3	2 10	-10		
SUVA	6.01	267.1			2 56	18		
KOUMAC	19.49	259.0	4 11A	0				
ONERAHI	20.00	205.3	4 24	8				
KARAPIRO	21.48	200.2	4 37A	6				
TUAI	21.81	196.1	4 40	6	8 26	10		
CHATEAU	22.64	198.8	4 46	4				
TARATA	23.01	200.9	4 53	7				
WELLINGTON	24.78	198.1	5 7	5				
CANBERRA	36.09	234.2	6 44K	2				9 17
MELBOURNE	39.97	232.0	7 16	2				
ADELAIDE	44.14	238.1	7 49K	1				
DARWIN	52.18	268.1	8 50	1				
MUNDARING	62.78	242.8	10 5A	2				
MATUSIRO	69.76	321.5	10 47K	0				
MANILA	70.63	293.2	10 54	2				
SOUTH POLE	72.17	180.0	11 4	3				
MIRNY	74.39	204.5	11 5	-9				
WOODY	75.47	44.5	11 23	2			12 22	

MINERAL	76.49	39.3	12	26A	60							
TANGERANG	76.84	267.7	11	18K	-10							
EUREKA	79.49	42.6	11	43	1							
HONG KONG	79.76	297.4	11	47	3							
NHATRANG	80.32	286.2	11	50	3							
PENTICTON	83.11	33.0	12	0	-1							
ALBUQUERQUE	83.79	50.4	12	6	1				13	9		
FLAMING GRGE	84.55	44.0	12	8	0							
MAWSON	84.82	199.1	12	12K	2							
COLLEGE	85.19	11.4	12	10	-2				13	17	14	4
WICHITA MTS.	89.59	53.3	12	33	0	22	49	-12	13	34		
APATITY	127.12	346.6									20	0
SODANKYLA	128.62	349.4	18	39	-1							
KIMBERLEY	129.70	203.0	18	46A	4							
KAJAANI	131.32	346.8	18	45	0							
NURMIJARVI	135.15	346.2	18	53K	1						22	23 PKS
HELSINKI	135.38	345.8	18	53	0							
BULAWAYO	135.49	212.8	18	54	1							
BROKEN HILL	140.21	217.5	19	6	5							
WITTEVEEN	145.16	357.9	19	13A	3							
KRAKOW	145.72	342.5	19	13	2							
ADDIS ABABA	145.80	259.5	19	18K	7							
COLLMBERG	146.08	350.7	19	14	2						21	53
BANDEIRA	146.29	195.0	19	16K	4							
KEW	146.31	5.7	19	15	3							
SKALNATE PL.	146.41	341.5	19	19	7							
JENA	146.64	352.1	19	13	0						19	39
BENSBERG	147.00	357.2	19	17K	4				20	21		
PRUHONICE	147.08	348.3	19	15	2						19	40
UCCLE	147.22	0.5	19	20	6							
DOURBES	147.92	0.2	19	19	4						20	25
KASPERSKE H.	148.08	349.0	19	20	5				20	24		
BRATISLAVA	148.21	344.2	19	16	1							
LWIRO	148.94	232.2	19	25	9						20	31
FOLINIERF	148.96	6.7	19	18	2							
STUTTGART	149.03	354.2	19	18	2							
PARIS	149.16	2.9	19	24	7							
STRASBOURG	149.34	356.2							20	24		
BELGRADE	150.15	337.2	19	26A	8						22	3
GARCHY	150.71	2.3	19	27K	8				20	35	19	34 PKP2
BESANCON	150.75	358.3	19	19	0							
LJUBLJANA	150.82	346.0	19	21K	2				20	30	19	36 PKP2
TRIESTE	151.37	346.7	19	22	2				20	32		
ROSELEND	152.29	357.2	19	31	10				20	35		

JUNE 29 16.H 28.M 4.S EPICENTRE 62.43-152.10 DEPTH= 30.KM

A=-0.41116 B=-0.21770 C= 0.88519 D=-0.4679 E= 0.8838
G=-0.7823 H=-0.4142 K=-0.4652 HT= -9.7

SE= 2.17

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	3.10	36.1	0	51	3							
SITKA	10.02	115.0	2	22	-3							
MOULD BAY	17.61	25.4	4	6	1							
ALBERNI	20.00	118.6	4	34	1							
VICTORIA	21.16	117.9	4	46	1							
PENTICTON	22.15	111.3	4	58A	3							
RESOLUTE	23.03	34.8	5	7	3	9	14	6				
HUNGRY HORSE	25.34	106.0	5	28	2	9	56	8				
MAGADAN	27.07	290.0	5	43	1	10	29	13				
PETROPAVLOVK	27.27	272.7	5	44A	0	10	34	15				
ALERT	28.62	16.0	5	57	1							
MINERAL	28.69	126.1	5	57A	0							
BOZEMAN	28.70	106.5	5	57	0	10	44	2				
UKIAH	29.17	129.6	6	4	3							
TIKSI	29.82	321.2	6	7A	0	12	2	62				
CALISTOGA	29.83	129.1	6	7A	0							
RENO	30.07	124.5	6	4	-5							
BERKELEY	30.63	129.4	6	14A	0	11	6	-7				
LICK	31.32	129.0	6	21A	1							
EUREKA	31.64	119.6	6	23	0							
SALT LAKE C.	32.27	113.2	6	29	1							
PRIEST	32.75	128.7	6	34A	1							

FLAMING GRGE	33.21	110.2	7	6	30				9	36 PCP
RAPID CITY	33.48	100.1	6	41	2				9	44 PCP
YAKUTSK	34.36	305.1	6	46A	0					
LARAMIE	34.58	105.6	6	52	4				18	33
BOULDER CITY	35.11	121.4	6	53	0					
PASADENA	35.44	127.0	6	56	0	12	27	-1		
KHFYS	36.18	352.0	7	2	0					
UGLEGORSK	37.61	280.6	7	14A	0					
Y.-SAKHLINSK	38.81	277.8	7	25A	1	13	30	10		
LAWRENCE	41.17	97.5	7	44	0					
CHICAGO USA.	42.38	87.9	7	51	-2					
SCORESBY SD.	42.87	22.2	7	58	1					
WICHITA MTS.	43.13	104.4	8	0	0	14	27	3	9	50 PP
FLORISSANT	43.57	93.1	8	4	1	14	28	-2		
ST. LOUIS 1	43.76	93.1	8	5	0	14	31	-2		
LONDON ONT.	44.48	81.4	8	11	1					
BLOOMINGTON	45.05	89.3	8	14	-1	14	52	1		
CLEVELAND	45.54	83.1	8	22	3	15	0	2		
SHAWINIGAN	45.57	71.8	8	19	0					
BREBEUF	46.00	73.3	8	22	-1	15	7	2	19	24 SSS
MORGANTOWN	47.74	83.3	8	37K	1					
PENNSYLVANIA	47.77	80.7	8	36A	0					
TROMSOE	48.07	4.2	8	40	1					
MATUSIRO	49.10	272.1	8	46	-1	16	2	13		
CHANGCHUN	49.14	288.4	8	46	-1				10	44 PP
PALISADES	49.41	77.3	8	49	0	15	56	3		
FORDHAM	49.55	77.4	8	49	-1	15	48	-7		
KIRUNA	49.92	3.7	8	52A	-1	16	0	0	10	42 PP
APATITY	50.25	357.2	8	56K	0	16	16	11		
SODANKYLA	50.49	0.6	8	58	1				10	15 PCP
IRKUTSK	50.86	309.6	9	0A	0	16	21	8		
HALIFAX	51.07	66.6	9	2	0					
COLUMBIA	51.82	88.5	9	4	-4				27	8 SKKS
ULAN-BATOR	53.47	304.7	9	20A	0	17	2	13		
SKALSTUGAN	53.76	8.6	9	21	-1					
KAJAANI	53.80	0.1	9	22	0					
UMEA	53.93	4.2	9	22	-1					
PEKING	56.20	292.5	9	39A	-1	17	35	9	11	43 PP
NURMIJARVI	57.36	1.9	9	47	-1					
HELSINKI	57.70	1.7	9	50	0					
UPPSALA	57.79	6.1	9	50	-1	17	42	-4		
PULKOVO	58.11	358.6	9	56	3					
PAOTOW	58.33	297.6	9	55	0					
SVERDLOVSK	58.38	339.6	9	55	0					
ESEN BULAK	58.66	311.1	9	59A	2	18	7	9		
GOTEBORG	59.57	9.8	10	1	-2					
DURHAM	60.87	19.1	10	11	-1	18	26	0		
KARLSKRONA	61.35	7.8	10	13	-3					
ZO-SE	61.46	282.9	10	17A	1	18	50	16		
NANKING	61.73	285.4	10	19	1	18	51	14		
MOSCOW	61.93	353.8	10	25	6					
SIAN	64.17	294.6	10	34A	0					
LANCHOW	64.72	299.6	10	37A	-1	19	27	12		
MUNSTER	64.82	13.7	10	39	1					
WARSAW	65.55	4.6	10	43	0					
BENSBERG	65.76	14.2	10	45K	1					
COLLMBERG	66.00	10.2	10	45	-1				14	39
JENA	66.24	11.2	10	46	-1	19	23	-10	13	23 PP
DOURBES	66.30	16.2	10	48	0					
FOLINIERE	66.86	20.0	10	51	0					
PARIS	67.27	17.9	10	54	0					
PRAGUE	67.33	9.4	10	56A	2				13	23 PP
PRUHONICE	67.43	9.3	10	54A	-1				13	15 PP
HEIDELBERG	67.47	13.4	10	55	0					
KRAKOW	67.69	5.5	10	59	2			11	3	
STUTTGART	68.16	13.2	11	0	0					
STRASBOURG	68.18	14.3	11	0	0					
KASPERSKF H.	68.20	10.1	11	0	0				13	41
SKALNATE PL.	68.57	5.4	11	3	1				11	19 PCP
FRUNSE	68.60	324.9	11	3	1	20	17	16		
GARCHY	68.85	17.9	11	4K	0				11	46
UZHGOROD	69.20	4.0	11	7	1					
BESANCON	69.27	15.8	11	7	1				11	57
VIENNA-H.	69.28	8.2	11	6	0					
CHENGTU	69.34	296.6	11	6A	-1	20	24	14		
BRATISLAVA	69.41	7.7	11	7A	0				13	44
KISHINEV	70.90	359.3	11	16A	0					
ANDIJAN	71.14	325.8	11	18	0	20	47	16		

LJUBLJANA	71.34	9.8	11	20K	1							
TASHKENT	71.38	328.3	11	20	1	20	45	11				
TRIESTE	71.67	10.4	11	21	0							
PADOVA	71.74	11.8	11	31	10						11	58
SAN JUAN	72.04	84.8	11	23	0							
ISOLA	72.43	15.6	11	25	0							
BAGNERES	72.51	21.0	11	34	8							
MONACO	72.92	15.4	11	31	3							
FLORENCE X.	73.30	12.5	11	26	-5						14	31 PP
COIMBRA	73.62	28.2	11	33	1							
MAKHACH-KALA	73.77	345.1	11	35	2							
SOTCHI	73.91	351.1	11	34	0							
GALERAZAMBA	74.42	96.7				21	28	20				
KHOROG	74.43	325.3	11	38	1							
KUNMING	74.73	294.9	11	40	1							
TOLEDO	74.84	25.0	11	40	0	21	26	13			14	31 PP
AQUILA	74.92	11.1									26	44
SOFIA	75.15	3.5	11	9	-32				11	16	11	43
ROME	75.28	11.8	11	42A	0	21	29	11			14	40 PP
LHASA	75.37	306.6	11	46A	3	21	36	17				
MANILA	75.66	274.1	11	46	2							
EREVAN	76.86	347.0	11	51A	0							
ISTANBUL UN.	76.87	359.2	11	53	2							
VANNOVSKAYA	77.04	335.9	11	53	1							
GRANADA	77.54	25.3	11	56K	1	21	56	13				
WARSAK DAM	77.70	324.1	11	54	-2							
MALAGA	77.82	26.1	11	56K	0						22	40 PPS
CARACAS	78.53	89.4	12	6	6	22	36	43				
SHILLONG	78.72	304.2	12	6K	5							
MESSINA	79.22	9.9									22	11
CHATRA	79.34	308.6	11	56	-9							
ATHENS	79.89	3.4	12	8A	0							
TEHERAN	80.35	340.8	12	11	1	22	17	5				
BOGOTA	80.39	98.5	12	11	1							
QUETTA	82.54	326.6	12	28	7							
KSARA	83.87	353.3	12	31K	3						15	42 PP
SHIRAZ	86.13	338.7	12	40A	0	23	6	-4			30	37 PKKP
LA PAZ	101.71	103.0									18	16 PP
LWIRO	119.96	359.0	18	50	2							
BROKEN HILL	132.08	359.3	19	12	1							
BULAWAYO	137.74	359.0									21	51
SCOTT BASE	142.27	193.2	19	39	9							
BYRD STATION	143.44	170.9	19	27	-5						22	46
KIMBERLEY	146.25	4.9	19	38A	1							
WILKES	146.51	226.5	19	36	-1							
SOUTH POLE	152.27	180.0	19	44	-2							
MIRNY	152.82	232.6	19	53	6							

JUNE 29 22.H 35.M 46.S EPICENTRE 32.36 48.83 DEPTH= 60.KM

A= 0.55707 B= 0.63710 C= 0.53271 D= 0.7528 E=-0.6582
G= 0.3507 H= 0.4010 K=-0.8463 HT= 1.0

DEPTH OF FOCUS= 0.004R

SE= 2.29

	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
TEHERAN	3.98	31.5	1	0	0	2	8	22				
SHIRAZ	4.16	129.6	0	57A	-6	1	46	-5			1	17 PG
EREVAN	8.55	337.1	1	8A	5							
KIZYL-ARVAT	9.11	39.4	2	11	0	3	57	4				
VANNOVSKAYA	9.41	51.1	2	18	3							
ASHKABAD	9.58	51.8	2	17	-1	4	10	5				
TIFLIS	9.88	342.1	2	24	2	4	21	9				
MAKHACH-KALA	10.64	354.7	2	33	1	4	36	5				
KSARA	10.96	281.1	2	35	-1	4	37	-1			3	32
GROZNY	11.21	348.3	2	43	3	4	47	3				
QUETTA	15.64	93.2	3	42	4							
SIMFEROPOL	16.99	321.9	3	54	-1	7	5	5				
DUZHANBE	17.37	63.6	3	58	-2	7	15	6				
ISTANBUL UN.	18.09	304.2	4	9	1	7	36	11				
TASHKENT	18.61	55.5	4	14	-1	7	49	12				
WARSAK DAM	19.08	78.9	4	16	-4							
KHOROG	19.28	68.4	4	23	1	8	2	11				
KISHINEV	21.16	319.6	4	40	-2	8	34	5				

ATHENS	21.25	292.3	4	42A	-1	8	40	10				5	5	
LAHORE	21.64	85.3	4	44K	-3									
SOFIA	22.63	304.4	4	22	-34	8	32	-23				4	48	PP
FRUNSE	22.86	55.4	5	3K	4	9	13	13						
SKOPJE	23.76	301.6	5	8	1	9	22	7						
ALMATA	24.63	55.7	5	18	2									
MOSCOW	24.65	344.7	5	16A	0	9	38	8						
NEW DELHI	24.71	91.3	5	17K	0	9	27	-4						
ADDIS ABABA	25.02	204.1	5	21A	1	9	58	21						
BELGRADE	25.29	307.6	5	23K	1	9	58	17				10	41	SS
BOMBAY	25.37	116.1	5	29	6	9	52	9						
UZHGOROD	25.72	316.9	5	28	2									
SVERDLOVSK	25.79	15.0	5	27	0	9	55	5						
TARANTO	26.57	296.7	5	38	4	9	58	-4						
SKALNATE PL.	27.17	316.6										6	33	PP
REGGIO CALA.	27.61	291.3	5	41	-3							10	42	
MESSINA	27.69	291.5	5	45A	1	10	26	5				6	32	PP
KRAKOW	27.77	318.0	5	45	0	10	27	5						
WARSAW	28.31	322.8	5	49	-1	10	34	4				6	44	PP
ZAGREB	28.60	307.6	5	55	2	10	36	1						
BRATISLAVA	28.65	312.7	5	51A	-2	10	40	4				6	58	
RACIBORZ	28.77	317.0				10	39	1				6	31	PP
SEMIPALATNSK	29.36	42.9	6	0	1									
LJUBLJANA	29.65	307.5	6	1A	-1							6	26	
AQUILA	29.69	299.8	6	4	2	11	6	14						
PULKOVO	30.05	341.3	6	5	0	11	1	3						
TRIESTE	30.07	306.4				11	3	5				17	34	
ROMF	30.32	298.8				11	12	10				7	12	PP
PRUHONICE	30.88	314.9	6	11	-2	11	19	8						
PRAGUE	30.98	315.0	6	15K	1							12	33	
KASPERSKE H.	31.17	312.9	6	14	-1							7	2	
PADOVA	31.30	305.4										12	44	
FLORENCE X.	31.45	302.2										7	56	
HELSINKI	31.97	337.5	6	22A	0									
COLLMBERG	32.29	316.5	6	25	0							8	38	
NURMIJARVI	32.33	337.7	6	25A	0	11	37	3						
CHIAVARI	32.91	302.8	6	7	-23							7	26	PP
JENA	32.99	315.3	6	29	-2	11	47	3				7	55	PPP
KARLSKRONA	33.12	325.9	6	31K	-1									
PAVIA	33.14	304.3	6	34	2	11	54	8				15	40	
CHUR	33.19	307.4	6	32	-1	11	46	-1						
RAVENSBURG	33.33	309.1	6	34	0									
CHATRA	33.66	89.3	5	35	-62									
STUTTGART	33.78	310.7	6	36	-2									
MONACO	34.20	301.5	6	42	0									
KAJAANI	34.36	343.7	6	42	-1	12	10	5						
UPPSALA	34.39	332.4	6	38	-5	12	8	2				13	48	
COPENHAGEN	34.42	323.5	6	44	1							12	14	
ISOLA	34.51	302.2	6	44	0									
FELDBERG	34.68	313.0	6	42	-4									
STRASBOURG	34.71	310.0	7	45	59	12	20	9				14	19	SS
GOTEBORG	35.61	326.4	6	56	2									
BESANCON	35.65	307.3	6	54	0									
BENSBERG	35.66	313.9	6	54A	0									
MUNSTER	35.67	315.7	6	55	1									
LHASA	36.11	82.9	6	58	0	12	37	5						
UMEA	36.19	338.9	6	57A	-2	12	37	3				14	57	SS
APATITY	36.37	350.1	7	1A	1	12	43	7						
DOURBES	37.06	311.8	7	6	0	12	53	6						
UCCLE	37.36	312.9	7	9	1	12	58	7						
SODANKYLA	37.40	346.1	7	9	0							8	26	
GARCHY	37.61	306.9	7	10A	0									
SHILLONG	38.06	88.9	7	19K	5									
AMDERMA	38.14	7.2	7	14A	-1	13	7	4						
PARIS	38.19	309.3	7	14	-1									
ESEN BULAK	38.66	54.7	7	21	2	13	18	7						
SKALSTUGAN	38.69	334.8	7	18	-1	13	15	3						
KIRUNA	39.16	343.4	7	23A	0	13	20	1				8	55	PP
TORTOSA	39.30	296.5	7	25	1	13	28	7						
LWIRO	39.31	212.7	7	29A	4							9	6	
BAGNERES	39.47	300.0	7	37	11									
BERGEN	39.91	327.8	7	33	3									
FOLINIERE	40.14	308.9	7	31	0									
KEW	40.37	313.1	7	34	1	13	40	3						
TROMSOE	40.90	344.5	7	37	-1									
DURHAM	41.70	317.8				14	1	5						
ALMERIA	42.05	290.8	7	48	1									
TOLEDO	42.85	295.5	7	54A	0	14	20	7				17	26	SS

BENI ABBES	43.34	281.1	7	54	-3	14	22	2	9	40
MALAGA	43.60	291.0	8	0A	0	14	26	2		
ULAN-BATOR	45.95	52.6	8	22	3					
LISBON	46.93	294.8	8	29	3					
KUNMING	47.40	84.3	8	30	0	15	22	3		
SIAN	49.61	70.5	8	47	0	15	54	4		
BROKEN HILL	50.47	205.9	8	52	-2					
SCORESBY SD.	53.46	336.7	9	16	0				16	42
PEKING	53.72	61.5				16	54	8		
BULAWAYO	55.68	203.2	9	30	-2					
TIKSI	56.52	22.0	9	36K	-2	17	28	5		
YAKUTSK	57.79	33.4	9	45	-2	17	45	5		
BANDEIRA	58.01	221.5	9	48A	-1					
NANKING	58.14	69.9				17	50	5		
ZO-SE	60.40	70.1	10	6	1	18	19	5		
MATUSIRO	71.14	58.3	11	12	-2	20	27	2		
COLLEGE	82.21	7.1	12	16	0					
RABAUL	103.50	86.4	17	46	231					
WICHITA MTS.	106.58	332.4	18	16	777				18	45
LA PAZ	121.23	269.5	18	57	11					

JUNE 30 19.H 29.M 50.S EPICENTRE 16.47 122.32 DEPTH= 0.KM

A=-0.51303 B= 0.81079 C= 0.28182 D= 0.8450 E= 0.5347
G=-0.1507 H= 0.2382 K=-0.9595 HT= 5.5

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
MANILA	2.16	213.9	0	40	2	0	56	-10				
HONG KONG	9.63	308.3	3	22	59							
CANTON	10.71	309.3	2	37	-1	4	41	1				
ZO-SE	14.60	356.1	3	32	2							
NANKING	15.85	348.9	3	48	2	6	54	11				
KUNMING	20.21	298.4	4	40A	1	8	30	9				
SIAN	21.41	328.3	4	52A	0	8	52	7				
ABUYAMA	21.82	30.5	4	59K	3							
GUAM	21.86	94.9	4	58	2	9	24	30			5	26
CHENGTU	21.89	313.4	4	56A	-1	8	59	5				
PEKING	24.07	348.4	5	18A	0	9	35	2				
MATUSIRO	24.46	32.2	5	22K	0	9	39	-1				
LANCHOW	25.51	323.4	5	31A	-1	9	59	1				
PAOTOW	26.28	338.5	5	37	-2	10	8	-2				
DJAKARTA	27.23	215.5	5	50	2							
TANGERANG	27.34	215.9	5	47A	-2	10	25	-3				
LEMBANG	27.35	213.3	5	58A	9	10	19	-9				
CHANGCHUN	27.39	4.7	5	47	-2	10	29	1				
CHITTAGONG	29.33	286.4	6	15	8				6	30		
SHILLONG	29.77	292.8	6	12	1							
DARWIN	29.88	163.1	6	9	-3							
LHASA	31.51	300.1	6	25	-1							
ULAN-BATOR	33.83	341.3	6	44A	-2	12	7	-3				
CHATRA	34.16	293.6	6	47	-2							
Y.-SAKHLINSK	34.83	24.7	6	54	-1							
BOKARO	34.99	288.1	6	55	-1						8	20
PORT MORESBY	35.56	134.6	6	59	-2							
RABAUL	35.95	122.3	7	4	0							
ESEN BULAK	36.88	329.5	7	9A	-3	12	56	-1				
IRKUTSK	38.46	342.2	7	23A	-2	13	11	-10				
MADRAS	40.85	270.9	7	42	-3	13	56	-1			9	22 PP
HYDERABAD	41.91	277.9	7	14	-40	14	9	-4			14	26 PS
NEW DELHI	43.15	294.3	8	0	-4						9	54 PP
CHARTERS TS.	43.28	146.2	8	3	-2							
YAKUTSK	45.79	4.9	8	23	-2	15	2	-7				
LAHORE	45.98	298.1	8	26	-1							
POONA	46.17	280.0	8	33K	5						10	18
PETROPAVLOVK	46.25	29.7	8	29A	0							
ALMATA-2	46.49	314.6	8	30	-1							
BOMBAY	47.11	280.7	8	40	4	15	23	-5			15	39 PPS
SEMIPALATNSK	47.75	324.6	8	39	-2							
MAGADAN	47.77	19.1	8	39	-2	15	39	1				
FRUNSE	48.25	313.2	8	42A	-3							
MUNDARING	48.52	186.9	8	40	-7							
WARSAK DAM	48.63	301.0	8	45	-3							
KHOROG	49.21	305.5	8	51	-1	15	50	-8				

ANDIJAN	49.29	309.9	8	51	-2						
DUZHANBE	51.55	306.4	9	8K	-2	16	21	-9			
TASHKENT	51.69	309.9	9	9	-2	16	28	-4			
QUETTA	52.19	295.6	9	16	1						
BRISBANE	52.67	145.5	9	17	-1	16	36	-9			
ADELAIDE	53.48	163.2	9	20	-4	16	49	-7			
TIKSI	55.28	2.5	9	35	-3						
RIVERVIEW	57.07	151.4								10	19
CANBERRA	57.39	154.2	9	50	-3					10	14 *SP
MELBOURNE	58.06	158.9	10	2	5						
VANNOVSKAYA	59.84	304.6	10	9	-1						
SVERDLOVSK	60.95	326.4	10	15K	-2						
TARRALEAH	62.57	160.0	10	50	22						
AMDERMA	64.67	340.4	10	40	-2	19	18	-4			
SHIRAZ	64.72	295.4	10	38	-4	19	26	4	10 46	11	7 PCP
TEHERAN	65.24	302.1	10	48	2						
KHEYS	69.74	350.9	11	12	-2	20	18	-5			
MOSCOW	73.58	324.0	11	37	0	20	57	-10			
KARAPIRO	73.63	138.7	11	35	-2						
CHATEAU	74.39	139.7	11	40	-2						
APATITY	74.49	336.5	11	41	-1	21	10	-7			
HONOLULU	74.71	71.9	11	53	10	21	31	11			
COLLEGE	75.18	26.2	11	45	-1					14	40 PP
PULKOVO	76.93	328.7	11	54	-2						
SODANKYLA	77.11	336.7	11	55	-2					12	17
SIMFEROPOL	77.30	313.3	11	55	-3	21	42	-6			
KAJAANI	77.34	333.3	11	55	-3						
HAWAII V.OB.	77.71	73.2	12	1	1						
KSARA	78.13	301.9	12	2	-1	21	58	1		14	57 PP
TROMSOE	79.27	339.7	12	14	5						
KIRUNA	79.30	337.8	12	6	-3	22	3	-6			
HELSINKI	79.47	329.7	12	16	6						
NURMIJARVI	79.54	330.1	12	16	6						
KISHINEV	80.47	316.2	12	11	-4						
MOULD BAY	80.53	12.3	12	13	-3						
UMEA	80.59	333.9	12	15	-1	22	16	-7			
ADDIS ABABA	81.35	276.9	12	19A	-1						
TANANARIVE	81.51	247.4	12	22	1						
ISTANBUL UN.	81.83	310.3	12	21	-1	22	20	-16			
WILKES	83.04	184.8				22	39	-9			
UPPSALA	83.08	330.5	12	31	2	22	38	-10			
WARSAW	83.88	322.7	12	30	-3	22	50	-6		22	55 SKS
DUMONT	83.94	173.0	12	42	9						
SKALSTUGAN	83.98	335.0	12	33	-1						
UZHGOROD	84.26	319.0	12	36	1						
KRAKOW	85.26	320.8	12	39	-1	23	0	-10			
SOFIA	85.42	313.1								22	27
KARLSKRONA	85.47	327.5	12	40	-1						
MIRNY	85.61	191.3	12	23	-19					23	3
RESOLUTE	86.07	9.3	12	43	-1						
ATHENS	86.60	308.5	12	44A	-3	22	56	-27			
GOTEBORG	86.64	329.7	12	50	3						
COPENHAGEN	87.28	327.8	12	44	-6					23	12
BRATISLAVA	87.67	319.7	12	57	5						
PRUHONICE	88.50	322.0	13	2	6					16	31
PRAGUE	88.54	322.2	12	56K	0	23	53	12		16	38 PP
COLLMBERG	88.85	323.7	13	3	6					16	34
KASPERSKE H.	89.43	321.5	13	6	6					14	48
JENA	89.82	323.7	13	8	6	24	4	11		23	22 SKS
TARANTO	90.47	312.6				23	37	-22		10	37
TRIESTE	90.77	318.3				23	30	-32		25	13
STUTTGART	92.13	322.5	13	32	19	24	29	15		25	19
AQUILA	92.38	315.4				23	45	-31		11	43
MESSINA	92.56	311.0				23	43	-34		30	54
DE BILT	92.76	326.7				23	50	-29		31	10 SS
FLORENCE X.	93.19	317.4	13	32	15					24	29 SKKS
ROME	93.19	315.3				23	46	-37		25	43 PS
LWIRO	94.01	268.8				24	8	-22		17	7 PP
DOURBES	94.12	325.1	13	18	-4						
DURHAM	94.61	331.2	13	37	13						
PENTICTON	94.71	35.4	13	25	0						
SCOTT BASE	97.49	171.4	17	14	217						
TOLEDO	104.94	320.1								18	25 PP
GRANADA	106.26	317.6				26	11	75		29	17 PPS
SOUTH POLE	106.37	180.0								18	44
MALAGA	107.05	317.7								18	42 PP
WICHITA MTS.	115.94	36.9	18	46	1					19	55 PP
SAN JUAN	144.38	13.9	19	46	8						
CARACAS	151.68	19.5	19	OK	-50					23	49 SKP

CHINCHINA	152.27	41.3	20	3	12	27 30 PPP
BOGOTA	153.50	39.1	20	4	11	
LA PAZ	169.97	91.6	20	21	12	

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.

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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.

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