The International Seismological Summary

1960 APRIL, MAY, JUNE

The 1960 number of the Summary includes a few modifications to the presentation due to the output format of the electronic computer and card-controlled typewriter.

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.

KEW OBSERVATORY
July 1966

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., to the National Science Foundation of the United States, and to the International Association of Seismology which have covered the cost of preparation and printing of this volume.

He also thanks the Director-General of the Meteorological Office and the Superintendent of Kew Observatory for the hospitality extended to his staff, and the Director of the Atlas Computer Laboratory at the National Institute for Research in Nuclear Science for the services of the electronic computer.

U.N.E.S.C.O. Subvention 1965 ABS/41/19

APRIL 1 2.H 55.M 5.S EPICENTRE -22.43-179.67 DEPTH= 590.KM

A=-0.92526 B=-0.00535 C=-0.37929 D=-0.0058 E= 1.0000
G= 0 3793 H= 0.0022 K=-0.9253 HT= 4.1

DEPTH OF FOCUS= 0.088R

SE= 1.80

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SUVA	4.61	336.9	1 30	0	2 41	-1		2 20	
AFIAMALU	11.31	42.8	1 58	-34	4 27	-7			
KARAPIRO	15.99	193.9	3 20	2				4 3	
TUAI	16.55	188.8	3 22	-1	6 2	-4			
CHATEAU	17.21	192.7	3 30	0	6 20	2			
WELLINGTON	19.37	192.7	3 49	-1	6 55	0			
GEBBIES PASS	22.15	194.9	4 14	-1	7 57	17		7 53	
BRISBANE	25.45	253.2	4 44	-1	8 34	-1			
CANBERRA	30.16	237.8	5 27	2	9 49	4	6 21		
CHARTERS TS.	31.80	267.8	5 40	1	10 9	-1			
MELBOURNE	33.99	235.1	5 58	1					
ADELAIDE	38.32	241.6	6 34	1					
GUAM	49.89	312.2	8 1	-2					
MUNDARING	57.11	245.6	8 53	0					
BYRD STATION	63.01	170.2	9 31	-1				18 57	
MATUSIRO	70.86	325.1	10 19K	-1					
LICK	80.71	43.2	11 14A	0					
FRESNO	81.55	44.6	11 18A	0					
SHASTA	82.30	40.2	11 29	7					
MINERAL	82.56	40.9	11 24A	1					
CORVALLIS	84.21	36.7	11 32	1					
TUCSON	85.32	52.5	11 37	0					
TUCSON TELE.	85.44	52.4	11 38	1					
EUREKA	85.58	44.1	11 36	-2					
SALT LAKE C.	88.93	44.7	11 53	-1					
COLLEGE	90.42	13.0	11 58	-3			14 7		
YAKUTSK	93.30	338.6						14 21	
HUANCAYO	98.37	106.7						19 53	PP
BULAWAYO	129.48	215.2						17 53	
APATITY	130.38	344.0						21 30	
SODANKYLA	132.13	346.6	17 55	-13				20 40	SKP
SHIRAZ	132.88	290.2						19 10	
KIRUNA	132.90	349.7	18 8	-1				20 45	SKP
MOSCOW	136.81	329.9						20 55	PP
PULKOVO	137.11	338.2						20 55	
SKALSTUGAN	138.09	352.0	18 12	-7				20 58	SKP
NURMIJARVI	138.31	342.2	18 11	-8				21 2	SKP
HELSINKI	138.50	341.7	18 10	-10				20 59	SKP
UPPSALA	140.66	346.3	18 16	-8					
SIMFEROPOL	144.40	317.3	18 31	0					
COPENHAGEN	145.59	347.9	18 34	2					
KISHINEV	146.41	323.8	18 35	1					
DURHAM	147.67	2.1	18 38A	3					
RACIBORZ	149.03	337.4						18 43	PKP2
WITTEVEEN	149.27	352.5	18 43K	5				19 11	PKP2
COLLMBERG	149.54	344.2	18 38	0			21 4	18 59	PKP2
HALLE	149.61	345.6	18 44	6			20 55		
MUNSTER	149.97	351.0	18 44	5					
JENA	150.22	345.6	18 39	0			21 3	18 46	PKP2
PRUHONICE	150.31	341.3	18 41A	2			21 4		
PLAUEN	150.49	344.6	18 44	4					
SONNEBERG	150.83	345.7	18 47	7					
KEW	151.00	0.8	18 47	7					
HELWAN	151.27	291.5	18 50K	9				21 9	
DOURBES	152.18	354.1	18 50	8					
STUTTGART	152.76	347.0	18 43	0			21 8		
FOLINIERE	153.70	1.2	18 45	1					
LJUBLJANA	153.76	337.3	18 45K	1				21 15	
TAMANRASSET	175.19	275.2	19 4	1			21 24	27 48	

APRIL 1 14.H 12.M 9.S EPICENTRE 48.98-128.95 DEPTH= 0.KM

A=-0.41416 B=-0.51243 C= 0.75225 D=-0.7777 E= 0.6286
G=-0.4729 H=-0.5851 K=-0.6589 HT= -5.0

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	
ALBERNI	2.73	82.3	0	45	-1						1	19	
VICTORIA	3.69	95.1	0	57	-2	1	42	-2					
HORSESHOE B.	3.74	81.7	1	2	2	1	52	6					
CORVALLIS	5.86	136.5	1	31K	1								
PENTICTON	6.13	83.3	1	33	-1								
ARCATA	8.80	155.1	2	10	-1								
BANFF	8.90	70.7	2	13	0								
SHASTA	9.49	148.2	2	20	-1								
HUNGRY HORSE	9.89	88.0	2	29	3								
MINERAL	10.08	146.1	2	29K	0								
UKIAH	10.67	155.2	3	35	58								
BUTTE	11.47	98.8	2	45	-3								
RENO	11.48	141.9	2	49K	1								
BERKELEY	12.11	154.0	2	55K	-2	5	11	-3					
BOZEMAN	12.58	98.5	3	2	-1								
LICK	12.79	152.7	3	4K	-2								
EUREKA	13.28	130.8	3	13	1								
FRESNO	13.91	147.9	3	21	0								
SALT LAKE C.	14.61	117.8	3	32	2						4	4	
PASADENA	16.84	147.6	4	0	1								
LARAMIE	18.13	106.2	4	15	0								
RAPID CITY	18.34	95.8	4	17	0								
COLLEGE	18.84	334.7	4	20	-3	8	0	9					
TUCSON TELE.	21.53	133.8	4	53	0								
TUCSON	21.55	134.2	4	54	1	9	7	19					
LUBBOCK	25.34	117.3	5	32	2	10	11	17					
LAWRENCE	26.04	99.9	5	37	1								
FAYETTEVILLE	28.40	103.9	4	57A	-61								
FLORISSANT	29.32	95.7	6	5	-1	11	2	3					
ST. LOUIS 1	29.50	95.8	6	6A	-2	11	3	1					
RESOLUTE	29.50	17.6	6	6	-2								
LITTLE ROCK	30.39	104.1	6	14	-2								
TERRE HAUTE	30.99	92.2	6	51	30						13	11	
OTTAWA	35.73	75.1	7	1K	-1								
THULE	36.17	20.4	7	5	-1								
PENNSYLVANIA	36.50	83.2				12	59	8					
SHAWINIGAN	37.11	71.9	7	12K	-2								
SEVEN FALLS	38.08	70.1	7	21K	-1								
COLUMBIA	38.23	94.8	7	23	0								
PALISADES	38.97	80.4	7	29	0	13	29	0			8	59	PP
KHEYS	50.60	358.5	9	0	-2	16	18	1					
YAKUTSK	52.97	324.6	9	18	-2								
KIRUNA	61.26	12.7	10	21	2								
SODANKYLA	62.52	10.4	10	25	-3								
SKALSTUGAN	63.71	18.2	10	37	2								
DURHAM	67.58	29.9				21	1	64					
UPPSALA	68.17	17.4	11	6	2								
NURMIJARVI	68.80	13.6	11	12	4								
PULKOVO	70.30	11.0	11	37	20								
DE BILT	71.99	27.7									29	51	SSS
UCCLE	72.86	28.9									21	27	PPS
COLLMBERG	74.94	23.6	11	46	1								
MOSCOW	75.06	7.8	11	48	3								
PRUHONICE	76.55	23.3	11	56	2						12	38	
KRAKOW	77.79	19.9									17	25	
ROME	83.34	27.9									19	46	
LWOW	78.88	17.5	12	11	4								
LA PAZ	84.50	122.7	12	36	0								
SIMFEROPOL	85.29	12.0									24	3	
BULAWAYO	146.06	40.0	19	42	1								
KIMBERLEY	151.49	54.5	20	36	46								

APRIL 2 22.H 35.M 57.S EPICENTRE 34.28 48.24 DEPTH= 0.KM

A= 0.55155 B= 0.61767 C= 0.56060 D= 0.7459 E=-0.6661
G= 0.3734 H= 0.4182 K=-0.8281 HT= 0.4

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	
SHIRAZ	5.88	140.6	1	29K	-1						3	59	SG
TIFLIS	7.91	341.0	2	2A	3								
MAKHACH-KALA	8.70	356.4	2	12	2	3	46	-4					

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KSARA	10.26	270.9	2 34	2	4 34	5		4 47 SS
JERUSALEM	11.21	260.8	2 46	2	4 42	-10		
HELWAN	14.99	257.6	3 35	0	6 31	8		
SIMFEROPOL	15.21	318.7	3 37A	-1				
QUETTA	16.35	99.3	3 53	1	6 49	-5		4 11 PPP
ISTANBUL KA.	16.60	299.7	3 55	-1				
STALINABAD	17.07	69.5	4 0	-1				
KARACHI	18.85	115.0	4 22	-2				
KISHINEV	19.40	316.8	4 27	-3	8 1	-3		
NAMANGAN	19.70	63.3	4 33	0				
ATHENS	20.13	287.6	4 38A	0				
ANDIJAN	20.17	64.3	4 39A	0				
IASI	20.22	315.9	4 37	-2				
LAHORE	22.06	89.8	4 58	0				
MOSCOW	22.67	344.3	5 4	0				
LWOW	23.61	318.5	5 13	0				5 54 PP
ALMATA	24.03	59.5	5 23	6				
SVERDLOVSK	24.09	16.8	5 19	1				
WARSAW	26.50	320.9			10 27	13		9 12 PCP
PULKOVO	28.09	340.7	5 53	-2				
PRUHONICE	29.20	312.8	6 11	6				7 19
HELSINKI	30.02	336.8	6 11	-2				
NURMIJARVI	30.38	337.0	6 14	-2				7 11 PP
COLLMBERG	30.57	314.6	6 15	-2				7 31 PPP
STUTTGART	32.18	308.6	6 41	9				
UPPSALA	32.47	331.4	6 31	-3				7 28
COPENHAGEN	32.60	322.1	6 35K	0				
MONACO	32.80	299.0	6 25	-12				
APATITY	34.40	350.0	6 50	-1				
SETIF	34.83	285.7	6 53A	-2				7 37
SODANKYLA	35.43	345.8	6 59	-1				8 15 PP
SKALSTUGAN	36.75	334.0	7 9	-2				
KIRUNA	37.19	343.0	7 13	-1				7 28
RELIZANE	38.78	286.2	7 29	1				9 2 PP
TAMANRASSET	38.98	264.4	7 31	1				9 0 PP
ULAN-BATOR	45.21	54.1	7 25	-55				
ISFJORD	46.35	350.6	8 34	5				
KHEYS	46.62	2.2	8 32	0				
SCORESBY SD.	51.51	336.2	9 9	0				
THULE	62.79	346.2	10 27	-2				
MATUSIRO	70.57	58.6	11 19	0				
COLLEGE	80.38	6.9	12 13	-2				
SHAWINIGAN	83.61	323.5	12 32	1				

APRIL 2 23.H 33.M 8.S EPICENTRE 34.20 48.19 DEPTH= 0.KM

A= 0.55257 B= 0.61772 C= 0.55954 D= 0.7453 E=-0.6667
G= 0.3731 H= 0.4170 K=-0.8288 HT= 0.4

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHIRAZ	5.85	139.8	1 30	0				3 40 SG
TIFLIS	7.97	341.4	2 3A	3				
MAKHACH-KALA	8.77	356.7	2 13	2	3 47	-5		
KSARA	10.22	271.3	2 33	2	4 32	4		5 50 SG
JERUSALEM	11.15	261.1	2 47	3	5 11	20		
HELWAN	14.93	257.8	3 35	1				3 47 PP
SIMFEROPOL	15.23	318.9	3 37A	-1				
QUETTA	16.38	99.0	3 53	0	6 54	-1		
ISTANBUL KA.	16.61	300.0	3 55	-1				
STALINABAD	17.13	69.3	4 4	2				
KARACHI	18.86	114.7	4 24	0				
KISHINEV	19.42	317.0	4 29	-1	7 53	-11		
NAMANGAN	19.77	63.1	4 36	2				
BUCHAREST	19.85	307.5	4 33	-2				
ATHENS	20.11	287.8	4 37K	-1				5 0 PP
ANDIJAN	20.24	64.1	4 42	2				
IASI	20.24	316.1	4 37	-3				
LAHORE	22.10	89.6	4 57	-2				
MOSCOW	22.73	344.4	5 5	0				
LWOW	23.63	318.6	5 15	1	9 37	11		
SVERDLOVSK	24.17	16.8	5 19	0				
PULKOVO	28.14	340.8	5 56	0	10 39	-2		
PRUHONICE	29.22	312.9	6 14	8				7 17

HELSINKI	30.07	336.8	6 12	-1				
NURMIJARVI	30.43	337.0	6 15	-1			7 7	PP
COLLMBERG	30.60	314.7	6 36	18			7 36	
STUTTGART	32.19	308.7	6 30	-2				
UPPSALA	32.51	331.5	6 32	-3			7 32	
COPENHAGEN	32.63	322.2	6 40	4				
MONACO	32.80	299.1	6 36	-1				
BASLE	33.08	306.1	6 32	-8				
APATITY	34.47	350.0	6 53	1				
SETIF	34.82	285.8	6 54	-1				
SODANKYLA	35.49	345.8	6 59	-1				
SKALSTUGAN	36.80	334.0	7 10	-1				
KIRUNA	37.25	343.0	7 17	2				
FOLINIERE	38.58	307.2	7 24	-2			10 12	
RELIZANE	38.76	286.3	7 29	1			8 10	
TAMANRASSET	38.93	264.5	7 31	2			9 3	PP
ULAN-BATOR	45.29	54.0	7 29	-52				
SCORESBY SD.	51.56	336.2	9 10	0				
BULAWAYO	57.17	202.0	9 50	-1				
THULE	62.85	346.2	10 28	-2				
COLLEGE	80.46	6.9	12 14	-1				
BREBEUF	84.80	323.1					15 30	

APRIL 3 5.H 10.M 34.S EPICENTRE 27.84 139.52 DEPTH= 538.KM

A=-0.67359 B= 0.57486 C= 0.46455 D= 0.6492 E= 0.7607
G=-0.3534 H= 0.3016 K=-0.8855 RT= 2.5

DEPTH OF FOCUS= 0.080R

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
TORISIMA	2.72	14.3	1	12	-1	2	6	-5				
HATIDYOZIMA	5.25	2.5				2	42	-3				
SIOMISAKI	6.46	330.9				3	6	1				
OMAESAKI	6.83	350.9	1	45	-2	3	11	0				
OWASE	6.83	336.2	2	1	14	3	12	1				
OSIMA	6.91	359.0	1	46	-1	3	5	-8				
MERA	7.06	2.1	1	52	3	3	12	-3				
MUROTO	7.09	320.8	1	50	1	3	22	6				
SHIZUOKA	7.17	352.6				3	14	-3				
MISIMA	7.27	356.3	1	51	0	3	16	-3				
TU	7.30	340.2	1	53	2							
KAMEYAMA	7.46	340.3	1	53A	0	3	24	1				
SIMIDU	7.50	312.6	1	54	1	3	24	1				
NARA	7.51	336.1	1	55	2	3	25	1				
TOKUSIMA	7.52	326.9	1	54	1							
YOKOHAMA	7.57	0.8				3	23	-2				
SUMOTO	7.59	329.7	1	54A	0	3	26	1			4	9
OSAKA	7.60	334.3	1	54A	0	3	28	3				
NAGOYA	7.62	344.0	1	55	1	3	27	1				
HUNATU	7.66	355.4	1	54	-1	3	20	-6				
KOTI	7.68	319.3	1	55A	0	3	26	-1				
KOBE	7.76	332.5	1	57	1	3	33	5				
ABUYAMA	7.78	335.2	1	56A	0	3	31	3				
TOKYO C.M.O.	7.82	1.4	1	55	-1	3	28	-1				
KOHU	7.85	354.3	2	8	11	3	28	-2				
KYOTO	7.86	336.6	1	57	0	3	30	0				
GIHU	7.89	343.4	1	56A	-1	3	30	0				
HIKONE	7.91	340.2	1	59A	2	3	33	2				
TYOSI	7.94	7.9	1	51	-6	3	23	-8				
TAKAMATU	7.98	325.4	1	59	1	3	35	3				
MIYAZAKI	8.12	302.0	2	1	2	3	38	3				
TITIBU	8.12	357.5	1	59	0	3	32	-3				
KUMAGAYA	8.29	359.2	2	0	-1	3	34	-4				
MATUYAMA	8.33	317.6	2	2	1	3	41	3				
TUKUBASAN	8.37	3.2	1	59K	-3	3	29	-10			2	44
MAIZURU	8.38	336.2	2	3	1	3	41	2				
KAKIOKA	8.38	3.7	2	2	0	3	38	-1				
MATUMOTO	8.49	351.5	2	4	1	3	40	-1				
OIWAKE	8.50	354.7	2	4	1	3	35	-7				
MAEBASI	8.54	357.5				3	44	2			2	28
MITO	8.55	5.2	2	4A	0	3	40	-2				
TOYOOKA	8.65	333.6	2	4A	-1	3	44	0				

OOITA	8.67	310.2	2	7K	2							2	47	
UTUNOMIYA	8.69	1.9	2	3	-2	3	40	-5						
MATUSIRO	8.74	353.0	2	3A	-3	3	39	-7						
NAGANO	8.87	353.1	2	6A	-1	3	45	-3						
KUMAMOTO	9.09	305.2	2	10	1	3	46	-6						
ONAHAMA	9.16	7.0	2	8A	-2	3	50	-4						
SHIRAKAWA	9.27	3.5	2	11	0	3	53	-3						
TAKADA	9.30	353.7	2	6	-5									
MATSUE	9.37	325.7	2	13	1	3	59	2						
HAMADA	9.49	319.7	2	14A	1	4	0	0						
SAGA	9.60	306.4	2	14	0	4	4	2						
NAGASAKI	9.65	302.7	2	14A	-1	4	3	0						
HUKUOKA	9.73	308.3	2	16	0	4	5	1						
HUKUSIMA	9.91	4.4	2	17A	-1	4	6	-2						
NIIGATA	10.06	357.9	2	28	9									
YAMAGATA	10.40	3.6	2	20	-3	4	15	-2				5	12	
SENDAI	10.46	6.0	2	22	-1	4	17	-1						
ISINOMAKI	10.67	7.7	2	25A	0	4	21	-1						
SAKATA	11.03	1.3	2	32	3	4	34	6						
MIZUSAWA	11.34	6.4	2	33	1	4	36	2						
AKITA	11.86	2.2	2	38	1	4	47	3						
MORIOKA	11.91	6.2	2	38	0	4	45	0						
MIYAKO	11.95	9.2				4	46	0						
HATINOHE	12.77	6.9	3	6	19	5	1	0						
AOMORI	12.99	4.3	2	52	3	5	12	7						
MORI	14.25	3.2	3	0	-2	5	31	3						
GUAM	15.11	160.2	3	11	1	5	48	4						
KUSIRO	15.62	13.4										6	15	
NEMURO	16.21	16.0										6	33	
ZO-SE	16.30	285.9				6	5	0						
NANKING	18.45	288.2	3	43	0	6	44	2						
Y.-SAKHLINSK	19.31	6.6	3	54A	3	6	56	-1						
CHANGCHUN	19.63	328.1	3	55	1									
BAGUIO CITY	20.87	241.0	4	4	-1									
MANILA	21.57	236.4	4	11	-1	7	49	15						
WUHAN	21.95	283.0	4	15K	0	7	34	-6						
PEKING	22.80	308.2	4	21	-2	7	45	-9						
HONG KONG	23.60	262.1	4	30	0									
LANCHOW	31.24	294.3	5	37	0	10	3	-3						
ULAN-BATOR	32.28	317.2	5	46	0									
KUNMING	32.96	273.9	5	52	1	10	31	-2						
YAKUTSK	34.80	351.9	6	5	-2									
CHITTAGONG	43.33	273.8	7	16K	0	13	4	-1	8	59	10 0 *SP			
TIKSI	44.23	355.2	7	22A	-1	13	5	-12						
LEMBANG	46.24	226.6	7	36K	-2									
CHARTERS TS.	48.09	171.5	7	52	0							10	5	
BRISBANE	56.37	165.8	8	52	0									
WARSAK DAM	57.69	294.3	8	53	-8									
COLLEGE	57.81	28.8	9	2	1				10	44				
SVERDLOVSK	61.19	322.0	9	23	-1									
ADELAIDE	62.47	180.7	9	32	0							21	38	
QUETTA	62.48	291.3	9	32K	0	17	10	-8						
CANBERRA	63.45	171.3	9	39	0									
MUNDARING	63.49	202.1	9	38	-1									
KARACHI	64.14	285.6	9	43	0									
APATITY	70.45	336.9	10	21	0									
RESOLUTE	71.89	13.2	10	30	0									
SODANKYLA	72.84	338.1	10	35	0									
KARAPIRO	73.62	151.0	10	41A	1						12	35		
SHIRAZ	74.40	295.5	10	44A	0	19	34	-1						
KIRUNA	74.55	339.9	10	45	0									
THULE	74.55	6.6	10	43	-2						12	34		
CHATEAU	74.68	151.7	10	45	-1									
NURMIJARVI	77.32	332.6	11	0	0	20	2	-4			12	51		
HELSINKI	77.39	332.2	11	0	0									
SHASTA	78.05	50.3	11	6	2						13	0		
MINERAL	78.75	50.3	11	8A	0						13	4		
SKALSTUGAN	79.88	338.8	11	13	-1									
LICK	80.09	53.1	11	16A	1						13	14		
UPPSALA	80.51	334.2	11	15A	-2									
EUREKA	82.96	49.0	11	29	0						13	19		
PASADENA	84.09	54.5	11	37	2									
SALT LAKE C.	84.99	46.3	11	41	2						13	40		
TUCSON	90.32	52.9	12	6	2									
BYRD STATION	119.13	168.7	17	49	2									
HUANCAYO	143.83	71.3	18	36	2									
LA PAZ	152.08	72.0	18	57	11						21	6		

APRIL 3 7.H 19.M 55.S EPICENTRE 39.66 143.62 DEPTH= 0.KM

A=-0.62150 B= 0.45786 C= 0.63569 D= 0.5931 E= 0.8051
G=-0.5118 H= 0.3770 K=-0.7719 HT= -1.6

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
MIYAKO	1.27	270.0	0 25A	0	0 41	-2		
HATINOHE	1.82	299.1	0 32	-1	0 54	-3		
MORIOKA	1.89	272.0	0 33A	-1	0 59	0		
MIZUSAWA	2.00	255.4	0 36	1	1 0	-2		
ISINOMAKI	2.17	236.3	0 38A	0	1 0	-6		
AOMORI	2.46	298.9	0 42	0	1 18	5		
SENDAI	2.54	237.6	0 42A	-1	1 16	1		
URAKAWA	2.57	345.9	0 46	3	1 18	2		
HIROO	2.63	355.1	0 47	3	1 17	0		
AKITA	2.72	272.4	0 46	0	1 22	2		
YAMAGATA	2.91	242.1	0 46	-2	1 26	1		
SAKATA	3.04	256.7	0 54	4	1 40	12		
HAKODATE	3.06	315.6	0 51	1	1 32	4		
HUKUSIMA	3.12	233.3	0 50A	-1	1 28	-2		
OBIHIRO	3.27	354.6	0 55	1	1 31	-3		
MURORAN	3.32	323.9	1 5	11	1 42	7		
TOMAKOMAI	3.34	333.2	1 9	14	1 47	11		
MORI	3.36	317.5	1 5	10	1 41	5		
KUSIRO	3.37	9.8	0 56	1	1 35	-1		
ONAHAMA	3.45	219.2	1 1	5	1 49	11		1 29
SHIRAKAWA	3.68	227.6	0 59	0	1 51	7		
SAPPORO	3.81	334.1	1 16	15	2 2	15		
NEMURO	3.95	21.2	1 4	1	1 47	-4		
NIIGATA	3.97	245.5	1 18	15	2 8	17		
SUTTSU	4.05	321.9						1 27
MITO	4.11	218.2	1 6	1	1 57	2		
ASAHIGAWA	4.22	347.6	1 17	10				
UTUNOMIYA	4.29	224.8						1 45
KAKIOKA	4.37	219.5	1 8	-1	2 8	6		
ABASHIRI	4.38	6.2	1 7	-2	1 57	-5		
TUKUBASAN	4.42	220.1	1 6A	-4				
AIKAWA	4.50	250.4	1 17	6				
TYOSI	4.51	210.0	1 13	2	2 10	5		
MAEBASI	4.85	229.2	1 15	-1	2 7	-7		
KUMAGAYA	4.85	225.1	1 16	0				2 36
TAKADA	4.93	240.5	1 17	0				
TOKYO C.M.O.	5.02	218.9	1 17	-1	2 12	-6		
TITIBU	5.14	225.8	1 18	-2				
OIWAKE	5.21	231.9	1 22	1				2 46
NAGANO	5.21	236.7	1 23	2	2 31	8		
YOKOHAMA	5.27	218.0						2 19
MATUSIRO	5.28	235.6	1 21A	-1	2 16	-9		
MERA	5.61	213.7	1 45	18				
KOHU	5.66	226.8	1 31	4	2 53	19		
HUNATU	5.66	224.4	1 26	-1	2 33	-1		
WAZIMA	5.74	248.7	1 29	0				
TOYAMA	5.86	241.7	1 31	1				
MISIMA	5.86	220.8	1 34	4				
SHIZUOKA	6.26	223.2						2 27
KURILSK	6.39	28.1	1 53	15	2 58	6		
GIHU	6.91	234.1	1 44	-1				2 0
NAGOYA	6.93	231.8	1 53	8	3 24	18		
HIKONE	7.32	235.5	1 51	0				
Y.-SAKHLINSK	7.39	355.2	1 52	0				
KAMEYAMA	7.45	232.1	2 3	10	3 42	23		
NARA	7.96	233.8						2 21
OSAKA	8.17	234.8						3 31
YAKUTSK	23.94	343.8	5 15	-2				
ULAN-BATOR	27.55	299.6	5 50	0				
SHILLONG	45.21	268.1	8 18A	-3				
COLLEGE	45.95	33.6	8 28	2				
CHATRA	48.20	272.5	8 44	0				
SVERDLOVSK	54.35	317.8	9 30	-1				
WARSAK DAM	56.55	288.7	9 42	-5				
RESOLUTE	59.63	15.2	10 7A	-1				
APATITY	61.01	335.7	10 17	-1				
QUETTA	61.83	287.1	10 21	-2				
THULE	62.43	8.1	10 25	-2				

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SODANKYLA	63.22	337.3	10 31	-1		
KIRUNA	64.68	339.4	10 41	-1		
NURMIJARVI	68.44	332.3	11 5	-1		13 39 PP
TIFLIS	70.56	308.3	11 18	-1		
UPPSALA	71.35	334.5	11 22A	-2		
EUREKA	72.87	52.8	11 35	2		
COLLMBERG	79.67	331.0	12 10	-1		
PRUHONICE	80.13	329.4	12 13A	0		
STUTTGART	83.12	331.5	12 29	0		
BYRD STATION	129.94	166.9	19 13	1		

APRIL 4 7.H 56.M 19.S EPICENTRE -10.20 161.42 DEPTH= 102.KM

A=-0.93307 B= 0.31372 C=-0.17596 D= 0.3187 E= 0.9479
G= 0.1668 H=-0.0561 K=-0.9844 HT= 6.5

DEPTH OF FOCUS= 0.011R

SE= 1.63

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	10.04	138.9	2 23	0	4 11	-3		
RABAUL	10.94	302.4	2 33	-2				
PORT MORESBY	14.08	272.0	3 20	4	6 4	14		
CHARTERS TS.	17.61	234.3	4 2	1	7 23	12		
SUVA	18.28	117.5						4 38
BRISBANE	18.94	204.3	4 17	1	7 52	12		
RIVERVIEW	25.33	200.3	5 21A	2	9 56	21	5 43	6 1 PP
AFIAMALU	26.46	100.7	5 28A	-2	9 59	5		
CANBERRA	27.44	202.4	5 39A	0			6 1	6 47 PPP
GUAM	28.75	324.5	5 48	-2			6 8	
KARAPIRO	30.39	157.6	6 4	-1				9 0 PCP
MELBOURNE	31.23	205.6	6 16	4				6 45 *SP
TONGARIRO	31.51	158.7	6 14	-1			6 37	
TUAI	31.77	156.3	6 15	-2				
ADELAIDE	32.19	216.5	6 21K	0				6 53
WELLINGTON	33.12	161.4			12 11	32		
GEBBIES PASS	34.77	165.7	6 41	-2				
MUNDARING	46.98	235.6	8 21	-2				8 24
MANILA	47.00	301.1	8 25	2				10 17 PP
BAGUIO CITY	48.29	302.8	8 33	0	16 10	46		
HONOLULU	50.61	51.6	8 51	0				
KIPAPA	50.73	51.5	8 52	0				
ABUYAMA	51.07	332.6	8 53K	-1				
MATUSIRO	51.37	336.0	8 54A	-3	16 7	0	9 23	19 27 SS
HAWAII V.OB.	51.85	55.4	8 58	-2				
LEMBANG	53.26	269.1	9 8	-3				
ZO-SE	56.35	318.3	9 32A	-1	17 16	2		
NHATRANG	56.44	292.0	9 56	22			10 21	
HONG KONG	56.46	305.3	9 34	0	17 21	6		
CANTON	57.52	305.7	9 42A	1	17 35	6		
TERRE ADELIE	58.15	189.2	9 44	-2				
NANKING	58.54	317.6	9 49A	1	17 47	5		
WUHAN	60.53	313.7	10 2A	0			10 28	
CAPE HALLETT	62.29	177.0	10 14K	0	19 11	41		10 39 PCP
CHANGCHUN	62.99	331.4	10 18A	-1	18 41	2	10 45	10 54 *SP
MEDAN	63.95	279.1	10 23	-2				
PEKIN	65.20	323.1	10 32A	-1	19 8	2	11 0	
SIAN	66.56	314.3	10 41A	-1				
PEKIN	65.20	323.1	10 32A	-1	19 8	2	11 0	
SIAN	66.56	314.3	10 41A	-1				
KUNMING	67.07	302.8	10 46A	1	19 34	5		
CHENGTU	68.43	308.7	10 53A	0	19 48	3	11 20	
PAOTOW	69.27	320.5	11 0	1				
LANCHOW	71.06	313.7	11 8A	-1	20 19	3		
MIRNY	72.17	203.0	11 14	-2				
ULAN-BATOR	75.28	325.5	11 35	1	21 9	6		
CHITTAGONG	75.45	296.3	11 36	1	21 12	7		14 31 PP
YAKUTSK	76.12	345.2	11 38	-1	21 14	1		
SHILLONG	76.40	299.5	11 38A	-2				
BYRD STATION	78.12	169.9	11 49	-1				
SOUTH POLE	79.87	180.0	11 58	-1			12 24	12 35 *SP
CHATRA	80.80	299.4	12 8	4				
COLLEGE	83.87	19.4	12 18	-2	22 34	1	12 45	
TIKSI	84.48	350.1	12 22	-1	22 43	4		
UKIAH	85.25	49.0	12 28	1			12 54	

SAN FRANCSCO	85.43	50.5	12 28	0						
BERKELEY	85.61	50.5	12 29A	0	22 51	1			13 23	
LICK	85.93	51.1	12 31A	1						
MINERAL	86.79	48.2	12 34A	0						
SHASTA	86.45	47.7	12 32	0						
CORVALLIS	86.81	43.8	12 37A	3						
FRESNO	87.20	52.1	12 39	3						
ALBERNI	87.29	39.0	12 39	2						
PASADENA	87.84	54.9	12 39	0	23 55	43			23 3	SKS
RENO	87.90	49.4	12 43A	3						
HORSESHOE B.	88.28	39.2	12 43	1						
PENTICTON	90.56	40.0	12 52	0						
EUREKA	90.77	50.1	12 53	0			13 21			
BOULDER CITY	90.92	53.7	12 55	1			13 16		16 31	PP
TUCSON TELE.	93.59	58.0	13 7	1						
BUTTE	94.50	44.2	13 12	2						
QUETTA	98.88	299.1	13 30	0						
RAPID CITY	100.87	46.9	13 41	2						
FLORISSANT	110.50	52.4			25 1	11			28 27	PS
ST. LOUIS I	110.62	52.6							28 24	PS
MOSCOW	117.05	328.1							19 31	PP
HUANCAYO	119.44	110.1	18 43	5						
OTTAWA	120.08	43.1	18 41	2						
NURMI JARVI	120.51	336.8	18 42	2						
BREBEUF	121.46	42.5	18 43	1						
PALISADES	122.60	47.6							30 17	PS
SEVEN FALLS	122.69	39.9	18 44	0						
KIMBERLEY	122.97	225.9							19 19	
LA PAZ	124.27	118.0	18 53	6						
BULAWAYO	124.63	236.9	18 49	1						
COLLMBERG	131.56	333.9	19 5	4			19 27		21 23	PP
PRUHONICE	131.80	331.7	19 3	1			19 32		22 21	SKP
HALLE	131.86	334.8	19 4	2						
JENA	132.44	334.5	19 5	2					22 26	
SAN JUAN	133.33	74.4	18 7	-58						
STUTTGART	135.05	334.0	19 9	1						
TRINIDAD	137.91	85.4	19 4	-9						
SETIF	146.20	323.8	19 29	1			19 57		20 13	*SPKP
ALGIERS UNI.	147.10	327.0	19 29	0			19 55			
TOLEDO	147.74	338.8	19 31	1			20 0			
RELIZANE	149.19	328.6	19 40K	7			20 6		21 5	PP
TAMANRASSET	153.77	301.5	19 40	1			20 3		23 30	PP

APRIL 5 7.H 17.M 44.S EPICENTRE -60.79 -25.21 DEPTH= 0.KM

A= 0.44373 B=-0.20893 C=-0.87146 D=-0.4260 E=-0.9047
G=-0.7884 H= 0.3712 K=-0.4905 HT= -9.2

SE= 2.15

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ARGENTINE I.	18.05	238.9	4 18	4					
BYRD STATION	31.61	199.4	6 26	-1					
HERMANUS	38.76	67.6			13 24	-2		16 24	SS
MIRNY	45.10	150.1	8 18	-2	14 55	-5			
KIMBERLEY	46.06	69.1	8 55A	27					
CAPE HALLETT	46.75	186.4	8 33	0	15 27	4		18 58	SS
WINDHOEK	48.10	56.7	8 43	-1					
WILKES	49.04	158.1	8 55	4	15 59	4		19 17	SS
PRETORIA	50.19	70.5	8 57	-3					
TERRE ADELIE	52.31	173.3	9 13	-3	16 42	1			
LA PAZ	53.80	306.0	9 25K	-2	16 59	-2			
BULAWAYO	55.23	67.4	9 35K	-2					
BROKEN HILL	60.17	64.1	10 10K	-2					
HUANCAYO	60.76	300.7	10 18	2				11 28	PCP
TANANARIVE	65.26	84.5	10 49K	3				11 8	
LWIRO	71.22	58.7	11 24K	1					
ROXBURGH	73.43	190.6			21 11	6			
MBOUR	75.21	8.3	11 47	1	21 34	9			
BOGOTA	75.41	309.1	11 49	1	21 27	0		26 29	SS
CHINCHINA	76.32	307.8	11 50	-3	21 19	-18			
CARACAS	78.33	318.1	12 7	3				22 38	
TONGARIRO	78.92	196.3	12 7	0					
KARAPIRO	80.17	196.5	12 12	-2					
PERTH	82.26	147.4			22 42	2		27 58	SS

MUNDARING	82.34	147.7	12 23	-2						
ADELAIDE	83.68	166.8	12 32	0						
CANBERRA	84.12	175.2	12 36	2						
RIVERVIEW	85.67	177.0			23 21	7		28 55	SS	
TAMANRASSET	86.93	28.2	12 48K	0	23 14	-12		16 8	PP	
BRISBANE	92.12	178.2			23 48	-26		37 54		
PALISADES	108.94	323.1			25 6	-2		19 2	PP	
KEW	113.68	16.7						35 16	SS	
PRUHONICE	114.97	27.1						19 40	PP	
TUCSON	115.53	290.6	18 44	0						
TUCSON TELE.	115.56	290.7	18 44	0						
QUETTA	116.87	75.9	18 47K	0				19 57	PP	
TIFLIS	116.89	52.1						19 56	PP	
BOULDER CITY	120.47	289.8	19 53	59						
PASADENA	120.53	286.0	18 53	-1				19 25	PP	
RAPID CITY	122.04	303.7	18 55	-2						
CHITTAGONG	122.41	102.4	18 57	-1						
SALT LAKE C.	123.03	295.3	18 58	-1						
EUREKA	123.84	291.3	18 53	-7				21 9	PP	
STALINABAD	124.60	71.8						20 40		
LICK	124.76	285.4	19 3A	1						
UPPSALA	124.80	24.7	18 58	-4						
SHILLONG	125.15	100.4	19 0A	-3						
BERKELEY	125.47	285.3	19 4	0						
RENO	125.66	288.4	19 5	1						
MOSCOW	126.30	38.6	19 5	0						
BOZEMAN	126.61	299.4	19 6	0						
NURMIJARVI	126.94	28.2	19 4	-2						
MINERAL	127.14	287.7	19 6	-1						
SKALSTUGAN	127.25	20.0	19 4	-3						
BUTTE	127.54	298.6	19 6	-2						
SHASTA	127.78	287.4	19 7	-1						
KIRUNA	132.54	21.6	19 10	-7						
SODANKYLA	133.34	24.7	19 18	-1						
THULE	139.65	345.6	19 15	-15				22 24	PP	
RESOLUTE	142.64	335.7	19 29K	-6				32 54		
ULAN-BATOR	150.01	93.5	19 51	3						
MATUSIRO	153.53	149.0	19 59	6				24 0	PP	
TUKUBASAN	153.68	152.5						43 22	SS	
COLLEGE	154.27	304.0	19 57	3						
TIKSI	165.10	32.6	19 49	-17						
YAKUTSK	167.95	73.2						20 45		

APRIL 5 12.H 36.M 14.S EPICENTRE -60.72 -25.10 DEPTH= 0.KM

A= 0.44514 B=-0.20850 C=-0.87085 D=-0.4242 E=-0.9056
G=-0.7886 H= 0.3694 K=-0.4915 HT= -9.2

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ARGENTINE I.	18.13	238.7	3 20	-55				
BYRD STATION	31.69	199.3	6 28	1				
SANTA LUCIA	40.05	291.9	7 37	-1	13 54	9		9 22 PP
MIRNY	45.14	150.1	8 19	-1	15 7	7		
KIMBERLEY	45.99	69.0	8 55A	28				
CAPE HALLETT	46.83	186.4	8 35A	2	15 29	5		10 8 PCP
WINDHOEK	48.02	56.6	8 43	0				
WILKES	49.08	158.1			16 4	8		19 28 SS
PRETORIA	50.11	70.4	8 58	-1				
LA PAZ	53.81	305.8	9 26K	0	17 4	3		
BULAWAYO	55.15	67.3	9 35K	-1				
BROKEN HILL	60.08	64.1	10 9K	-2				
HUANCAYO	60.78	300.5	10 17	1				
TANANARIVE	65.20	84.5	10 49K	4				11 22
LWIRO	71.13	58.6	11 24K	2				
MBOUR	75.13	8.1	11 47	1				
COBB RIVER	77.51	193.7	12 2	3				
CARACAS	78.32	317.9	12 2	-1	22 0	1		
CHATEAU	79.00	196.2	12 7K	0				
TONGARIRO	79.01	196.2	12 7	0				
KARAPIRO	80.25	196.4	12 13	-1				
MELBOURNE	81.46	172.1	12 18	-2				
MUNDARING	82.37	147.6	12 23	-2				
ADELAIDE	83.73	166.7	12 32K	0				

CANBERRA	84.18	175.2	12	34	0						
RIVERVIEW	85.74	176.9							28	53	SS
TAMANRASSET	86.84	28.1	12	48K	1				16	11	PP
BRISBANE	92.19	178.1	13	12	-1				20	27	
PALISADES	108.92	323.0				25	12	4	28	22	PS
TUCSON	115.56	290.5	18	45	1						
TUCSON TELE.	115.59	290.6	18	44	0						
QUETTA	116.79	75.8	18	47K	1				19	58	PP
BOULDER CITY	120.50	289.7	18	55	1						
PASADENA	120.56	285.9	18	55	1						
LARAMIE	120.76	300.2	18	54	0						
RAPID CITY	122.05	303.7	18	56	-1						
FRESNO	123.46	286.4	19	1	2						
EUREKA	123.87	291.3	19	1	1				32	5	PKKP
UPPSALA	124.71	24.6	19	1	-1						
LICK	124.79	285.4	19	3K	1						
SHILLONG	125.11	100.3	19	2K	0						
BERKELEY	125.51	285.3	19	5A	2						
RENO	125.69	288.4	19	5A	1						
MOSCOW	126.21	38.5	19	5	0						
HELSINKI	126.62	28.5	19	4	-1						
BOZEMAN	126.62	299.4	19	7	2						
NURMIJARVI	126.85	28.2	19	5	-1						
SKALSTUGAN	127.16	19.9	19	3	-3						
MINERAL	127.17	287.7	19	6K	0						
SHASTA	127.81	287.3	19	8	0						
SCORESBY SD.	130.93	1.4	19	15	1				22	41	PKS
CORVALLIS	131.24	289.8	19	6A	-8						
PENTICTON	133.15	296.6							22	50	PKS
SODANKYLA	133.25	24.7	19	14	-4						
RESOLUTE	142.60	335.7	19	30K	-5						
KHEYS	148.15	18.0	19	48	4						
ULAN-BATOR	149.95	93.2	19	48	1						
MATUSIRO	153.56	148.7	20	0K	8				27	29	PPP
COLLEGE	154.28	304.1	19	49	-4				20	17	
YAKUTSK	167.88	72.9	20	23	15						

APRIL 6 2.H 5.M 10.S EPICENTRE -20.16 -70.04 DEPTH= 0.KM

A= 0.32077 B=-0.88302 C=-0.34262 D=-0.9399 E=-0.3414
G=-0.1170 H= 0.3220 K=-0.9395 HT= 4.6

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
ANTOFAGASTA	3.54	185.7	0	58	1	1	36	-5				
LA PAZ	4.07	26.7	1	17A	12	2	15	21			1	35 PG
HUANCAYO	9.53	327.0	2	26A	4							
SANTA LUCIA	13.24	182.2	3	14	2	5	54	13			3	58
BOGOTA	24.94	350.4	5	29	3	9	49	1				
CHINCHINA	25.57	347.0	5	34	2	10	12	14				
CARACAS	30.62	6.0	6	20A	2	11	49	29				
TRINIDAD	31.77	16.3	6	30	2							
GRENADA	33.04	15.0	6	38	-1							
ST. VINCENT	34.23	15.3	6	48	-2							
SAN JUAN	38.49	6.0	7	24	-2							
TACUBAYA	48.61	322.2	8	55	8	16	13	24			10	44 PP
COLUMBIA	54.87	348.8	9	33	-1							
LITTLE ROCK	58.61	338.5	9	58	-3							
MORGANTOWN	60.19	351.2	10	11K	1							
FLORISSANT	61.67	342.0	10	19	-3							
MBOUR	62.45	60.9	10	32	5							
LAWRENCE	63.39	338.2	10	31	-3							
BYRD STATION	63.65	188.5	10	34	-1							
TUCSON	65.12	322.4	10	45	0							
TUCSON TELE.	65.12	322.5	10	44	-1						11	14
BREBEUF	65.42	357.2	10	46K	-1						11	16
OTTAWA	65.45	355.6	10	46K	-1							
SHAWINIGAN	66.44	357.9	10	51K	-2							
SEVEN FALLS	66.97	359.4	10	55	-2							
LARAMIE	69.48	332.1	11	12	0						11	34
BOULDER CITY	70.10	322.6	11	16	0							
RAPID CITY	70.78	335.3	11	19	-1							
PASADENA	70.82	319.2	11	21	1						11	44
SALT LAKE C.	72.00	327.8	11	27	-1							

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EUREKA	73.22	324.5	11 35	0			
FRESNO	73.56	320.3	11 37K	0			
LICK	75.04	319.7	11 46K	1	12 22		
RENO	75.41	322.4	11 48K	1			
BERKELEY	75.76	319.8	11 49K	0			
SAN FRANCSCO	75.81	319.6	11 50K	0			
BUTTE	76.31	331.0	11 53	0		12 15	
MINERAL	76.98	322.1	11 54K	-2			
SHASTA	77.66	322.0	11 59K	-1			
HUNGRY HORSE	78.72	331.8	12 5	-1			
ARCATA	78.76	321.3	12 6	0			
CAPE HALLETT	79.41	195.7	12 9	-1		12 38	PCP
CORVALLIS	80.68	324.5	12 16K	0			
PENTICTON	81.98	329.8	12 23A	0			
VICTORIA	83.30	327.5	12 29	-1			
HORSESHOE B.	83.79	328.2	12 33	0			
KIMBERLEY	84.57	118.5	13 5A	29			
TAMANRASSET	85.16	63.8	12 38A	-1		15 53	PP
TOLEDO	85.68	44.8	12 39	-3			
SETIF	90.59	51.5	13 15	9			
BULAWAYO	90.88	111.7	13 6	-1			
FOLINIERE	92.28	38.3				13 50	
BROKEN HILL	92.85	106.4	13 16	0			
CHATEAU	94.94	225.2	13 26	0			
KARAPIRO	95.59	226.3	13 29	1			
RESOLUTE	95.95	353.5	13 28	-2			
THULE	96.37	0.4	13 30	-2			
LWIRO	97.52	95.2				17 32	
STUTTGART	98.15	41.1	13 54	14			
COLLEGE	103.00	334.6	13 59	-3			
QUETTA	140.01	66.8	19 31	0		19 54	
MATUSIRO	150.41	309.5	19 48K	0			
SHILLONG	162.48	68.7	20 25	22			

APRIL 7 13.H 47.M 28.S EPICENTRE -24.32-179.71 DEPTH= 465.KM

A=-0.91230 B=-0.00461 C=-0.40949 D=-0.0051 E= 1.0000
G= 0.4095 H= 0.0021 K=-0.9123 HT= 3.5

DEPTH OF FOCUS= 7.068R

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	
SUVA	6.38	343.9	1 42	2	3 7	8		2 37	
AFIAMALU	12.77	37.3	2 46A	-3	5 0	-4			
NOUMEA	12.88	276.2	2 53	3	5 14	8			
KARAPIRO	14.16	195.5	3 4	1	5 40	9			
TUAI	14.68	189.7	3 9	0	5 40	-1		14 9	SCS
CHATEAU	15.37	194.0	3 15	-1	6 4	10		7 25	
TONGARIRO	15.38	194.1	3 16	0	5 57	3			
WELLINGTON	17.53	193.9	3 37	0	6 31	-2		14 19	SCS
COBB RIVER	17.87	198.9	3 40	-1	6 34	-5		14 17	SCS
KAIMATA	19.58	199.9	3 57	0	7 2	-6		14 22	SCS
GEBBIES PASS	20.33	196.1	4 3	-1	7 19	-2		7 26	
BRISBANE	24.93	257.0	4 46	0	8 32	-4			
RIVERVIEW	27.10	242.9	5 7A	1	9 9	-2		7 27	*SP
CANBERRA	29.16	240.6	5 24A	0	9 43	0		6 50	PP
CHARTERS TS.	31.74	270.8	5 46	0	10 20	-3			
FORT NELSON	32.83	227.4	5 56	1	10 40	1			
MELBOURNE	32.91	237.4	5 51	-5	10 34	-7		6 4	
RABAUL	33.67	302.0	6 0	-2	11 28	36		8 28	PCP
PORT MORESBY	34.89	289.4	6 13	0	11 8	-3		8 33	
ADELAIDE	37.42	243.7	6 33A	0	11 42	-7		8 40	PCP
CAPE HALLETT	48.36	184.1	8 1	1	14 34	9		17 28	*SS
HAWAII V.OB.	49.58	30.9	8 9	0					
KIPAPA	50.12	26.7	8 3	-10					
GUAM	51.14	313.4	8 19	-2					
SCOTT BASE	53.98	183.5	8 43	2					
MUNDARING	56.31	246.7	8 56K	-2			9 44		
BYRD STATION	61.16	170.1	9 29	-1				38 17	PKPPKP
SOUTH POLE	65.83	180.0	9 59	-1	18 7	-2	11 45	38 32	PKPPKP
MIRNY	66.89	205.8	10 10	3					
MANILA	69.58	297.5	10 23	0	19 38	45			
9AGUIO CITY	70.94	298.7	10 29	-2					

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LEMBANG	71.44	270.8	10	32K	-2	19	12	-2				
MATUSIRO	72.39	325.5	10	37	-2	19	24	-1			23	58 SS
ARGENTINE I.	78.09	157.1	11	10	-1							
NHATRANG	78.28	289.2	11	11	-1							
ZO-SE	78.97	311.4	11	16K	0	20	34	-1				
HONG KONG	79.19	300.4	11	17	0	20	12	-26			16	24 PPP
CANTON	80.26	300.7	11	24K	1	20	51	2				
UGLEGORSK	80.63	335.7	11	26	2							
NANKING	81.19	311.0	11	28K	1	20	57	-1				
BERKELEY	82.06	42.3	11	33	1	21	8	1	13	24	22	6 SP
LICK	82.11	43.1	11	33K	1				13	21		
PASADENA	82.43	47.4	11	33	-1	21	9	-1			13	23
FRESNO	82.92	44.4	11	39	3				13	27		
WUHAN	83.30	307.6	11	38K	0							
SHASTA	83.77	40.1	11	41A	1				13	29		
MINERAL	84.02	40.7	11	42K	0				13	31		
OKHA	84.02	338.6	11	40	-2							
CHANGCHUN	84.47	323.5	11	42	-2							
RENO	84.60	42.2	11	47	3				13	38		
BOULDER CITY	85.72	47.4	11	50	0				13	38		
CORVALLIS	85.74	36.7	11	50	0							
TUCSON	86.50	52.4	11	55	1	21	46	-3	13	44		
EUREKA	86.96	44.0	11	55	-1				13	45		
MAGADAN	87.02	345.5	11	55	-1							
PEKING	87.51	316.3	11	59	1	21	59	0			21	38 SKS
VICTORIA	88.24	33.6	12	1	-1							
HORSESHOE B.	88.87	33.0	12	4	-1							
SIAN	89.31	308.3	12	9K	2							
KUNMING	89.69	297.7	12	10K	1	21	53	-25				
SALT LAKE C.	90.30	44.7	12	13	2							
PENTICTON	90.69	34.6	12	13	0							
CHENGTU	91.22	303.1	12	18K	2	22	35	3			22	0 SKS
COLLEGE	92.26	13.0	12	18	-2	22	36	-5	14	11		
LANCHOW	93.83	307.8	12	29K	1							
ULAN-BATOR	97.33	319.5	12	42	-2							
TIKSI	102.00	345.3									17	17 PP
RESOLUTE	111.89	16.6	17	39	-2						25	28
PALISADES	117.11	54.9				25	36	96			28	16 SKKS
WARSAK DAM	118.13	296.9	17	53	0							
KHEYS	118.93	350.9	17	53	-2						19	21
TASHKENT	121.05	304.8	18	0	1							
DUZHANBE	121.10	301.6	17	59	0							
QUETTA	121.18	291.7	18	0K	1						19	29 PP
KIMBERLEY	122.21	205.5	18	2A	1							
PRETORIA	123.38	210.3	18	8	4							
SVERDLOVSK	126.17	323.7	18	8	-1							
BULAWAYO	127.91	214.4	18	7	-5						20	46
ASHKABAD	129.22	300.0	18	15	0						20	22 PP
WINDHOEK	130.61	200.6	17	48	-29							
SCORESBY SD.	132.03	9.9	18	17	-3						20	50 SKP
APATITY	132.18	343.5	18	18	-2						21	1
BROKEN HILL	132.65	218.5	18	17	-4						21	5
SODANKYLA	133.95	346.2	18	12	-12						21	6 SKP
KIRUNA	134.74	349.4	18	16	-9						21	9 SKP
TEHERAN	134.76	296.9									21	16 PP
MOSCOW	138.42	328.9	18	30	-2						21	20 PP
GORIS	138.54	302.7									21	24 PP
TIFLIS	139.34	306.4	18	35	1						21	25
SKALSTUGAN	139.95	351.7	18	29	-6						21	3
NURMIJARVI	140.09	341.4	18	28	-7						21	25 SKP
HELSINKI	140.27	340.9	18	28	-8						21	25 SKP
LWIRO	141.73	230.4	18	36	-3						21	31
UPPSALA	142.48	345.7	18	34	-6						21	30 SKP
SIMFEROPOL	145.74	315.4	18	47	2							
COPENHAGEN	147.42	347.2	18	51	3							
KSARA	147.62	295.2	18	52	4				20	54	22	24 PP
JERUSALEM	148.39	291.5	18	47	-2				20	52		
IASI	148.48	323.3	18	55	6							
LWOW	148.53	330.0							20	53	19	53
KRAKOW	150.11	334.2	18	52	1						19	4 PKP2
POTSDAM	150.33	344.1	18	50	-2							
RATHFARNHAM	150.64	8.1	18	57K	5						20	51
RACIBORZ	150.75	336.1	19	0	8						19	9 PKP2
WITTEVEEN	151.13	352.0	19	0K	7							
COLLMBERG	151.34	343.3	18	53K	0				21	0	22	44 PP
HALLE	151.42	344.7	19	0	7				21	0	19	10 PKP2
MUNSTER	151.83	350.4	18	53	-1							
HELWAN	151.87	288.2	19	1K	7							
PRAGUE	152.03	340.4							21	5	19	12 PKP2

JENA	152.03	344.7	18	54	0	20	56	22	44	PP
PRUHONICE	152.07	340.1	18	53	-1	21	2	22	38	PP
PLAUEN	152.30	343.6	18	52	-3					
SONNEBERG	152.64	344.7	19	2	7	21	3			
KEW	152.89	0.8	19	3	7					
UCCLE	153.38	354.2	18	59	3					
BOURBES	154.04	353.7	19	6	9					
HEIDELBERG	154.11	347.3	18	56	-1					
STUTTGART	154.59	346.1	18	57	-1	20	57	22	59	PP
TUBINGEN	154.86	346.2	19	25	27					
STRASBOURG	155.07	348.2	18	59	0					
RAVENSBURG	155.44	344.7	18	58	-1					
LJUBLJANA	155.47	335.6	18	59	0			19	28	PKP2
TOLMEZZO	155.71	338.2	18	59	0			19	30	
ATHENS	155.85	309.8	19	29A	29					
TRIESTE	156.09	336.2	19	0	0					
BASLE	156.12	347.7	19	30	30					
BESANCON	156.67	350.2	19	1	0					
NEUCHATEL	156.75	348.4	19	33	32					
MONACO	159.77	344.9	19	4	0			19	47	
MBOUR	160.97	118.1	19	9	3					
MESSINA	161.02	320.4						19	52	
SETIF	167.36	340.8	19	11	0	21	34	24	9	PP
TAMANRASSET	174.96	253.4	19	15K	0	21	16	24	53	PP

APRIL 7 23.H 55.M 52.S EPICENTRE -21.64-176.47 DEPTH= 147.KM

A=-0.92861 B=-0.05729 C=-0.36661 D=-0.0616 E= 0.9981
G= 0.3659 H= 0.0226 K=-0.9304 HT= 4.3

DEPTH OF FOCUS= 0.018R

SE= 1.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	5.92	305.0	1	34	8	2	45	11					
AFIAMALU	8.89	30.9	2	2A	-4	3	40	-5					
NOUMEA	15.86	264.4	3	21	-15								
KARAPIRO	17.64	201.3	3	59	2								
TUAI	17.96	196.4	3	57	-4	7	10	-4			5	56	
CHATEAU	18.79	199.6	4	8	-2	7	41	10					
WELLINGTON	20.94	198.7	4	29	-3	8	11	-1			15	32	SCS
COBB RIVER	21.43	202.8	4	38	1	8	24	3					
KAIMATA	23.16	203.2	4	56	2	8	51	0			5	27	
GEBBIES PASS	23.79	199.8	5	0	0	9	2	1					
ROXBURGH	26.48	202.8				9	47	1			12	20	SS
BRISBANE	28.51	252.2	5	43	0	9	42	-37					
RIVERVIEW	31.00	240.0	6	6K	1	10	45	-13			16	25	SCS
CHARTERS TS.	34.81	265.6	6	38K	0						14	49	
PORT MORESBY	37.00	283.5	6	57	0								
ADELAIDE	41.30	241.3	7	32A	0								
KIPAPA	46.43	24.0	8	1	-12								
GUAM	51.63	309.0	9	52	59								
TERRE ADELIE	52.42	199.6	9	3	4								
MUNDARING	60.13	244.7	9	52K	-2						10	15	
BYRD STATION	63.29	170.6	10	16	1	17	53	-40			38	57	PKPPKP
WILKES	63.57	205.5	10	17	0	18	35	-2			19	50	SCS
SOUTH POLE	68.49	180.0	10	49	1						38	52	PKPPKP
MIRNY	70.58	205.1	11	1	0								
MANILA	71.08	294.9	11	5	1								
MATUSIRO	71.97	323.0	11	7K	-2						26	2	
Y.-SAKHLINSK	77.62	332.8	11	40	-1								
SAN FRANCSCO	77.90	41.0	11	43	0								
BERKELEY	78.08	41.0	11	44K	0	21	27	3	12	36			
LICK	78.13	41.7	11	45K	1				11	36			
UKIAH	78.31	39.5	11	46	1				12	37			
PASADENA	78.43	46.1	11	46	0	21	25	-3			26	20	SS
FRESNO	78.93	43.1	11	50K	2								
ARCATA	78.96	37.7	11	50K	1								
UGLEGORSK	79.50	333.7	11	49	-2								
ZO-SE	79.52	309.4	11	51	-1								
SHASTA	79.81	38.7	11	54K	1								
VLADIVOSTOK	80.03	324.3	11	52	-2	21	42	-3					
MINERAL	80.05	39.4	11	54K	0				12	46			
NHATRANG	80.29	287.3	11	55	-1								

RENO	80.62	40.9	11	58K	1	21	54	3			
CANTON	81.52	298.8	12	1K	-1						
BOULDER CITY	81.72	46.2	12	5	2						
CORVALLIS	81.83	35.3	12	3K	-1						
TUCSON	82.50	51.1	12	8	1	23	1	51	12	52	
EUREKA	82.97	42.7	12	9	-1						38 22 PKPPKP
CHANGCHUN	84.17	321.8	12	15K	-1						
ALBERNI	84.20	31.1	12	14	-2						
VICTORIA	84.38	32.3	12	18	1						
HORSESHOE B.	85.02	31.7	12	20	0						
MAGADAN	85.23	344.0	12	20	-1						22 30 SCS
PENTICTON	86.81	33.3	12	29	0						
PEKING	87.70	314.8	12	32K	-1						
BUTTE	88.72	38.8	12	39	1						
COLLEGE	89.02	11.8	12	37	-2	23	8	-5	13	28	22 49 SKS
HUNGRY HORSE	89.20	36.3	12	39	-1						
BOZEMAN	89.43	39.6	12	42	1						
SIAN	90.05	307.0	12	44K	0						
SANTA LUCIA	90.64	126.4	12	48	1	23	0	-27			24 32 PS
KUNMING	91.13	296.5	12	50	1						
RAPID CITY	93.50	43.7	13	0	0						
LANCHOW	94.59	306.9	13	5	0						
HUANCAYO	95.73	105.3	13	17	7						
LAWRENCE	96.83	50.9	13	15	0						
ULAN-BATOR	97.27	318.7	17	12	777						
TIKSI	100.20	344.8	13	27	-3						
LA PAZ	100.22	112.3	13	36	6	23	55	1			
PALISADES	113.13	53.4	14	41	777	24	51	1			19 19 PP
THULE	115.14	14.4	18	21	-2						
GRAHAMSTOWN	121.09	202.5	18	36A	1						
TASHKENT	121.94	306.0	18	37	0						
DUZHANBE	122.21	302.7	18	37	0						
QUETTA	122.95	292.7	18	40K	1						
SVERDLOVSK	125.74	325.3	18	44	0						
KIMBERLEY	125.87	203.1	18	45	1						
PRETORIA	127.17	208.2	18	53	6						
SCORESBY SD.	128.87	10.7	18	51	1				19	44	20 53 PP
APATITY	130.41	345.4	18	52	-1						22 15 PKS
ASHKABAD	130.41	301.9	18	54	1						22 20 PKS
BULAWAYO	131.78	212.3	18	40	-16						22 8
SODANKYLA	132.01	348.2	18	50	-6						22 5 SKP
KIRUNA	132.61	351.4	18	44	-13						22 7 SKP
SHIRAZ	135.39	290.7	18	50	-12				19	4	
TEHERAN	136.14	299.5	19	7	3						
BROKEN HILL	136.58	216.5	18	55	-9						
PULKOVO	137.43	340.3	19	6	0						21 45 PP
MOSCOW	137.57	332.0	19	5	-1						
SKALSTUGAN	137.67	354.2	18	57	-9						22 25 SKP
NURMIJARVI	138.42	344.4	18	55	-13						22 26 SKP
HELSINKI	138.63	343.9	19	0	-8						22 28 SKP
GORIS	139.50	306.0	19	10	0						
TIFLIS	140.05	309.7	19	12	1						
UPPSALA	140.53	348.8	19	3	-9						22 32 SKP
LWIRO	145.73	229.2									22 48
SIMFEROPOL	145.78	320.0	19	23	2						
RATHFARNHAM	147.51	11.0	19	27K	3				20	18	
LWOW	147.54	335.0	19	26	2				20	27	
IASI	147.95	328.4	19	28	3						
POTSDAM	148.44	348.8	19	25	0				20	16	
BACAU	148.72	328.2	19	32	6						
WITTEVEEN	148.78	356.3	19	30K	4				20	22	
KRAKOW	148.83	339.4	19	27	1				20	16	19 31 PKP2
CHORZOW	148.92	340.7	19	31	5						
KSARA	149.03	300.0	19	27	1				20	22	23 4 PP
RACIBORZ	149.34	341.3	19	28	1				20	16	19 32 PKP2
HALLE	149.48	349.6	19	27	0				20	20	
MUNSTER	149.56	355.0	19	27	0						19 57
JERUSALEM	150.04	296.4	19	29	1						19 35 PKP2
KEW	150.07	4.8	19	28	0				20	24	42 3 SS
JENA	150.09	349.8	19	27	-1				20	23	22 58 PP
PRAGUE	150.35	345.7	19	35A	7				20	26	
PRUHONICE	150.41	345.5	19	34	6				20	25	
PLAUEN	150.42	348.8	19	26	-2				20	21	
CAMPULUNG	150.56	328.2	19	41	13						
BENSBERG	150.60	355.3	19	35K	7						
SONNEBERG	150.69	349.9	19	28	-1				20	24	
CHEB	150.77	348.3	19	34	5						
UCCLE	150.89	358.9	19	37	8						
BRATISLAVA	151.38	340.9	19	31A	1						

VIENNA-H.	151.52	341.9	19 31	1						
DOURBES	151.58	358.6	19 36	6					23 20	PP
HEIDELBERG	151.99	352.8	19 30	0						
STUTTGART	152.54	351.7	19 32	1			20 34		23 20	PP
FOLINIERE	152.74	5.8	19 31	-1						
TUBINGEN	152.80	351.9	19 39	7			20 34			
PARIS	152.88	1.5	19 14	-18			20 42			
STRASBOURG	152.91	353.8	19 33	1						
EBINGEN	153.16	351.9	19 31	-1						
RAVENSBURG	153.46	350.8	19 32	-1						
HELWAN	153.70	293.9	19 33	0					23 26	
ZAGREB	153.82	340.0	19 35	2						
TOLMEZZO	154.12	344.8	19 33	0					21 7	
BESANCON	154.37	356.1	19 44	10						
TRIESTE	154.63	343.1	19 34	0					19 58	
CLERMONT-FD.	155.93	0.7	19 38K	2					20 13	
MONACO	157.73	352.5							20 12	
ROME	158.44	341.6	19 39	0					23 53	PP
MBOUR	159.22	106.9	19 46	6					30 37	SKKS
MESSINA	160.51	330.5	19 45	4						
TOLEDO	160.70	17.9	19 42	0					23 58	
ALGIERS UNI.	164.92	1.5	19 45	-1			20 41		24 28	PP
SETIF	165.40	354.0	19 47	1			20 40		24 33	PP
TAMANRASSET	177.83	302.0	19 54K	2			20 44		25 32	PP

APRIL 9 2.H 43.M 48.S EPICENTRE 39.55 143.72 DEPTH= 0.KM

A=-0.62325 B= 0.45749 C= 0.63424 D= 0.5917 E= 0.8061
G=-0.5113 H= 0.3753 K=-0.7731 HT= -1.5

SE= 3.63

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MIYAKO	1.36	274.6	0	24A	-3	0	39	-6				
HATINOHE	1.94	300.8	0	32K	-3	0	56	-4				
MORIOKA	1.97	275.1	0	35A	0	0	59	-2				
MIZUSAWA	2.05	258.9	0	36	-1	1	1	-2				
ISINOMAKI	2.18	239.8	0	37A	-1	1	6	0				
SENDAI	2.55	240.7	0	42A	-2	1	4	-12				
AOMORI	2.58	300.3	0	50	6	1	16	-1				
URAKAWA	2.69	344.9	0	49	3	1	20	1				
HIROO	2.74	353.8	0	54	8						1	18
AKITA	2.80	274.6	0	48	1	1	21	-1				
YAMAGATA	2.93	244.7	0	46	-3	1	28	2				
SAKATA	3.09	259.0	0	57	6	1	37	7				
HUKUSIMA	3.12	235.7	0	50	-2						1	34
HAKODATE	3.19	316.0	0	53	0	1	31	-1				
OBIHIRO	3.39	353.5	0	55	-1						1	22
ONAHAMA	3.42	221.4									1	18
MURORAN	3.46	324.0	1	3	6	1	39	0				
KUSIRO	3.46	8.3	0	56	-1	1	35	-4				
TOMAKOMAI	3.47	332.9	1	4	7	1	34	-5				
MORI	3.49	317.8	1	2	5	1	39	-1				
SHIRAKAWA	3.67	229.7	1	0	0	1	34	-10				
SAPPORO	3.94	333.8	1	9	6	1	55	4				
NIIGATA	4.00	247.4	1	8	4	1	57	4				
NEMURO	4.02	19.7	1	3	-2	1	47	-6				
MITO	4.08	220.0	1	5	0	1	52	-3				
SUTTSU	4.18	322.0	1	32	25							
UTUNOMIYA	4.27	226.6	1	18	10						2	18
KAKIOKA	4.34	221.3	1	8	-1	2	12	11				
TUKUBASAN	4.39	221.8	1	7A	-3	1	56	-6				
TYOSI	4.45	211.7	1	13	2	2	21	17				
ABASHIRI	4.48	5.2	1	10	-1	2	1	-4				
AIKAWA	4.54	252.0	1	10	-2							
KUMAGAYA	4.83	226.7	1	16	0	2	16	2				
MAEBASI	4.84	230.9	1	17	1	2	9	-5			2	55
TOKYO C.M.O.	4.99	220.4	1	17	-1	2	13	-5			1	42
TITIBU	5.12	227.3	1	18	-2							
OIWAKE	5.20	233.4	1	24	3	2	28	5				
NAGANO	5.22	238.3	1	23	1	2	19	-4			2	39
YOKOHAMA	5.24	219.4	1	35	13						2	43
MATUSIRO	5.29	237.1	1	22A	-1	2	21	-4			2	51
MERA	5.57	215.1	1	20	-6							
MATUMOTO	5.62	235.8	1	26	-1							

KOHU	5.64	228.2	1	29	2	2	39	5		
HUNATU	5.64	225.7	1	31	3	2	32	-2		
WAZIMA	5.77	250.1	1	32	3					
MISIMA	5.83	222.1	1	36	6	2	53	14		
TOYAMA	5.88	243.0	1	43	12					
OSIMA	5.90	217.3							2	31
WAKKANAI	6.05	346.2							3	31
IIDA	6.17	231.1	1	45	10	2	54	7		
OMAESAKI	6.61	223.3							2	26
GIHU	6.91	235.3	1	50	5				3	12
NAGOYA	6.93	233.0	1	55	9	3	27	21	3	55
HIKONE	7.32	236.6	1	54	3					
KAMEYAMA	7.45	233.2				3	40	21	2	16
Y.-SAKHLINSK	7.50	354.7	1	53	-1	3	1	-19		
KYOTO	7.81	237.1	1	58	0	3	35	7		
NARA	7.96	234.8	2	19	19					
ABUYAMA	8.01	236.8	1	59A	-2					
OSAKA	8.17	235.7							2	29
OOITA	11.61	240.8							5	50
ZO-SE	20.19	252.3	4	40	1					
PEKING	21.15	280.1	4	43	-6					
NANKING	21.52	257.4	4	59	6	8	57	9		
WUHAN	25.43	258.3	5	29A	-2					
ULAN-BATOR	27.67	299.8	5	50	-2					
LANCHOW	31.53	276.4	6	23	-3					
KUNMING	37.17	259.7	7	13	-2					
SHILLONG	45.28	268.2	7	40K	-41					
COLLEGE	46.00	33.5	8	31	4					
CHATRA	48.28	272.7	8	43	-2					
KHEYS	50.56	347.8	12	2	179					
KHEYS	50.56	347.8							12	2
RESOLUTE	59.71	15.2	10	7A	-2					
APATITY	61.14	335.7	10	16	-3					
QUETTA	61.94	287.2	10	21	-3					
SODANKYLA	63.35	337.3	10	31	-3					
KIRUNA	64.80	339.5	10	41	-2					
MOSCOW	66.31	323.6	10	50	-3					
NURMIJARVI	68.57	332.3	11	5	-2					
HELSINKI	68.69	331.9	11	6	-2					
TIFLIS	70.69	308.4	11	19	-1					
UPPSALA	71.48	334.5	11	22	-3					
EUREKA	72.87	52.8	11	35	2					
BOULDER CITY	75.73	55.1	11	53	3					
COLLMBERG	79.80	331.1	12	11	-1				12	40
PRUHONICE	80.26	329.5	12	14A	0				12	40
STUTTGART	83.25	331.6	12	29	-1					
ROME	87.62	325.8							18	12

APRIL 10 20.H 26.M 11.S EPICENTRE 52.88-167.05 DEPTH= 0.KM

A=-0.59066 B=-0.13581 C= 0.79541 D=-0.2241 E= 0.9746
G=-0.7752 H=-0.1782 K=-0.6061 HT= -6.5

SE= 1.95

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	15.50	31.7	3	41	-1	6	49	14					
SITKA	18.59	64.4	4	23	2								
CORVALLIS	29.63	88.5	6	9	0								
SHASTA	32.39	93.9	6	35	1								
TIKSI	33.03	328.5	6	38A	-1								
MINERAL	33.08	93.7	6	41A	1								
BERKELEY	34.25	97.8	6	51	1	12	27	10					
RENO	34.66	93.4	6	55	2								
LICK	34.97	97.9	6	56K	0						7	17	
RESOLUTE	35.30	26.0	6	57	-2								
BUTTE	35.33	78.8	6	53	-6								
BOZEMAN	36.42	78.3	7	8	0								
FRESNO	36.45	97.0	7	12	4								
EUREKA	37.03	90.3	7	13	0						9	7	PCP
BOULDER CITY	39.97	93.6	7	37	-1								
MATUSIRO	41.12	269.1	7	47K	0	14	3	2			9	38	
THULE	41.31	20.7	7	48	-1								
ABUYAMA	43.84	269.4	8	10K	0								
CHANGCHUN	44.29	286.6	8	11A	-2								
KHEYS	44.40	350.4	8	16	2								

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TUCSON	44.93	94.3	8	18	0				10	11 PCP
TUCSON TELE.	44.94	94.1	8	18	-1					
PEKING	51.97	288.4	9	12	-1	16	36	0		
FAYETTEVILLE	52.33	77.9	8	13K	-63					
ST. LOUIS 1	52.93	72.9	9	18K	-2	16	44	-5		
SCORESBY SD.	54.41	13.7	9	31A	0					
ZO-SE	55.15	276.9	9	51	14					
NANKING	55.91	279.4	9	41	-1					
BREBEUF	57.32	56.5	9	50	-2					
MORGANTOWN	58.06	65.3	9	56	-1					
APATITY	58.91	351.0	10	2	-1					
KIRUNA	59.48	356.7	10	6	-1					
SODANKYLA	59.63	353.9	10	8	0					
PALISADES	60.34	60.4	10	11	-2	18	23	-4	22	35 SS
LANCHOW	61.73	293.1	10	22A	-1					
SKALSTUGAN	63.88	0.3	10	36	-1					
SVERDLOVSK	63.89	333.1	10	37	0					
CHENGTU	65.59	288.9	10	47A	-1					
CANTON	65.74	276.6	11	1	12					
HONG KONG	65.84	275.4	10	49	-1					
NURMIJARVI	66.57	353.7	10	54	0	19	46	1		
PULKOVO	66.84	350.5	10	55	-1					
HELSINKI	66.89	353.5	10	55	-1					
UPPSALA	67.56	357.4	10	59	-1					
MOSCOW	69.86	345.4	11	14A	-1					
KUNMING	70.50	285.9	11	18	-1	20	33	1		
ANDIJAN	73.56	317.0	11	38A	1					
WITTEVEEN	74.54	3.9	11	54	12					
MUNSTER	75.43	3.4	11	48	0					
HALLE	75.99	0.6	11	51	0				13	35
COLLMBERG	76.20	0.5	11	52A	0				13	34
SHILLONG	76.34	294.2	11	55A	-2					
UCCLE	76.44	5.6	11	55	2					
JENA	76.56	0.9	11	54	0				12	34
STALINABAD	76.88	318.2	11	57	1					
PLAUEN	77.00	0.5	11	54	-2					
SONNEBERG	77.11	1.1	11	56	-1					
DOURBES	77.15	5.5	12	2	5					
LWOW	77.25	352.7	12	0	2					
KRAKOW	77.28	355.4	11	58	0				12	8 PCP
RACIBORZ	77.32	356.5	11	59	1				12	7 PCP
PRUHONICE	77.51	358.9	11	59	0				12	8 PCP
CHATRA	77.89	298.4	12	2	1					
FOLINIERE	78.09	9.0	12	3	1					
SKALNATE PL.	78.13	355.1	12	2	-1					
STUTTGART	78.68	2.5	12	6	0				13	57
STRASBOURG	78.82	3.5	12	8	2					
CHITTAGONG	78.90	292.2	12	7	0	22	4	-1	15	8 PP
TUBINGEN	78.91	2.6	12	7	0					
VIENNA-H.	79.21	357.7	12	10	1					
EBINGEN	79.26	2.7	12	9	0					
BRATISLAVA	79.27	357.2	12	8	-1				12	13 PCP
KISHINEV	79.56	349.0	12	10	0					
WARSAK DAM	79.61	313.9	12	10	-1					
RAVENSBURG	79.68	2.3	12	12	1					
BESANCON	80.07	4.8	12	14	1					
NEUCHATEL	80.37	4.2	12	15	0					
LAHORE	80.43	310.5	12	15	0					
SIMFEROPOL	80.87	344.9	12	19	2					
TOLMEZZO	81.10	360.0	12	19	0				12	50
LJUBLJANA	81.44	358.9	12	21A	1					
TIFLIS	81.84	336.5	12	25A	2					
TRIESTE	81.85	359.4	12	24	1					
SAN JUAN	81.94	70.3	12	23	0				14	15
MONACO	83.65	4.0	12	33	1					
QUETTA	84.87	315.3	12	39A	1	23	4	-2	12	43 PCP
TEHERAN	85.62	329.5	12	23	-19				14	35
SHIRAZ	90.87	326.3	13	7K	0					
JERSULEM	93.49	341.1	13	19	0					
BYRD STATION	135.38	169.4	18	44	-38				22	50
BROKEN HILL	139.73	336.4							19	19
SOUTH POLE	142.69	180.0	19	5	-30				20	26
BULAWAYO	145.14	333.7	19	41A	1				21	32
WINDHOEK	149.57	352.4	19	52A	5					
KIMBERLEY	154.35	335.4	19	54	0					

APRIL 10 22.H 5.M 26.S EPICENTRE 37.69 27.76 DEPTH= 0.KM

A= 0.70200 B= 0.36949 C= 0.60883 D= 0.4658 E=-0.8849
G= 0.5388 H= 0.2836 K=-0.7933 HT= -0.8

SE= 2.26

	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	
ATHENS	3.21	276.2	0	52K	0						1	44	SG
ISTANBUL KA.	3.52	16.3	0	54	-3								
SOFIA	6.04	327.3	1	35	3	2	41	-2			3	13	SG
KSARA	7.65	117.9	1	54A	-1	3	19	-4			2	25	PG
CAMPULUNG	7.84	345.7	2	28	30	3	47	19			2	53	P*
FOCSANI	8.01	357.2	2	19	19	3	40	7			2	47	P*
HELWAN	8.35	158.1	2	4K	-1						4	32	SG
JERUSALEM	8.51	131.7	2	7	0	3	36	-9					
SIMFEROPOL	8.69	31.4	2	10	1	3	41	-8					
BACAU	8.90	356.2	2	26	14	3	50	-4			2	48	P*
BELGRADE	9.00	324.6	2	59A	45						3	22	PG
KISHINEV	9.36	4.5	2	17	-2	3	54	-12					
IASI	9.50	359.2	2	19	-2	3	47	-23			3	15	PG
MESSINA	9.66	276.7	2	17	-6						4	7	
ROME	12.48	294.4	3	18	17								
LJUBLJANA	12.91	314.5	3	7	0								
BRATISLAVA	13.05	326.7	3	8	-1								
TRIESTE	13.14	311.7	3	12	2						7	29	SGSG
KRAKOW	13.57	338.0	3	16	0						3	26	PP
TIFLIS	13.72	67.7	3	24	6	6	13	21					
TOLMEZZO	13.97	313.2	3	20	-1						7	50	
WARSAW	15.29	344.1									4	17	
PRUHONICE	15.52	326.5	3	42	1						4	59	
PRAGUE	15.64	326.5	3	43	0								
CHUR	16.27	310.0	3	52	1								
MONACO	16.54	297.8	3	56	2								
RAVENSBURG	16.67	313.0	3	58	2								
PLAUEN	16.96	323.9	3	59	-1								
COLLMBERG	17.16	327.2	4	4	2						4	44	
EBINGEN	17.25	313.4	4	4	1								
SONNEBERG	17.35	322.3	4	5	0						4	20	PP
TUBINGEN	17.37	314.5	4	11	6								
STUTTGART	17.39	315.4	4	7	2								
JENA	17.53	324.2	4	9	2						4	51	
HALLE	17.76	326.1	4	9	-1								
NEUCHATEL	17.93	307.8	4	12	0								
POTSDAM	17.93	329.7	4	14	2								
SETIF	17.93	272.1	4	13	1						4	30	PP
STRASBOURG	18.14	313.2	4	17	2								
BESANCON	18.64	307.7	4	23	2								
TEHERAN	19.04	88.7	4	28	2	8	10	15					
MOSCOW	19.24	17.1	4	25	-3								
ALGIERS UNI.	19.69	274.9	4	30	-3								
BENSBERG	19.73	318.8	3	34	-60								
CLERMONT-FD.	20.03	301.6	4	36	-1								
DOURBES	20.69	314.2	4	52	8								
WITTEVEEN	21.08	322.6	4	48	0								
UCCLE	21.17	315.7									5	18	
RELIZANE	21.87	273.2	4	57	1								
SHIRAZ	22.07	104.0	4	59K	1						5	34	
PULKOVO	22.16	3.4	4	56	-3								
HELSINKI	22.57	356.4	5	4	1								
NURMIJARVI	22.92	356.1	5	7	1								
UPPSALA	23.11	346.9	5	8	0								
FOLINIERE	23.23	307.5	5	9	0								
TAMANRASSET	24.21	238.4	5	21K	2	9	44	9			5	57	PP
SKALSTUGAN	27.56	345.0	5	50	0								
SVERDLOVSK	28.97	38.0	6	2	-1								
SODANKYLA	29.73	359.1	6	8	-2								
APATITY	30.08	4.3	6	12	-1								
KIRUNA	30.47	354.5	6	14	-2								
STALINBAD	32.08	75.6									7	38	
QUETTA	33.18	91.2	6	40	0								
WARSAK DAM	35.45	82.4	6	58A	-1								
CHATRA	50.65	84.1	9	2K	-1								
SHILLONG	54.96	83.0	9	36A	1								
THULE	55.12	343.4	9	33	-3								
RESOLUTE	61.76	345.3	10	19	-3								
BREBEUF	71.17	313.2	11	23A	1								

COLLEGE	77.72	358.1	11 58	-2
MATUSIRO	82.09	49.6	12 23A	0
ST. LOUIS 1	85.01	316.0	12 37A	-1
LAWRENCE	87.45	319.1	12 49	-1
BUTTE	89.36	333.6	12 57	-2
EUREKA	96.28	332.6	13 30	-1
CHARTERS TS.	124.31	89.8	19 2	1
SOUTH POLE	127.50	180.0	19 8	1
AFIAMALU	150.62	41.5	19 56	8

APRIL 12 4.H 22.M 39.S EPICENTRE 37.71 27.77 DEPTH= 0.KM

A= 0.70174 B= 0.36948 C= 0.60913 D= 0.4659 E=-0.8848
G= 0.5390 H= 0.2838 K=-0.7931 HT= -0.8

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ATHENS	3.21	275.8	0 53K	0	1 31	-1		1 38	S*
SOFIA	6.03	327.1	1 32	0	2 38	-5		2 0	
KSARA	7.65	118.1	1 55	0	3 21	-3		2 9	P*
CAMPULUNG	7.82	345.7	2 35	37				3 39	
FOCSANI	7.99	357.1	2 37	37				3 43	
HELWAN	8.37	158.2	2 3K	-2	3 31	-11			
JERUSALEM	8.52	131.8	2 5	-2	3 39	-6			
SIMFEROPOL	8.66	31.4	2 10	1					
BELGRADE	8.98	324.5						4 59	SG
KISHINEV	9.33	4.5	2 16	-3	4 51	45			
IASI	9.48	359.2	2 17	-4				3 48	
MESSINA	9.66	276.6	2 21	-2				5 38	
LWOW	12.40	348.7	3 0	0				6 28	
ROME	12.48	294.3						5 0	
LJUBLJANA	12.90	314.4	3 5A	-2				7 20	
BRATISLAVA	13.03	326.7	3 17	8					
TRIESTE	13.13	311.6	3 9	-1				7 28	SGSG
TIFLIS	13.71	67.7	3 23	5					
TOLMEZZO	13.96	313.1	3 23	2				6 46	
PRUHONICE	15.50	326.5	3 42	1				6 46	
PRAGUE	15.62	326.5	3 44	1					
MONACO	16.53	297.7	3 53	-2					
PLAUEN	16.95	323.9	4 0	0					
COLLMBERG	17.14	327.1	4 4	2				4 19	PP
SONNEBERG	17.33	322.2	4 6	1					
STUTTGART	17.37	315.4	4 7	2					
JENA	17.52	324.1	4 9	2					
HALLE	17.74	326.0	4 13	3				4 23	PP
BASLE	17.76	309.9	4 39	29					
SETIF	17.94	272.0	4 12	0				4 30	PP
STRASBOURG	18.13	313.1	4 16	1					
BESANCON	18.63	307.7	4 26	5					
MOSCOW	19.21	17.1	4 26	-2					
MUNSTER	20.08	321.6	4 37	-1					
DOURBES	20.68	314.2	4 43	-1	8 32	1			
UCCLE	21.16	315.7	4 15	-34					
SHIRAZ	22.07	104.0	4 59A	1	9 9	12			
PULKOVO	22.14	3.4	4 59	0					
HELSINKI	22.55	356.4	5 1	-2					
NURMI JARVI	22.90	356.0	5 3	-3				6 6	
UPPSALA	23.09	346.9	5 7	-1				6 10	
TAMANRASSET	24.22	238.4	5 19K	0				5 53	PP
SKALSTUGAN	27.54	345.0	5 48	-2					
SVERDLOVSK	28.95	38.0	6 5	2					
SODANKYLA	29.71	359.1	6 7	-3					
APATITY	30.06	4.3	6 13	0					
KIRUNA	30.45	354.5	6 14	-2					
QUETTA	33.18	91.3	6 47	7					
ISFJORD	40.89	355.5	7 45	0					
NORD	46.70	351.9	8 28	-4					
SHILLONG	54.95	83.0	9 37	2					
THULE	55.11	343.4	9 33	-3					
RESOLUTE	61.74	345.3	10 19	-3					
COLLEGE	77.69	358.1	11 35	-25				12 57	
RAPID CITY	87.28	327.0	12 51	1					
EUREKA	96.27	332.6	13 28	-3					

APRIL 13 7.H 57.M 46.S EPICENTRE 44.66 126.90 DEPTH= 0.KM

A=-0.42851 B= 0.57074 C= 0.70045 D= 0.7997 E= 0.6004
G=-0.4206 H= 0.5601 K=-0.7137 HT= -3.4

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
CHANGCHUN	1.41	234.7	0 27A	0	0 47	1		
VLADIVOSTOK	3.93	111.3	1 0	-3	1 51	1		
PEKING	9.19	243.5	2 15	-2	4 3	1		
UGLEGORSK	11.29	61.6	2 48	3				5 36
Y.-SAKHLINSK	11.29	72.3	2 48	2				5 52
MATUSIRO	11.81	129.5	2 53K	0	5 13	7		
OKHA	13.74	43.9	3 22	4				7 22
NANKING	14.09	209.5	3 30	7	6 18	17		
ZO-SE	14.26	200.3	3 16A	-9	6 12	7		
IRKUTSK	16.75	305.1	4 2	5				7 20 SS
WUHAN	17.13	218.8	4 4	2	7 23	11		
SIAN	17.31	239.3	4 5A	1	7 23	7		
YAKUTSK	17.47	4.4	4 6	-1				
LANCHOW	19.52	251.9	4 31A	0	8 13	7		
MAGADAN	20.75	35.6	4 43	-1	8 36	4		
CHENGTU	22.78	239.9	5 6	1	9 17	7		
CANTON	24.21	211.8	5 20	1	9 38	3		
KLYUCHI	24.30	49.2			9 44	7		
HONG KONG	24.64	209.3	5 24	1	9 47	4		
TIKSI	27.07	1.4	5 44	-2	10 24	1		6 36 PP
KUNMING	27.62	233.2	5 50	-1	10 36	4		
SEMIPALATNSK	31.60	297.3	6 25	-1				
LHASA	31.98	254.3	6 30	0	11 45	4		
SHILLONG	34.05	247.8	6 47K	-1				
NHATRANG	35.70	210.6	6 59	-3				7 54
CHATRA	36.40	254.3	7 10	2				
FRUNSE	37.28	286.1	7 16	1				
TASHKENT	41.53	286.4	7 52	1				
SVERDLOVSK	42.01	311.2	7 55	1				
KHEYS	42.84	347.0	8 1	0				9 49 PCP
DUZHANBE	43.09	283.0	8 5	2				
QUETTA	48.71	274.1	8 47	-1				
COLLEGE	48.82	34.4	8 48	-1				
APATITY	50.94	330.4	9 8	3				
SODANKYLA	53.37	331.7	9 23	0				
MOSCOW	54.36	315.9						21 56 SSS
KIRUNA	55.16	333.7	9 34	-2				
TIFLIS	57.46	298.4	9 52	-1	17 53	4		
NURMIJARVI	57.73	325.1	9 53	-2				
RESOLUTE	57.74	12.1	9 51	-4				
SKALSTUGAN	60.43	332.1	10 10	-4				
COLLMBERG	68.67	322.0	11 3	-4				
PRUHONICE	68.92	320.2	11 9	0				13 40 PP
EUREKA	78.95	44.6	12 5	-2				
LARAMIE	82.35	37.1	12 26	1				
TUCSON TELE.	87.17	45.7	12 52	3				
TUCSON	87.19	45.8	12 50	1				
PALISADES	92.69	15.6						31 0 SS
KARAPIRO	93.20	143.5						19 31

APRIL 13 12.H 37.M 39.S EPICENTRE 15.51 -92.03 DEPTH= 0.KM

A=-0.03409 B=-0.96346 C= 0.26567 D=-0.9994 E= 0.0354
G=-0.0094 H=-0.2655 K=-0.9641 HT= 5.7

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COMITAN	0.75	352.3	0 21	3				0 35
SAN SALVADOR	3.28	123.2	0 55A	1	1 47	13		
SANTIAGO MA.	3.99	119.7	1 6	2	2 2	10		
OAXACA	4.80	288.9	1 15A	-1	2 9	-4		
VERA CRUZ	5.37	313.7	1 29	5	2 33	6		3 9
MERIDA	5.88	22.5	1 30	-1	2 42	2		

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PUEBLA	6.86	301.6	1	54	9	3	9	5	2	47
TACUBAYA	7.86	300.5	1	57K	-2	3	34	4		
LEON	10.72	302.8	2	39	1				6	21
GUADALAJARA	11.91	297.3	2	54	0	5	14	5	5	32 SS
MANZANILLO	12.27	288.4	2	59	0				3	41
BALBOA HTS.	13.81	116.7	3	19	-1	6	9	14		
MAZATLAN	15.56	301.6				6	51	15		
CHIHUAHUA	18.42	317.5	4	15	-4	7	48	6	10	4
LITTLE ROCK	19.19	359.2	4	29	1	7	46	-14		
CHINCHINA	19.22	121.3	4	29K	1	8	15	15		
FAYETTEVILLE	20.59	355.0	3	43A	-60	7	24	-65	4	4 PPP
BOGOTA	20.70	119.6	4	43K	-2	8	39	7	5	2 PP
COLUMBIA	20.92	26.3	4	47	0	8	55	19	5	11
ST. LOUIS 1	23.10	3.6	5	9A	0	9	24	8		
FLORISSANT	23.25	3.3	5	11	1	9	25	6		
CHAPEL HILL	23.40	27.3	5	14	2	9	38	16		
LAWRENCE	23.55	353.7	5	13	0					
TUCSON TELE.	23.87	317.9	5	17	1					
TUCSON	23.88	317.6	5	17	1	9	46	16		
SAN JUAN	24.94	79.7	5	27	0				6	6 PP
CARACAS	24.94	98.5	5	27K	0	9	51	3		
MORGANTOWN	26.26	21.4	5	39K	0	10	21	10		
WASHINGTON	26.76	26.6	5	43	-1	10	42	24		
PITTSBURGH	26.98	20.6	5	46	0				11	9
PENNSYLVANIA	28.04	23.3	5	56	1					
LARAMIE	28.27	338.1	5	58	1				8	26
BOULDER CITY	28.81	319.3	6	3	1	10	50	-2		
FORDHAM	29.77	28.4	6	8	-3	11	0	-7		
FORT FRANCE	29.81	87.4							12	9
PALISADES	29.88	28.2	6	11K	-1	11	11	2	7	5 PP
PASADENA	29.98	313.0	6	12A	-1	11	17	7		
RAPID CITY	30.02	343.8	6	11	-2				7	2 PP
SALT LAKE C.	30.50	329.5	6	18	1				7	49
EUREKA	31.77	323.4	6	28	0					
HUANCAYO	31.98	148.0	6	31	1	11	49	7		
WESTON	32.16	29.5	6	32	0	11	49	5		
FRESNO	32.51	315.9	6	37	2					
OTTAWA	32.81	21.4	6	36A	-2	12	0	6		
VINEYARD	33.57	314.6	6	45	1					
BREBEUF	33.67	23.6	6	44A	-1	12	18	10		
BOZEMAN	34.06	335.9	6	48	0					
LICK	34.06	315.3	6	49A	1				7	37
RENO	34.11	320.0	6	50A	1					
BERKELEY	34.76	315.7	6	53	-1	12	30	5	8	18 PP
SHAWINIGAN	34.88	23.5	6	53A	-2					
BUTTE	34.95	334.7	6	54	-2	12	37	9		
MINERAL	35.69	319.7	7	1A	-1					
UKIAH	36.06	316.8	7	7	2					
SEVEN FALLS	36.11	24.8	7	6K	0					
SHASTA	36.39	319.6	7	6	-2					
HUNGRY HORSE	37.42	335.7	7	17	0					
ARCATA	37.55	318.7	7	20K	2					
HALIFAX	37.68	33.8	7	20K	1					
CORVALLIS	39.22	324.1	7	30A	-2					
LA PAZ	39.59	142.4	7	34	-1	13	56	17	9	11 PP
VICTORIA	41.79	328.7	7	53	0					
HORSESHOE B.	42.29	329.7	7	56	-1					
ALBERNI	42.98	328.6	8	3	0					
SANTA LUCIA	52.78	157.5	9	18A	-1	16	44	-3		
RESOLUTE	59.20	359.1	10	2A	-4	18	11	-2		
HAWAII V.OB.	60.17	283.7	10	12	0					
COLLEGE	61.86	336.4	10	21	-3	18	53	6		
THULE	62.18	6.2	10	24	-2					
SCORESBY SD.	68.86	19.8	11	7K	-2					
MBOUR	72.15	79.6	11	29	0	20	50	-1		
NORD	72.63	8.6	11	29	-3					
SERRA PILAR	75.08	51.0	11	45A	-1				11	56
RATHFARNHAM	75.20	38.3	11	31	-16					
DURHAM	77.75	36.4	11	43A	-18					
ISFJORD	78.13	11.8	12	3	0					
TOLEDO	78.70	51.6	12	5	-1	22	3	0		
FOLINIERE	79.51	42.3	12	10	0					
ALMERIA	80.52	54.4	12	12K	-4				15	15 PP
PARIS	81.42	41.8	12	37	16					
UCCLE	82.10	39.5	12	23	-1	22	35	-4		
DOURBES	82.44	40.2	12	26	0					
SKALSTUGAN	82.47	25.9	12	28	2					
KHEYS	82.82	4.7	12	28	0	22	50	4		
MUNSTER	83.75	37.8							12	53

KIRUNA	83.91	20.7	12	33	0				12	57	
STRASBOURG	84.85	41.1	12	38	0				15	52	PP
STUTTGART	85.75	40.6	12	41	-2				13	55	
MONACO	86.09	45.8	12	55	11						
SODANKYLA	86.21	19.9	12	44	-1	23	19	0	16	12	
UPPSALA	86.24	28.5	12	48	3				13	26	
JENA	86.43	38.0	12	43	-3				16	27	PP
HALLE	86.46	37.4	12	50	4				15	54	PP
SETIF	86.82	53.4	12	47	-1				13	10	
PLAUEN	86.93	38.3	12	56	8						
COLLMBERG	87.14	37.4	12	54	5				13	30	
APATITY	88.25	18.2	12	57	2	23	46	7			
PRUHONICE	88.55	38.2	13	1	5				16	53	PP
TIKSI	88.80	348.0	12	55	-2	23	46	2			
TOLMEZZO	88.94	41.9	13	15	17				14	59	
NURMIJARVI	89.05	26.2	12	58	-1						
LJUBLJANA	90.03	41.9	13	19	16				13	46	
BRATISLAVA	90.81	39.2	12	52	-15						
TAMANRASSET	90.84	66.2	13	7K	0	24	3	1	16	44	PP
PULKOVO	91.83	25.3							16	49	PP
LWOW	94.12	35.7	13	33	11						
YAKUTSK	96.03	341.6							13	58	
MOSCOW	97.41	26.1							17	43	PP
TIFLIS	110.50	33.2							19	9	PP
JERUSALEM	110.96	46.6							19	14	PP
QUETTA	130.27	24.0	19	10	-3				21	26	PP
NHATRANG	145.35	321.5							20	40	
MUNDARING	149.53	232.5	19	52	5						

APRIL 15 3.H 25.M 39.S EPICENTRE -26.96-113.43 DEPTH= 0.KM

A=-0.35490 B=-0.81895 C=-0.45097 D=-0.9175 E= 0.3976
G= 0.1793 H= 0.4138 K=-0.8925 HT= 2.8

SE= 3.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	37.34	110.5	7	14	-2	13	6	1			8	42	PP
HUANCAYO	38.68	75.0	7	29	2	13	46	21					
LA PAZ	43.15	85.6	8	6	2	14	37	6			9	55	PP
TACUBAYA	48.11	18.2	8	52	8	15	46	4					
CHINCHINA	48.42	54.7	8	45	-1	15	49	2					
BALBOA HTS.	48.52	47.3	8	46	-1	15	53	5					
VERA CRUZ	48.86	21.9									17	30	
BOGOTA	49.32	56.5	8	53	0	16	7	8			10	28	PP
FUQUENE	50.14	55.9	9	7	8								
BYRD STATION	53.21	181.3	9	22	-1								
CHIHUAHUA	55.72	7.8									21	25	SS
AFIAMALU	55.77	271.1	9	42	1	17	42	15					
CARACAS	58.49	56.8	9	57K	-4	18	0	-3					
TUCSON	58.93	2.6	10	2	-2						28	39	
TUCSON TELE.	59.03	2.7	10	3	-1						12	32	
CHATEAU	59.38	238.6	10	6	-1								
WELLINGTON	59.57	236.1	10	7A	-1	18	21	4					
KARAPIRO	59.64	240.1	9	59	-9								
CAPE HALLETT	60.41	200.0	10	13	-1	18	29	1			19	3	PS
PASADENA	60.94	355.5	10	16	-1	18	43	8			22	45	SS
COBB RIVER	61.12	236.0	10	18	-1								
HAWAII V.OB.	61.42	314.2				18	46	5			25	52	
SCOTT BASE	61.70	193.7	10	25	2								
KAIMATA	61.79	234.2	10	32	9								
BOULDER CITY	62.62	358.7	10	28	-1								
ROXBURGH	62.67	230.6				19	3	6			26	8	
TRINIDAD	62.81	60.6	10	28	-2								
SOUTH POLE	63.19	180.0	10	30	-2						14	54	
LICK	64.42	352.8	10	40K	-1								
BERKELEY	65.02	352.3	10	47	3	19	33	7			23	39	SS
FAYETTEVILLE	65.29	17.1	9	43	-63								
FORT FRANCE	65.52	57.2									20	8	
EUREKA	66.14	357.9	10	51	-1						11	23	PCP
MINERAL	67.40	353.2	10	58	-2								
SALT LAKE C.	67.40	1.3	11	1	1								
LAWRENCE	67.75	15.2	10	59	-3								
SHASTA	67.83	352.7	11	1	-1								
COLUMBIA	67.97	28.7	11	2	-1								

LARAMIE	68.31	6.4	11	7	2						
ST. LOUIS 1	68.78	19.3	11	7	-1	20	14	3			
FLORISSANT	68.88	19.2	11	8	-1	20	15	2			
CHAPEL HILL	70.46	29.1	11	21	3						
TERRE ADELIE	71.24	203.6	11	29	6						
RAPID CITY	71.31	7.8	11	23	-1						
BOZEMAN	72.32	1.8	11	29	-1				12	4	
BUTTE	72.64	0.6	11	32	0						
HUNGRY HORSE	74.97	359.6	11	44	-1						
PENNSYLVANIA	75.07	27.2				21	25	1			
PALISADES	76.92	29.6	11	53	-3	21	45	1	26	47 SS	
WESTON	79.18	30.4				22	9	1	27	21 SS	
RIVERVIEW	79.65	237.4	12	11	0	22	23	10	27	35 SS	
BREBEUF	80.70	27.1	12	22	5						
BRISBANE	81.15	243.9	12	19	0				27	57 SS	
WILKES	81.18	196.5				22	32	3	12	24 PCP	
MIRNY	84.64	190.3	12	33	-4				23	6 SCS	
CHARTERS TS.	89.78	247.6	13	2	0				21	16	
RABAUL	92.03	264.3	13	13	1						
COLLEGE	95.35	346.0	13	27	-1	24	10	7	17	23 PP	
MATUSIRO	119.59	298.5							30	26 PS	
GRANADA	120.88	61.1							29	47 PP	
TIKSI	124.00	340.2	19	0	-1						
TAMANRASSET	124.91	80.0	19	2	-1				19	24	
YAKUTSK	126.00	328.7	19	14	9						
KHEYS	126.13	1.7							33	34	
STUTTGART	131.09	47.6	19	11	-3						
COLLMBERG	133.14	43.8	19	19	1				22	56 PKS	
LWIRO	133.43	122.6	19	22	3						
ROME	133.70	56.8							21	42 PP	
PRUHONICE	134.35	45.4	19	35	11				21	58 PP	
TRIESTE	134.41	51.5	19	22	1						
NURMIJARVI	136.10	28.5	19	29	5						
HONG KONG	136.68	274.6							25	7 PKS	
TARANTO	137.34	58.6							22	41	
IRKUTSK	142.13	322.2	19	30	-5						
ULAN-BATOR	142.31	314.6	19	31	-4						
IASI	143.40	46.0	19	55	18						
MOSCOW	144.46	28.1	19	35	-4						
SIMFEROPOL	148.47	46.8	19	50	5				20	0 PKP2	
HELWAN	148.94	76.3	19	50	4						
SVERDLOVSK	149.85	6.5	19	49	2				19	58 PKP2	
KSARA	152.73	68.0	19	55	3	26	41	-16	22	46 PP	
SEMIPALATNSK	154.36	339.5	20	0	6						
TIFLIS	156.86	44.9	19	59	?				24	1 PP	
SHILLONG	157.28	272.2	19	58	0						
GORIS	159.01	48.4	20	2	2						
DUZHANBE	168.28	351.5	20	1?	4						
DEHRA DUN	169.38	291.0							21	44	
BOMBAY	170.13	216.9							28	15	
QUETTA	176.78	354.1	20	10	-2	27	12	-2	25	46 PP	

APRIL 15 11.H 39.M 0.S EPICENTRE 41.00 141.60 DEPTH= 94.KM

A=-0.59314 B= 0.47018 C= 0.65355 D= 0.6212 E= 0.7837
G=-0.5122 H= 0.4060 K=-0.7569 HT= -2.1

DEPTH OF FOCUS= 0.010R

SE= 1.79

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HATINOHE	0.47	186.1	0	14A	-2	0	23	-6				
AOMORI	0.64	254.0	0	17	0	0	29	-2				
HAKODATE	1.02	322.4	0	20A	0	0	35	-1				
MORIOKA	1.34	194.2	0	24A	0	0	40	-3				
MORI	1.34	325.3	0	21	-3	0	41	-2				
MIYAKO	1.38	167.9	0	25A	0	0	41	-2				
MURORAN	1.40	340.9	0	25A	0	0	42	-2				
URAKAWA	1.45	37.3	0	27A	1	0	47	2				
TOMAKOMAI	1.63	359.6	0	26	-2	0	46	-3				
AKITA	1.72	222.3	0	28K	-1	0	52	1				
HIROO	1.82	44.7	0	30	0	0	52	-1				
MIZUSAWA	1.90	191.0	0	29	-2	0	53	-2				
SUTTSU	2.07	330.9	0	34	1	0	58	0				
SAPPORO	2.08	355.0	0	34A	0	0	58	-1				

OBIHIRO	2.26	31.4	0	39	3	1	5	2			
SAKATA	2.50	213.5	0	42	3	1	14	5			
ISINOMAKI	2.58	184.8	0	40A	0						
SENDAI	2.78	191.4	0	43A	0	1	15	-1			
ASAHIGAWA	2.84	11.4	0	45	1	1	19	2			
KUSIRO	2.88	45.7	0	43K	-2	1	15	-3			
YAMAGATA	2.91	199.7	0	45	0	1	18	-1			
HUKUSIMA	3.36	195.4	0	51	0	1	30	0			
ABASHIRI	3.61	32.7	0	55	0	1	35	-1			
NIIGATA	3.65	213.5	0	54	-1	1	39	1			
NEMURO	3.77	50.5	0	55	-2	1	34	-6			1 51
AIKAWA	3.94	222.1	1	1A	2	1	43	-2			
SHIRAKAWA	4.02	195.9	1	0	0	1	52	5			
ONAHAMA	4.08	187.9	0	59	-2	1	43	-5			
WAKKANAI	4.42	0.8	1	10	4	2	5	9			
UTUNOMIYA	4.64	197.4	1	7A	-2	2	3	1			
TAKADA	4.69	214.8	1	10A	1	2	14	11			
MITO	4.70	191.2	1	7K	-3	2	16	13			
KAKIOKA	4.89	193.6	1	10A	-2	2	10	2			
TUKUBASAN	4.92	194.3	1	10A	-3						
MAEBASI	5.00	204.1	1	13A	-1	2	29	18			
NAGANO	5.07	212.6	1	16A	1	2	14	1			
WAZIMA	5.14	226.8	1	16A	0	2	10	-4			
KUMAGAYA	5.14	200.4	1	15	-1	2	21	7			
MATUSIRO	5.18	211.8	1	17A	1	2	13	-2			
OIWAKE	5.24	208.0	1	16	-1	2	37	20			
TYOSI	5.30	186.6	1	15K	-3	2	16	-2			
TITIBU	5.39	202.3	1	17	-2	2	33	13			
HONGO	5.47	195.8	1	19	-1						3 21
TOYAMA	5.50	220.0	1	22A	1	2	23	0			
TOKYO C.M.O.	5.51	195.9	1	17	-4	2	25	2			
MATUMOTO	5.53	212.1	1	22	1	2	43	19			
YOKOHAMA	5.77	196.0	1	22	-2	2	34	4			
KOHU	5.83	205.1	1	27	2	2	54	23			
KANAZAWA	5.90	222.5	1	28	2						
TAKAYAMA	5.92	216.5	1	27	1						
HUNATU	5.92	202.9	1	26	0	2	44	10			
Y.-SAKHLINSK	6.07	7.3	1	27A	-1	2	35	-2			
IIDA	6.22	209.6	1	33	3	3	9	28			
MERA	6.23	193.5	1	27	-4	2	54	13			
MISIMA	6.23	200.4	1	28	-3	2	46	5			
KURILSK	6.24	45.3	1	30A	-1	2	38	-3			
AJIRO	6.26	199.1	1	30	-1	2	37	-5			
OSIMA	6.46	196.4	1	31K	-3	2	39	-8			
HUKUI	6.49	222.1	1	36	2	2	47	0			
SHIZUOKA	6.53	203.8	1	33	-2	3	3	15			2 43
GIHU	6.76	215.7	1	38A	0	2	51	-3			3 20
NAGOYA	6.87	213.5	1	40	1	3	10	13			2 52
TSURUGA	6.88	220.9	1	41	1	3	6	9			
OMAESAKI	6.93	203.8	1	42	2	3	16	18			2 4
HAMAMATU	6.98	207.3	1	40	-1	3	19	20			
HIKONE	7.10	218.1	1	44A	1	3	22	20			
KAMEYAMA	7.35	215.0	1	46	0	3	38	29			
TU	7.46	214.2	1	47	-1						
VLADIVOSTOK	7.52	289.5	1	49	1	3	14	1			
KYOTO	7.55	219.7	1	51	2	3	22	9			
TOYOOKA	7.63	226.5	1	50A	0	3	15	0			
ABUYAMA	7.75	219.8	1	52	0	3	19	1			
NARA	7.78	217.7	1	51	-1						
OSAKA	7.95	219.0	1	54A	0	3	39	16			2 31
TOTTORI	8.00	229.1	1	58	3						
HATIDYOZIMA	8.02	190.9	1	52	-3						
SAIGO	8.05	236.1	1	57	1						
KOBE	8.10	220.8	1	57	1	3	30	3			
OWASE	8.14	213.5	1	54	-3	3	39	11			
WAKAYAMA	8.46	219.1	2	1	0						
SUMOTO	8.50	220.7	2	1A	-1	3	35	-2			4 18
MATSUE	8.70	233.2	2	7	3	3	46	5			
SIOMISAKI	8.85	213.5	2	9	3	4	5	20			
TOKUSIMA	8.88	221.1	2	6	-1						
TAKAMATU	8.96	224.3	2	7	-1	3	52	4			
HAMADA	9.68	234.0	2	21K	3	3	10	-55			
HIROSIMA	9.82	230.6	2	20	0	4	7	-2			
MATUYAMA	10.01	227.2	2	23	1						3 45
SIMIDU	10.72	222.8	2	29	-3						4 19
OOITA	11.11	228.9	2	37	0						4 43
HUKUOKA	11.60	233.9	2	45	2	5	1	10			
SAGA	11.87	232.9									3 15

KUMAMOTO	11.94	230.3	2	52	4																		
MIYAZAKI	12.21	225.3	2	52	1	5	34	28															
CHANGCHUN	12.37	288.6	2	52K	-1																		
NAGASAKI	12.49	232.3	2	55A	0	5	33	21															
OKHA	12.59	3.7	2	54	-2																		
KAGOSIMA	12.95	226.9	3	1	0											3	43						
ZO-SE	19.20	245.5	4	15K	-3	7	42	-3								4	34	PP					
PEKING	19.34	275.5	4	17K	-3	7	48	0								4	58	*SP					
MAGADAN	19.44	14.2	4	19	-2																		
KLYUCHI	19.82	32.8	4	26	1	8	5	7								8	54	SS					
NANKING	20.35	251.3	4	27K	-3	8	4	-4								4	47	PP					
YAKUTSK	22.24	345.1	4	47	-2	8	39	-4															
PAOTOW	23.84	279.4	5	4K	-1																		
WUHAN	24.21	253.0	5	9	1																		
ULAN-BATOR	25.55	297.4	5	20	-1																		
SIAN	26.64	265.9	5	30K	-1																		
GUAM	27.57	173.4	4	37	-63	11	6	54															
IRKUTSK	27.66	306.7	5	40	-1	10	14	0								5	54						
CANTON	29.68	241.7	6	0	1	10	59	13								6	59	PP					
HONG KONG	29.69	239.5	5	59	0	10	44	-2															
LANCHOW	29.80	272.9	5	58K	-2																		
BAGUIO CITY	30.49	222.7	6	4	-2	11	0	1															
TIKSI	31.36	352.3	6	11	-2	11	11	-1								7	13	PP					
MANILA	31.73	220.2	6	19	2	11	25	7															
CHENGTU	31.96	263.2	6	16	-3	11	21	-1								7	20	PP					
KUNMING	35.88	256.0	6	50K	-2	12	20	-2								8	14	PP					
NHATRANG	40.33	234.0	7	29	0	13	30	0															
TOCKLAI	40.92	264.7	7	38A	4																		
LHASA	42.25	270.9	7	47K	2																		
SEMIPALATNSK	42.74	304.2	7	48	-1	14	4	-1	8	8													
SHILLONG	43.74	265.3	7	57K	0	14	19	-1								9	35	PP					
COLLEGE	45.70	34.2	8	14	1	14	50	2	8	33						15	23						
RABAUL	46.01	165.3	8	16	1											9	1						
CHATRA	46.62	270.0	8	19K	-1	15	1	0															
FRUNSE	48.67	295.6	8	36	0	15	32	2	9	4						8	56						
KHEYS	48.80	347.5	8	36	-1	15	30	-2	9	4						10	32	PP					
BOKARO	49.29	267.6				15	38	-1															
PORT MORESBY	50.41	172.9	8	49	0											17	32						
DEHRA DUN	51.70	279.4	9	0	1	16	18	6								11	1	PP					
PORT BLAIR	51.76	250.0	8	58	-2	16	15	3															
SVERDLOVSK	52.32	316.7	9	6	2	16	22	2															
TASHKENT	52.91	295.9	9	6	-2	16	28	0								9	25						
SITKA	53.34	42.6	9	12	1																		
AGRA	53.37	276.0	9	9	-3	16	14	-20															
MEDAN	53.57	237.6	9	11	-2	16	40	3															
LAHORE	53.84	282.8	9	14	-1	16	40	-1															
DUZHANBE	54.48	293.1	9	19	-1	16	50	1															
WARSAK DAM	54.67	286.8	9	21	0				10	2						10	21	PCP					
NORD	57.11	356.3	9	37K	-2																		
HAWAII V.OB.	57.39	91.9	9	22	-18																		
RESOLUTE	58.74	15.0	9	49	-1	17	44	-2															
APATITY	59.15	334.8	9	51K	-2																		
QUETTA	59.97	285.3	9	58K	0	18	4	3	10	38						12	25	PP					
CHARTERS TS.	60.93	175.0	9	47	-18																		
THULE	61.32	7.7	10	5	-2				10	25													
SODANKYLA	61.38	336.4	10	7	-1				10	28						10	47	PCP					
ASHKABAD	61.93	297.2	10	11	-1																		
BOMBAY	61.98	271.3	10	12	0	18	29	2															
ALBERNI	62.43	47.5	10	14	-1																		
KARACHI	62.87	280.2	10	17K	-1																		
KIRUNA	62.87	338.6	10	17	-1																		
VICTORIA	63.61	47.7	10	23	0																		
MOSCOW	64.18	322.4	10	25K	-1	18	55	1	10	46						12	52	PP					
KOUMAC	64.77	156.5	10	30	0											11	48						
PULKOVO	64.87	328.6	10	29	-2																		
PENTICTON	65.26	45.4	10	34	1																		
CORVALLIS	65.86	51.3	10	37A	0																		
NURMIJARVI	66.53	331.3	10	40	-1	19	23	0															
HELSINKI	66.65	330.9	10	41	-1																		
NOUMEA	67.08	155.0	10	46	1											12	15						
SCORESBY SD.	68.19	354.1	10	52	0																		
SKALSTUGAN	68.29	338.1	10	51	-1											13	16						
TIFLIS	68.52	307.0	10	54K	0											13	28	PP					
SHASTA	68.64	54.3	10	55	0																		
BRISBANE	68.83	169.3	10	56A	0											21	46						
GORIS	68.88	304.3	10	56	0	19	51	0	11	18													
MINERAL	69.33	54.2	10	59A	0																		
UPPSALA	69.47	333.4	10	58	-2											13	31						

AFIAMALU	69.59	131.1	11	0A	0								
BERKELEY	70.40	56.6	11	6A	1	21	0	51	11	48	11	27	PCP
SHIRAZ	70.59	292.7	11	6A	-1	20	10	-1					
BUTTE	71.04	45.1	11	9	0				11	32	12	29	*SP
LICK	71.12	56.8	11	10A	0				11	58			
VINEYARD	71.64	57.1	11	15	2								
BOZEMAN	72.08	44.7	11	17	2				11	38			
SIMFEROPOL	72.62	314.8	11	19K	0	20	36	2			25	12	SS
GOTEBORG	73.01	334.4	11	20	-1								
EUREKA	73.28	52.1	11	24	2				11	47			
LWOW	74.27	323.4	11	26K	-2								
SIDA	74.32	350.8	11	32A	4								
REYKJAVIK	74.40	352.6	11	30K	1								
SALT LAKE C.	74.85	49.0	11	33	1				16	55			
RIVERVIEW	74.98	171.8	11	30A	-2								
PASADENA	75.31	57.5	11	34	0						11	55	
ADELAIDE	75.64	182.4	11	36	0								
KRAKOW	75.91	325.5	11	38	0				12	10	11	42	PCP
BOULDER CITY	76.22	54.3	11	42	3				12	5			
CANBERRA	76.25	173.8	11	40A	1								
MUNDARING	76.30	202.0	11	38A	-2								
SKALNATE PL.	76.42	324.8	11	42	2								
RACIBORZ	76.62	326.4	11	43	1				12	1	11	53	PCP
RAPID CITY	77.25	42.0	11	46	1	21	29	-5			12	8	
COLLMBERG	77.74	329.9	11	48K	0				12	13	14	43	PP
LARAMIE	77.96	45.2	11	50	1						12	13	
HALLE	77.98	330.5	11	49	0	21	32	-1			14	45	PP
PRAGUE	78.16	328.4	11	53	3						14	49	PP
PRUHONICE	78.19	328.2	11	50K	0						14	44	PP
MELBOURNE	78.51	177.3	11	53A	1								
BRATISLAVA	78.55	325.7	11	54	2				12	32			
JENA	78.58	330.4	11	52	0	21	40	0	12	36	14	37	PP
PLAUEN	78.71	329.8	11	51	-2								
KSARA	78.97	305.3	11	50	-4	21	48	4			14	52	PP
MUNSTER	79.14	333.0	11	56	1								
SONNEBERG	79.16	330.2	11	55	-1								
DURHAM	79.54	339.3	12	0A	2								
JERUSALEM	80.75	304.1	12	5	1						15	9	PP
HEIDELBERG	80.89	331.0	12	5	0								
TUCSON	81.18	54.8	12	7	1				12	31			
TUCSON TELE.	81.18	54.7	12	8	2				12	31			
STUTTGART	81.20	330.3	12	7	1				12	38			
UCCLE	81.23	334.2	12	4	-3								
TUBINGEN	81.48	330.3	12	9A	1								
TOLMEZZO	81.65	326.9	12	9	0	22	10	-2			13	13	
DOURBES	81.75	333.7	12	10	1								
EBINGEN	81.81	330.2	12	10	0								
RAVENSBURG	81.89	329.6	12	10	0								
STRASBOURG	81.92	331.1	12	10	0				12	53			
RATHFARNHAM	82.07	341.2	12	11	0								
KEW	82.11	337.1	12	12A	1								
ONERAHI	82.11	153.6	12	16	5								
ATHENS	83.07	315.3	12	15A	-1								
BESANCON	83.69	331.4	12	13	-6								
KARAPIRO	84.46	153.7	12	25A	2						15	14	
HELWAN	84.48	305.1	12	23	0	22	36	-4					
FOLINIERE	84.55	335.9	12	24	1								
LAWRENCE	85.03	40.9	12	26	0								
ROME	85.51	324.5				22	47	-3					
CHATEAU	85.61	154.2	12	29	0						15	54	
COBB RIVER	86.45	156.9	12	34	1								
MESSINA	87.04	320.4									23	23	
FLORISSANT	87.51	38.0	12	39	1	23	12	3					
SHAWINIGAN	87.61	22.9	12	38A	0								
ST. LOUIS 1	87.70	38.0	12	39A	0	23	13	2	13	1			
OTTAWA	87.73	25.3	12	39A	0								
FAYETTEVILLE	87.79	42.1	11	40A	-59								
BREBEUF	88.30	23.9	12	52A	10								
GEBBIES PASS	88.83	158.0	12	44	0								
WESTON	91.83	23.8	12	59	1								
PALISADES	92.24	26.1	13	22	22	24	26	34			23	58	SKS
SETIF	93.30	325.9	13	5	0								
TAMANRASSET	104.57	318.6	17	39	223						18	6	PP
TERRE ADELIE	107.49	180.1									18	33	PP
LWIRO	108.57	283.6	18	50	777								
BROKEN HILL	116.75	273.9	18	35	2								
BULAWAYO	120.09	268.7	18	41	2								
SOUTH POLE	130.81	180.0	18	42	-18						21	17	PP
BYRD STATION	131.60	166.7	18	47	-15								

HUANCAYO	136.67	58.9	19	16K	5				22	40	
LA PAZ	144.59	55.2	19	27A	2				23	0	PP
ARGENTINE I.	151.59	157.3	19	44	8						

APRIL 15 22.H 5.M 8.S EPICENTRE -13.66 165.88 DEPTH= 0.KM

A=-0.94272 B= 0.23711 C=-0.23464 D= 0.2439 E= 0.9698
G= 0.2276 H=-0.0572 K=-0.9721 HT= 6.0

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PORT VILA	4.68	150.2	0	51	-23	1	41	-28					
KOUMAC	7.03	192.4	1	43	-4	2	53	-5					
NOUMEA	8.61	176.5	2	8	-1	4	46	58					
SUVA	12.87	111.9	3	15	8						3	57	
RABAUL	16.47	303.5	3	56	2	7	24	27			5	19	
BRISBANE	18.34	219.8	4	16	-1	7	49	9					
PORT MORESBY	18.83	281.0	4	23	-1	8	1	10					
CHARTERS TS.	19.83	248.5	4	34	-1	8	15	2					
AFIAMALU	21.70	93.3	4	52K	-3	9	13	22			10	10	SS
ONERAHI	23.30	162.3	5	15	5	9	31	11					
RIVERVIEW	24.13	211.2	5	19A	1	9	40	6			5	53	PP
KARAPIRO	25.65	162.2	5	33K	0						7	0	
CANBERRA	26.40	212.3	5	44K	4	10	21	9			6	34	PP
CHATEAU	26.83	163.2	5	44K	0						8	4	
TUAI	26.95	160.3	5	45	0								
WELLINGTON	28.59	165.9	5	58K	-2	10	46	-2			6	47	
MELBOURNE	30.42	213.9	6	22	6	11	17	0					
GEBBIES PASS	30.50	170.3	6	13	-4								
ROXBURGH	31.85	175.4	6	26	-3	11	40	1					
ADELAIDE	32.42	224.4	6	34	0	11	49	1					
FORT NELSON	33.26	205.2	6	47A	6						14	18	SSS
MUNDARING	48.83	239.4	8	48	-1	15	50	-2					
PERTH	49.14	239.5	8	53	1	16	3	6			10	46	PP
MANILA	52.52	300.8	9	11	-6	16	33	-10					
BAGUIO CITY	53.82	302.3	9	27	0	17	4	3					
TUKUBASAN	55.26	334.7	9	35K	-2	17	15	-5			11	38	PP
TERRE ADELIE	55.55	191.5	9	38	-1	17	23	-1					
MATUSIRO	56.34	333.3	9	43	-2	17	34	-1			12	9	PP
LEMBANG	57.62	270.5	9	54K	0	17	53	1					
DJAKARTA	58.52	271.1	9	40A	-21						9	58	
CAPE HALLETT	58.68	178.4	10	0	-2	18	4	-2			10	30	PCP
NHATRANG	61.78	292.0	10	22	-1	18	42	-3					
ZO-SE	61.83	316.8	10	21	-2	18	45	-1			12	40	PP
HONG KONG	62.01	304.6	10	25	1	18	49	1			12	46	PP
CANTON	63.07	304.9	10	32	1	19	5	3					
Y.-SAKHLINSK	63.87	342.6	10	36K	-1	19	14	2					
NANKING	64.03	316.2	10	37K	-1	19	16	2					
WILKES	64.04	201.7	10	35K	-3	19	11	-3			11	4	PCP
SCOTT BASE	64.20	179.8	10	38	-1								
VLADIVOSTOK	64.51	333.0	10	36	-5	19	14	-6					
UGLEGORSK	65.92	343.1	10	50K	0	19	43	6					
WUHAN	66.07	312.5	10	50	-1	19	37	-2					
CHANGCHUN	68.13	329.5	11	3K	-1	20	4	0					
MEDAN	68.81	279.3	11	12	4						20	47	
PEKING	70.59	321.6	11	18K	-1	20	35	2					
MIRNY	70.76	203.9	11	19	-1	20	32	-3					
SIAN	72.09	313.1	11	29K	1								
KUNMING	72.60	302.1	11	32K	1	20	59	3					
MAGADAN	73.97	352.1	11	39	0	21	14	3					
BYRD STATION	73.97	169.9	11	38	-1								
CHENGTU	73.99	307.8	11	39	0	21	12	1					
PAOTOW	74.72	319.2	11	44K	1								
SOUTH POLE	76.43	180.0	11	51	-2						14	33	PP
LANCHOW	76.60	312.6	11	55	1								
PORT BLAIR	76.78	285.6	11	58	3	21	46	4					
ULAN-BATOR	80.60	324.2	11	15	-61	22	25	2					
YAKUTSK	80.61	343.6	12	15	-1	22	20	-3					
CHITTAGONG	80.89	295.6	12	19	1	22	30	4			15	26	PP
SHILLONG	81.89	298.7	12	23A	0	22	37	1			15	37	PP
LHASA	83.92	302.3	12	34K	1	22	58	1					
CALCUTTA	83.98	294.8	12	40A	7	22	57	0			20	27	
UKIAH	84.26	47.6	12	36	1								
IRKUTSK	84.30	327.1	12	34K	-1	22	58	-2					

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BERKELEY	84.49	49.1	12	36K	0	23	6	4	24	9	PS
LICK	84.75	49.8	12	38A	1						
SHASTA	85.45	46.4	12	41	0						
SITKA	85.49	28.0	12	41	0						
COLLEGE	85.72	18.0	12	41	-1	23	12	-2	29	4	SS
MINERAL	85.88	47.0	12	41K	-2						
CHATRA	86.29	298.6	12	46	1	23	18	-2			
PASADENA	86.29	53.7	12	46	1	23	17	-3	24	25	PS
CORVALLIS	86.32	42.6	12	45A	0						
BOKARO	86.61	295.4	12	49	2	23	13	-10	16	11	
RENO	86.87	48.2	12	48K	0						
ALBERNI	87.26	37.8	12	51	1						
VICTORIA	87.80	38.9	12	53	1						
HORSESHOE B.	88.23	38.1	12	55	1						
TIKSI	88.65	349.0	12	55K	-1	23	42	0			
MADRAS	88.94	283.6	13	0	2	23	52	7	16	31	PP
BOULDER CITY	89.47	52.8	13	2	2						
EUREKA	89.66	49.2	13	1	0				15	22	PP
PENTICTON	90.43	39.1	13	6	1						
KODAIKANAL	90.85	280.2	13	7	0						
HYDERABAD	91.62	287.4	13	11	1	23	42	-27	24	13	PS
TUCSON	91.62	57.3	13	12	2						
TUCSON TELE.	91.74	57.3	13	12	1				30	30	
ARGENTINE I.	92.83	161.1	13	15	-1						
HUNGRY HORSE	93.62	41.2	13	20	1						
BUTTE	93.94	43.7	13	20	-1						
AGRA	94.25	296.7	13	20	-2	23	55	-37			
DEHRA DUN	94.94	299.9	13	29	3	24	7	-31	16	28	PP
POONA	96.13	287.5	13	31A	0	24	7	0			
BOMBAY	97.16	287.7	13	33	-3	24	17	4	17	35	
ALMATA	98.45	312.4	13	41	0						
ANDIJAN	101.41	309.3	13	56	1						
NAMANGAN	101.97	309.5				24	41	4	18	10	PP
QUETTA	104.36	298.0	14	12	4	24	54	6	18	26	PP
RESOLUTE	105.52	15.8	14	14	777	26	8	75			
KHEYS	106.28	350.6							18	37	PP
FLORISSANT	109.08	53.4				25	17	9	19	1	PP
ST. LOUIS 1	109.19	53.6				25	8	-1	34	51	SSP
SVERDLOVSK	109.67	325.7	18	24	777	24	41	-30			
THULE	111.25	11.9	18	6	-30				19	9	PP
SHIRAZ	116.81	296.4	18	48	1				19	16	
APATITY	117.95	341.3	18	49	0	25	46	3	20	8	PP
PENNSYLVANIA	118.63	50.9							28	7	PS
LA PAZ	118.80	117.6	18	54	3				27	22	SKKS
CHINCHINA	118.83	91.8	18	52	1	25	50	4	20	13	PP
OTTAWA	119.49	45.4	18	53	1						
MAKHACH-KALA	119.90	311.8							20	6	PP
SODANKYLA	120.09	343.0	18	55	2						
BOGOTA	120.26	92.6				25	54	3	20	9	PP
BREBEUF	120.92	44.9	18	54	-1						
SHAWINIGAN	121.25	43.6	18	52	-3						
KIRUNA	121.40	345.4	18	45	-11						
PALISADES	121.57	50.1	18	57	1	26	3	8	20	27	PP
TIFLIS	122.09	310.8	18	59A	2	26	2	5			
MOSCOW	122.27	328.3	18	56	-1						
SEVEN FALLS	122.40	42.5	18	58	1						
SCORESBY SD.	123.00	3.1	18	59	0						
WESTON	123.21	48.1	19	1	2						
KIMBERLEY	123.51	221.4	18	7	-53						
PULKOVO	123.61	334.8	19	1	1						
NURMIJARVI	125.37	337.7	19	3	0						
HELSINKI	125.48	337.2	19	4	1						
BULAWAYO	126.20	232.2	19	6	1						
SKALSTUGAN	126.83	345.6	19	6	0						
HALIFAX	127.97	43.5	19	11	3						
UPPSALA	128.30	340.2	19	9	0						
CARACAS	128.34	87.3							42	17	SSS
SIMFEROPOL	128.68	317.3	19	11	1				22	27	PKS
BROKEN HILL	129.43	238.1	19	13A	2						
SAN JUAN	129.93	77.4	19	13	1						
KSARA	130.56	302.9	19	20	7						
KISHINEV	131.14	321.8	19	15	1				22	38	PKS
JERUSALEM	131.48	300.4	18	10	-65				19	25	PP
IASI	131.81	322.5	19	34	18				22	42	PKS
LWOW	132.37	327.2	19	20	3				22	46	PKS
WARSAW	132.37	331.4	19	27	10	26	42	16	21	53	PP
COPENHAGEN	133.30	339.6							22	53	PKS
BUCHAREST	134.07	319.9							22	53	PKS

KRAKOW	134.32	329.7								21	50	PP
LWIRO	134.60	252.9	19	16	-5							
SKALNATE PL.	134.72	328.6	19	24	3					22	10	PP
HELWAN	135.12	298.7	19	22K	0					21	58	PP
POTSDAM	135.68	336.4	19	23	0					21	59	
COLLMBERG	136.54	335.4	19	27	3					23	31	
SOFIA	136.67	319.2	19	26	1					21	54	PP
HALLE	136.80	336.3	19	28	3					22	9	PP
PRAGUE	136.86	333.2								22	29	
PRUHONICE	136.87	333.1	19	26	1					22	9	PP
BRATISLAVA	136.95	329.4	19	27	2					22	9	PP
JENA	137.39	336.1								22	19	PP
PLAUEN	137.50	335.3	19	24	-2							
DURHAM	137.82	349.2	19	35	8							
MUNSTER	137.98	340.0	19	29	2							
DE BILT	138.65	342.0	19	26	-2					22	20	PP
BENSBERG	138.99	339.5	19	33	4					22	24	PP
ZAGREB	139.10	327.6	19	31A	2					22	6	
LJUBLJANA	139.69	328.9	19	26	-4					22	26	PP
HEIDELBERG	139.72	336.9	19	24	-6							
RATHFARNHAM	139.97	352.7	19	39K	8							
STUTTGART	140.01	335.9	19	25	-6					22	25	PP
UCCLE	140.04	341.8	19	15	-16							
TOLMEZZO	140.18	330.5	19	37	6					23	19	
TUBINGEN	140.29	335.8	19	30	-1							
TRIESTE	140.36	329.1	19	36	5					22	36	PP
DOURBES	140.57	341.0	19	27	-5					22	31	PP
EBINGEN	140.61	335.6	19	27	-5							
KEW	140.67	346.4								23	8	PKS
STRASBOURG	140.75	337.0	19	30	-2					22	30	PPP
PARIS	142.36	342.0	19	35	0	26	44	1				
BESANCON	142.53	337.4	19	36	1							
PRATO	142.94	329.3	19	5	-31					21	17	PP
FOLINIERE	143.22	344.9	19	4	-32							
ROME	143.61	325.7	19	34K	-3				20 6	30	8	SKKS
REGGIO CALA.	144.09	318.1	19	36	-2					20	12	
MESSINA	144.09	318.3	19	36	-2	26	43	-3		22	52	PP
MONACO	144.79	332.5	19	38	-1							
LUANDA	144.83	232.0	19	41A	2							
CLERMONT-FD.	144.83	338.9	19	41A	2					20	19	
TORTOSA	150.07	337.4	20	46	58							
SETIF	151.53	325.5	19	50	0					23	35	PP
SERRA PILAR	152.21	351.0	19	44A	-7					20	2	PKP2
ALGIERS UNI.	152.33	329.3	19	51	0					23	37	PP
TOLEDO	152.42	343.1	19	59K	8					23	45	PP
ALICANTE	152.59	336.3	19	49	-2	26	55	-2		23	42	PP
RELIZANE	154.35	331.6	19	54	0					23	48	PP
LISBON	154.65	350.9	20	22A	28							
ALMERIA	154.66	337.8	19	51K	-3	26	48	-11		23	51	PP
GRANADA	154.76	340.0	19	58K	4					24	10	PP
TAMANRASSET	159.28	298.8	20	0	0					24	20	PP
MBOUR	177.14	75.1	20	14	2					25	52	PP

APRIL 17 21.H 49.M 38.S EPICENTRE -20.71-178.31 DEPTH= 576.KM

A=-0.93579 B=-0.02756 C=-0.35149 D=-0.0294 E= 0.9996
G= 0.3513 H= 0.0103 K=-0.9362 HT= 4.5

DEPTH OF FOCUS= 0.086R

SE= 3.03

	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
SUVA	3.99	309.0	1	27	3						2	35
AFIAMALU	9.20	43.7	2	8K	-3	3	50	-6				
KARAPIRO	17.97	195.9	3	38	1						5	31
TUAI	18.45	191.3				6	34	-6				
CHATEAU	19.18	194.7	3	47	-2						4	36
BRISBANE	27.18	250.2	4	39	-21							
CANBERRA	32.15	236.1	5	43	0						8	14
CHARTERS TS.	33.17	264.7	5	51	0						11	10
ADELAIDE	40.26	240.0	6	49A	0							
MUNDARING	58.97	244.5	9	7	0							
SOUTH POLE	69.42	180.0	10	13	0				12	12		
MATUSIRO	70.20	323.9	10	16K	-1							
BERKELEY	78.53	42.1	11	5A	1							

LICK	78.60	42.8	11	6A	2		
PASADENA	79.04	47.1	11	7	1		
SHASTA	80.18	39.7	11	13K	1		
MINERAL	80.44	40.4	11	13A	-1		
CORVALLIS	82.08	36.2	11	34	12		
BOULDER CITY	82.33	47.1	11	24	1		
TUCSON	83.27	52.0	11	30	2		
TUCSON TELE.	83.40	52.0	11	31	2		
EUREKA	83.47	43.6	11	29	0		
SALT LAKE C.	86.83	44.2	11	40	-5		
COLLEGE	88.47	12.5	11	51	-2	13 58	
BUTTE	89.09	39.4	11	56	0		
QUETTA	121.00	293.4	17	49	1		
KIMBERLEY	126.02	205.2	18	0A	3		
APATITY	129.07	344.9	18	2	-1		
SODANKYLA	130.74	347.6	18	2	-5		
KIRUNA	131.43	350.6	18	7	-1		
SHIRAZ	133.45	291.6	17	59	-13		18 13
SKALSTUGAN	136.55	353.1	18	19	2		
NURMIJARVI	137.05	343.5	18	6	-12		20 59 SKP
HELSINKI	137.25	343.1	18	19	0		20 59 SKP
UPPSALA	139.27	347.7	18	13	-9		
GOTEBORG	142.29	351.0	18	23	-6		
SIMFEROPOL	143.96	319.7	18	30	-1		
COPENHAGEN	144.16	349.6	18	30K	-1		
LWIRO	144.98	232.5	18	35	2		
DURHAM	145.90	3.4	18	34	0		
LWOW	145.96	333.9	18	36	2		
RATHFARNHAM	146.89	8.8	18	39A	4		
KSARA	147.08	300.6	18	43	7		
KRAKOW	147.34	338.0	18	40	4		
WITTEVEEN	147.71	354.3	18	42A	5		
RACIBORZ	147.90	339.8	18	42	5		
SKALNATE PL.	147.95	336.8	18	43	6		
JERUSALEM	148.08	297.1	18	42	5		
COLLMBERG	148.20	346.5	18	38K	0		18 47 PKP2
HALLE	148.23	347.8	18	42	4		
JENA	148.85	347.9	18	39	1		19 28
PRUHONICE	149.05	343.8	18	40	1		18 51 PKP2
KEW	149.26	2.5	18	44	5		
SONNEBERG	149.45	348.0	18	45	6		
UCCLE	149.89	356.6	18	47	7		
BRATISLAVA	149.91	339.2	18	41	1		
DOURBES	150.58	356.2	18	49	8		
STUTTGART	151.34	349.5	18	42	0		
FOLINIERE	151.95	3.0	18	44	1		
LJUBLJANA	152.62	340.3	18	52	8		
TAMANRASSET	175.88	300.8	19	7K	3		24 45 PP

APRIL 18 8.H 7.M 11.S EPICENTRE 28.44 139.75 DEPTH= 445.KM

A=-0.67216 B= 0.56896 C= 0.47380 D= 0.6461 E= 0.7633
G=-0.3616 H= 0.3061 K=-0.8806 HT= 2.3

DEPTH OF FOCUS= 0.065R

SE= 1.69

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	2.09	13.1	1	0K	-1	1	45	-4				
HATIDYOZIMA	4.64	0.4	1	22	0	2	22	-4				
SIOMISAKI	6.05	326.6				2	54	3				
OMAESAKI	6.28	348.4				2	57	-2			2	43
OSIMA	6.32	357.2	1	37A	-1	2	53	-3				
MERA	6.46	0.6	1	40	0	2	58	-1				
SHIZUOKA	6.61	350.3				3	4	2				
AJIRO	6.61	355.3	1	40	-2	2	59	-3				
MISIMA	6.69	354.3	1	41A	-1	3	1	-2				
YOKOHAMA	6.97	359.3	1	50	5	3	6	-3				
KAMEYAMA	6.97	337.2	1	47	2	3	12	3				
NARA	7.06	332.7	1	46	0							
HUNATU	7.09	353.5	1	46	-1	3	11	0				
NAGOYA	7.11	341.3	1	48	1	3	11	0				
TOKUSIMA	7.15	323.0	1	50	3	3	15	3				
OSAKA	7.16	330.8	1	51	4	3	29	17				

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SUMOTO	7.19	326.1	1	49K	!	3	14	1	3 53
TOKYO L.M.O.	7.22	360.0	1	46	-2	3	10	-3	
IIDA	7.24	347.5	1	48	0	3	14	0	6 12
HONGO	7.25	0.1				3	1	-13	
SIMIDU	7.27	308.2	1	49A	0	3	14	-1	
KOHU	7.28	352.3	1	47	-2	3	15	0	
TYOSI	7.32	7.0	1	48	-1	3	11	-4	
ABUYAMA	7.33	332.0	1	49A	0				
KOBE	7.34	329.0	1	51	2	3	20	4	
KOTI	7.38	315.2	1	50	0	3	19	2	7 17
GIHU	7.38	340.7	1	49A	-1	3	16	-1	
KYOTO	7.40	333.4	1	52	2	3	20	3	
HIKONE	7.43	337.3	1	53	3	3	20	2	
TITIBU	7.54	355.8	1	53	1	3	15	-5	
TAKAMATU	7.62	321.7	1	53	1	3	24	3	
KUMAGAYA	7.69	357.7	1	53	0	3	20	-3	
TUKUBASAN	7.76	2.1	1	50A	-4	3	10	-14	
KAKIOKA	7.77	2.6	1	54	0	3	20	-4	
MATUMOTO	7.93	349.5	1	56	0	3	29	2	
OIWAKE	7.93	352.9	1	53	-3	3	29	1	
MITO	7.94	4.2	1	55	-1	3	24	-4	
MAEBASI	7.96	356.0	1	53	-3	3	25	-3	
MIYAZAKI	8.00	297.7	2	0	3	3	36	7	
MATUYAMA	8.04	313.7	1	58	1	3	35	5	
UTUNOMIYA	8.08	0.7	1	55	-3	3	27	-4	
MATUSIRO	8.18	351.2	1	56A	-3	3	20	-12	3 29
TOYOOKA	8.21	330.6	2	0A	1	3	34	1	
NAGANO	8.31	351.3	1	59	-1	3	34	-1	
YAKUSIMA	8.31	286.2	2	0	0	3	37	2	
OOITA	8.46	306.3	2	3	1	3	40	2	
TOYAMA	8.51	346.0	2	4	2	3	37	-2	
ONAHAMA	8.54	6.2	2	0A	-3	3	36	-4	
KAGOSIMA	8.57	293.6	2	4	1	3	44	4	
HIROSIMA	8.60	315.2	2	3	0	3	43	2	
SHIRAKAWA	8.66	2.5	2	2	-2	3	38	-4	
KUMAMOTO	8.94	301.5	2	10	3	4	2	14	
MATSUE	9.00	322.6				3	53	4	
WAZIMA	9.23	345.7	2	9	-1				
HUKUSIMA	9.300	3.5	2	11	0	3	52	-3	
SAGA	9.43	302.9	2	17	4	4	3	5	
NIIGATA	9.47	356.6				4	2	3	3 33
NAGASAKI	9.52	299.1	2	14A	0	4	3	4	
HUKUOKA	9.53	304.8	2	13	-1	4	14	14	
YAMAGATA	9.79	2.8	2	16	-1	4	3	-2	
SENDAI	9.85	5.3	2	16A	-1	4	5	-1	
ISINOMAKI	10.05	7.1	2	19A	0	4	10	0	
SAKATA	10.43	0.3	2	24	0				
MIZUSAWA	10.72	5.8	2	25	-2	4	24	0	
AKITA	11.25	1.4	2	32	-1	4	37	3	
MORIOKA	11.29	5.6	2	32A	-1	4	35	0	
HATINOHE	12.15	6.4	2	40	-2	4	52	0	
AOMORI	12.38	3.6	2	47	2	5	1	4	
HAKODATE	13.36	3.3	2	55	-1	5	18	2	
MORI	13.64	2.6	2	57	-1	5	24	2	
MURORAN	13.88	3.8							4 25
URAKAWA	13.90	9.4	3	4	3	5	41	14	
HIROO	14.11	10.9							4 37
TOMAKOMAI	14.23	5.5							4 36
SUTTSU	14.33	1.4							4 37
SAPPORO	14.65	4.6	3	9	0	5	42	1	
OBIHIRO	14.71	10.0	3	11	1	5	47	5	6 54
KUSIRO	14.98	13.3							6 7
NEMURO	15.58	16.0				6	3	4	
GUAM	15.61	161.7	3	18	-1				
VLADIVOSTOK	15.96	338.7	3	23	1	6	13	7	5 7
ZO-SE	16.34	283.9				6	7	-6	
KURILSK	17.95	18.9	3	44	2	6	58	16	
NANKING	18.47	286.4	3	45	-2	6	49	-2	5 36 *SP
Y.-SAKHLINSK	18.69	6.3	3	50	1	6	58	3	
CHANGCHUN	19.24	326.8	3	56K	1	7	8	4	5 48 *SP
UGLEGORSK	20.68	4.3	4	10	1	7	30	1	
BAGUIO CITY	21.35	240.0	4	15	0	7	49	9	
WUHAN	22.02	281.6	4	21	0	7	51	0	6 21 *SP
MANILA	22.08	235.5	3	59	-23	7	29	-23	
PEKING	22.59	306.9	4	25	-1	7	59	-2	6 30 *SP
HONG KONG	23.89	261.0				8	32	10	6 42 *SP
CANTON	24.35	263.4				8	30	1	6 43 *SP
SIAN	26.90	290.2	5	4K	-1				
CHENGTU	31.09	282.9	5	40K	-1	10	11	-4	

LANCHOW	31.18	293.3	5	42K	0	10	13	-3			
ULAN-BATOR	31.98	316.5	5	49	0						
MAGADAN	32.01	10.6	5	50	1	10	30	1			
KUNMING	33.13	273.0	5	59K	0	10	45	-1			
YAKUTSK	34.23	351.6	6	9	1						
RABAUL	34.58	157.8	7	30	79					8	34
IRKUTSK	35.44	322.1	6	18K	0					10	31
PORT MORESBY	38.29	168.2	6	40	-2	12	8	4			
TIKSI	43.65	355.0	7	24	-1	13	22	0	8 58	16	31 SCS
MEDAN	46.21	245.3	9	8	83	14	0	2			
CHATRA	46.30	281.0	7	45K	-1	13	56	-3			
LEMBANG	46.80	226.4	7	48A	-1					9	18
CHARTERS TS.	48.66	171.8	8	2	-2					12	33
SEMIPALATNSK	49.45	313.5	8	8	-2	14	39	-3		9	22 PCP
FRUNSE	53.60	304.0	8	39	-1						
BRISBANE	56.90	166.2	9	3	0					10	30
COLLEGE	57.18	29.0	9	4	-1						
TASHKENT	57.77	302.9	9	7	-2	16	33	1		9	47
DUZHANBE	58.73	299.9	9	16	1	16	46	1			
QUETTA	62.46	291.1	9	39K	-1	17	31	0	11 12		
ADELAIDE	63.08	181.0	9	44	0				11 19		
CANBERRA	64.02	171.6	9	50A	0						
ASHKABAD	66.78	301.7	10	7	0	18	19	-5		12	24
NORD	69.52	356.4	10	23K	-1						
APATITY	69.98	336.9	10	26K	-1						
RESOLUTE	71.26	13.2	10	34K	0						
ALBERNI	72.33	43.2	10	41	0						
SODANKYLA	72.36	338.1	10	40	-1						
MOSCOW	73.38	324.7	10	46K	-1	19	36	-3			
VICTORIA	73.48	43.5	10	49	2						
THULE	73.93	6.6	10	48	-2						
KARAPIRO	74.05	151.3	10	50K	0					12	22
KIRUNA	74.06	339.9	10	50	-1						
PULKOVO	74.91	330.4	10	55	0						
GORIS	74.96	306.9	10	54	-2	19	56	0			
TIFLIS	75.10	309.5	10	56K	0				12 31		
TONGARIRO	75.11	152.0	10	56	0						
CHATEAU	75.12	152.0	10	56K	0					12	32
CORVALLIS	75.21	47.2	10	58A	1						
PENTICTON	75.40	41.7	10	0	-58						
NURMIJARVI	76.88	332.6	11	4	-2						
HELSINKI	76.95	332.2	11	6	-1						
SHASTA	77.51	50.5	11	11K	1				12 49		
MINERAL	78.21	50.5	11	18K	5						
BERKELEY	78.88	53.0	11	18K	1				12 57		
HUNGRY HORSE	79.11	40.7	11	19	1						
SKALSTUGAN	79.39	338.8	11	19	-1						
LICK	79.57	53.3	11	22K	1					12	2
UPPSALA	80.06	334.3	11	22	-1					11	33
SCORESBY SD.	80.49	353.9	11	26K	1						
BUTTE	81.17	42.2	11	31	2				13 15		
BOZEMAN	82.26	41.9	11	36	2				13 11		
EUREKA	82.42	49.2	11	37	2				13 11	22	55 *PS
IASI	83.12	320.5	11	40	1						
LWOW	83.49	324.0	11	41	0						
PASADENA	83.57	54.7	11	43K	2				13 23		
GOTEBORG	83.68	334.7	11	41	-1						
SALT LAKE C.	84.43	46.4	11	47	2				13 27		
BOULDER CITY	84.99	51.7	11	50	2				13 25		
KRAKOW	85.42	325.9	11	46	-4					11	51 PCP
SKALNATE PL.	85.82	325.1	12	1	9						
RACIBORZ	86.25	326.6	11	54	0						
JERUSALEM	86.55	304.3	11	55	-1				13 38		
RAPID CITY	87.72	40.0	12	2	1	22	6	2		13	38 PP
COLLMBERG	87.82	329.8	12	0K	-2					15	32 PP
LARAMIE	88.01	43.2	12	4	2						
PRUHONICE	88.05	328.1	12	3K	0					15	35 PP
BRATISLAVA	88.06	325.7	12	2A	-1				13 40	15	37 PP
HALLE	88.14	330.4	12	2	-1					15	38 PP
JENA	88.71	330.2	12	6	0					15	42
WITTEVEEN	89.34	333.7	12	9	0						
TUCSON	89.80	53.0	12	12	1						
TUCSON TELE.	89.82	52.9	12	13	2				13 53		
DURHAM	90.70	338.8	12	14K	-1						
LJUBLJANA	90.79	325.3	12	15	0						
STUTTGART	91.31	329.8	12	17	-1					16	1 PP
UCCLE	91.82	333.5	12	21	1						
STRASBOURG	92.12	330.4	12	22	1						

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DOURBES	92.27	333.0	12 22	0			
BASLE	93.00	329.8	12 41A	15			
KEW	93.02	336.3	12 25	-1			
RATHFARNHAM	93.41	340.4	12 26A	-1			16 10 PP
FOLINIERE	95.31	334.8	12 36	0			
TAMANRASSET	112.62	314.2	17 47	3			18 40 PP
SOUTH POLE	118.28	180.0	17 56	1			20 49
BYRD STATION	119.68	168.6	18 0	2			20 53 PKS
HUANCAYO	143.44	70.7	18 44K	1	20 23		
LA PAZ	151.70	71.1	19 1	5			19 19 PKP2

APRIL 20 19.H 23.M 9.S EPICENTRE 36.49 70.85 DEPTH= 194.KM

A= 0.26438 B= 0.76130 C= 0.59205 D= 0.9447 E=-0.3281
G= 0.1942 H= 0.5593 K=-0.8059 HT= -0.4

DEPTH OF FOCUS= 0.025R

SE= 1.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KHOROG	1.13	28.6	0 32	2	0 54	0		
KULYAB	1.66	328.4	0 35	0	1 0	-3		
NUREK	2.26	328.1	0 42	1	1 12	-1		
OBI-GARM	2.39	337.9	0 44	1	1 14	-2		
KARA-SU	2.48	323.8	0 44	0	1 17	-1		
CHUIAN-GARON	2.54	328.8	0 44	0	1 16	-3		
GARM	2.55	350.3	0 45	0	1 17	-2		
WARSAK DAM	2.55	166.8	0 44K	-1	1 13	-6		
DUZHANBE	2.66	322.1	0 45	-1	1 17	-4		
GISSAR	2.68	318.2	0 47	1	1 21	-1		
DZERGETAL	2.74	6.2	0 47	0	1 23	0		
ZIMCHURUD	2.80	325.1	0 47	-1	1 21	-3		
MURGAB	3.09	51.6	0 53	2	1 31	1		
FERGANA	3.95	10.4	1 2	0				
SAMARKAND	4.41	317.3	1 6	-1	1 56	-4		
ANDIJAN	4.42	15.2	1 7	-1	1 58	-2	1 52 *SP	
NAMANGAN	4.53	7.9	1 8	-1	1 59	-3		
TASHKENT	4.98	346.3	1 14	-1	2 9	-4		
LUNACHARSKOE	4.98	346.7	1 14	-1	2 11	-2		
LAHORE	5.71	148.6	1 24	0	2 29	-1		
TCHIMKENT	5.89	350.9	1 26	0	2 28	-6	1 50	
NARYN	6.36	37.5	1 33	0	2 44	-1		
FRUNSE	6.97	23.5	1 41	1	2 58	-1	2 28 *SP	
BAIRAM-ALI	7.07	281.6			2 56	-5	1 19	
QUETTA	7.08	208.5	1 42K	0	3 0	-2	2 23 *SP	
FABRICHNAYA	7.90	31.2	1 52	-1				
ALMATA	8.24	32.8	1 57	0			2 43 *SP	
PRZHEVALSK	8.36	42.0	1 59	0				
ALMATA-2	8.42	34.5	1 59	-1				
DEHRA DUN	8.60	133.6	2 1	-1	3 32	-5	2 11 PPP	
KURMENTY	8.66	39.1	2 1	-2				
ASHKABAD	10.08	282.1	2 18	-3				
KIZYL-ARVAT	11.84	287.6					5 41	
KARACHI	12.07	196.8	2 45K	-2	4 51	-7		
SHIRAZ	16.80	251.3	3 45K	0	6 51	7		
CHATRA	16.88	120.2	3 45K	-1	6 43	-3		
BOMBAY	17.61	173.8			7 18	17	4 46	
POONA	18.08	170.8	4 2A	3				
GORIS	19.54	286.3	4 18	4			5 10 *SP	
TIFLIS	20.84	292.5			8 13	11	5 23	
SHILLONG	21.00	115.3	4 29K	0	8 16	10	4 49 PP	
SVERDLOVSK	21.48	344.6	4 34	0				
CHITTAGONG	22.99	122.0	4 52	4	8 51	10	5 34	5 40 PP
KSARA	28.62	275.1	6 39	59	11 0	47		
SIMFEROPOL	28.89	298.5					6 26	
MOSCOW	29.59	321.1	5 47	-2			6 47 *SP	
HELSINKI	37.51	323.9	6 57	0				
APATITY	37.58	337.5	6 57A	0				
NURMIJARVI	37.76	324.3	7 0	1			7 41	
KRAKOW	38.73	306.9	7 7	0			7 49	
SODANKYLA	39.70	335.0	7 15	0			7 56	
HONG KONG	39.97	98.5	7 17	0	13 43	36		
UPPSALA	41.00	322.0	7 22	-3			8 7	
KIRUNA	42.04	334.1	7 34	0				
PRUHONICE	42.20	306.9	7 36A	1			8 19	8 41 *SP

LJUBLJANA	42.61	301.1	7 39	1		8 22	
COLLMBERG	43.11	308.9	7 44	2		9 36	PP
COPENHAGEN	43.36	315.4	7 46K	2			
GOTEBORG	43.68	318.3	7 45	-2	8 28	9 43	
YAKUTSK	44.06	35.5	7 49	-1			
SKALSTUGAN	44.15	326.8	7 50	-1		9 16	
KHEYS	44.52	357.0	7 55	1	8 35	9 23	PCP
STUTTGART	45.75	305.7	8 5	2			
TIKSI	45.93	22.0				9 4	
ISOLA	48.15	299.9	8 24K	2			
SETIF	51.76	290.5	8 49	0	9 30	9 58	*SP
TAMANRASSET	57.43	275.6	9 29	-1	10 14	10 34	*SP
BROKEN HILL	64.54	226.3	10 18A	0			
RESOLUTE	68.71	356.0	10 43A	-1			
BULAWAYO	69.02	222.6	10 46A	0			
COLLEGE	74.53	16.1	11 18	-1	12 5		
MUNDARING	80.25	142.1	11 48	-2			
CHARTERS TS.	90.65	114.5	12 41	0			
SOUTH POLE	126.30	180.0	18 38	-1			
SCOTT BASE	126.60	164.8				21 59	
BYRD STATION	136.16	177.4	19 ?	2			
LA PAZ	138.63	287.7	18 55	-8			

APRIL 21 2.H 16.M 32.S EPICENTRE -2.57-109.36 DEPTH= 0.KM

A=-0.33118 B=-0.94252 C=-0.04448 D=-0.9435 E= 0.3315
G= 0.0147 H= 0.0420 K=-0.9990 HT= 7.1

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
MANZANILLO	22.04	12.8						3 49 SS
OAXACA	23.09	32.1	5 16	8				
TACUBAYA	24.00	24.2	5 17K	0	9 36	4		
VERA CRUZ	25.24	30.5						7 47 PCP
COMITAN	25.29	41.8			9 46	-8		
MERIDA	30.34	38.7			11 46	31		
CHIHUAHUA	31.18	5.6	6 23	0	11 38	9		8 26 PP
BALBOA HTS.	31.83	68.6	6 32	3				
CHINCHINA	34.53	77.5	6 52	0	12 26	5		8 16
TUCSON	34.65	357.8	6 53	0				
TUCSON TELE.	34.74	358.0	6 54	0				9 27 PCP
HUANCAYO	35.00	107.4	6 58A	2	12 38	10		
BOGOTA	35.98	78.6	7 7	3	12 49	6		
GALERAZAMBA	36.42	68.1			13 0	10		
FUQUENE	36.47	77.3	6 41	-27	12 24	-27		8 10
PASADENA	37.45	347.9	7 17K	0	13 13	7		9 35
BOULDER CITY	38.69	352.9	7 28	1				9 39 PCP
FAYETTEVILLE	40.98	18.9	6 46A	-60	12 6	-113		
LICK	41.31	345.1	7 45K	-4			9 48	
BERKELEY	41.97	344.7	7 55	1	14 19	5		
EUREKA	42.28	352.4	7 57	0				9 49 PCP
LA PAZ	42.83	111.6	8 1	0	14 31	5		9 48 PP
RENO	42.99	348.1	8 5A	3				
SALT LAKE C.	43.19	357.2	8 5	1				
LAWRENCE	43.33	16.1	8 5	0				
UKIAH	43.41	344.3	8 7	1				
MINERAL	44.16	346.6	8 2A	-10				
CARACAS	44.18	72.2	8 6A	-6	14 38	-8		
ST. LOUIS 1	44.64	21.4	8 16A	0	14 54	1		
SHASTA	44.68	345.9	8 16	0				
FLORISSANT	44.73	21.2	8 17	0	14 56	2		
COLUMBIA	45.11	33.8	8 20	0	14 58	-1		
RAPID CITY	46.76	6.1	8 33	0				
SAN JUAN	47.38	62.1	8 39	1				
SANTA LUCIA	47.46	134.8			15 28	-5		
BOZEMAN	48.05	358.4	8 43	0				
BUTTE	48.46	357.0	8 45	-1				0 11 PCP
CORVALLIS	48.56	346.7	8 49	2				
WASHINGTON	50.86	32.5	9 5	1	16 23	3		
HUNGRY HORSE	50.87	356.0	9 4	0				
PENNSYLVANIA	51.85	30.3	9 11	-1	16 30	-4		
VICTORIA	52.33	348.2	9 15	-1				
PENTICTON	52.44	351.5	9 15	-1				
HORSESHOE B.	53.12	348.7	9 24	3				
ALBERNI	53.34	347.4	9 24	1				

FORDHAM	53.97	33.0	9	19	-9	16	56	-7			
PALISADES	54.07	32.8	9	27	-1	17	3	-1	11	43	PP
OTTAWA	56.33	28.0	9	44K	-1	17	40	6			
WESTON	56.42	33.2	9	44	-1						
BREBEUF	57.41	29.2	9	52A	-1	17	51	2			
SHAWINIGAN	58.57	28.8	9	57	-4						
SEVEN FALLS	59.92	29.4	10	9	-1						
HALIFAX	62.19	35.3	10	28K	3						
SITKA	63.02	344.4	10	31	0						
PORT STANLEY	65.04	147.5	10	44	0						
ARGENTINE I.	70.29	161.5	10	55	-22						
COLLEGE	72.91	343.9	11	30	-3				21	39	PS
KARAPIRO	76.68	231.7	11	54	0						
CHATEAU	76.84	230.5	11	55	0						
BYRD STATION	77.56	181.8	11	59	0						
RESOLUTE	77.62	3.9	11	57	-3	21	45	-6			
WELLINGTON	77.70	228.4	12	10	10						
COBB RIVER	79.20	228.8	12	9	1						
CAPE HALLETT	84.65	197.6	12	23	-14						
SOUTH POLE	87.45	180.0	12	49	-1				13	24	
MBOUR	92.94	75.8							30	46	SS
BRISBANE	95.80	242.3							31	30	
RIVERVIEW	96.46	235.7	13	45K	13				31	45	SS
TIKSI	102.06	344.0	13	55	-3						
DURHAM	102.30	34.4	13	51A	-8						
KEW	103.80	37.5							33	28	SS
UCCLE	106.82	37.4							33	58	SS
STUTTGART	110.50	38.3							28	38	PS
TAMANRASSET	113.89	66.3	18	40	-1	27	12	104	19	33	PP
PULKOVO	115.07	21.2							19	46	
SIMFEROPOL	126.97	31.9							15	32	
BROKEN HILL	134.93	113.3	19	14	-7						
KSARA	135.07	42.2	19	22	1				23	5	PKS
LWIRO	137.90	96.2	19	12	-15						
SHIRAZ	148.04	30.8	19	45	1						
TANANARIVE	148.83	134.2	19	49	4				20	7	
SHILLONG	149.33	320.1	19	47	1						
LAHORE	150.96	353.5	19	56	7						
CHATRA	151.13	328.2	19	55	6						
CHITTAGONG	151.54	315.4	19	53	3						
QUETTA	152.31	6.9	19	53K	2				20	10	

APRIL 22 20.H 26.M 33.S EPICENTRE -17.43-174.55 DEPTH= 204.KM

A=-0.95033 B=-0.09072 C=-0.29774 D=-0.0950 E= 0.9955
G= 0.2964 H= 0.0283 K=-0.9546 HT= 5.3

DEPTH OF FOCUS= 0.027R

SE= 1.56

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
AFIAMALU	4.40	37.7	1	3A	-4	1	51	-9					
SUVA	6.73	262.8	1	42	5	2	32	-21					
PORT VILA	16.34	266.4	3	41	2	6	49	16					
NOUMEA	18.51	251.7	4	4	1						4	53	
ONERAHI	20.75	206.2	4	28	3	8	11	11			5	2	
KARAPIRO	22.20	201.1	4	40	0						5	21	
CHATEAU	23.35	199.7	4	50	-1						9	6	
WELLINGTON	25.48	199.0	5	12	1	9	44	23			15	45	SCS
COBB RIVER	25.99	202.3	5	15	0								
KAIMATA	27.72	202.7	5	32	1	10	15	18			6	9	
GEBBIES PASS	28.34	199.8	5	34	-3	10	6	-1			6	14	
BRISBANE	31.71	246.0	6	3	-3	10	46	-13					
RIVERVIEW	34.77	235.3	6	30A	-2	11	45	-2			18	13	SCS
RABAUL	35.15	288.1	6	33	-3				7	18	9	3	
CANBERRA	36.94	234.0	6	49	-2				7	37	8	24	PP
CHARTERS TS.	37.15	259.6	6	50A	-2	12	17	-6					
PORT MORESBY	38.04	277.1	6	59	-1						8	11	
HAWAII V.OB.	41.24	28.2	7	27	1								
HONOLULU	41.73	23.4	7	30	0								
KIPAPA	41.87	23.4	7	31	0								
ADELAIDE	44.99	237.8	7	54	-2						19	6	
GUAM	50.57	304.8	8	38	-1				9	25			
CAPE HALLETT	55.59	185.6	10	2	46	16	54	10					

MUNDARING	63.61	242.5	10	10	-1					10	57	
BYRD STATION	67.13	171.1	10	33	0	19	16	7	11 21	38	51	PKPPKP
WILKES	68.13	204.8	10	39	0	19	21	0	11 26			
MATUSIRO	69.79	320.9	10	48	-2	19	40	-1	11 14	11	56	
ABUYAMA	70.35	318.1	10	54A	1							
MANILA	71.05	292.7	11	31	34							
BAGUIO CITY	72.22	294.1	11	6	2							
SOUTH POLE	72.68	180.0	11	6	-1				11 55	11	40	PCP
SAN FRANCSCO	73.55	40.7	11	13	1							
BERKELEY	73.73	40.7	11	14A	1	20	30	5				
LICK	73.80	41.5	11	14K	1				12 2			
PETROPAVLOVK	73.89	343.5	11	11	-3							
PASADENA	74.22	45.9	11	15	-1	20	34	3		21	8	SCS
FRESNO	74.63	42.8	11	22	4							
Y.-SAKHLINSK	74.77	331.2	11	19	0					20	41	
MIRNY	75.14	204.4	11	20	-1	20	39	-2				
SHASTA	75.41	38.3	11	22	-1							
RENO	76.27	40.5	11	29K	2							
LEMBANG	76.41	267.0	11	28A	0	20	53	-2				
CORVALLIS	77.36	34.8	11	34K	1							
BOULDER CITY	77.51	45.8	11	34	0							
VLADIVOSTOK	77.73	322.9	11	35	0	21	16	7		12	48	
ZO-SE	78.32	307.9	11	37A	-2	21	17	2	12 48			
TUCSON	78.46	50.8	11	40	1				12 29			
TUCSON TELE.	78.58	50.8	11	41	1				12 30	11	50	PCP
EUREKA	78.66	42.3	11	39	-1							
OKHA	79.58	335.8	11	44	-1							
ALBERNI	79.67	30.5	11	46	0							
VICTORIA	79.87	31.7	11	47	0							
HONG KONG	80.13	297.1	11	49A	1	21	31	-3	12 47	14	53	PP
HORSESHOE B.	80.50	31.1	11	50	0							
NANKING	80.58	307.8	11	51	0	21	46	7	13 2			
NHATRANG	80.83	285.9	11	53	1							
SITKA	81.10	20.5	11	53	0							
CANTON	81.15	297.5	11	53A	-1	21	49	4	13 4			
MAGADAN	81.74	343.0	11	55	-2					21	52	SCS
CHANGCHUN	82.04	320.7	11	58A	0	21	58	4	13 11	15	10	PP
PENTICTON	82.31	32.7	11	59	-1							
ARGENTINE I.	82.48	156.5	12	1	0							
WUHAN	83.16	304.8	12	5A	1	22	12	7	13 18			
BUTTE	84.32	38.2	12	10	0				12 59			
COLLEGE	84.56	11.1	12	9	-2	22	15	-4	13 3	23	33	SP
HUNGRY HORSE	84.74	35.7	12	12	0							
BOZEMAN	85.04	39.0	12	15	2							
PEKING	86.07	314.0	12	18A	0	22	26	-7	13 30			
LARAMIE	86.43	44.8	12	21	1					15	44	
MEDAN	87.98	274.4	12	28	0	22	54	3				
SIAN	89.00	306.3	12	34	2							
RAPID CITY	89.22	43.1	12	34	1							
YAKUTSK	90.52	337.1	12	38	-1					16	12	PP
PAOTOW	90.57	312.5	12	41	1							
KUNMING	90.91	295.9	12	44A	3	23	28	10				
CHENGTU	91.64	301.5	12	47	2	23	34	10	13 58	22	58	SKS
FAYETTEVILLE	92.58	53.1	11	49A	-60							
LAWRENCE	92.77	50.1	12	50	0							
LANCHOW	93.54	306.6	12	54A	1							
HUANCAYO	95.04	104.2								13	54	*SP
ULAN-BATOR	95.33	318.5	13	2	1							
ST. LOUIS 1	96.38	51.6	13	6	0	24	10	48				
TIKSI	96.64	344.5	13	6	-1	23	23	0		17	2	PP
CHITTAGONG	99.71	290.4	17	26	777							
CHINCHINA	99.97	87.9				23	44	4		26	33	PS
BOGOTA	101.35	88.7				23	51	4		25	34	S
RESOLUTE	103.97	15.6	13	39	-1	24	2	3				
CHATRA	104.87	293.8	18	0	777							
PENNSYLVANIA	106.14	51.7				25	39	90		33	1	SS
PALISADES	109.15	51.9								18	38	PP
THULE	110.64	14.0	18	5	-3					18	44	PP
KHEYS	112.88	351.9	18	15	3				19 14	19	4	PP
BOMBAY	116.34	282.8								19	26	
LAHORE	116.66	297.0	18	19	0							
FRUNSE	116.84	309.6	18	22	2				19 21			
WARSAK DAM	119.15	299.6	18	27	3				19 27	20	15	PP
TASHKENT	120.86	308.0								19	59	PP
BAIRAM-ALI	126.70	304.1	18	42	3					20	36	PP
APATITY	126.78	347.0	18	39	0							
SODANKYLA	128.25	349.7	18	43	1							
KIRUNA	128.72	352.8	18	41	-2				19 38			

MOSCOW	134.64	335.0	18	56	2				21	27	PP
NURMIJARVI	134.81	346.7	18	57	3			19 53	22	29	PKS
HELSINKI	135.05	346.3	18	56	1						
SHIRAZ	135.45	294.7	18	38	-17				37	19	SS
BULAWAYO	136.29	212.3	18	45	-12						
UPPSALA	136.73	351.1						19 56	19	38	
TIFLIS	138.60	314.1	19	4	3			19 58			
BROKEN HILL	141.02	217.0	19	0	-6						
RATHFARNHAM	143.05	11.7	19	7A	-2				20	36	
SIMFEROPOL	143.56	325.0	19	9	-1						
POTSDAM	144.61	351.9	19	13	1				22	30	PP
WITTEVEEN	144.68	358.7	19	13	1						
IASI	145.17	333.3	19	15	2				19	35	
DE BILT	145.41	0.3	19	16	3						
KRAKOW	145.44	343.5	19	14	1			20 10			
MUNSTER	145.50	357.6	19	15	1				19	49	
HALLE	145.62	352.8	19	15	1			20 11	22	34	PP
COLLMBERG	145.68	351.6	19	15A	1			20 11	22	35	PP
KEW	145.73	6.4	19	15A	1			20 9			
RACIBORZ	145.85	345.3	19	16	2			20 11			
SKALNATE PL.	146.13	342.5	19	18	3						
JENA	146.22	353.0	19	16	1			20 13	22	37	PP
BENSBERG	146.52	358.0	19	17	2			20 11			
PLAUEN	146.59	352.2	19	15	0			20 9			
PRAGUE	146.65	349.5	19	20	5			20 17	22	47	PP
UCCLE	146.70	1.3	19	18	3			20 13			
PRUHONICE	146.71	349.3	19	18K	2			20 14	22	43	PP
SONNEBERG	146.81	353.3	19	18	2			20 12			
CHEB	146.96	351.8	19	20	4						
DOURBES	147.40	1.0	19	22	5				22	46	PP
CAMPULUNG	147.78	333.7	19	24	7						
BRATISLAVA	147.90	345.3	19	24A	7						
VIENNA-H.	147.99	346.2	19	20	3				19	24	PKP2
HEIDELBERG	148.00	356.0	19	19	2			20 17	22	55	PP
KSARA	148.24	306.8	19	18	0			20 10	22	57	PP
FOLINIERE	148.37	7.5	19	19	1			20 12			
STUTTGART	148.59	355.1	19	19	1			20 19	22	57	PP
PARIS	148.61	3.8	19	21	3				22	55	PP
TUBINGEN	148.84	355.4	19	21	2			20 21			
STRASBOURG	148.88	357.0	19	22	3			20 16	20	36	*SPKP
EBINGEN	149.20	355.4	19	21	2						
JERUSALEM	149.52	303.5	19	22	2						
RAVENSBURG	149.54	354.5	19	21	1						
LWIRO	149.79	231.9	19	22	2						
BELGRADE	149.93	338.4	19	23A	3			20 22	21	26	
BASLE	149.93	357.1	19	38A	18						
BESANCON	150.26	359.3	19	24	3			20 18			
ZAGREB	150.37	345.0	19	22A	1						
TOLMEZZO	150.44	349.4	19	25	4				20	47	
CHUR	150.47	354.3	19	23K	2						
NEUCHATEL	150.49	357.9	19	23	2						
SOFIA	150.57	332.6	19	24	3			19 47	20	6	*SPKP
TRIESTE	151.02	347.9	19	24	2				23	4	PP
CLERMONT-FD.	151.68	3.4	19	26K	3						
PAVIA	152.16	354.4	18	37	-47			20 15	22	14	PP
CHIAVARI	153.00	353.9	19	51	26				24	3	PP
ISOLA	153.30	357.4	19	27K	2				23	22	PP
HELWAN	153.33	302.4	19	27	2				23	24	PP
SERRA PILAR	153.47	24.2	19	19A	-6	26	1 -9		23	18	PP
ATHENS	154.01	325.6	19	23A	-3						
ROME	154.88	347.6	19	32A	5						
TOLEDO	156.16	18.3	19	32K	3			20 24	23	33	PP
TORTOSA	156.30	9.4	20	5	36						
MESSINA	157.50	338.8	19	51	20						
ALICANTE	158.52	12.8	19	23	-9	26	3 -13		23	43	PP
GRANADA	158.77	20.3	20	14A	42				23	56	PP
ALMERIA	159.43	18.3	19	35K	2			20 14	23	55	PP
ALGIERS UNI.	160.62	5.8	19	36	2				24	2	PP
RELIZANE	161.24	12.5	19	35	0				23	59	PP
SETIF	161.31	0.1	19	27A	-8			20 19	23	52	PP
TAMANRASSET	174.68	359.3	19	47	3			20 42	25	11	PP

APRIL 23 13.H 8.M 36.S EPICENTRE 45.15 98.51 DEPTH= 0.KM

A=-0.10472 B= 0.69979 C= 0.70663 D= 0.9890 E= 0.1480
G=-0.1046 H= 0.6988 K=-0.7076 HT= -3.6

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ULAN-BATOR	6.41	61.5	1	38	0								
KYAKHTA	7.47	42.9									2	20	PG
IRKUTSK	8.09	26.2				3	58	23			2	33	PG
KABANSK	8.75	35.1									2	45	PG
BAYANDAI	9.15	27.6									2	55	PG
PAOTOW	9.61	114.4				4	22	9					
LANCHOW	9.95	154.2	2	22	-5								
SEMIPALATNSK	13.34	299.7	3	15	2								
PRZHEVALSK	14.76	266.7	3	34	2								
CHENGTU	15.10	161.5	3	42	6	6	37	12					
ALMATA-2	15.27	270.4	3	43	4						4	50	
ALMATA	15.57	270.7	3	45	3								
LHASA	16.57	203.4	3	54	-1								
NARYN	16.79	265.1	4	1	3						9	12	
FRUNSE	17.34	270.8	4	6	1						8	41	
ANDIJAN	19.60	266.3	4	34	2						10	13	
NAMANGAN	20.01	267.5	4	38	1						11	3	
FERGANA	20.15	265.8	4	38	-1						11	3	
SHILLONG	20.26	197.6	4	35	-5								
KUNMING	20.28	168.9	4	38	-2	8	20	-3					
CHATRA	20.42	210.2	4	46	7								
NANKING	20.47	122.7	4	44	2	8	36	9					
TCHIMKENT	21.04	272.5	4	48	0						5	16	PP
TASHKENT	21.58	270.1	4	54	1						5	40	
KHOROG	21.60	258.7	4	54	1						8	55	PCP
DEHRA DUN	21.85	234.3	5	3	7	9	5	12					
KULYAB	22.64	261.5	5	4	0								
DUZHANBE	23.07	263.9	5	8	0						12	44	
LAHORE	23.22	242.5	5	8	-2								
CHITTAGONG	23.39	195.8	5	7	-4								
WARSAK DAM	23.47	251.0	5	10K	-2								
YAKUTSK	24.70	35.8	5	29	5								
CANTON	25.12	146.3	5	31	3	9	57	6					
SVERDLOVSK	26.20	310.1	5	39	1								
QUETTA	28.89	249.7	5	56	-7								
TIKSI	30.26	18.5	6	11	-4						13	29	
MATUSIRO	30.98	92.0	5	50	-31						15	39	
MOSCOW	38.97	308.2	7	27A	-3								
APATITY	39.92	327.1	7	39	2								
PULKOVO	42.05	315.5	7	55A	0								
HELSINKI	44.59	316.9	8	16	0								
NURMIJARVI	44.65	317.4	8	17	1								
KIRUNA	44.83	328.2	8	18	0								
UPPSALA	48.20	318.0	8	42	-2								
PRUHONICE	54.01	307.5	9	28A	0								
COLLMBERG	54.21	309.5	9	29	-1						10	12	
HALLE	54.68	310.1	9	33	0								
JENA	55.17	309.7	9	35	-2								
LJUBLJANA	56.04	303.4	9	42	-1								
TRIESTE	56.70	303.3	9	47	-1								
STUTTGART	57.58	308.4	9	53	-1								
COLLEGE	58.82	27.2	10	2	-1								
DURHAM	59.73	318.7	10	12K	3								
CHIAVARI	60.06	304.1									16	29	
RESOLUTE	60.12	4.1	10	10	-2								
PARIS	61.24	311.4	10	19	0								
ISOLA	61.46	305.0	11	20	59								
ISOLA	61.54	304.6	11	20	60								
SETIF	67.39	299.0	10	57	-2								
TAMANRASSET	76.23	288.4	11	52	0								
BROKEN HILL	86.63	245.8	12	46A	-1								
RAPID CITY	89.08	15.5	12	59	1								
EUREKA	90.23	26.0	13	4	0								
LARAMIE	91.26	17.9	13	10	1								

APRIL 24 3.H 22.M 29.5 EPICENTRE -6.03 113.38 DEPTH= 611.KM

A=-0.39468 B= 0.91287 C=-0.10435 D= 0.9179 E= 0.7968
G= 0.0414 H=-0.0958 K=0.9945 MT= 7.0

DEPTH OF FOCUS= 0.091R

SE= 1.94

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LEMBANG	5.78	261.8	1	39	-1						13	39	SCS
DJAKARTA	6.52	268.3	1	45K	-2	3	10	-2					
MEDAN	17.51	302.7	3	34A	2	6	26	4					
MANILA	21.94	20.3	3	15	-57						5	49	
BAGUIO CITY	23.41	17.6	4	24	-1								
PERTH	25.89	175.2	4	47	0	7	34	-63			6	41	
MUNDARING	25.94	174.5	4	48A	0						8	31	
PORT BLAIR	27.05	310.5	4	55	-2	8	45	-10					
HONG KONG	28.16	1.5	5	8	1	9	13	1			6	40	PP
HENGCHUN	28.78	14.3	5	16K	4						6	48	
CANTON	28.94	359.9	5	14K	0	9	23	-1					
TAITUNG	29.59	14.6	5	10	-9						6	57	
TAINAN	29.62	12.8									7	1	
HSINKONG	29.99	14.8	5	24	2						6	54	
YUSHAN	30.25	13.9	5	27	-2						7	8	
ALISHAN	30.25	13.6	5	25	0						7	4	
TAICHING	30.83	13.1	5	31	1						7	10	
HWALIEN	30.88	14.8	5	32	2						7	10	
HSINCHU	31.52	13.3	6	37	62						8	25	
ILAN	31.68	14.6	5	39	2						7	21	
TAIPEI	31.87	14.1	5	39	1						7	19	
KUNMING	32.65	341.9	5	48K	3	10	21	0			7	28	*SP
PORT MORESBY	33.62	97.9	5	54	1	10	32	-4			12	4	
CHARTERS TS.	34.85	116.8	6	3K	0	10	47	-7					
CHITTAGONG	35.24	323.9	6	8	2	11	2	2	7	50	8	22	PCP
COLOMBO	35.82	290.5	6	12	1	11	4	-5					
WUHAN	36.37	1.7	6	17K	1	11	18	1			7	57	*SP
GUAM	36.67	58.0	6	19	1	11	13	-8			8	24	PCP
ADELAIDE	37.09	144.3	6	21A	-1	11	24	-3			8	6	PP
TOCKLAI	37.24	331.9	6	28	5	11	33	4					
CALCUTTA	37.48	320.0	6	28	3	11	35	2					
CHENGTU	37.57	346.7	6	27K	1	11	34	0			8	10	*SP
ZO-SE	37.67	11.0	6	28	2	11	38	2			8	16	*SP
SHILLONG	37.73	327.2	6	28	1	11	28	-9	8	18	7	42	PP
MADRAS	38.02	299.9	6	29K	0	11	37	-4	8	12	14	39	*SS
NANKING	38.22	7.4	6	34K	3	11	45	1			8	15	*SP
RABAUL	38.67	89.2	6	34	0						16	42	
KODAIKANAL	39.24	294.1	7	12	33	12	42	43			16	8	
YAKUSIMA	39.81	23.4	6	44	0						8	3	
BOKARO	40.06	318.8	6	44K	-2	11	58	-12	8	28	9	35	*SP
SIAN	40.28	354.3	6	48K	1						8	31	*SP
KAGOSIMA	40.82	22.7	6	52K	0	12	19	-2			8	39	
TOMIE	41.13	19.9	6	55K	1	12	27	1					
CHATRA	41.37	323.3	6	56K	0						8	44	PP
LHASA	41.45	330.0	6	59K	2	12	30	0			8	49	*SP
MIYAZAKI	41.47	23.4	6	57	0	12	31	0			8	41	
NAGASAKI	41.62	21.1	6	59K	1	12	32	-1					
HYDERABAD	41.64	304.6	6	55K	-3	12	27	-6	8	39	8	16	PP
KUMAMOTO	42.00	22.0	7	1	0	12	39	1					
ASOSAN	42.21	22.4	7	3	0	12	37	-4			12	30	
SAGA	42.24	21.3	7	5	2						8	58	
HUKUOKA	42.56	21.2	7	6K	1	12	46	0			8	44	
OOITA	42.71	22.8	7	8A	1	12	40	-6			10	3	
MELBOURNE	42.73	142.3	7	6A	-1	12	47	-1	8	43	8	59	PP
LANCHOW	42.85	348.7	7	9K	1	12	51	1			8	56	*SP
SIMIDU	42.85	24.5	7	8	0	12	46	-4			8	57	
BRISBANE	43.02	124.2	7	11K	2	12	49	-3					
UWAZIMA	43.07	23.8	7	11K	2	12	49	-4					
SIMONOSEKI	43.09	21.5	7	8	-2	12	51	-2					
MATUYAMA	43.70	23.6	7	16K	2	13	4	2			9	4	
KOTI	43.75	24.6	7	15K	0	12	59	-4			8	47	PP
MUROTO	43.77	25.5	7	13	-2	13	2	-1			9	3	
CANBERRA	43.85	136.6	7	15A	0	13	3	-1	9	7	9	14	PP
HIROSIMA	44.03	22.9	7	16	-1	13	2	-5					
HAMADA	44.36	22.1	7	19K	0	13	8	-3			9	47	
TORISIMA	44.53	33.9	7	21	0	13	6	-8					
RIVERVIEW	44.58	133.4	7	21A	0	13	15	1			9	14	PP
TAKAMATU	44.63	24.6	7	23K	2	13	11	-4					
SIOMISAKI	44.64	27.0	7	19	-3	13	13	-2					
TOKUSIMA	44.64	25.3	7	23K	1	13	15	0					
HIMEJI	44.93	24.8									9	7	
SUMOTO	45.01	25.4	7	25K	1	13	17	-3			9	24	
WAKAYAMA	45.03	25.8	7	24	-1								
MATSUE	45.23	22.8	7	52	26	13	23	-1					
YONAGO	45.32	23.1	7	25	-2	13	22	-3			16	27	SS

OWASE	45.35	26.9	7	26K	-1	13	23	-2			
KOBE	45.42	25.4	7	28	1	13	25	-1			
OSAKA	45.54	25.8	7	30K	2	13	28	0		9	27
NARA	45.70	26.1	7	30	0	13	29	-1			
TOTTORI	45.72	23.9	7	29	-1						
ABUYAMA	45.75	25.7	7	30K	0						
SEHORE	45.83	310.6				13	29	-1		8	34
PEKING	45.90	3.0	7	31K	0	13	33	0		9	20 *SP
KYOTO	45.94	25.7	7	31K	0	13	31	-2			
POONA	45.99	302.9	7	31K	-1	13	29	-5			
SAIGO	45.99	22.6	7	50	18	13	50	16			
TOYOOKA	46.00	24.5	7	32K	0	13	32	-2		10	25 PP
KAMEYAMA	46.13	26.6	7	34K	1	13	31	-5		9	28
MAIZURU	46.18	25.1	7	34K	1	13	34	-2		9	26
HIKONE	46.38	26.1	7	37K	2	13	39	0			
PAOTOW	46.48	356.5	7	37	1	13	39	-2			
NAGOYA	46.62	26.8	7	37	0	13	37	-5		9	27
GIHU	46.72	26.5	7	37K	0	13	40	-4		12	21
OMAESAKI	46.72	28.4	7	37K	0	13	42	-2			
BOMBAY	47.02	302.7	7	39	-1	13	44	-4	9 10	16	56 *SS
SHIZUOKA	47.11	28.3	7	38A	-2	13	48	-1			
IIDA	47.30	27.4	7	43	1	13	54	2			
OSIMA	47.42	29.3	7	43K	0	13	50	-3		11	8
FORT NELSON	47.42	146.1	7	47	4	13	57	3			
MISIMA	47.49	28.7	7	41K	-2	13	48	-6			
AJIRO	47.51	28.9	7	43	0	13	54	-1			
TAKAYAMA	47.56	26.3	7	43	-1						
HUNATU	47.72	28.2	7	45K	0	13	56	-2			
KOHU	47.76	27.9	7	44K	-1	13	56	-2			
MERA	47.76	29.6	7	42	-3	13	52	-6		12	52
MATUMOTO	47.96	26.9	7	47	0						
TOYAMA	48.00	25.9	7	45K	-2	14	0	-1			
YOKOHAMA	48.08	29.1	7	45K	-3	13	57	-6		8	40
TITIBU	48.25	28.1	7	48	-1	14	2	-3			
OIWAKE	48.29	27.4	7	55	6	13	55	-10			
MATUSIRO	48.31	26.9	7	48K	-1	14	12	6	9 36	9	50 PP
TOKYO C.M.O.	48.33	29.0	7	48K	-1	14	0	-6			
HONGO	48.36	28.9	7	46A	-4	13	53	-13			
NAGANO	48.42	26.8	7	49K	-1	14	5	-2		9	41
WAZIMA	48.44	25.1	7	49	-1	14	8	1			
KUMAGAYA	48.53	28.3	7	49K	-2	14	4	-5			
MAEBASI	48.59	27.8	7	50	-1	14	5	-4		8	23
TAKADA	48.79	26.5	7	52	-1	14	10	-2			
TUKUBASAN	48.93	28.8	7	51K	-3	14	3	-11	9 44	9	58 PP
KAKIOKA	48.98	28.9	7	53	-1	14	10	-5			
UTUNOMIYA	49.09	28.4	7	54	-1	14	9	-7		8	33
MITO	49.24	29.0	7	46K	-10	14	15	-3		9	4 PCP
AIKAWA	49.56	25.9	7	49K	-10	14	12	-11			
SHIRAKAWA	49.71	28.2	8	0	0	14	24	-1			
NIIGATA	49.83	26.6	8	2K	1	14	29	3		8	48
ONAHAMA	49.90	28.9	8	1K	0	14	24	-3			
HUKUSIMA	50.34	28.0	8	4K	0	14	34	1			
YAMAGATA	50.69	27.5	8	6	-1	14	33	-5			
SENDAI	50.96	27.9	8	8K	-1	14	37	-4		8	37
SAKATA	50.98	26.6	8	11	2	14	42	0			
ISINOMAKI	51.28	28.1	8	11K	0	14	44	-2			
VLADIVOSTOK	51.72	17.2	8	15	1	14	51	-1	10 7	9	17 PCP
MIZUSAWA	51.76	27.5	8	15	1	14	53	1			
AKITA	51.77	26.2	8	15K	0	14	52	0			
MORIOKA	52.24	27.1	8	18	0	14	57	-1			
MIYAKO	52.56	27.7	8	19	-1	15	1	-2		10	20
LAHORE	52.77	317.5	8	18	-4	14	59	-6			
AOMORI	52.97	25.9	8	23	0	15	7	-1			
HATINOHE	53.07	26.7	8	22	-2	15	7	-2			
NOUMEA	53.65	113.2	17	34A	546					18	40 PP
NOUMEA	53.65	113.2	8	27	-1	15	19	2			
HAKODATE	53.78	25.2	8	28K	-1	15	17	-2		10	23
MORI	53.94	24.9	8	30K	0	15	21	0			
ULAN-BATOR	54.02	354.6	8	30	0	15	21	-1			
MURORAN	54.29	25.0	8	31	-1	15	25	0			
SUTTSU	54.38	24.1	8	33	0	15	26	0			
KARACHI	54.53	306.2	8	32K	-2				10 28		
TOMAKOMAI	54.80	25.3	8	36	0	15	32	0			
PORT VILA	54.82	107.4	8	39	3	15	37	5			
URAKAWA	54.93	26.5	8	38K	1	15	35	1			
SAPPORO	55.06	24.8	8	37K	-1	15	34	-1	10 32		
HIROO	55.27	26.8	8	38	-1						
OBIHIRO	55.73	26.2	8	42	0	15	45	1			

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ASAHIGAWA	56.07	25.0	8	59	14							
WARSAK DAM	56.11	318.1	8	43K	-2	15	45	-4				
KUSIRO	56.32	27.0	8	46K	0	15	49	-2	10	42		
ABASHIRI	57.08	26.2	8	51	-1	15	50	-11				
NEMURO	57.13	27.6	8	51K	-1	15	59	-3				
WAKKANAI	57.13	23.4	8	52	0	16	5	3				
QUETTA	57.22	311.7	8	51K	-1	15	58	-5	10	47	11 13	PP
IRKUTSK	58.59	353.5	9	1K	-1	16	23	3	10	58	12 57	PPP
Y.-SAKHLINSK	558.6	22331	99	33K	J1	176231		-33	1			
FRUNSE	60.01	327.9	9	11K	0	16	39	1	11	10	13 14	PPP
WILKES	60.24	181.3	9	11A	-2	16	37	-4	11	16	11 32	PP
DUZHANBE	60.65	320.8	9	16	1				11	10		
TASHKENT	62.01	323.6	9	21	-3	17	1	-2	11	22	18 11	SCS
MIRNY	62.05	189.1	9	26	2	17	5	2	11	26		
ROXBURGH	62.22	138.8				17	3	-2			12 22	
ONERAHI	63.07	127.1	9	31	0	17	18	2			10 2	
SEMIPALATNSK	63.08	336.9	9	30	-1						17 8	
COBB RIVER	63.15	133.2	9	31	0	17	16	-1	12	0	18 37	
TERRE ADELIE	63.68	168.0	9	31	-4	17	15	-8				
GEBBIES PASS	63.87	136.0	9	34	-2	17	23	-2				
OKHA	64.37	19.0	9	39	0	17	33	2	11	37	12 39	
SUVA	64.45	107.2	9	42	2	17	31	-1			10 1	
KARAPIRO	64.46	129.2	9	40	0	17	35	3	11	41	10 8	PCP
WELLINGTON	64.69	133.0	9	40K	-1	17	30	-5	11	43	18 23	
TONGARIRO	64.74	130.6	9	41K	0							
CHATEAU	64.75	130.6	9	41	0	17	40	4				
TANANARIVE	65.22	252.0	9	46K	2				11	46	13 55	
TUAI	65.88	129.8	9	48	0	17	45	-4				
ASHKABAD	67.25	315.4	9	58	1	18	5	0	11	56	21 44	*SS
SHIRAZ	68.27	305.1	9	58	-5						21 52	
YAKUTSK	69.02	8.2	10	6	-1	18	21	-4	12	9		
PETROPAVLOVK	70.14	27.1	10	14K	0	18	39	1	12	17	12 58	PP
MAGADAN	71.79	19.0	10	25	1	18	57	1	12	29	22 35	*SS
AFIAMALU	73.89	102.7	10	38K	3	19	27	8	12	41		
CAPE HALLETT	74.59	164.6	10	41A	2	19	24	-3	12	45	13 36	PP
SVERDLOVSK	75.89	333.2	10	47K	0				12	53	23 14	
GORIS	76.47	312.9	10	51	1	19	46	-1	12	54	23 29	*SS
SCOTT BASE	76.84	169.9	10	53	1	19	53	2			13 7	PP
TIKSI	78.17	5.0	10	58K	-1	20	1	-4				
TIFLIS	78.30	314.6	11	1K	2	20	7	1	13	5	23 51	*SS
PIETERMZBURG	80.96	241.1	11	13A	0							
KSARA	83.03	305.0	11	25	1	20	51	-2	13	31	14 38	PP
BULAWAYO	83.06	250.5	11	24K	0						12 32	
PRETORIA	83.10	244.9	11	25	1							
JERUSALEM	83.16	302.9	11	28	4						18 35	
BROKEN HILL	83.61	256.2	11	27K	0						20 51	
SOUTH POLE	84.01	180.0	11	27	-2	20	49	-13	13	30	14 47	*SP
GRAHAMSTOWN	84.07	237.2	11	31K	2		+				13 40	
LWIRO	84.38	268.3	11	30	0						33 54	
GRAHAMSTOWN	84.07	237.2	11	31K	2						13 40	
LWIRO	84.38	268.3	11	30	0						33 54	
KIMBERLEY	85.91	241.7	11	37A	-1							
HELWAN	86.11	300.4	11	39K	0	21	21	-1				
SIMFEROPOL	86.67	315.7	11	42K	1	21	29	2	13	51	15 16	PP
MOSCOW	86.99	326.7	11	43K	0	21	31	1	13	53	25 19	*SS
ISTANBUL KA.	89.64	311.2	11	53	-2				14	2		
HERMANUS	90.05	235.5				22	5	7			21 33	SKS
BYRD STATION	90.11	172.0	11	55	-2	21	12	-46	14	9		
KHEYS	90.58	352.2	11	59	0	22	0	-2	14	13	15 49	PP
HONOLULU	90.79	68.8	12	2	2				14	13		
KIPAPA	90.87	68.7	12	3	2							
IASI	91.54	317.1	12	5	1	21	39	-32	14	14		
PULKOVO	91.67	329.8	12	4	0	22	11	-1	14	15	15 59	PP
APATITY	91.70	337.8	12	3K	-2	22	9	-3	14	13	28 41	SS
BACAU	91.92	316.4	12	8	2	21	41	-33				
BUCHAREST	92.23	314.2	12	7K	0	21	36	-41	14	17		
ATHENS	93.40	307.7	12	11K	-1				14	21		
WINDHOEK	93.48	247.0	12	13	0				14	25		
SOFIA	94.08	312.3	12	15	0	21	39	-53	14	26	16 11	PP
LWOW	94.14	319.5	12	17K	1				14	27		
SODANKYLA	94.27	337.2	12	15	-1						16 14	PP
HELSINKI	94.39	329.9	12	17	0				14	28	29 13	PKKP
OULU	94.53	334.8	12	17	0							
NURMIJARVI	94.57	330.2	12	18	0	22	39	3	14	30	16 22	PP
WARSAW	96.17	321.8				22	5	2			18 13	*PPP
BELGRADE	96.29	314.4	12	25K	0	22	6	2	14	49	16 23	PP
SKALNATE PL.	96.57	318.7	12	25	-2							
KIRUNA	96.66	337.6	12	25	-2	22	6	0			29 8	PKKP

KRAKOW	96.80	319.6	12	28	0				16	32	
ISFJORD	97.88	348.0	12	31	-1						
RACIBORZ	97.91	319.6	12	33	0				16	43	
UPPSALA	98.07	329.5	12	32	-1			14	44	16	43 PP
BRATISLAVA	98.65	317.7	12	37A	1			14	45	16	45 PP
COLLEGE	99.17	25.3	12	37	-1	23	17 59	14	47	16	49 PP
ZAGREB	99.45	315.3	16	48	777	22	19 -1				
REGGIO CALA.	99.77	307.5								16	54
MESSINA	99.85	307.6	12	40	-1	22	20 -1	14	52	16	58 PP
PRUHONICE	100.27	319.6	12	43K	0	22	25 2	14	53	23	27 S
SKALSTUGAN	100.31	333.5	12	43	0					17	2 PP
PRAGUE	100.34	319.7	13	7	23						
LJUBLJANA	100.46	315.6	12	44K	0			14	54	16	58 PP
TRIESTE	101.02	315.2	12	46	-1	22	28 1	14	58	17	3 PP
POTSDAM	101.04	322.1	12	46	-1			14	52	16	46 PP
COPENHAGEN	101.12	325.5				22	31 3			20	4 PPP
GOTEBORG	101.16	327.6	12	49	2					17	9 PP
COLLMBERG	101.17	321.0	12	47	0			15	0	17	9 PP
NORD	101.38	353.4	12	46K	-2					17	8 PP
TOLMEZZO	101.49	316.0	12	49	1			15	18	17	5 PP
CHEB	101.66	319.8	12	49	0	22	30 0			30	43 SS
PLAUEN	101.77	320.2	12	48	-2			15	0	17	7
HALLE	101.81	321.2	12	50	0	22	31 0	15	0	17	2 PP
JENA	102.09	320.7	12	51	0			15	1	17	11 PP
ROME	102.11	311.4				24	5 93	15	2	17	10 PP
SONNEBERG	102.39	320.2	12	53	0						
RAVENSBURG	103.69	317.6	12	57	-1						
STUTTGART	103.80	318.6	12	59	0	22	41 1	15	10	17	20 PP
CHUR	103.85	316.7	17	13	777	22	39 -1			26	49
TUBINGEN	103.97	318.4								17	21 PP
EBINGEN	104.08	318.1	12	59	-1						
HEIDELBERG	104.09	319.3	13	0	0					17	26 PP
CHIAVARI	104.25	314.1	13	22	21	22	52 10	15	20	18	7 PP
PAVIA	104.27	315.0								17	27 PP
MUNSTER	104.42	322.1								15	41
BENSBERG	104.86	321.1								14	5
WITTEVEEN	104.86	323.0	17	16	777						
BASLE	105.09	317.5	16	47	777						
MONACO	105.67	313.6	13	7	777					17	15 PKP
ISOLA	105.88	314.1	13	10	777					17	18 PP
DE BILT	105.89	322.5				22	49 0			17	41 PP
BESANCON	106.20	317.4	17	18	777					17	39 PP
DOURBES	106.62	320.5	13	11	777	22	54 2				
UCCLE	106.65	321.2				22	49 -3			17	46 PP
SETIF	108.04	306.0	13	18	777			15	19	17	53 PP
PARIS	108.22	319.4	13	19	777					17	55 PP
CLERMONT-FD.	108.40	316.2	14	54	777					24	18
ABERDEEN	108.70	328.7				23	1 0			28	40 PPS
TAMANRASSET	108.77	291.9	13	22	777	23	5 4	15	32	17	51 PP
ARGENTINE I.	108.89	181.0	17	22	777						
DURHAM	109.16	326.2	17	24A	777	24	44 101			18	8 PP
KEW	109.36	322.6								17	24 PP
RESOLUTE	109.48	7.7	13	23K	777					17	22 PKP
SCORESBY SD.	109.64	345.5	13	24	777					17	23 PKP
ALGIERS UNI.	109.86	306.8	17	25	777					17	47
FOLINIERE	110.15	319.9	13	28	777						
RELIZANE	112.00	306.0	17	8A	-19					18	6 PP
RATHFARNHAM	112.26	325.7	17	29K	2					18	18 PP
ALICANTE	112.38	309.0	17	37	9	23	11 -5			21	2 PPP
SIDA	112.70	338.8	17	33	5						
REYKJAVIK	113.82	340.3	17	33	3						
ALMERIA	114.22	307.7	17	31K	0	23	25 2			18	37 PP
TOLEDO	114.79	314.5	17	34A	1					18	40 PP
ALBERNI	114.97	37.9	17	35	2						
GRANADA	115.04	308.2	17	35K	2	24	29 63			18	51 PP
VICTORIA	116.10	38.3	17	37	2						
CORVALLIS	117.61	42.4	17	41	3						
SERRA PILAR	117.79	313.6	17	40A	2	23	49 13	20	58	19	2 PP
PENTICTON	118.07	36.3	17	41	2						
ARCATA	118.27	46.5	17	42K	3						
UKIAH	119.43	48.2	17	46	5			20	3	19	15 PP
SHASTA	119.55	46.3	17	44	3					27	57 SP
MINERAL	120.23	46.4	17	44K	1					27	51 SP
SAN FRANCSCO	120.42	49.5	17	45K	2						
BERKELEY	120.53	49.3	17	46	3					19	13 PP
BRANNER	120.73	49.8	17	46K	2						
LICK	121.16	49.7	17	47K	2					19	26 PP
VINEYARD	121.54	50.3	17	49K	4						
HUNGRY HORSE	121.78	35.3	17	48	2					19	30 PP

RENO	121.80	46.8	17	49K	3			20	6	27 41	PKKP
BUTTE	123.83	37.1	17	51	1					19 46	PP
EUREKA	124.58	45.5	17	51	0					19 46	PP
PASADENA	124.83	52.3									
BOZEMAN	124.92	36.8	17	55	3			20	16	19 43	PP
RUTH	125.38	45.4	17	56	3					19 53	PP
BOULDER CITY	126.77	49.0	17	48	-7					20 0	PP
SALT LAKE C.	126.86	42.4	17	58	2					20 0	PP
RAPID CITY	130.38	34.3	18	4	2			20	23		
MBOUR	130.52	283.7	18	5	2					20 33	PP
LARAMIE	130.63	38.6	18	6	3					20 24	
TUCSON	131.26	51.8	17	51	-13			20	26	20 36	PP
TUCSON TELE.	131.31	51.7	17	49	-15			20	26	20 37	PP
SEVEN FALLS	138.90	4.4	18	11	-7						
SHAWINIGAN	139.28	6.5	18	8	-11						
OTTAWA	139.99	10.0	18	13	-7						
BREBEUF	140.21	7.7	18	15A	-6	24	35 3				
FLORISSANT	140.93	30.0	18	17	-6			20	40	39 0	SS
ST. LOUIS 1	141.13	30.0	18	18	-6					22 1	*PPP
HALIFAX	141.47	356.5	18	21K	-3						
WESTON	143.56	5.9	18	26	-1						
PENNSYLVANIA	143.94	14.6	18	30K	2			20	47	39 36	SS
PALISADES	144.56	9.5	18	30K	1			20	50	21 42	PKS
TACUBAYA	145.64	64.2	18	35K	5					22 0	PP
WASHINGTON	145.94	14.6	18	30	-1			20	51	21 59	PP
CHAPEL HILL	148.14	19.3	18	37	3					20 59	
VERA CRUZ	148.44	62.8	18	43	9			20	43	22 43	PP
OAXACA	148.56	67.1	18	39	4			21	1		
COLUMBIA	149.13	23.8	18	38	3			20	57	28 5	SKKS
MERIDA	153.22	54.2	18	46	5						
LA PAZ	157.57	176.2	18	52K	5			21	3	28 54	SKKS
HUANCAYO	160.06	154.3	18	55K	5					19 40	PKP2
BALBOA HTS.	166.84	76.4	18	59	2						
SAN JUAN	167.72	357.8	18	58	1			21	21	22 22	*SP
ST. KITTS	168.13	341.6	19	0	3					24 0	PP
DOMINICA	169.46	331.3	19	1	3					24 10	PP
FORT FRANCE	169.82	328.6	18	58	0					26 19	
BARBADOS	170.13	316.0	19	4A	6						
GALERAZAMBA	170.23	60.6	19	6	8					20 28	PKP2
CHINCHINA	170.98	96.3	19	1K	2					24 20	PP
ST. VINCENT	171.16	323.8	19	2A	3					24 16	PP
GRENADA	172.31	321.4	19	2	3					20 31	PKP2
BOGOTA	172.45	100.3	19	5K	6					22 46	*PPKP2
TRINIDAD	173.09	312.0	19	3	3					19 35	PKP2
CARACAS	175.55	3.9	18	55K	-5						

APRIL 24 12.H 14.M 27.S EPICENTRE 27.71 54.43 DEPTH= 0.KM

A= 0.51572 B= 0.72116 C= 0.46255 D= 0.8134 E=-0.5817
G= 0.2691 H= 0.3762 K=-0.8866 HT= 2.5

SE= 1.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SHIRAZ	2.56	319.5	0	46K	2								
QUETTA	11.24	74.4	2	46K	1	4	40	-13			3	2	PPP
KARACHI	11.67	101.4	2	50	-1								
NARSAK DAM	15.97	62.7	3	49	1						6	54	SS
TIFLIS	16.05	333.1	3	51	2								
STALINABAD	16.15	44.3	3	51	1								
MAKHACH-KALA	16.23	341.5	3	53K	2	6	54	2					
KSARA	17.06	295.5	4	2A	0	7	11	0					
JERUSALEM	17.17	288.3	4	3	0	7	8	-6					
LAHORE	17.72	72.7	4	8	-2	7	11	-15			4	33	PPP
TASHKENT	18.24	38.1	4	17	1	7	36	-2					
BOMBAY	19.01	113.5	4	25	-1	8	0	4					
NAMANGAN	19.39	42.5	4	31K	1	8	9	5					
ANDIJAN	19.68	44.0	4	33A	-1	8	15	5					
SOTCHI	19.79	327.0	4	36	1	8	15	2					
POONA	20.04	113.0	4	38A	0	8	22	4					
HELWAN	20.36	281.6	4	40A	-1	8	30	5					
DEHRA DUN	20.81	77.2	4	49	3	8	38	4			5	25	PPP
FRUNSE	22.26	42.1	5	1A	1	9	7	6					
SIMFEROPOL	23.64	322.1	5	14	0	9	28	2					

ALMATA	23.92	43.6	5	18	1					
HYDERABAD	24.38	109.7	5	21K	0	9	45	6	8	36 PCP
ATHENS	27.65	299.6	5	51A	-1	10	33	0		
KODAIKANAL	27.79	124.3	6	0	7					
KISHINEV	27.82	320.7	5	52	-1	10	34	-2		
FOCSANI	28.06	317.0	6	8	13					
BUCHAREST	28.13	313.8	5	56A	0	11	3	22	7	3
MADRAS	28.15	116.2	5	57	1	10	43	2	7	2 PPP
BOKARO	28.47	90.7	5	57	-2	11	16	30		
IASI	28.64	320.0	6	1	0	11	8	19	6	17
BACAU	28.69	318.4	6	1	0					
CHATRA	29.07	84.1	6	6	2	11	25	29		
CAMPULUNG	29.20	314.7	6	8	2	10	39	-19		
SOFIA	29.29	308.9	6	6	0	10	23	-36	6	45 PP
SVERDLOVSK	29.43	6.9	6	9	1	10	53	-9		
MOSCOW	30.51	341.2	6	18A	1	11	13	-6		
CALCUTTA	31.10	91.9	6	25	3				11	40
COLOMBO	31.78	125.9							11	39
TIMISOARA	31.83	313.3	6	30	1					
BELGRADE	31.99	311.3	6	29A	-1				7	36 PP
LWOW	32.04	321.8	6	31K	0	11	40	-2		
LHASA	32.10	77.7	6	32	1					
TARANTO	33.08	302.4				12	13	14	15	13 SS
SHILLONG	33.45	84.9	6	40	-3	12	2	-3	7	56 PP
SKALNATE PL.	33.87	318.6	6	48	1	12	12	1		
BUDAPEST	33.90	315.2	6	47	0				8	0 PP
REGGIO CALA.	33.95	297.8	6	48	1				12	36
MESSINA	34.04	297.9	6	49K	1	12	14	0	6	55 PP
CHITTAGONG	34.20	90.5	6	51	1	12	7	-9	8	0 PP
KRAKOW	34.45	319.8	6	52	0	12	23	3		
HURBANOVO	34.56	315.5	7	0	7	12	26	4		
ZAGREB	35.29	311.2	6	58	-1					
BRATISLAVA	35.36	315.5	6	59A	0	12	33	-1		
RACIBORZ	35.46	319.0	7	0	0				8	10 PP
VIENNA-H.	35.84	315.3	7	3	-1	12	45	3		
PULKOVO	36.06	339.4	7	5K	0	12	39	-6		
LJUBLJANA	36.34	311.1	7	8A	0	12	45	-4	8	41 PP
TRIESTE	36.75	310.2	7	11	0	12	53	-2	13	6 PCS
ROME	36.87	303.7	7	12A	0	12	50	-7	8	35 PP
TOLMEZZO	37.43	311.1	7	17	0				8	47 PP
PRUHONICE	37.58	317.3	7	17A	-1	13	8	0	8	40 PP
PRAGUE	37.69	317.3	7	18	-1	12	53	-17		
HELSINKI	38.14	336.5	7	23	0					
BOLOGNA	38.15	307.7	7	26	3					
NURMIJARVI	38.49	336.7	7	25	-1	13	19	-3	13	50
LWIRO	38.67	223.8	7	29K	2	13	26	1		
CHEB	38.93	316.6	7	28	-2	13	25	-4		
COLLMBERG	38.98	318.7	7	30	0	13	28	-1	9	5 PP
PLAUEN	39.20	317.2	7	29	-3					
PORT BLAIR	39.23	107.4	7	33	1	13	43	10		
POTSDAM	39.34	320.3	7	34	1	13	35	0	16	34 SS
CHIAVARI	39.54	307.0				13	3	-35	16	17
HALLE	39.67	318.6	7	35	-1	13	37	-3	9	9 PP
JENA	39.69	317.6	7	35	-1	13	33	-7	9	3 PP
SONNEBERG	39.74	316.7	7	36	0	13	39	-2	9	12
PAVIA	39.79	308.3	7	36A	-1	13	58	16	9	19 PP
CHUR	39.88	310.9	7	37K	0	13	38	-5		
RAVENSBURG	40.03	312.3	7	37	-2					
STUTTGART	40.49	313.7	7	40	-2	13	44	-8	9	30 PCP
EBINGEN	40.55	312.8	7	41	-2					
TUBINGEN	40.57	313.3	7	42	-1					
OROPA	40.70	308.7	7	45	1	14	3	8	8	55
UPPSALA	40.74	332.4	7	43	-2					
MONACO	40.80	305.8	7	45	0				8	14
HEIDELBERG	41.01	314.5	7	45	-2					
COPENHAGEN	41.02	324.7	7	48K	1	13	54	-6		
ISOLA	41.13	306.4	7	48K	0	13	57	-5		
BASLE	41.32	311.5	8	4	15	14	15	11		
STRASBOURG	41.42	313.1	7	49K	-1	13	53	-13	9	15 PP
OULU	41.56	342.0	7	51	0					
NEUCHATEL	41.64	310.6	7	50	-2	14	1	-8		
APATITY	41.84	348.1	7	55	1	14	11	-1	9	42 PP
SETIF	42.08	294.3	7	55	-1	14	6	-10	9	36 PP
GOTEBORG	42.14	327.3	7	56	0				8	8
BESANCON	42.33	310.8	7	56	-2					
BENSBERG	42.37	316.4	7	58	0				8	12
MUNSTER	42.37	318.0	7	59	1					
LANCHOW	42.39	65.9	7	59A	1	14	20	0		
CHENGTU	43.11	73.7				14	28	-3		

SODANKYLA	43.11	344.7	8	4	0						
KUNMING	43.13	82.0	8	4A	0	14	30	-1			
WITTEVEEN	43.17	318.9	8	5	1						
DOURBES	43.77	314.6	8	9	0	14	38	-2			
DE BILT	43.86	317.6	8	13	3	14	45	3		17	51 SS
ALGIERS UNI.	43.94	295.3	8	11A	0	14	38	-5		9	53 PP
UCCLE	44.07	315.6	8	13	1	14	45	0			
CLERMONT-FD.	44.09	308.3	8	12	0	14	44	-1			
IRKUTSK	44.28	42.3	8	14A	1	14	42	-6			
TAMANRASSET	44.29	275.0	8	13A	0	14	49	1		9	59 PP
PARIS	44.90	312.5	8	15	-3					10	1 PP
SKALSTUGAN	44.95	334.9	8	18	-1					8	33
KIRUNA	45.02	342.5	8	20	1					9	59
ULAN-BATOR	45.12	48.8	8	21	1	14	59	-1			
RELIZANE	46.04	294.1	7	56A	-31	15	2	-11		10	25 PPP
ALICANTE	46.64	297.8	8	33	1	15	23	1		18	3 SS
SIAN	46.71	67.9	8	33	0						
TANANARIVE	46.83	188.9	8	36K	2					10	7 PP
FOLINIERE	46.84	312.1	8	33	-1						
PAOTOW	47.06	59.1	8	37	1	15	32	4			
KEW	47.08	315.8	8	34	-2	15	25	-3		10	29 PP
ALMERIA	48.35	295.9	8	45K	-1	15	47	1		10	12 PCP
DURHAM	48.38	320.0	8	45A	-1	15	43	-3		10	46 PP
MEDAN	48.51	111.6	8	48	1					18	3
BROKEN HILL	48.89	214.3	8	50K	0						
ABERDEEN	49.14	323.1				15	53	-4		19	51 SS
GRANADA	49.21	296.5	8	54K	2	16	9	11		10	14 PCP
TOLEDO	49.30	300.1	8	51K	-2	15	57	-2		19	29 SS
RATHFARNHAM	50.93	317.6	9	4	-1	16	26	4		11	6
PEKING	51.78	59.4	9	11A	-1	16	29	-5			
WUHAN	52.06	71.6	9	13	-1	16	36	-1			
COIMBRA	52.62	300.9	9	19A	1	16	41	-4			
SERRA PILAR	52.64	302.1	9	11A	-7	16	34	-11	9 22	11	11 PP
CANTON	52.99	80.9	9	21A	0						
KHEYS	53.03	0.7	9	22	1	16	53	3			
ISFJORD	53.69	350.3	9	26	0						
BULAWAYO	53.73	210.5	9	26A	0						
LUANDA	53.95	233.6	9	29K	1						
HONG KONG	53.97	81 6	9	28	0	16	55	-8			
NANKING	55.23	68.7	9	37A	0	17	16	-4			
SIDA	57.80	330.0	9	56	0						
CHANGCHUN	58.04	53.7	9	57A	0	17	55	-2			
PRETORIA	58.85	207.8	10	34	31						
TIKSI	59.06	20.9	10	2A	-3	18	4	-7			
YAKUTSK	59.07	32.1	10	3	-2	18	4	-7			
REYKJAVIK	59.50	330.3	10	9A	1					12	17
SCORESBY SD.	59.61	337.7	10	9	1	17	33	-45			
NORD	60.02	350.8	10	10K	-1	18	20	-3			
WINDHOEK	61.63	219.6	10	24K	2						
BAGUIO CITY	61.71	85.5	10	25	2						
LEMBANG	61.78	115.5	10	23	0					19	13
MANILA	62.84	87.1	10	31	1						
VLADIVOSTOK	62.88	53.4								18	58
GRAHAMSTOWN	66.21	205.3	10	43K	-9						
PONTA DELGDA	66.26	301.4	10	54A	2					11	20 PCP
MBOUR	67.16	274.7	10	58	0	19	54	2			
MATUSIRO	69.42	58.8	11	10A	-2	20	12	-7		24	30 SS
MAGADAN	69.64	32.7	11	14	0	20	21	-1			
HERMANUS	70.21	210.4				20	21	-7			
THULE	70.36	347.8	11	16	-2	20	32	2		13	47 PP
TUKUBASAN	70.96	58.5	11	19A	-3	20	29	-8			
RESOLUTE	75.93	352.0	11	50A	-1	21	33	0			
PETROPAVLOVK	76.29	37.1	11	50A	-3						
MUNDARING	83.53	131.1	12	30	-1						
COLLEGE	86.11	9.3	12	44	0	23	13	-5		16	3 PP
HALIFAX	88.50	320.9	12	53	-3						
SEVEN FALLS	90.67	326.1	13	6	0						
SHAWINIGAN	92.02	326.6	13	10K	-2						
BREBEUF	93.18	326.3	13	21	3						
OTTAWA	94.27	327.3	13	23K	0						
PALISADES	96.54	323.3								16	24 PP
CHARTERS TS.	100.63	107.1	13	51	-1						
BUTTE	105.68	350.6	18	14	777						
RAPID CITY	105.68	343.4	14	15	777					17	43 PKP
FLORISSANT	106.11	332.0								27	58 PS
ST. LOUIS 1	106.19	331.9								18	40 PP
LAWRENCE	107.87	335.6	17	38	777						
LARAMIE	108.87	344.2	17	59	777						

RIVERVIEW	110.04	118.4	18	33A	-1			
MINERAL	112.19	356.7				19	[illegible]	PP
EUREKA	112.56	352.0	14	47	777	20	29	PKKP
RUTH	112.68	351.1				29	2	PPS
RENO	112.88	355.2				19	30	PP
BERKELEY	114.69	357.1				29	26	PPS
LICK	115.19	356.5	18	45	1			
SOUTH POLE	117.55	180.0	18	49	1	19	59	PP
TUCSON TELE.	118.63	345.7	18	53	3	20	9	
TUCSON	118.74	345.8	18	54	3	29	7	PKKP
CAPE HALLETT	123.34	160.6	19	3	2	32	20	PPS
LA PAZ	126.04	269.2	19	9A	4	21	7	PP
BYRD STATION	127.54	181.3	19	9	1			
KARAPIRO	130.19	117.6	19	15A	2	22	43	
CHATEAU	130.32	119.2				22	43	
HUANCAYO	130.59	278.0	19	19	6			

APRIL 25 0.H 14.M 24.S EPICENTRE 41.67 141.86 DEPTH= 67.KM
A=-0.58929 B= 0.46270 C= 0.66231 D= 0.6176 E= 0.7865
G=-0.5209 H= 0.4090 K=-0.7492 HT= -2.3

DEPTH OF FOCUS= 0.005R

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
HAKODATE	0.84	280.1	0	13K	-5	0	24	-7				
URAKAWA	0.84	54.6	0	12K	-6	0	25	-6				
MURORAN	0.93	315.0	0	13K	-5	0	25	-7				
TOMAKOMAI	0.98	347.8	0	16	-3	0	30	-3				
MORI	1.06	294.5	0	18K	-2	0	33	-2				
HATINOHE	1.16	192.6	0	17K	-4	0	31	-6				
AOMORI	1.18	224.3	0	19	-2	0	33	-4				
HIROO	1.25	60.2	0	18	-4	0	36	-3				
SAPPORO	1.45	345.0	0	22	-3	0	38	-6				
OBIHIRO	1.60	38.0	0	25	-2	0	46	-1				
SUTTSU	1.66	313.6	0	25	-3	0	46	-3				
MIYAKO	2.02	177.6	0	27	-6	0	49	-8				
MORIOKA	2.03	195.2	0	30	-3	0	56	-1				
ASAHIGAWA	2.14	9.9	0	33	-1	1	2	2				
KUSIRO	2.29	54.3	0	33K	-4	1	2	-2				
AKITA	2.36	215.1	0	35	-2	1	7	1				
MIZUSAWA	2.60	192.7	0	38	-3	1	9	-2				
ABASHIRI	2.95	36.3	0	46	0	1	32	12				
SAKATA	3.17	210.0	0	51	2	1	30	4				
NEMURO	3.21	57.6	0	53	4							
ISINOMAKI	3.26	187.5	0	47K	-3	1	25	-3				
SENDAI	3.47	192.6	0	50	-3	1	29	-4				
YAMAGATA	3.61	199.3	0	54	-1	1	36	-1				
WAKKANAI	3.75	358.0	1	2	5							
HUKUSIMA	4.06	195.8	0	57	-4	1	55	7				
NIIGATA	4.32	211.0	1	29	24	2	19	24			2	7
AIKAWA	4.58	218.5	0	56	-12							
SHIRAKAWA	4.72	196.2	1	9	-1	2	5	1				
ONAHAMA	4.77	189.3				2	4	-2			1	52
UTUNOMIYA	5.34	197.5	1	23	4	2	18	-2				
TAKADA	5.35	212.7	1	21	2							
Y.-SAKHLINSK	5.39	6.3	1	28	8							
MITO	5.39	192.0	1	23	3	2	16	-5				
KAKIOKA	5.59	194.1	1	21	-1	2	29	3				
TUKUBASAN	5.61	194.7	1	17	-6	2	23	-4				
MAEBASI	5.69	203.3	1	33	9	2	51	22				
NAGANO	5.74	210.9	1	28	3							
KUMAGAYA	5.84	200.2	1	5	-21						2	55
MATUSIRO	5.85	210.2	1	24A	-2	2	29	-4			2	53
OIWAKE	5.92	206.9	1	34	7							
TYOSI	5.99	187.9									2	12
TITIBU	6.08	201.8	1	54	25						2	42
TOKYO C.M.O.	6.20	196.1									2	41
YOKOHAMA	6.46	196.3									3	7
KOHU	6.52	204.4	1	40	5							
HUNATU	6.62	202.5									3	0
NAGOYA	7.54	212.2									3	35
ULAN-BATOR	25.43	296.2	5	21	-2							
SHILLONG	44.00	264.8	8	2K	0							

CHITTAGONG	45.90	261.2	8	17	0	15	0	4	10	4	PP
CHATRA	46.82	269.6	8	25A	0						
RESOLUTE	58.04	15.2	9	46A	-2						
APATITY	58.63	334.7	9	51K	-1						
QUETTA	59.99	285.1	10	1A	-1						
THULE	60.63	7.8	10	3	-3						
SODANKYLA	60.85	336.4	10	6	-2						
CHARTERS TS.	61.58	175.3	10	11	-1						
KIRUNA	62.33	338.6	10	16	-2						
NURMIJARVI	66.04	331.2	10	41	-1						
HELSINKI	66.16	330.8	10	41	-1						
UPPSALA	68.96	333.4	10	58	-2						
BUTTE	70.43	45.4	11	13	4						
SHIRAZ	70.52	292.6	11	8	-1						
EUREKA	72.71	52.4	11	22	0						
KRAKOW	75.35	326.0	11	38	0				11	53	PCP
RAPID CITY	76.62	42.2	11	45	0						
COLLMBERG	77.27	329.9	11	49	0						
PRUHONICE	77.73	328.3	11	52A	1						
STUTTGART	80.72	330.4	12	7	0						
FOLINIERE	84.02	336.0	12	25	1						
KARAPIRO	84.97	153.9	12	30	1				15	26	PP
ISOLA	85.41	329.2	12	31	0						
BREBEUF	87.61	24.1	12	42	0						
BYRD STATION	132.20	166.5	19	8	2						
HUANCAYO	136.16	58.6							17	50	

APRIL 25 14.H 53.M 54.S EPICENTRE 55.78-154.76 DEPTH= 0.KM

A=-0.51103 B=-0.24086 C= 0.82513 D=-0.4263 E= 0.9046
G=-0.7464 H=-0.3518 K=-0.5649 HT= -7.5

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
ALBERNI	19.24	97.2	4	28	0							
VICTORIA	20.42	97.7	4	29	-12							
PETROPAVLOVK	26.86	283.8	5	44A	0	10	34	15				
BUTTE	27.94	92.5	5	54	0							
RESOLUTE	29.44	27.9	6	6	-1							
EUREKA	30.31	106.1	6	15	0							
PASADENA	33.15	115.3	6	35	-5							
BOULDER CITY	33.49	109.3	6	43	0							
RAPID CITY	34.40	87.8	6	52	1						7	13
TIKSI	34.43	327.0	6	50A	-1							
THULE	35.91	23.7	7	2	-1							
YAKUTSK	37.42	311.3	7	16	0							
TUCSON TELE.	38.46	108.9	7	25	0							
TUCSON	38.47	109.1	7	26	1							
LAWRENCE	42.25	87.7	7	56	0							
KHEYS	42.60	352.5	8	1	2							
BREBEUF	49.63	65.8	8	53A	-2							
PALISADES	52.60	70.1				16	53	9			20	37 SS
IRKUTSK	54.18	311.9	9	26	-3							
ULAN-BATOR	56.26	306.8	9	44	0							
SODANKYLA	57.16	359.4	9	50	-1						10	50 PCP
NURMIJARVI	64.05	0.3	10	38	1							
SVERDLOVSK	64.14	339.3	10	38	0							
HELSINKI	64.40	0.1	10	40	0							
PULKOVO	64.73	357.2	10	41	-1							
RATHFARNHAM	68.23	19.7	11	4K	0							
MOSCOW	68.39	352.5	11	5	0							
JENA	73.05	9.0	11	34	1						12	9
PLAUEN	73.54	8.7	11	33	-3							
FOLINIERE	73.62	17.4	11	37	0							
PARIS	74.06	15.4	11	40	1							
PRUHONICE	74.23	7.1	11	40	0						14	32 PP
STUTTGART	74.97	10.9	11	44	0							
ISOLA	79.23	13.2	12	12	4						12	42
SHILLONG	81.27	303.0	12	19K	0							
CHATRA	82.36	307.3	12	27K	2							
QUETTA	87.27	324.8	12	51	2	23	33	4			16	15 PP
SHIRAZ	91.77	336.5	13	11	1							
BULAWAYO	144.32	354.6	19	38A	0						19	44 PKP2
SOUTH POLE	145.60	180.0	19	39	-1							

WINDHOEK 146.29 13.6 19 44 3

APRIL 25 16.H 28.M 35.S EPICENTRE 38.48 25.32 DEPTH= 0.KM

A= 0.70943 B= 0.33563 C= 0.61973 D= 0.4277 E=-0.9039
G= 0.5602 H= 0.2650 K=-0.7848 HT= -1.1

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	1.36	248.3									0	26	PG
SOFIA	4.47	340.9	2	11	60	3	1	56			3	23	SG
BUCHAREST	5.96	5.4	1	30	-2	2	41	-1			2	10	
TARANTO	6.55	290.1									2	50	
CAMPULUNG	6.78	358.3	2	3	19								
BELGRADE	7.30	331.6	2	23A	32	3	41	25			2	39	
REGGIO CALA.	7.61	270.1									3	1	
MESSINA	7.68	270.9	1	54	-2	3	18	-7			2	0	PP
TIMISOARA	7.87	338.6									4	21	
BACAU	8.16	7.7	2	9	6								
IASI	8.87	10.0	2	14	1								
KISHINEV	8.91	15.7	2	10	-3								
SIMFEROPOL	9.22	42.7	2	16	-2	3	52	-11					
KSARA	9.72	115.4	2	26	1	4	17	1					
HELWAN	9.93	148.2	2	26	-1						3	20	
BUDAPEST	10.10	334.9									6	18	
ROME	10.40	293.2									3	1	
JERUSALEM	10.51	126.6	2	36	1	4	36	1					
HURBANOVO	10.72	333.3									6	13	
LJUBLJANA	11.00	316.9	2	40	-2								
TRIESTE	11.18	313.5									5	22	
SKALNATE PL.	11.30	342.8	2	48	2								
LWOW	11.37	355.8	2	1	-46						6	29	
BRATISLAVA	11.37	331.0	2	45	-2								
TOLMEZZO	12.04	315.0	2	58	2	5	15	3			3	40	
PRUHONICE	13.83	329.7	3	19	-1						4	36	
MONACO	14.46	296.9	3	32	4								
RAVENSBURG	14.73	314.1	3	38	6								
ISOLA	14.85	298.3	3	35	2								
PLAUEN	15.21	326.3	3	41	3								
TIFLIS	15.25	71.6	3	46	7	6	54	25					
EBINGEN	15.31	314.5	3	38	-2								
TUBINGEN	15.45	315.7	3	47	6								
COLLMBERG	15.48	329.9	3	47	5	6	52	17			4	8	PP
STUTTGART	15.48	316.8	3	39	-3								
JENA	15.78	326.5	3	44	-2						4	59	
BASLE	15.79	310.6	4	1	15						9	32	
NEUCHATEL	15.93	308.2	3	49	1								
SETIF	16.01	268.0	3	46	-3						4	0	PP
HALLE	16.05	328.5				6	42	-6			4	55	
HEIDELBERG	16.15	317.9	3	54	4								
STRASBOURG	16.20	314.2	3	55	4								
BESANCON	16.63	308.0	3	54	-3								
BENSBERG	17.88	320.1	4	12	0								
DOURBES	18.77	314.9	4	24	1								
MOSCOW	19.13	21.6	4	25	-2								
UCCLE	19.26	316.5	4	27	-2	8	4	3					
PARIS	19.41	309.5	4	30	-1								
GOTEBORG	21.12	339.9	4	49	0								
FOLINIERE	21.22	307.3	4	48	-2								
PULKOVO	21.54	6.9	4	51	-2								
HELSINKI	21.71	359.5	4	53	-2								
UPPSALA	21.94	349.6	4	55	-2								
NURMIJARVI	22.05	359.1	4	57	-1								
KEW	22.17	314.2	5	14	14								
TOLEDO	22.77	282.8	5	5	-1	9	18	7					
GRANADA	22.84	275.8	4	40	-26								
TAMANRASSET	23.06	232.9	5	9	1	9	24	8			5	42	PP
SHIRAZ	24.13	103.2	5	21A	2	9	59	24					
DURHAM	24.41	320.6	5	24	2	9	50	11					
RATHFARNHAM	26.25	314.7	5	49	10								
SKALSTUGAN	26.32	346.8	5	38	-2								
SODANKYLA	28.95	1.0	6	2	-1								
APATITY	29.47	6.3	6	7	-1								
KIRUNA	29.52	356.2	6	7	-2								

CHATRA	52.48	83.4	9 18	1
THULE	53.81	343.0	9 24	-3
SHILLONG	56.76	82.2	9 47A	-2
BULAWAYO	58.39	176.4	10 0	0
RESOLUTE	60.50	344.7	10 12	-3
KIMBERLEY	66.89	180.5	10 56	-1

APRIL 26 21.H 27.M 14.S EPICENTRE 39.06 101.27 DEPTH= 0.KM

A=-0.1524 B= 0.76353 C= 0.62759 D= 0.9807 E= 0.1954
G=-0.1223 H= 0.6155 K=-0.7785 HT= -1.3

SE= 2.05

	DELTA D G.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP M S
PAOTOW	6.91	74.6	1 48	2				
CHENGTU	8.68	164.2	2 44	34				
ULAN-BATOR	9.75	22.9	2 25	0				
PEKING	11.55	80.5	2 54	4	5 9	8		
LHASA	12.63	225.0	3 9	5				
KUNMING	13.96	174.5	3 20	-2				
SHILLONG	15.61	213.2	3 39	-4				
CHATRA	16.37	228.2	4 3A	2				
ZO-SE	18.11	109.9	4 16	1				
CHITTAGONG	18.50	208.6	4 20	0	7 49	5	4 37 PP	
CHANGCHUN	18.62	67.4	4 23	2				
ALMATA	18.76	290.8	4 2	-21				
HONG KONG	20.02	142.8	4 34	-4	8 16	-2		
ANDIJAN	22.19	283.6	5 4	4	9 8	8		
NAMANGAN	22.70	284.3	5 7	2				
WARSAK DAM	24.35	267.3	5 24	3				
YAKUTSK	28.81	27.8			10 40	-12		
MATUSIRO	29.17	83.2					15 22	
QUETTA	29.46	263.1	6 8	0				
SVERDLOVSK	31.90	317.3	6 31	1				
TIKSI	35.51	14.6	6 59	-2				
SHIRAZ	40.91	272.0	7 48	2				
KHEYS	44.59	350.8	8 17	1				
SODANKYLA	48.81	330.3	8 49	0				
HELSINKI	50.53	321.0	9 2	0				
NURMIJARVI	50.61	321.5	9 2	-1				
KIRUNA	51.12	321.2	9 5	-2				
KSARA	51.86	285.8	9 15	2				
JERUSALEM	53.27	283.8	9 24	1				
UPPSALA	54.18	321.8	9 29	-1				
SKALSTUGAN	55.15	327.1	9 38	-1				
HELWAN	57.12	283.7	9 50	-1				
PRUHONICE	59.47	311.6	10 8A	0				
JENA	60.75	313.5	10 15	-1				
STUTTGART	63.08	312.1	10 31	-1				
COLLEGE	63.33	26.5	10 32	-2				
THULE	64.60	357.3	10 39	-3				
RESOLUTE	66.03	4.6	10 50	-1				
ISOLA	66.76	308.7	10 54	-2				
PARIS	66.90	314.7	10 57	0				
MUNDARING	72.02	166.7	11 26	-2				
SETIF	72.46	302.4	11 28	-2				
LWIRO	77.89	257.0	12 2	0				
TAMANRASSET	80.23	291.3	12 15A	1				
BROKEN HILL	86.13	248.1	12 46A	1				
BULAWAYO	89.82	243.8	13 1	-1				
BYRD STATION	136.12	170.5	19 24	0				
HUANCAYO	152.93	352.7	20 2K	10				
LA PAZ	155.68	334.6	19 58	2				

APRIL 27 21.H 6.M 0.S EPICENTRE 39.72 142.57 DEPTH= 70 KM

A=-0.61248 B= 0.46883 C= 0.63645 D= 0.6078 E= 0.7941
G=-0.5054 H= 0.3868 K=-0.7713 HT= -1.6

DEPTH OF FOCUS= 0.006R

SE= 4.46

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S	O-C S	*PP M S	SUPP. M S
MIYAKO	0.47	261.9	0 13A	-2	0 27	1		
MORIOKA	1.08	269.5	0 22	1	0 45	9		
HATINOHE	1.14	315.9	0 20A	-1	0 43	6		
MIZUSAWA	1.26	242.7	0 24	1	0 50	10		
ISINOMA	1.61	217.5	0 26A	-2	0 55	7		
AOMORI	1.76	309.4	0 35	5	0 59	9		
AKITA	1.90	270.9	0 33	1	1 6			
YAMAGATA	2.27	230.4	0 34	-3	1 17	13		
SAKATA	2.28	249.8	0 41	4	1 26	22		
URAKAWA	2.4'	3.7	0 3.	-6	1 3	-5		
HAKODATE	2.50	327.3	0 39	-1	1 12	2		
HUKUSIM	2.56	220.5	0 39K	-2	1 29	18		
HIROO	2.62	12.3	0 42	0				
MURORAN	2.86	1[illegible]7	0 50	5	1 23	4		
TOMAKOMA	3.00	[illegible]0	0 56	9	1 31	9		1 20
ONAHAMA	3.06	205.9	0 52	4	1 43	20		
SHIRAKAWA	3.18	216.2	0 53	4	1 48	21		
OBIHIRO	3.24	8.3	0 53	3				
NIIGATA	3.28	238.0	1 15	24	1 54	27		
SAPPORO	3.47	345.1	0 53		1 46	12		
KUSIRO	3.54	22.3	0 43	-11	1 21	-14		
SUTTSU	3.55	311.0	1 10	16				1 58
MITO	3.72	2[illegible]1	0 54K	-3	1 48	8		
AIKAWA	3.77	24[illegible]7	1 0					
UTUNOMIYA	3.81	21[illegible]8	0 57	1	1 41	-1		2 3
KAKIOKA	3.96	209.2	0 59	-1	2 9	23		
TUKUBASAN	4.00	210.0	0 57K	-4				
ASAHIGAWA	4.06	358.0	1 10	8				1 43
TYOSI	4.22	199.4	0 59	-5	2 3	11		
NEMURO	4.26	31.1	0 50A	-14	1 33	-20		
TAKADA	4.28	233.7	1 7	2				
MAEBASI	4.31	220.9	1 6	1	2 9	14		
KUMAGAYA	4.36	216.3	1 2	-4	2 6	10		
ABASHIRI	4.49	16.0	0 58	-10	1 47	-12		
NAGANO	4.59	229.9	1 11	2	2 20	18		
TOKYO 0.	4.61	22[illegible]9	11 22	-77	1 59	-3		
OIWAKE	4.64	224.4	1 11	1				
MATUS[illegible]	4.68	228.7	1 10[illegible]	0	2 12	8		
YOKOHAMA	4.87	209.3	1 37	24	2 38	29		
MATUMOTO	5.02	227.8	1 26	11				
KOHU	5.14	219.4	1 21	4	2 38	23		
HUNATU	5.18	216.8	1 19	2	2 27	11		
MERA	5.26	205.3						2 24
IIDA	5.63	223.4						2 26
S. IZUOKA	5.79	216.3						2 39
OMAESAKI	6.17	215.5						2 58
GIHU	6.31	228.7	1 40	7	2 58			
NAGOYA	6.36	226.2	1 47	14	3 18	33		
KAMEYAMA	6.87	226.9						2 3
Y.-SAKHLINSK	7.30	0.8	1 51	4				
ABUYAMA	7.38	231.2	1 48A	0				
OSAKA	7.56	230.2						4 32
YAKUTSK	23.67	344.9	5 3	-				
ULAN-BATOR	26.82	299.6	5 26	-10				
SHILLONG	44.40	267.3	8 5	-1				
COLLEGE	46.35	33.6	8 20	-1				
CHATRA	47.38	271.8	8 31K	2				
KHEYS	50.21	347.7	8 49	-2				
SVERDLOVSK	53.76	317.6	9 17	-1				
RESOLUTE	59.78	15.0	9 54	-6				
APSHITY	60.63	335.4	10 3	-3				
QUETTA	61.04	286.5	10 10	1				
SODANKYLA	62.85	337.0	10 19	-2				
CORVALLIS	66.08	51.2	10 48	6				
NURMIJARVI	68.01	331.9	10 52	-2				
SHASTA	68.78	54.3	11 4	5				
MINERAL	69.48	54.3	11 8A	5				
LICK	71.20	.9	11 19A	5				
SHIRAZ	71.78	2[illegible].6	11 17	0				15 23
EUREKA	73.48	52.3	11 23	-4				
PASADENA	75.36	57.8	11 33	-[illegible]				
RAPID CITY	77.70	42.3	11 57	[illegible]				
COLLMBERG	[illegible]9 [illegible]3	330.5	11 59	0				12 8 PCP
PRUHONICE	79.6[illegible]	328.9	12 1	-1				12 11 PCP
STUTTGART	82 [illegible]8	331.0	12 33	15				

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APRIL 27 22.H 43.M 48.S EPICENTRE 17.28 [illegible]9.94 DEPTH= 0.KM

A=-0.47680 E= 0.82795 C= 0.29522 D= 0.8666 E= 0.4990
G=-0.1473 H= 0.2553 K=-0.9554 HT= 5.3

SE= 3.[illegible]

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP M
MANILA	2.82	156.9	0 40	-7	1 15	-8		
HONG KONG	7.38	313.5	1 47	-5	3 0	-17		
CANTON	8.47	314.1	1 52	-15				
NHATRANG	11.53	245.6	2 48K	-1	4	-6		
ZO-SE	13.81	4.5	3 [illegible]	7				
KUNMING	17.82	298.9	4 14	3	[illegible] 38			
SIAN	19.57	331.8	4 [illegible]4A	2				
CHENGTU	19.70	315.4	4 33	-1	8 12	1		
PEKING	22.90	352.6	5 9	2	9 17	4		
LANCHOW	23.53	325.7	5 16	3	9	5		
MATUSIRO	25.09	36.6	[illegible]7	-1	9 49	-2	[illegible] 16	
CHANGCHUN	26.85	8.6	46	2				
LEMBANG	26.87	207.9	5 55	10				
CHITTAGONG	26.91	285.4	5 48	3	10 26	5	[illegible]5 PF	
SHILLONG	27.36	292.4	5 45	-4				
LHASA	29.14	300.2	6 7	2				
CHATRA	31.74	293.2	6 27K	1				
LAHORE	33.58	297.8	8 8	0				
CHARTERS TS.	35.24	144.1	8 22	1			10	
MUNDARING	40.10	184.2	8 5[illegible]	0				
QUETTA	49.78	295.[illegible]	8 57	0	6 1	-5	10 54	PP
BRISBANE	54.64	143.8	9 34	1				
ADELAIDE	54.94	161.2	9 36A	1				
RIVERVIEW	8.90	149.7	10 5	2				
CANBERRA	13	152.4	10 6A	1				
SHIRAZ	62.31	[illegible]4.8	10 25	2			10 49	
COLLEGE	75.46	26.2	11 46	-2				
SODANKYLA	7[illegible] 47	336.5	11 46				12 2	
KARAPIRO	7[illegible].75	137.7	11 52				12 14	
CHATEAU	76.49	138.7	11 [illegible]4					
WELLINGTON	77.25	140.8	11 11	-				
HELSINKI	77.69	329.3	11 58					
KIRUNA	77.69	337.5	11 59					
NURMIJARVI	77.70	329.7	11 58	-2			12 12	
HELWAN	80.42	298.3	12 14	-1				
UPPSALA	[illegible].25	330.[illegible]	12 18	-2			12 30	
SKALSTUGAN	[illegible]2.28	334.[illegible]	12 2[illegible]	2				
KRAKOW	83.19	320.[illegible]	12 29	-1			12 40	PCP
GOTEBORG	[illegible]4.78	329.[illegible]	12 42	4				
TERRE ADELIE	85.36	171.[illegible]	12 39	-2				
BRATISLAVA	85.57	319.[illegible]	12 40	-2				
RESOLUTE	85.64	8.[illegible]	12 40	-2				
THULE	86.36	1.[illegible]	12 4[illegible]	-4				
PRUHONICE	86.46	321.4	12 46	0			13 32	
COLLMBERG	86.84	323.[illegible]	12 47	-1			13 19	
HALLE	87.36	323.5	12 50					
JENA	87.81	323.[illegible]	13 5					
BYRD STATION	112.05	170.[illegible]	18 45					
HUAN YO	164.34	72.[illegible]	20 11K				21 3	PKP2

APRIL 28 2.H 10.M 12.S EPICENTRE -59.79 -26.79 DEPTH= 0.KM

A= 0.45344 E=-0.[illegible]2399 C=-0.86268 D=-0.4429 E=-0.8966
G=-0.7735 H= 0.[illegible]821 K=-0.5057 HT= -8.8

SE= 1.55

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ARGENTINE I.	18.13	236.3	4 16	1				
PORT STANLEY	19.37	280.7	4 31	1				
SOUTH POLE	30.38	180.0	16	0				7 41 PP
BYRD STATION	32.33	199.0	6 34	0				
GRAHAMSTOWN	43.34	76.6	8 P	2				

KIMBERLEY	46.22	71.1	8	29K	0						
MIRNY	46.25	151.1	8	32	3	15	4	-12			
CAPE HALLETT	47.69	186.7	8	41K	0	15	43	6	19	48	SS
WINDHOEK	48.02	58.7	8	43	0						
WILKES	50.17	156.9				16	12	1	19	41	SS
LA PAZ	52.77	306.5	9	20A	1	16	59	12	11	22	PP
TERRE ADELIE	53.37	174.0	9	23	-1						
BULAWAYO	55.35	69.1	9	37A	-1						
HUANCAYO	59.78	301.3							16	26	
BROKEN HILL	60.22	65.7	10	12A	-1						
TANANARIVE	65.71	86.0	10	53	4						
LWIRO	71.16	60.0	11	24A	1						
MBOUR	74.29	9.4	11	41	0						
BOGOTA	74.35	309.9				21	25	9	21	59	PS
CHATEAU	79.73	197.1	12	10	-2						
KARAPIRO	80.98	197.3	12	17	-1						
MUNDARING	83.48	148.6	12	29	-2						
SAN JUAN	84.35	322.3	12	33	-3						
CANBERRA	85.16	176.1	12	39	-1						
TAMANRASSET	86.30	29.2	12	46A	1				16	6	PP
PALISADES	107.81	324.3							28	8	PS
QUETTA	117.14	76.3	18	48	0						
EUREKA	122.96	292.7	18	58	-1						
UPPSALA	124.11	25.0	18	58	-3						
HELSINKI	126.08	28.8	19	3	-2						
NURMIJARVI	126.30	28.5	19	3	-2						
BUTTE	126.58	300.0							21	13	PP
SCORESBY SD.	130.01	1.9	19	12	0				22	31	PKS
KIRUNA	131.80	21.8	19	14	-2						
SODANKYLA	132.64	24.8	19	15	-2				22	40	SKP
APATITY	134.31	27.6	19	13	-8						
THULE	138.54	346.2	19	26	-2				22	56	PP
RESOLUTE	141.50	336.6	19	24	-10				23	5	
KHEYS	147.44	17.7	19	45	1						
COLLEGE	153.25	306.0	19	49	-4				20	10	
MATUSRO	154.67	149.8	20	3	8						

APRIL 28 16.H 33.M 18.S EPICENTRE 34.25 26.4 DEPTH= 0.KM
A= 0.74148 B= 0.36936 C= 0.56017 D= 0.4459 E=-0.8951
G= 0.5014 H= 0.2493 K=-0.8284 HT= 0.4

SE= 2 93

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP S	SUPP. M	SUPP. S	
ATHENS	4.34	329.8	1	17K	9	2	7	7				
HELWAN	6.00	135.3	1	33	1	2	36	-6				
ISTANBUL KA.	7.11	16.0	1	47	-1							
JERUSALEM	7.74	106.1	1	55	-1	3	18	-8				
KSARA	7.82	90.5	1	57	0	3	21	-7		2	8	PP
SOFIA	8.79	344.6	2	13	2							
MESSINA	9.67	297.2								4	3	
BUCHAREST	10.16	358.5				5	54	88		5	3	
SIMFEROPOL	12.20	26.5	3	5	7							
KISHINEV	12.88	7.2	3	15	8							
ROME	13.41	308.8								5	2	
LJUBLJANA	14.90	325.9	3	36	3							
LWOW	15.67	354.1	3	50	7							
TIFLIS	16.24	57.3	3	53	2	7	1	9				
KRAKOW	16.51	345.0	3	54	0					4	12	PP
SETIF	17.33	282.5	4	8	3					4	21	PP
CHUR	17.96	319.5	4	14	2							
ISOLA	17.99	309.2	4	14	1							
PRUHONICE	18.00	334.4	4	10A	-3					4	36	
MAKHACH-KALA	18.56	55.8	4	22	2	7	52	7				
EBINGEN	19.10	322.0	4	25	-1							
TUBINGEN	19.28	323.0	4	28	0							
PLAUEN	19.32	331.5	4	23	-6							
STUTTGART	19.34	323.8	4	28	-1					5	0	
BASLE	19.43	318.7	4	44	14							
NEUCHATEL	19.48	316.7	4	30	-1							
JENA	19.89	331.4	4	32	-3					5	0	
STRASBOURG	19.97	321.4	4	36	0					5	5	PP
HEIDELBERG	20.03	324.4	4	35	-2							
BESANCON	20.17	316.2	4	40	1							

HALLE	20.20	333.0	4 38	-1					4 59	PP
TAMANRASSET	21.63	243.6	4 56	3	9	2	13		5 22	PP
MUNSTER	22.32	328.2	4 58	-2						
SHIRAZ	22.54	94.5	5 5K	2	9	10	4			
DOURBES	22.54	321.2	5 3	0	8	59	-7			
MOSCOW	22.83	16.4	5 3	-2						
FOLINIERE	24.70	314.1	5 24	0						
HELSINKI	25.95	358.3	5 34	-2						
UPPSALA	26.27	349.9	5 37	-1					6 6	
NURMIJARVI	26.30	358.0	5 36	-3					6 14	PP
DURHAM	28.34	325.0	6 1A	4						
RATHFARNHAM	29.98	319.5							6 59	
SKALSTUGAN	30.66	347.6	6 15	-3						
SVERDLOVSK	32.35	35.2	6 34	1						
SODANKYLA	33.17	0.1	6 38	-2						
APATITY	33.59	4.8	6 41A	-3						
KIRUNA	33.81	355.9	6 43	-3					9 25	
SCORESBY SD.	44.57	339.0	8 16	1						
KHEYS	48.06	6.6	8 41	-2						
NORD	49.99	352.5	8 55A	-3						
CHATRA	52.13	80.8	9 13A	-1						
THULE	58.13	343.9	9 55	-2						
ULAN-BATOR	59.52	50.3							11 25	
RESOLUTE	64.83	345.5	10 40	-3						
HALIFAX	66.96	309.1	10 56	0						
BREBEUF	72.78	313.5	11 33K	1						
COLLEGE	81.11	357.5	12 18	0						
MATUSIRO	85.12	48.7	12 39	0						
SOUTH POLE	124.07	180.0	19 2	2						
CHARTERS TS.	125.31	91.5	19 6	3						

APRIL 29 2.H 15.M 38.S EPICENTRE -56.33 -26.78 DEPTH= 0.KM

A= 0.49727 B=-0.25098 C=-0.83050 D=-0.4506 E=-0.8927
G=-0.7414 H= 0.3742 K=-0.5570 HT= -7.7

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	
PORT STANLEY	18.75	271.2	4	23	0								
ARGENTINE I.	20.05	228.4	4	34	-4								
BYRD STATION	35.60	197.4	7	8	7	12	56	18					
GRAHAMSTOWN	42.91	80.7	8	1	-1								
KIMBERLEY	45.46	74.8	8	25	2								
WINDHOEK	46.53	62.0	8	34	3								
PIETERMZBURG	47.84	80.8	8	43	1								
PRETORIA	49.67	75.6	9	28	32								
LA PAZ	50.54	304.8	9	4K	2	16	8	-8			11	4	PP
BULAWAYO	54.44	71.9	9	32A	0								
TERRE ADELIE	56.85	174.4									14	22	
HUANCAYO	57.79	299.9	9	55	-1						10	23	
BROKEN HILL	59.10	68.1	10	6A	1								
LWIRO	69.70	61.5	12	16	62						32	58	
MBOUR	70.92	10.1	11	24	3	20	32	-5					
BOGOTA	71.93	309.6	11	26	-1	20	34	-14			21	28	PS
CHINCHINA	72.92	308.3	11	29	-4								
GRENADA	74.08	324.4	11	39A	-1								
GALERAZAMBA	77.97	311.2	12	4	2								
ST. KITTS	79.36	325.2	12	7	-2								
SAN JUAN	81.44	322.5	12	18	-3						12	39	
MUNDARING	86.59	149.2	12	41	-6								
SHIRAZ	108.59	64.5									18	58	PP
BREBEUF	108.81	327.2	19	1A	777								
DURHAM	112.63	15.5									19	52	PP
TUCSON	113.09	293.6	18	37	-3								
SIMFEROPOL	113.10	42.4									25	9	
QUETTA	116.54	75.0	18	45	-1						22	6	
BOULDER CITY	118.06	293.3	18	48	-1								
EUREKA	121.32	295.1	18	52	-4						28	54	PKKP
LICK	122.63	289.4	18	56K	-2								
HELSINKI	123.15	27.9	18	56	-3								
MOSCOW	123.28	37.6									20	37	
RENO	123.32	292.5	18	58A	-1								
NURMIJARVI	123.36	27.6	18	56	-3						22	18	SKP
MINERAL	124.85	291.9	19	0A	-2						19	43	

CHATRA	125.11	93.6	19	0	-3							
SCORESBY SD.	126.56	2.0	19	5	-1					22	25	PKS
KIRUNA	128.66	20.9	19	7	-3							
SODANKYLA	129.59	23.8	19	8	-3					22	17	SKP
SVERDLOVSK	132.84	48.5	19	16	-2							
THULE	135.11	347.2	19	7	-15					22	34	PP
RESOLUTE	138.20	338.3	19	13	-14					22	44	
KHEYS	144.20	16.2	19	36	-2							
ULAN-BATOR	150.95	86.9	19	50	1							
COLLEGE	150.88	311.2	19	41	-8							
MATUSIRO	157.76	146.6	19	55	-3					21	4	

APRIL 29 9.H 53.M 29.S EPICENTRE 0.02 121.78 DEPTH= 0.KM

A=-0.52665 B= 0.85008 C= 0.00027 D= 0.8501 E= 0.5266
G=-0.0001 H= 0.0002 K=-1.0000 HT= 7.2

SE= 2.68

	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	14.58	357.3	3	33	3	6	28	15				
LEMBANG	15.68	244.0	3	50A	6	6	57	18				
DJAKARTA	16.14	247.3	3	52K	2	6	59	9				
BAGUIO CITY	16.34	355.9	4	57	65							
NHATRANG	17.40	314.6	4	7	1	7	28	9				
MEDAN	23.35	279.0	5	11A	0	9	24	3				
HONG KONG	23.36	342.0	5	13	2	8	51	-30				
GUAM	26.38	58.7	5	41	1							
PORT MORESBY	26.93	111.0	5	46	1	10	46	25				
RABAUL	30.65	98.2	6	19	1							
ZO-SE	30.92	359.0	6	22	1	11	27	2				
KUNMING	31.01	325.0	6	21	0							
WUHAN	31.11	347.9	6	23	1							
CHARTERS TS.	31.21	131.3	6	23	0							
NANKING	32.00	355.2	6	32A	2	11	42	0				
MUNDARING	32.25	188.9	6	28	-4							
CHENGTU	34.84	332.6	6	54	-1	12	21	-5				
CHITTAGONG	36.67	309.3	7	10	0	12	56	2			8	35 PP
ADELAIDE	38.24	157.3	7	23K	0							
SHILLONG	38.46	313.6	7	22A	-3							
MATUSIRO	39.41	21.0	7	32A	-1	13	48	12			8	53
LANCHOW	39.55	336.9	7	36A	2							
PEKING	40.15	353.3	7	40	1							
BRISBANE	40.36	135.0	7	43	2							
LHASA	41.55	317.9	7	52A	1	14	8	0				
CHATRA	42.64	311.5	8	0A	0	14	19	-5				
CANBERRA	43.36	147.0	8	6	0							
RIVERVIEW	43.51	143.6				14	35	-1				
ULAN-BATOR	49.44	346.9	9	4	10							
WARSAK DAM	57.89	311.1	9	55	-1							
QUETTA	60.07	305.2	10	8A	-3	18	20	-4			12	27 PP
ANDIJAN	60.36	318.4	10	13A	0						15	3
YAKUTSK	62.14	4.2	10	23	-2							
KARAPIRO	62.14	133.8	10	25	0						11	4
CHATEAU	62.67	135.1	10	29	0							
TERRE ADELIE	68.12	171.8	11	9	5							
TIKSI	71.64	2.4	11	23A	-2							
SHIRAZ	72.04	301.2	11	25K	-3							
TANANARIVE	75.10	250.5	11	44	-2							
TIFLIS	80.28	312.3	12	14	0							
COLLEGE	90.16	25.3	13	1	-2							
SODANKYLA	91.98	337.3	13	9	-3							
BULAWAYO	92.98	250.0	13	13A	-3							
BYRD STATION	94.82	171.2	13	24	-1							
TAMANRASSET	114.09	295.0	18	33	-8							
EUREKA	114.38	45.9	18	42	0							
HUANCAYO	159.23	125.7	20	43	43							
SAN JUAN	160.14	22.6	20	42	41							
LA PAZ	160.93	149.7	20	4	2						25	32 PP

APRIL 29 10.H 6.M 15.S EPICENTRE -0.07 121.48 DEPTH= 0.KM

A=-0.52221 B= 0.85282 C=-0.00118 D= 0.8528 E= 0.5222

G= 0.0006 H=-0.0010 K=-1.0000 HT= 7.2

SE= 3.05

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	14.65	358.5	3 7	-24	5 49	-26		
LEMBANG	15.37	243.8	3 42A	2	6 50	18		
DJAKARTA	15.83	247.2	3 46A	0	6 46	3		
BAGUIO CITY	16.41	356.9	3 55	1				
NHATRANG	17.24	315.5	4 5	1	7 25	10		
MEDAN	23.07	279.3	5 11	2	9 24	8		
HONG KONG	23.35	342.7	5 13	2	8 55	-26		
CANTON	24.34	341.6	5 23A	2				
PORT MORESBY	27.18	110.7	5 46	-1	10 38	13		
KUNMING	30.91	325.5	6 23A	2	11 31	6		
RABAUL	30.93	98.0	6 19	-2				7 11
ZO-SE	31.00	359.5	6 23	1				
WUHAN	31.13	348.4	6 24	1				
CHARTERS TS.	31.38	130.8	6 34	9				
NANKING	32.06	355.7	6 32	1				
MUNDARING	32.12	188.4	6 28	-4				
CHENGTU	34.78	333.0	6 55A	0	12 25	0		
CHITTAGONG	36.49	309.6	7 10A	1	12 54	2		8 33 PP
ADELAIDE	38.28	156.9	7 24	0				
SHILLONG	38.30	313.9	7 23A	-1				
LANCHOW	39.51	337.3	7 36A	2				
MATUSIRO	39.59	21.3	7 32A	-3	13 29	-10		9 4 PP
PEKING	40.20	353.7	7 40A	0				
BRISBANE	40.51	134.7	7 46	3				
LHASA	41.41	318.2	7 52A	2	14 6	0		
CHATRA	42.48	311.8	8 0	1	14 21	-1		
MELBOURNE	43.37	152.6	8 13	7				
CANBERRA	43.45	146.7	8 7	0				
CHANGCHUN	43.84	4.0	8 7	-3				
NOUMEA	49.03	119.9	8 48	-3				
ULAN-BATOR	49.45	347.1	8 53	-1				
DEHRA DUN	51.14	310.2	9 28	21	16 22	-2		
BOMBAY	51.32	294.4	9 9	1	16 27	0		16 45 PPS
WARSAK DAM	57.72	311.2	9 52	-3				
ALMATA	58.07	323.2	10 3	1	18 11	5		
QUETTA	59.88	305.4	10 8A	-2	18 15	-6		12 24 PP
ANDIJAN	60.23	318.6	10 13A	0	18 31	5		
NAMANGAN	60.80	318.5	10 17K	0				
KARAPIRO	62.30	133.7	10 25	-2				
CHATEAU	62.82	135.0	10 40	10				
TERRE ADELIE	68.08	171.6	10 58	-6				
SHIRAZ	71.82	301.2	11 25K	-2				
SVERDLOVSK	74.53	330.1	11 41	-2				
TANANARIVE	74.79	250.5	11 43	-1				12 3
TIFLIS	80.11	312.3	12 14	0				
KHEYS	85.86	351.5	12 42	-1				
KSARA	86.38	303.7	12 45	-1	23 29	8		16 9 PP
MOSCOW	86.58	325.7	12 44	-3				
JERUSALEM	86.85	301.7	12 48	0				
SIMFEROPOL	88.17	314.8			23 33	-5		
APATITY	89.31	337.4	13 9	9				
SOUTH POLE	89.93	180.0	13 3	0				
COLLEGE	90.36	25.3	13 1	-4				
SODANKYLA	91.94	337.3	13 11	-1				
BULAWAYO	92.67	250.0	13 13	-2				
BROKEN HILL	92.90	255.6	13 15	-1				
BYRD STATION	94.78	171.2	13 24	-1				
COLLMBERG	101.53	322.6	18 4	777				13 54 PKP2
STUTTGART	104.53	320.7	18 11	777				
TAMANRASSET	113.86	294.9	18 41	0				19 35
EUREKA	114.65	45.9	18 42	-1				29 31 PKKP
HUANCAYO	159.42	126.4	20 8	7				20 56 PKP2
SAN JUAN	160.33	21.9	20 42	40				
LA PAZ	161.00	150.5	20 6	4				

APRIL 29 13.H 33.M 18.S EPICENTRE -0.05 121.75 DEPTH= 0.KM

A=-0.52627 B= 0.85032 C=-0.00085 D= 0.8503 E= 0.5263
G= 0.0004 H=-0.0007 K=-1.0000 HT= 7.2

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	
MANILA	14.64	357.4	3	34	3	6	16	1					
LEMBANG	15.63	244.2	3	50A	7	7	0	22					
DJAKARTA	16.09	247.5	3	58	8	7	10	21					
BAGUIO CITY	16.41	356.0	3	57	4	7	8	12					
NHATRANG	17.42	314.8	4	6	0	7	27	8					
HONG KONG	23.41	342.1	5	13A	1	9	27	5					
CANTON	24.41	341.0	5	24A	3								
GUAM	26.44	58.6	5	43	2								
PORT MORESBY	26.93	110.9	5	47	2	10	22	1			10	55	
RABAUL	30.67	98.1	6	20	1						7	5	
ZO-SE	30.98	359.0	6	22A	1	11	25	-1					
KUNMING	31.05	325.1	6	23A	1	11	28	1					
PORT BLAIR	31.09	293.0	6	20	-2						11	20	
WUHAN	31.17	348.0	6	26	3								
CHARTERS TS.	31.18	131.2	6	24	1						7	16	
MUNDARING	32.18	188.9	6	29K	-3								
CHENGTU	34.89	332.7	6	56A	1	12	25	-2					
SIAN	36.18	341.8	7	8	2								
CHITTAGONG	36.69	309.4	7	11A	0	12	52	-3			8	34	PP
ADELAIDE	38.19	157.2	7	24K	1						8	53	
SHILLONG	38.49	313.7	7	23A	-3								
MATUSIRO	39.48	21.0	7	33A	-1	13	37	0			9	6	PP
LANCHOW	39.60	337.0	7	37A	2								
PEKING	40.21	353.4	7	41A	1	13	46	-2					
BRISBANE	40.33	134.9	7	42	1						9	15	
LHASA	41.58	317.9	7	53A	2	14	7	-1					
PAOTOW	41.82	346.6	7	54	1								
CHATRA	42.67	311.6	8	2	2	14	18	-6					
MADRAS	43.20	289.1	8	4	-1	14	37	5			9	48	PP
MELBOURNE	43.26	152.9	8	6K	1						9	45	PP
CANBERRA	43.32	146.9	8	6K	0						9	47	PCP
RIVERVIEW	43.47	143.6	8	8K	1	14	35	-1			9	48	PP
CHANGCHUN	43.80	3.7	8	9A	-1								
ULAN-BATOR	49.49	346.9	8	55	1								
AGRA	49.94	306.4	8	53A	-5	16	1	-7			10	53	PP
POONA	50.52	294.2	9	1	-1								
DEHRA DUN	51.34	310.1	9	15	6						16	43	
BOMBAY	51.56	294.3	9	10	0	16	28	-2			16	44	PPS
IRKUTSK	54.15	346.9	9	29A	0								
LAHORE	54.75	309.7	9	32	-2	17	8	-6					
WARSAK DAM	57.91	311.1	9	54	-2								
KARACHI	58.36	299.4	9	57A	-3								
ALMATA	58.82	323.0	10	4A	1	18	10	2					
QUETTA	60.09	305.3	10	9A	-3	18	17	-7			11	23	PP
ANDIJAN	60.39	318.4	10	13A	-1	18	30	2					
NAMANGAN	60.97	318.4	10	17K	-1	18	38	3					
YAKUTSK	62.20	4.2	10	24	-2	18	45	-6					
WILKES	66.65	184.9				19	40	-6					
AFIAMALU	67.17	105.0	11	0	2								
TERRE ADELIE	68.06	171.8	10	59	-5								
TIKSI	71.71	2.4	11	23	-3	20	48	2					
SHIRAZ	72.05	301.2	11	20	-8	20	42	-8					
TEHERAN	74.16	307.2	11	38	-2	21	6	-8					
SVERDLOVSK	74.65	330.1	11	42	-1								
TANANARIVE	75.05	250.5	11	44A	-2						12	6	
TIFLIS	80.30	312.3	12	14A	-1	22	18	-2					
KHEYS	85.88	351.5	12	43	0	23	11	-5					
KSARA	86.59	303.7	12	46	-1	23	26	3			16	6	PP
MOSCOW	86.72	325.7	12	46	-1								
JERUSALEM	87.07	301.7	12	53	4								
SIMFEROPOL	88.35	314.8	13	3	8								
APATITY	89.40	337.4	12	57	-3						24	23	PS
SOUTH POLE	89.95	180.0	13	2	-1						13	16	
COLLEGE	90.23	25.3	13	2	-2								
SODANKYLA	92.03	337.3	13	10	-2								
BULAWAYO	92.94	250.0	13	14A	-3								
BROKEN HILL	93.17	255.6	13	16A	-2								
KIRUNA	94.32	338.1	13	22	-1								
BYRD STATION	94.76	171.2	13	25	0								
SKALSTUGAN	98.62	334.7									17	45	PP
PRUHONICE	101.05	321.1	13	53	0						18	0	PP
STUTTGART	104.69	320.8	14	7	-3						18	26	PP
TAMANRASSET	114.10	294.9	18	43	1						19	34	PP
HUANCAYO	159.21	125.9	18	37	-83						19	3	
LA PAZ	160.88	149.8	20	7	5								

APRIL 29 13.H 38.M 27.S EPICENTRE -30.99-178.48 DEPTH= 0.KM

A=-0.85848 B=-0.02282 C=-0.51234 D=-0.0266 E= 0.9996
G= 0.5122 H= 0.0136 K=-0.8588 HI= 1.5

SE= 2.63

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ONERAHI	7.65	229.5	2	2	6						3	45	
KARAPIRO	8.50	213.9	1	37	-31	4	7	21					
CHATEAU	9.54	209.2	2	19	-3	4	12	1			4	4	
TONGARIRO	9.55	209.3									3	58	
WELLINGTON	11.62	206.1	2	46	-5	4	47	-15			5	48	
COBB RIVER	12.32	212.8	2	56	-4	5	7	-12			3	55	
KAIMATA	14.06	212.3	3	28	5	5	48	-13					
GEBBIES PASS	14.50	206.5	3	26	-3	5	52	-20					
NOUMEA	16.00	299.1	3	41	-8	7	15	28					
BRISBANE	25.32	270.9	5	32	2	9	57	2					
RIVERVIEW	25.75	255.6	5	37A	3	10	4	2					
CANBERRA	27.50	252.2	5	53	3						12	57	PCS
MELBOURNE	30.78	247.2	6	22K	2								
CHARTERS TS.	33.49	280.4	6	47	3	12	8	3					
ADELAIDE	35.93	252.0	7	6	2								
CAPE HALLETT	41.82	185.2	6	53	-60	14	13	1			7	51	PCP
SCOTT BASE	47.42	184.2	7	13	-85								
BYRD STATION	54.43	169.4	9	30	-2								
HAWAII V.OB.	54.87	27.0	9	34	-1								
MUNDARING	54.91	250.7	9	33	-2								
HONOLULU	55.55	23.2	9	39	-1								
KIPAPA	55.69	23.2	9	38	-3								
SOUTH POLE	59.18	180.0	10	5	-1								
MANILA	73.68	298.7	11	36	-2								
MATUSIRO	78.49	325.7	12	3	-2								
NHATRANG	81.53	289.7	12	20	-1								
PORT STANLEY	82.59	147.3	12	28	1								
PASADENA	86.19	46.2	12	45	0						12	59	
LICK	86.27	42.0	12	45A	0								
BERKELEY	86.29	41.2	12	46K	1	23	25	5					
UKIAH	86.64	39.8	12	49	2						13	13	
FRESNO	86.95	43.4	12	50	1								
SHASTA	88.20	39.1	12	55	0								
MINERAL	88.38	39.8	12	56K	0								
RENO	88.83	41.3	12	59K	1								
BOULDER CITY	89.45	46.6	13	2	1						13	42	
TUCSON	89.73	51.6	13	2	0						13	46	
TUCSON TELE.	89.86	51.6	13	2	-1						13	20	
CORVALLIS	90.45	35.9	13	6	1								
EUREKA	91.01	43.4	13	7	-1						30	30	PKKP
SALT LAKE C.	94.27	44.4	13	25	2								
COLLEGE	98.50	12.7	13	41	-1								
RESOLUTE	117.93	17.4	18	46A	-3								
SAN JUAN	118.08	84.5	15	34	777						15	56	
BULAWAYO	122.89	210.6	18	59A	0								
QUETTA	124.44	287.3	19	32	30								
THULE	124.60	15.6	18	59	-3								
KHEYS	125.67	350.3	19	3	-1								
BROKEN HILL	127.92	213.8	19	9A	0								
HALIFAX	128.07	55.4	19	8	-1								
APATITY	138.86	342.0	19	22	-7								
SODANKYLA	140.66	345.0	19	25	-7						23	5	SKP
KIRUNA	141.48	348.6	19	27	-7								
TIFLIS	143.88	299.5	19	38	0								
MOSCOW	144.58	324.9	19	37	-2								
PULKOVO	145.36	334.6	19	39	-1								
SKALSTUGAN	146.68	351.3	19	43	0						20	15	
NURMIJARVI	146.72	339.3	19	43	0						26	1	PPP
HELSINKI	146.89	338.6	19	43	0								
UPPSALA	149.18	344.1	19	45	-2						20	6	
KSARA	150.93	284.7	19	50	1								
SIMFEROPOL	150.99	307.9	19	56	7								
JERUSALEM	151.28	280.4	19	57	7								
GOTEBORG	152.33	347.9	19	57	6						20	20	
HELWAN	154.31	275.2	20	2	8								
HALLE	158.10	342.3	20	0	1								

PRUHONICE	158.66	336.4	20 1	1		20 36	20 52	*SPKP
JENA	158.72	342.3	20 0	0			20 48	
STUTTGART	161.29	343.8	20 3	0			20 47	
FOLINIERE	162.18	4.3	20 4	1				
ISOLA	166.13	343.2					21 8	PKP2
TAMANRASSET	171.08	204.5	20 11	1			25 21	PP
SETIF	173.88	329.1	20 12	0				

APRIL 29 19.H 32.M 13.S EPICENTRE -0.18 121.50 DEPTH= 0.KM

A=-0.52389 B= 0.85178 C=-0.00311 D= 0.8518 E= 0.5239
G= 0.0016 H=-0.0026 K=-1.0000 HT= 7.2

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	14.76	358.0	3 39	7	6 29	11		
LEMBANG	15.43	244.4	3 42K	1	6 50	17		
DJAKARTA	15.89	247.7	3 48K	1	6 55	11		
BAGUIO CITY	16.52	356.6	3 58	3	7 4	5		
NHATRANG	17.40	315.5	4 6	0	7 10	-9		
HENGCHUN	22.06	357.9	5 3	4	9 9	11		
TAWU	22.40	358.3	5 6K	4	9 12	8		
MEDAN	23.20	279.5	5 11K	1	9 23	5		
HONG KONG	23.49	342.5	5 14A	1	9 27	4		
YUSHAN	23.53	358.5	5 16	3	9 33	9		
ALISHAN	23.57	358.2	5 15	2	9 33	8		
HWALIEN	24.00	0.1	5 21	3				
TAICHUNG	24.20	358.0	5 30	11				
CANTON	24.48	341.4	5 25A	3	9 45	4		
ILAN	24.80	0.3	4 26	-59				
TAIPEI	25.06	359.8	5 28	0				
GUAM	26.64	58.5	5 43	0	9 26	-51		
PORT MORESBY	27.04	110.5	5 47	1	10 18	-5		
RABAUL	30.81	97.9	6 20	0			11 23	
PORT BLAIR	31.00	293.3	6 26	4	11 25	-1	6 56	PP
KUNMING	31.07	325.4	6 24A	2	11 32	4	7 26	PP
ZO-SE	31.11	359.3	6 22A	-1	11 25	-3	7 23	PP
CHARTERS TS.	31.22	130.8	6 23	-1	11 32	2		
WUHAN	31.26	348.3	6 25A	1	11 31	0		
MUNDARING	32.03	188.6	6 29K	-2	11 40	-2		
PERTH	32.07	189.3	6 42	11	11 44	1	10 36	
NANKING	32.17	355.5	6 34A	2	11 46	1	7 46	PP
KAGOSIMA	32.70	14.2	6 37	0			7 56	
NAGASAKI	33.65	12.7	6 44A	-1	12 3	-5	8 5	PP
SAGA	34.25	13.0	6 51	1				
SIMIDU	34.49	17.1	6 51	-1	12 15	-6		
HUKUOKA	34.58	13.0	6 51	-2	12 19	-3	9 16	
CHENGTU	34.93	333.0	6 56A	0	12 22	-6	8 12	PP
TORISIMA	35.30	28.6	7 2	3	12 26	-7		
SIOMISAKI	36.01	20.4	7 4	-1	12 37	-7	8 28	
HAMADA	36.25	14.6					12 40	
SIAN	36.25	342.1	7 8A	1	12 49	1		
CHITTAGONG	36.65	309.6	7 12A	2			8 37	PP
OWASE	36.72	20.5	7 10	-1	12 49	-6		
OSAKA	37.02	19.3	7 15	1	12 54	-6		
NARA	37.15	19.6	7 14	-1				
TOCKLAI	37.20	318.1	7 21A	6				
ABUYAMA	37.24	19.2	7 15A	0				
KYOTO	37.43	19.3	7 18	1	13 1	-5		
KAMEYAMA	37.52	20.3	7 19A	1	13 3	-4		
TOYOOKA	37.61	17.8	7 18	-1	13 1	-8		
HIKONE	37.83	19.7	7 22A	2	13 8	-4		
OMAESAKI	37.94	22.6	7 21A	0	13 8	-6		
NAGOYA	37.99	20.7	7 22	0	13 10	-5		
GIHU	38.12	20.3	7 22	-1	13 9	-8		
ADELAIDE	38.13	156.9	7 23	0	13 24	7		9 39 PCP
SHIZUOKA	38.33	22.5	7 24K	-1	13 16	-4		
SHILLONG	38.46	313.9	7 26	0	13 24	2	7 58	9 0 PP
OSIMA	38.54	23.8	7 22	-4				
MISIMA	38.68	23.0	7 26	-2	13 19	-6		
HUNATU	38.94	22.5	7 29	-1	13 11	-18		
KOHU	39.01	22.2	7 30	0	13 24	-6		
YOKOHAMA	39.73	23.6	7 30	-2				
MATUMOTO	39.31	21.1	7 34	1				
CALCUTTA	39.44	307.1	7 35	1	13 35	-2		

TOYAMA	39.45	19.9	7 34	0	13	19	-7	16	29
TOKYO C.M.O.	39.48	22.5						13	47
TITIBU	39.48	22.5	7 34	0					
OIWAKE	39.59	21.7	7 33	-2				13	1
LANCHOW	39.65	337.2	7 38A	2					
MATUSIRO	39.66	21.2	7 32A	-4	13	30	-10	9	7 PF
KUMAGAYA	39.75	22.7	7 37	1				9	56
NAGANO	39.77	21.1	7 36A	-1	13	33	-8		
MAEBASI	39.85	22.2	7 35	-2				9	25
WAZIMA	39.96	19.1	7 39	1	13	37	-7		
TUKUBASAN	40.09	23.5	7 35A	-4	13	35	-11		
KAKIOKA	40.13	23.6	7 36	-4					
UTUNOMIYA	40.29	23.0	7 43	2	13	40	-9		
PEKING	40.32	353.6	7 42A	1	13	45	-5	9	17 PP
BRISBANE	40.35	134.7	7 43	2	13	52	2		
MITO	40.38	23.8	7 43	1					
SHIRAKAWA	40.92	22.9	7 46	0	13	50	-9		
AIKAWA	41.00	20.2	7 35	-12					
ONAHAMA	41.05	23.8	7 49	2	13	44	-3		
NIIGATA	41.19	21.1	7 44	-4				9	21
LHASA	41.57	318.2	7 54A	3	14	11	2		
HUKUSIMA	41.57	22.7	7 51	0	14	6	-2		
PAOTOW	41.91	346.8	7 55A	1	14	12	-1		
YAMAGATA	41.96	22.2	7 55	0	14	9	-5		
BOKARO	42.14	307.0	7 58	2	14	15	-2		
SENDAI	42.19	22.8	7 56A	0	14	10	-7		
COLOMBO	42.21	280.4	7 54	-3	14	8	-10	9	37 PP
SAKATA	42.34	21.3	7 59	1					
ISINOMAKI	42.49	23.1	7 59	0	14	17	-5		
CHATRA	42.63	311.8	8 3A	3					
MIZUSAWA	43.02	22.4	8 4	1	14	35	5		
MADRAS	43.09	289.3	8 5A	1	14	28	-3	8 35	10 7 PP
AKITA	43.16	21.0	8 7	3	14	21	-11		
MELBOURNE	43.22	152.7	8 6	1	14	38	5		9 51 PP
CANBERRA	43.30	146.7	8 6A	0	14	35	1		9 53 PP
RIVERVIEW	43.46	143.4	8 10K	3	14	41	5		9 57 PCP
MORIOKA	43.54	22.0	8 8	0	14	31	-6		
MIYAKO	43.80	22.9	8 9	-1	14	35	-6		
CHANGCHUN	43.94	3.9	8 9A	-2	14	36	-7		9 56 PP
AOMORI	44.38	20.9	8 3	-11					
HATINOHE	44.40	21.8	8 14	0	14	44	-6		
KODAIKANAL	45.09	284.6	8 21	1	15	0	0	10	51 PPP
HAKODATE	45.24	20.2	8 20	-1					
MORI	45.44	19.9	8 24	1	15	1	-4		
HYDERABAD	45.92	294.7	8 26A	-1	15	11	-1	10	15 PP
SUTTSU	45.95	19.1	8 26	-1	15	7	-5		
TOMAKOMAI	46.25	20.4	8 30	1					
URAKAWA	46.27	21.8	8 30	1	15	13	-3		
SAPPORO	46.56	19.9	8 31A	-1	15	11	-10	9	0
HIROO	46.58	22.2	8 33	1					
OBIHIRO	47.09	21.7	8 43	7	15	26	-2		
KUSIRO	47.59	22.7	8 39A	-1	15	29	-6		
NEMURO	48.35	23.4	8 45	-1	15	40	-6		
NOUMEA	48.88	119.9	8 52	2	16	7	14		
ULAN-BATOR	49.58	347.0	8 55	0	16	0	-3		
AGRA	49.89	306.6	8 56A	-2	15	55	-13	10	56 PP
POONA	50.43	294.4	9 2A	0	16	20	5	11	2 PP
Y.-SAKHLINSK	50.71	18.6	9 0A	-2	16	7	-9		
KURILSK	50.84	23.8	9 3A	-2	16	17	-4		
DEHRA DUN	51.30	310.2	9 7	-1	16	26	-1	12	3 PPP
BOMBAY	51.47	294.5	9 8	-2	16	28	-1	11	9 PP
UGLEGORSK	52.14	16.8	9 13A	-1	16	14	-24		
IRKUTSK	54.24	347.0	9 30A	0	17	8	1		
LAHORE	54.71	309.8	9 33A	-1	17	9	-4		
KARACHI	58=3=	299.5	9 55	-4				12	11 PP
ALMATA	58.83	323.1	10 4A	1	18	13	5		
QUETTA	60.03	305.4	10 10A	-1	18	15	-8	12	27 PP
ANDIJAN	60.39	318.6	10 14A	0	18	30	2		
ONERAHI	60.41	131.9	10 30	16					
NAMANGAN	60.96	318.5	10 18A	0	18	37	2		
PETROPAVLOVK	61.34	24.5	10 19	-1	18	37	-3		
COBB RIVER	61.55	138.0	10 31	9					
ROXBURGH	61.61	143.7			18	53	9	14	31 PPP
KARAPIRO	62.14	133.7	10 25	-1				11	5
YAKUTSK	62.34	4.3	10 25	-2	18	39	-14		
CHATEAU	62.66	135.0	10 29	0					
GEBBIES PASS	62.74	140.6	10 33	3					
WELLINGTON	63.01	137.4	10 31	0	18	47	-14	20	18 SCS

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MAGADAN	63.77	16.1	10	35	-1	19	6	-5				
WILKES	66.49	184.8	10	53	-1	19	40	-4			21	1
AFIAMALU	67.30	104.9	11	1	2							
TERRE ADELIE	67.96	171.7	11	0	-3							
TIKSI	71.85	2.4	11	23A	-4	20	39	-8				
SHIRAZ	71.98	301.2	11	25K	-3	20	44	-5				
TEHERAN	74.11	307.3	11	40A	0	21	10	-3				
SVERDLOVSK	74.68	330.1	11	41A	-3	21	14	-5				
TANANARIVE	74.86	250.5	11	45	0							
CAPE HALLETT	78.17	166.4	12	5	2	22	16	18			12	14 PCP
MAKHACH-KALA												
TIFLIS	80.27	312.3	12	15A	0	22	19	-1				
HONOLULU	81.03	68.5	12	19	0							
KIPAPA	81.11	68.4	11	42	-37							
SCOTT BASE	81.23	171.3	12	21	1						12	43 PCP
HAWAII V.OB.	83.58	70.5	12	33	1							
KHEYS	85.98	351.5	12	42	-2							
KSARA	86.53	303.7	12	45	-2	23	24	1			16	8 PP
MOSCOW	86.74	325.7	12	46A	-2	23	10	-15				
JERUSALEM	87.01	301.7	12	48	-1	23	33	6				
SIMFEROPOL	88.33	314.8	12	53	-2	23	17	-23				
APATITY	89.46	337.4	12	58	-3							
SOUTH POLE	89.82	180.0	13	2	0	23	44	-9			14	15
HELWAN	90.32	299.7	13	2A	-3	23	59	1				
COLLEGE	90.41	25.3	13	2	-3	23	54	-5			29	13
PULKOVO	90.80	329.6	13	4A	-3	23	58	-4				
SODANKYLA	92.08	337.3	13	10	-3						16	50 PP
BULAWAYO	92.74	250.0	13	14A	-2							
LWIRO	92.78	267.8	13	15A	-1							
IASI	92.87	317.1	13	14	-2	23	44	-36			17	2
BROKEN HILL	92.98	255.6	13	17A	0							
FOCSANI	93.21	315.6				23	4	-79			17	10
BACAU	93.37	316.5				23	47	-38			18	11
HELSINKI	93.46	330.2	13	17	-2							
NURMIJARVI	93.58	330.5	13	17	-3	23	45	-41			17	7 PP
BUCHAREST	94.06	314.3	13	23A	1	23	56	-35	14	9	20	1
GRAHAMSTOWN	94.11	236.7	13	22K	0							
KIRUNA	94.38	338.1	13	20	-3						16	59 PP
BYRD STATION	94.66	171.2	13	26	1							
LWOW	95.03	319.9	13	24	-2						17	8 PP
KIMBERLEY	95.89	241.2	13	30	0							
NORD	96.48	354.3	13	30K	-3							
WARSAW	96.62	322.5	13	29	-5	24	7	-3			17	31 PP
UPPSALA	97.15	330.4	13	33	-3						17	33 PP
SITKA	97.26	32.5	13	35	-1							
SKALNATE PL.	97.55	319.5	13	9	-29						17	7 PP
KRAKOW	97.63	320.4	13	36	-2	24	11	-5			17	39 PP
SKALSTUGAN	98.67	334.7	13	52	9						17	40 PP
RACIBORZ	98.72	320.6	13	41	-2						17	23 PP
BRATISLAVA	99.78	318.9	13	20	-28						17	14 PP
VIENNA-H.	100.24	319.1	13	49	-1	24	24	-5				
GOTEBORG	100.54	329.0	13	48	-3						17	58 PP
COPENHAGEN	100.85	327.0	13	50A	-3	24	28	-4			18	3 PP
ZAGREB	100.98	316.7				24	28	-4			18	7 PP
PRUHONICE	101.05	321.0	13	51A	-3	24	29	-4			24	52 SKKS
PRAGUE	101.10	321.1	13	46	-8						17	57 PP
POTSDAM	101.37	323.6	13	54	-1	24	30	-4			18	9 PP
COLLMBERG	101.69	322.6	13	55	-1						18	7 PP
LJUBLJANA	101.93	317.1	13	54	-4						18	4 PP
HALLE	102.27	323.0	13	57	-2	24	37	-1			18	10 PP
PLAUEN	102.41	321.9	13	54	-6						18	11 PP
RESOLUTE	102.52	9.3	13	57A	-3							
TRIESTE	102.54	316.8				24	35	-5			18	8 PP
JENA	102.65	322.5	13	58	-3	24	27	-13			18	17 PP
MESSINA	102.69	309.1									18	13 PP
TOLMEZZO	102.87	317.7									18	31 PP
SONNEBERG	103.03	322.0									18	20 PP
THULE	103.64	2.4	14	0	-5						18	8 PP
ROME	104.27	313.3				23	58	-50			18	23 PP
STUTTGART	104.69	320.7	14	7	-3	24	42	-8			18	27 PP
MUNSTER	104.70	324.2									18	32 PP
RAVENSBURG	104.75	319.7									18	32 PP
HEIDELBERG	104.85	321.5									18	25 PP
TUBINGEN	104.89	320.6									18	28 PP
WITTEVEEN	104.97	325.3									18	34
EBINGEN	105.06	320.2									18	29 PP
CHUR	105.08	318.8				24	45	-6			18	33 PP
BENSBERG	105.30	323.3	14	12	777						18	35 PP

STRASBOURG	105.70	320.9				24	47	-7	18 34 PP
PAVIA	105.78	317.2							18 39 PP
SCORESBY SD.	105.86	348.0							18 22 PP
CHIAVARI	105.92	316.3				24	54	-1	20 52
DE BILT	106.07	324.9				24	53	-3	18 43 PP
NEUCHATEL	106.72	319.5							18 47 PP
UCCLE	107.03	323.8				24	56	-4	18 49 PP
DOURBES	107.14	323.1				24	57	-3	18 51 PP
BESANCON	107.26	320.0							18 24 PP
MONACO	107.39	316.1							19 1
ISOLA	107.52	316.7							18 58 PP
ABERDEEN	107.75	331.6				25	0	-3	18 55 PP
DURHAM	108.64	329.2				25	3	-4	18 59 PP
PARIS	108.90	322.4							19 2 PP
KEW	109.46	325.7	18	32	777	25	4	-6	19 6 PP
SHASTA	109.60	46.5	18	19	777				
CLERMONT-FD.	109.63	319.2	19	5	777				
MINERAL	110.28	46.7							19 9 PP
FOLINIERE	110.71	323.2							18 36
SETIF	111.03	309.0	17	35	-61				19 5 PP
LICK	111.15	49.7							18 49 PP
RATHFARNHAM	111.78	329.3	18	47	10				
RENO	111.84	47.0							19 21 *PPP
HUNGRY HORSE	112.27	36.5							19 22 PP
ALGIERS UNI.	112.68	310.1	18	42	3	25	22	-1	19 29 PP
TAMANRASSET	114.01	294.8	18	42	0	26	34	65	19 38 PP
EUREKA	114.65	45.9	18	43	0				19 17
PASADENA	114.79	52.1	18	55	12				36 1 SS
ALICANTE	114.80	312.8	14	54	777	25	32	0	19 47 PP
RELIZANE	114.92	309.8	18	45	2				19 41 PP
BOZEMAN	115.32	38.1	18	46	2				19 44 PP
RUTH	115.46	45.9							20 12 *PPP
BOULDER CITY	116.77	49.2	18	49	2				
TOLEDO	116.77	315.5	18	46	-1				19 57 PP
ALMERIA	116.82	311.9	18	46K	-1				19 49 PP
SALT LAKE C.	117.03	43.2	18	48	1				19 55 PP
GRANADA	117.53	312.6				25	40	-2	20 6 PP
SERRA PILAR	119.31	318.6	18	46	-6				20 12 PP
LISBON	120.83	316.4							20 21 PP
LARAMIE	120.94	40.1							18 53 PP
TUCSON	121.22	51.7	18	57	1				
TUCSON TELE.	121.28	51.6	18	56	0				28 59
LAWRENCE	128.74	36.8	19	9	-1				
FAYETTEVILLE	131.22	39.0	18	14A	-61				20 27
ST. LOUIS 1	131.86	33.7	19	16	0				22 38 PKS
SEVEN FALLS	132.01	11.4	19	16	0				
SHAWINIGAN	132.13	13.3	19	14	-3				
OTTAWA	132.44	16.5	19	16	-1				
BREBEUF	132.91	14.6	19	17	-1				
LITTLE ROCK	133.21	39.1	19	18	-1				21 42 PP
HALIFAX	135.51	5.3	19	21	-2				
MORGANTOWN	136.08	24.1	19	24K	0				22 0 PP
MBOUR	136.66	290.9	19	27	2				22 8 PP
PALISADES	136.99	17.3	19	21	-4				22 6 PP
WASHINGTON	137.83	21.8	19	28	1				
CHAPEL HILL	139.59	26.2	19	18	-12				22 14 PP
COLUMBIA	140.23	30.0	19	24	-7				
SAN SALVADOR	146.69	65.0	19	48	5				
BALBOA HTS.	147.20	66.9	19	58	0				
HUANCAYO	159.27	126.4	20	5K	5				20 55 PKP2
GALERAZAMBA	160.20	57.3	20	10	9				31 38 SKKS
SAN JUAN	160.39	22.3	20	2	0				24 33 PP
LA PAZ	160.85	150.4	20	6A	4				24 41 PP
CHINCHINA	162.16	74.3	20	4A	1				31 20 SKKS
ST. KITTS	162.42	13.8	20	50	46				
BOGOTA	163.74	74.0	20	8	3				24 35 PP
CARACAS	166.70	39.3	20	2	-6				25 11 PP
TRINIDAD	169.18	15.9	20	11	2				

APRIL 29 20.H 44.M 28.S EPICENTRE -0.21 121.59 DEPTH= 0.KM

A=-0.52378 B= 0.85185 C=-0.00366 D= 0.8519 E= 0.5238
G= 0.0019 H=-0.0031 K=-1.0000 HT= 7.2

SE= 2.44

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

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.

	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S
MANILA	14.79	358.1	3	38	6	6	22	4				
LEMBANG	15.41	244.4	3	42A	2	6	49	17				
DJAKARTA	15.88	247.8	3	48A	2	7	0	17				
BAGUIO CITY	16.56	356.6	3	59	4	7	8	9				
NHATRANG	17.42	315.6	4	5	-1	7	28	9				
MEDAN	23.20	279.6	4	10K	-59	9	12	-6				
HONG KONG	23.51	342.6	5	15A	3	9	31	8				
CANTON	24.51	341.4	5	25A	3	9	45	5				
GUAM	26.66	58.5	5	43	1							
PORT MORESBY	27.03	110.5	5	46	1	10	24	2				
RABAUL	30.81	97.8	6	20	1							
PORT BLAIR	31.00	293.3	6	25	4	11	27	1				
KUNMING	31.09	325.5	6	23A	1	11	30	3			7	24 PP
ZO-SE	31.14	359.3	6	21A	-1	11	24	-3				
WUHAN	31.29	348.3	6	24	0							
MUNDARING	31.99	188.6	6	28K	-2	11	41	0				
NANKING	32.21	355.5	6	33A	1	11	45	0				
CHENGTU	34.95	333.0	6	55A	0	12	24	-3				
SIAN	36.28	342.1	7	7A	0							
CHITTAGONG	36.66	309.7	7	10	0	12	54	0			8	33 PP
TOCKLAI	37.21	318.2	7	20K	5							
ADELAIDE	38.10	156.9	7	22K	0							
SHILLONG	38.48	314.0	7	23A	-2	13	37	16				
LANCHOW	39.68	337.2	7	37A	2							
MATUSIRO	39.69	21.1	7	32A	-3	13	31	-9			9	52
TUKUBASAN	40.13	23.5	7	35	-4						9	43 PCP
BRISBANE	40.33	134.6	7	43	2	13	57	8				
PEKING	40.35	353.6	7	41A	0	13	47	-2				
LHASA	41.59	318.2	7	52A	1	14	9	1				
PAOTOW	41.94	346.8	7	54	0							
COLOMBO	42.21	280.5	7	53	-3	14	17	0				
CHATRA	42.65	311.8	8	1A	1	14	22	-1				
MADRAS	43.09	289.3	8	5	2	14	35	5			9	42 PP
MELBOURNE	43.19	152.7	8	7K	3							
CANBERRA	43.28	146.7	8	6K	1						9	56 PP
RIVERVIEW	43.44	143.3	8	8K	2	14	38	3			17	58 SCS
CHANGCHUN	43.97	3.9	8	11	1							
KODAIKANAL	45.09	284.6									7	48
NOUMEA	48.87	119.8	8	50	1						10	3
ULAN-BATOR	49.61	347.1	8	54	-1	16	0	-3				
AGRA	49.90	306.6	8	53A	-4	16	2	-5			10	53 PP
POONA	50.44	294.4	9	0A	-1							
DEHRA DUN	51.32	310.3	9	13	5	16	39	12				
BOMBAY	51.48	294.5	9	9	0	16	32	3				
IRKUTSK	54.27	347.0	9	29A	-1	17	7	0				
LAHORE	54.72	309.8	9	31	-2	17	12	-11				
WARSAK DAM	57.89	311.3	9	55	-1							
KARACHI	58.30	299.5	9	58	-1							
ALMATA	58.85	323.2	10	3	1	18	4	-3				
QUETTA	60.04	305.4	10	9A	-2	18	20	-3			12	18 PP
ANDIJAN	60.40	318.6	10	13A	0	18	31	4				
NAMANGAN	60.98	318.5	10	18A	1	18	36	1				
KARAPIRO	62.12	133.7	10	25	0							
YAKUTSK	62.38	4.3	10	23	-4	18	45	-8				
CHATEAU	62.64	135.0	10	23	-5							
GEBBIES PASS	62.72	140.6	10	36	7							
AFIAMALU	67.29	104.9	10	59	1							
TERRE ADELIE	67.93	171.7	10	59	-3							
TIKSI	71.88	2.4	11	23	-3	20	38	-9				
SHIRAZ	71.99	301.2	11	25K	-2	20	44	-4				
SVERDLOVSK	74.70	330.1	11	42	-1							
TANANARIVE	74.84	250.6	11	44A	0						12	26
MAKHACH-KALA	78.54	313.9	12	3	-1	20	38	-83				
TIFLIS	80.29	312.3	12	14A	0	22	19	0				
SCOTT BASE	81.20	171.3	12	20	1							
KHEYS	86.02	351.5	12	41	-2							
KSARA	86.54	303.7	12	46	0	23	33	11			16	9 PP
MOSCOW	86.76	325.7	12	46	-1							
JERUSALEM	87.02	301.7	12	48	0							
SIMFEROPOL	88.35	314.8	12	56	1							
APATITY	89.49	337.4	12	57	-3							
SOUTH POLE	89.79	180.0	13	1	0						13	57
HELWAN	90.33	299.7	13	1	-3						16	59
COLLEGE	90.44	25.3	13	2	-2							
SODANKYLA	92.11	337.3	13	12	0							
BULAWAYO	92.72	250.0	13	13A	-2							
LWIRO	92.78	267.8	13	15	0							

BROKEN HILL	92.97	255.6	13 15	-1						
HELSINKI	93.48	330.2	13 19	1						
KIRUNA	94.41	338.1	13 16	-7					16 49	
BYRD STATION	94.63	171.2	13 24	0						
LWOW	95.05	319.9	13 25	-1					17 18	PP
UPPSALA	97.18	330.4	13 31	-4					17 32	PP
SKALNATE PL.	97.57	319.5							17 8	
SKALSTUGAN	98.70	334.7	13 40	-2					17 42	PP
GOTEBORG	100.56	329.0	13 47	-4					17 57	
PRUHONICE	101.07	321.0	13 52K	-1					18 2	PP
COLLMBERG	101.71	322.6							18 7	PP
HALLE	102.29	322.9	13 57	-1	24 52	14			18 14	PP
PLAUEN	102.43	321.9							18 10	PP
RESOLUTE	102.55	9.3	13 57	-3						
JENA	102.67	322.4	13 58	-2					18 15	PP
STUTTGART	104.71	320.7	18 12	777						
ARCATA	108.35	46.7	18 25	777						
MINERAL	110.31	46.7	18 23K	-11						
SETIF	111.04	308.9	18 35	0					19 12	PP
TAMANRASSET	114.01	294.8	18 35	-6					19 23	PP
EUREKA	114.68	46.0	18 45	3					29 22	PKKP
LAWRENCE	128.77	36.8							19 9	
ST. LOUIS 1	131.89	33.7							22 37	PKS
SHAWINIGAN	132.16	13.3	19 14	-2						
LITTLE ROCK	133.24	39.1	19 19	1						
HUANCAYO	159.25	126.5	20 5	5					20 45	PKP2
SAN JUAN	160.42	22.3	20 2	1					20 43	
LA PAZ	160.83	150.5	20 5	4						
CHINCHINA	162.18	74.3	20 4A	1						
BOGOTA	163.76	74.1	20 1	-3						

APRIL 30 4.H 1.M 33.S EPICENTRE -0.12 121.53 DEPTH= 0.KM

A=-0.52297 B= 0.85235 C=-0.00216 D= 0.8524 E= 0.5230
G= 0.0011 H=-0.0018 K=-1.0000 HT= 7.2

SE= 3.04

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
MANILA	14.71	358.3	3	38	7	6	25	9					
LEMBANG	15.39	244.1	3	42K	2	6	50	18					
DJAKARTA	15.86	247.4	3	48K	2	6	52	9					
BAGUIO CITY	16.47	356.8	3	57	3	7	7	10					
NHATRANG	17.32	315.5	4	6	1	7	26	9					
HENGCHUN	22.00	358.1	4	52	-6								
TAWU	22.35	358.5	5	6	5	9	10	7					
MEDAN	23.13	279.4	5	11	2						6	52	
HONG KONG	23.41	342.6	5	13A	1	9	16	-6			5	30	
ALISHAN	23.51	358.3	5	13	0								
HWALIEN	23.95	0.2	5	28	11								
CANTON	24.41	341.5	5	24A	3	9	43	4					
GUAM	26.66	58.7	5	44	1	10	17	0					
PORT MORESBY	27.11	110.6	5	49	2	10	23	-1					
RABAUL	30.88	97.9	6	19	-2								
PORT BLAIR	30.92	293.2	6	20	-1	11	22	-3					
KUNMING	30.99	325.4	6	23A	1	11	32	6			7	23	PP
ZO-SE	31.05	359.4	6	23A	1	11	27	0					
WUHAN	31.20	348.3	6	25A	2	11	32	3					
CHARTERS TS.	31.30	130.8	6	25K	1	11	29	-2					
MUNDARING	32.07	188.5	6	29K	-2								
PERTH	32.11	189.1									12	47	
NANKING	32.12	355.6	6	33A	2	11	45	1					
CHENGTU	34.85	333.0	6	57A	2								
CHITTAGONG	36.56	309.6	7	11A	1	12	55	2			8	36	PP
TOCKLAI	37.11	318.1	7	20K	6								
ABUYAMA	37.21	19.3	7	9A	-6								
ADELAIDE	38.20	156.9	7	24	1	13	17	-1			9	3	PP
SHILLONG	38.38	314.0	7	26	1	13	19	-1	7	46	8	54	PP
LANCHOW	39.58	337.2	7	37A	2								
MATUSIRO	39.63	21.2	7	34A	-1	13	30	-9			9	6	PP
TUKUBASAN	40.07	23.6	7	37K	-2	13	31	-15			9	43	PCP
PEKING	40.26	353.6	7	42A	1	13	47	-2					
BRISBANE	40.43	134.7	7	44	2	13	50	-1					
LHASA	41.49	318.2	7	53A	2	14	9	2					
BOKARO	42.06	307.0				14	13	-2					

CHATRA	42.55	311.8	8	0	1	14	21	-2				
MADRAS	43.01	289.3	8	4A	1	14	30	1			9	45 PP
MELBOURNE	43.30	152.7	8	6	1	14	33	-1			9	45 PP
CANBERRA	43.38	146.7	8	7K	1	14	33	-2			17	53 SS
RIVERVIEW	43.54	143.3	8	10A	3	14	40	3			17	51 SS
CHANGCHUN	43.89	3.9	8	9	-1							
KODAIKANAL	45.01	284.6	8	18	-1							
HYDERABAD	45.84	294.6	8	27	1	15	12	2			10	19 PP
NOUMEA	48.96	119.9	8	51	1						9	37
ULAN-BATOR	49.52	347.1	8	55	0	16	1	-1				
AGRA	49.81	306.6	8	54A	-3	16	1	-5			10	42 PP
POONA	50.35	294.3	9	1A	0	16	12	-2				
Y.-SAKHLINSK	50.48	18.7	9	0A	-2	16	8	-8				
DEHRA DUN	51.22	310.2	9	19	11	16	31	5				
BOMBAY	51.39	294.4	9	8	-1	16	27	-1			11	27 PP
UGLEGORSK	52.12	17.0	9	4A	-3							
LAHORE	54.62	309.8	9	29	-4	17	5	-7				
WARSAK DAM	57.79	311.2	9	56	0							
KARACHI	58.21	299.5	9	56	-3							
ALMATA	58.75	323.1	10	3A	1							
QUETTA	59.95	305.4	10	10A	-1	18	17	-5			12	22 PP
ANDIJAN	60.30	318.6	10	13A	0	18	29	2				
NAMANGAN	60.88	318.5	10	17A	0	18	35	1				
PETROPAVLOVK	61.31	24.6	10	18A	-2	18	36	-4				
COBB RIVER	61.63	138.0	10	23	1						10	31
ROXBURGH	61.69	143.7				18	59	15				
KARAPIRO	62.22	133.7	10	26	0						11	14
YAKUTSK	62.29	4.4	10	25	-2	18	47	-5				
TONGARIRO	62.74	135.0	10	32	3							
CHATEAU	62.74	135.0	10	29	-1						10	49
GEBBIES PASS	62.82	140.6	10	33	3							
WELLINGTON	63.10	137.4	10	31	-1							
MAGADAN	63.74	16.1	10	35	-1	19	9	-1				
WILKES	66.54	184.8				19	41	-4	11	3	27	12
AFIAMALU	67.37	104.9	11	0	1							
TERRE ADELIE	68.02	171.7	11	0	-4							
TIKSI	71.79	2.4	11	24	-3	20	37	-10				
SHIRAZ	71.90	301.2	11	26	-1	20	49	1				
SVERDLOVSK	74.60	330.1	11	43	0	21	13	-5				
TANANARIVE	74.82	250.5	11	44A	0						12	11
CAPE HALLETT	78.24	166.4	12	9	6	21	57	-1			16	57 PPP
MAKHACH-KALA	78.44	313.9	12	3	-2	21	55	-5				
TIFLIS	80.19	312.3	12	14A	0	22	18	-1				
KHEYS	85.92	351.5	12	42A	-1							
KSARA	86.45	303.7	12	46	0	23	26	4			16	11 PP
MOSCOW	86.66	325.7	12	45A	-2							
JERUSALEM	86.92	301.7	12	48	0	23	30	4				
SIMFEROPOL	88.25	314.8	12	52A	-3	23	16	-23				
APATITY	89.39	337.4	12	57	-3							
SOUTH POLE	89.88	180.0	13	2	0	23	34	-20			14	38
HELWAN	90.24	299.7	13	3	-1	23	57	0				
COLLEGE	90.39	25.3	13	2	-3	23	59	1			29	19
PULKOVO	90.72	329.6	13	5	-1	23	59	-2				
SODANKYLA	92.01	337.3	13	11	-1						16	53 PP
BULAWAYO	92.70	250.0	13	14A	-1							
LWIRO	92.72	267.8	13	7	-9							
BROKEN HILL	92.94	255.6	13	15A	-2							
PRETORIA	92.97	244.4	12	42	-35							
HELSINKI	93.38	330.2	13	16	-3							
BUCHAREST	93.98	314.3				23	57	-33			16	43
KIRUNA	94.31	338.1	13	21	-2						17	12 PP
BYRD STATION	94.72	171.2	13	28	3						30	21 PKKP
LWOW	94.95	319.9	13	25	-1	24	37	-1				
WARSAW	96.54	322.5									17	23 PP
UPPSALA	97.07	330.4	13	33	-2						17	33 PP
KRAKOW	97.54	320.4	17	8	777	24	11	-4			17	34 PP
SKALSTUGAN	98.59	334.7	13	41	-1						17	45 PP
GOTEBORG	100.46	329.0	13	48	-3						17	58 PP
COPENHAGEN	100.77	327.0				24	30	-1			18	3 PP
PRUHONICE	100.96	321.0	13	51	-2	24	29	-3			24	51 SKKS
PRAGUE	101.02	321.1				24	28	-4			17	44 PP
POTSDAM	101.29	323.6	18	5	777							
COLLMBERG	101.61	322.6	13	54	-2						18	9 PP
LJUBLJANA	101.85	317.1	17	48	777						18	7 PP
HALLE	102.19	322.9	13	43	-16	24	34	-4			17	59 PP
PLAUEN	102.33	321.9	13	52	-7							
TRIESTE	102.46	316.8				24	35	-4				
RESOLUTE	102.47	9.3	13	57	-3							
JENA	102.57	322.4	18	5	777						18	16 PP

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TOLMEZZO	102.78	317.7	18	0	777					18	41
ROME	104.19	313.3				24	39	-8		28	35
STUTTGART	104.60	320.7	18	5	777	24	42	-7		18	26 PP
MUNSTER	104.62	324.2	18	5	777						
BENSBERG	105.22	323.3	18	29	777						
STRASBOURG	105.62	320.9								18	41 PP
SCORESBY SD.	105.79	348.0								18	37 PP
DE BILT	105.99	324.9								18	42 PP
UCCLE	106.95	323.8	14	23	777	24	58	-2			
DOURBES	107.06	323.1				24	45	-15		18	49 PP
ISOLA	107.44	316.7	18	28	777					18	50
DURHAM	108.56	329.2								18	58 PP
PARIS	108.82	322.4								19	0 PP
KEW	109.38	325.7				25	2	-8		19	6 PP
SHASTA	109.61	46.5	18	37	777						
MINERAL	110.29	46.6	18	32	-2						
FOLINIERE	110.63	323.2	18	42	7						
SETIF	110.95	309.0	18	35	0						
RATHFARNHAM	111.70	329.3								19	27 PP
RENO	111.85	47.0	18	25	-12						
TAMANRASSET	113.93	294.8	18	38	-3	25	31	3		19	32 PP
EUREKA	114.66	45.9	18	44	2						
PASADENA	114.81	52.1	18	45	2	29	17	225		35	51 SS
BOZEMAN	115.32	38.0	18	45	1					29	26 PKKP
TOLEDO	116.69	315.5								19	57 PP
LARAMIE	120.94	40.1	19	9	14						
TUCSON	121.24	51.7	18	56	1						
TUCSON TELE.	121.29	51.6	18	57	1						
FAYETTEVILLE	131.21	38.9	18	15K	-60					21	36
FLORISSANT	131.66	33.6								22	40 PKS
ST. LOUIS 1	131.85	33.6								22	38 PKS
SEVEN FALLS	131.96	11.3	19	17	1						
SHAWINIGAN	132.09	13.3	19	17	1						
OTTAWA	132.41	16.4	19	17	0						
BREBEUF	132.87	14.5	19	17	-1						
LITTLE ROCK	133.20	39.0	19	16	-2					22	53 PKS
HALIFAX	135.46	5.2	19	24	1						
MORGANTOWN	136.06	24.1	19	25	1					22	15 PP
PALISADES	136.96	17.2	19	26	1					22	8 PP
HUANCAYO	159.35	126.4	20	5K	5					24	38 PP
SAN JUAN	160.36	22.1	20	2	1					20	43
LA PAZ	160.93	150.5	20	5	3						
CHINCHINA	162.21	74.0	20	4	1						
BOGOTA	163.79	73.8	20	5	0						
DOMINICA	164.65	10.7	20	7	1						
CARACAS	166.69	39.0	20	4	-4					25	13 PP
TRINIDAD	169.15	15.5	20	12	3						

APRIL 30 22.H 10.M 13.S EPICENTRE -6.07 124.13 DEPTH= 646.KM

A=-0.55793 B= 0.82321 C=-0.10509 D= 0.8278 E= 0.5610
G= 0.0590 H=-0.0870 K=-0.9945 HT= 6.9

DEPTH OF FOCUS= 0.097R

SE= 1.48

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
LEMBANG	16.42	266.5	3	20A	0	6	4	3				
BAGUIO CITY	22.62	351.1	4	16	-1	7	39	-3				
PORT MORESBY	23.05	99.7	4	19	-1						7	47
NHATRANG	23.46	320.8	4	23	-1	7	52	-3				
CHARTERS TS.	25.62	125.0	4	42A	-1	8	26	-3				
MUNDARING	26.81	195.0	4	52A	-1	8	43	-5				
MEDAN	27.16	290.0	4	54A	-2	8	54	1				
RABAUL	27.99	87.5	5	2	-1						6	36
GUAM	28.21	46.4	5	5	0	9	11	2				
HONG KONG	29.84	341.2	5	21A	2	9	33	-2			14	41 SCS
CANTON	30.84	340.4	5	30A	3	9	51	1				
ADELAIDE	31.75	156.8	5	35K	0	10	2	-2	7	10	13	5 SS
BRISBANE	34.51	131.2	6	0	2	10	43	-2				
MELBOURNE	36.86	152.0	6	18	1	11	17	-3	8	0	8	22 PCP
CANBERRA	37.03	145.2	6	19K	0	11	22	-1	8	3	8	2 PP
ZO-SE	37.07	355.8	6	19	0	11	20	-3				
RIVERVIEW	37.28	141.4	6	21K	0	11	28	2	8	8	14	40 SS

KUNMING	37.34	327.0	6	24A	3	11	29	2						
WUHAN	37.53	346.4	6	24	1	11	29	-1						
NANKING	38.26	352.7	6	29	0	11	40	0						
CHENGTU	41.29	333.3	6	53A	0	12	20	-4						
ABUYAMA	42.13	14.1	7	0K	1									
CHITTAGONG	42.41	312.8	7	1A	-1									
SIAN	42.60	341.3	7	3K	0	12	42	0						
NOUMEA	43.90	115.9	7	13	0							8	40	
MATUSIRO	44.39	16.3	7	16K	-1	13	4	-3				8	45	PCP
SHILLONG	44.40	316.5	7	15	-2									
TUKUBASAN	44.66	18.5	7	17K	-2	13	6	-5				10	25	*SP
LANCHOW	46.03	337.0	7	31K	2	13	30	0						
PEKING	46.46	351.6	7	32	-1	13	34	-2						
MADRAS	47.59	293.6	7	40	-1									
LHASA	47.65	320.0	7	43A	1	13	53	1						
CHATRA	48.48	314.1	7	49A	1	14	3	0						
CHANGCHUN	49.68	1.1	7	55	-2	14	16	-4						
ONERAHI	54.66	130.0	8	33	1									
KAIMATA	55.29	138.6	8	38	2									
Y.-SAKHLINSK	55.37	15.4	7	36	-61	15	36	1						
AGRA	55.47	308.8	8	37A	-1	15	32	-4				10	35	PP
ULAN-BATOR	55.86	346.1	7	40K	-60									
KARAPIRO	56.30	132.0	8	44K	1				10	35		9	29	PCP
BOMBAY	56.31	297.4	8	43	0	15	45	-2				11	3	PP
CHATEAU	56.76	133.4	8	46K	0							9	33	PCP
DEHRA DUN	57.06	312.1	9	7	19	16	13	17						
UGLEGORSK	57.12	14.0	7	40	-69									
LAHORE	60.44	311.4	9	12	1									
AFIAMALU	63.45	102.5	9	1K	-29				11	30				
WARSAK DAM	63.67	312.6	9	33A	2									
QUETTA	65.53	306.9	9	43A	0	17	38	-2	11	46		10	8	PCP
PETROPAVLOVK	65.72	22.1	9	45	1				11	21				
YAKUTSK	68.03	2.8	9	57	-1									
CAPE HALLETT	71.89	166.6	10	22A	1							19	3	SCS
TANANARIVE	75.38	252.1	10	43A	3							11	8	
SHIRAZ	77.21	302.1	10	53K	3	19	51	2						
TIKSI	77.61	1.5	10	52K	0	19	51	-2						
SVERDLOVSK	81.02	330.1	11	11	1	20	25	-3						
HAWAII V.OB.	83.19	69.7	11	23	2									
SOUTH POLE	83.97	180.0	11	24	-1	20	45	-11				11	52	
MAKHACH-KALA	84.41	314.2							13	41				
TIFLIS	86.09	312.5	11	37A	2	21	20	4						
BYRD STATION	88.48	171.0	11	46	0									
KSARA	91.89	303.6	11	57	-5				14	19		23	47	
KHEYS	92.15	351.4	12	2	-1									
JERUSALEM	92.23	301.6										15	57	PP
PRETORIA	92.72	243.9	12	3	-3									
MOSCOW	93.00	325.6	12	7	0									
BULAWAYO	93.09	249.5	12	8A	1									
BROKEN HILL	93.95	255.1	12	12A	1									
SIMFEROPOL	94.25	314.6				21	52	-36				16	8	PP
COLLEGE	94.62	25.4	12	11	-3									
LWIRO	95.06	267.2										16	17	
SODANKYLA	98.46	337.2	12	30	-2							16	42	PP
KIRUNA	100.75	338.0	12	41	-1									
UPPSALA	103.49	330.1	17	14	777									
RESOLUTE	107.86	10.1	13	13	777							32	17	
LJUBLJANA	107.93	316.4										17	46	PP
CORVALLIS	110.26	44.7										18	16	PP
STUTTGART	110.81	320.0	17	23	2				19	59				
SHASTA	111.69	48.6	17	25	3							18	19	PP
MINERAL	112.35	48.9	17	27A	3							20	3	*PPP
LICK	112.88	52.1	17	28K	3							20	5	*PPP
ISOLA	113.50	315.7										18	33	PP
RENO	113.86	49.4										18	34	PP
FRESNO	114.43	52.4										18	29	PP
HUNGRY HORSE	115.36	38.8	17	31	2				20	8				
PASADENA	116.24	54.9	17	34K	3							18	49	
EUREKA	116.76	48.7	17	34	2				20	12		18	53	PP
FOLINIERE	116.90	322.4										20	11	
RATHFARNHAM	118.10	328.8										23	20	
BOZEMAN	118.24	40.8	17	38	3									
BOULDER CITY	118.52	52.3	17	39	3				20	15		18	58	PP
TAMANRASSET	118.68	292.5	17	38K	2				20	9		19	0	PP
TUCSON	122.66	55.5	17	47	3				20	24		20	3	
TUCSON TELE.	122.73	55.4	17	47	3				20	24				
LARAMIE	123.61	43.6	17	50	5									
ST. LOUIS 1	135.09	38.8										20	40	PP

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LITTLE ROCK	135.88	44.7									20	40	PP
SHAWINIGAN	137.12	17.1	18	10	-1						20	47	
BREBEUF	137.80	18.6	18	9	-3						23	4	PP
MORGANTOWN	140.17	29.5	18	12A	-5			20	57				
HALIFAX	141.01	8.8	18	15	-5								
PALISADES	141.66	22.2	18	17	-4			21	0				
COLUMBIA	143.74	36.7	18	24	1						21	5	
HUANCAYO	153.57	132.9	18	44A	6						19	8	PKP2
LA PAZ	154.50	151.8	18	44	5								
SAN JUAN	164.20	38.4	18	52	2						23	36	PP

MAY 2 1.H 0.M 0.S EPICENTRE 43.66 84.30 DEPTH= 0.KM

A= 0.07207 B= 0.72214 C= 0.68799 D= 0.9951 E=-0.0993
G= 0.0683 H= 0.6846 K=-0.7257 HT= -3.0

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ALMATA	5.36	268.3	1	18A	-6	2	23	-4					
ANDIJAN	9.32	255.9	2	22	3								
NAMANGAN	9.73	258.3	2	28	3								
STALINABAD	12.76	251.8	3	7	1								
WARSAK DAM	13.84	230.1	3	21	1	5	51	-5					
DEHRA DUN	14.22	202.5	3	24	-1						5	56	
LAHORE	14.43	216.4	3	27	-1	6	2	-8					
LHASA	15.00	156.7	3	37	2	6	24	1					
CHATRA	16.96	171.2	4	1	0								
SHILLONG	19.08	158.7	4	22A	-5								
QUETTA	19.28	231.5	4	29A	0	7	55	-6					
PAOTOW	19.31	90.3	4	31	2								
SVERDLOVSK	19.93	319.7	4	36	-1								
CHITTAGONG	22.14	161.3	4	59A	0								
KUNMING	23.86	134.9	5	15	-1								
PEKING	23.94	87.7	5	21	4	9	40	9					
TEHERAN	26.40	263.8	5	52	12								
MAKHACH-KALA	26.65	281.4									13	12	
WUHAN	27.30	108.6	5	53	4								
SHIRAZ	28.88	251.7	6	4	1								
TIFLIS	28.91	280.0	6	5	2								
MOSCOW	31.89	308.8	6	30	0								
YAKUTSK	32.12	39.2	6	34	2								
HONG KONG	32.61	121.1									17	48	
TIKSI	35.27	22.7	6	57	-2								
APATITY	35.79	329.4	7	2	-1								
PULKOVO	35.97	315.8	7	5	0	12	43	-1					
KHEYS	38.24	353.3	7	24	0								
SODANKYLA	38.32	328.2	7	24	-1						9	37	PCP
KISHINEV	38.45	295.0	7	26	0								
KSARA	38.55	272.0	7	20	-6	13	21	-2			9	1	PP
HELSINKI	38.66	316.5	7	28	1								
NURMIJARVI	38.80	317.0	7	30	1	13	26	-1					
JERUSALEM	40.06	269.7	7	42	3								
ISTANBUL KA.	40.26	286.0	7	42	1								
Y.-SAKHLINSK	40.38	64.1									21	31	
KIRUNA	40.73	328.5	7	44	-1						9	20	PP
LWOW	40.78	300.5	7	45	0								
MATUSIRO	41.23	80.9	7	45	-4								
MAGADAN	42.31	43.9									22	33	
UPPSALA	42.36	316.5	7	58	0								
KRAKOW	43.26	302.0									15	48	
CHORZOW	43.76	302.6									15	37	
SKALSTUGAN	44.31	322.5	8	14	0						9	54	PP
ATHENS	45.31	284.5	8	23K	1								
GOTEBORG	45.67	314.3									8	48	
PRUHONICE	46.56	303.5	8	33	1								
COLLMBERG	47.03	305.6	8	36	1								
HALLE	47.58	306.2	8	41	1						10	32	PP
LJUBLJANA	48.06	298.5	8	44	1								
PETROPAVLOVK	48.20	51.3	8	41	-4								
NORD	48.69	348.9	8	48A	0								
TRIESTE	48.71	298.3	8	49	0								
MUNSTER	49.91	308.1	8	58	0								
STUTTGART	50.21	303.7	9	0	0								

MONACO	53.60	298.7	9	12	-14				9	33
ISOLA	53.63	299.4	9	25	-1					
FOLINIERE	55.97	307.3	9	42	-1					
SETIF	58.83	291.9	10	1	-2					
RESOLUTE	61.95	359.8	10	22	-2					
COLLEGE	64.42	21.9	10	38	-3					
TAMANRASSET	66.72	279.8	10	56A	1					
BROKEN HILL	77.04	235.3	11	58A	1					
BULAWAYO	81.44	231.7	12	21A	0					
CHARTERS TS.	85.08	123.6	12	36	-3					
HUNGRY HORSE	86.96	12.1	12	49	0					
CORVALLIS	88.76	19.3	12	58	1					
SHASTA	92.64	20.0	13	22	7					
MINERAL	93.17	19.5	13	17K	-1					
LARAMIE	94.94	7.5	13	25	-1					
EUREKA	95.23	15.6	13	26	-1					
SOUTH POLE	133.47	180.0	19	28	9					
BYRD STATION	142.49	173.4							22	44 PP
HUANCAYO	143.93	324.7	19	38	0				20	48
LA PAZ	144.23	310.6	19	38	0					

MAY 2 8.H 42.M 33.S EPICENTRE -3.21 -12.28 DEPTH= 0.KM

A= 0.97559 B=-0.21244 C=-0.05569 D=-0.2128 E=-0.9771
G=-0.0544 H= 0.0118 K=-0.9984 HT= 7.1

SE= 3.03

	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
MBOUR	18.09	345.2	4	19	4							
TAMANRASSET	31.14	33.1	6	23	0							
WINDHOEK	34.37	126.5	6	51	0							
LWIRO	41.05	89.7	7	46	-1							
ALGIERS UNI.	42.27	18.4	7	48	-9							
SETIF	42.55	21.3	8	0	1						9	39
BULAWAYO	43.26	116.2	8	5K	0							
KIMBERLEY	43.43	129.7	8	5K	-2							
TOLEDO	43.55	9.2									29	45
MONACO	49.98	18.6	8	57	-1							
CLERMONT-FD.	50.66	13.9	9	3	0						11	2
FOLINIERE	52.78	9.8	9	19	0							
ATHENS	52.83	35.7	9	20K	0							
HELWAN	53.11	48.5	9	21	-1							
TRIESTE	53.87	22.4	9	26	-1							
TOLMEZZO	54.23	21.4	9	34	4						10	53
STRASBOURG	54.46	16.3	9	38	6							
LJUBLJANA	54.50	22.7	9	27	-5							
ZAGREB	54.89	23.9	9	43	8							
STUTTGART	55.07	17.3	9	35	-1							
SOFIA	55.89	31.2	9	42	0							
LA PAZ	56.39	252.4	9	46	0							
BENSBERG	56.48	14.6	9	46	0							
PLAUEN	57.47	18.3	9	49	-4							
JENA	57.68	17.6	9	54	-1							
PRUHONICE	57.82	20.1	9	55	-1						11	59 PP
PRAGUE	57.85	20.0	9	51	-5							
HALLE	58.29	17.6	10	5	6							
KSARA	58.43	46.7	10	0	0	18	0	-3				
COLLMBERG	58.44	18.3	9	58	-2						12	7
RACIBORZ	59.22	22.4	10	5	-1							
TANANARIVE	60.47	109.8	10	18	4							
LWOW	61.40	25.9	10	21	0							
SANTA LUCIA	62.06	233.7				19	3	14			9	35
HUANCAYO	62.98	258.2	10	31	0						12	52
HALIFAX	66.00	322.4	10	50	-1							
UPPSALA	67.12	15.9	10	56	-2							
NURMIJARVI	69.73	18.5	11	13	-1							
SHIRAZ	69.97	57.0	11	21K	5							
PALISADES	71.17	315.3				20	38	-2			23	38
SCORESBY SD.	73.83	356.6	11	39	0							
KIRUNA	74.50	12.3	11	47	5							
SODANKYLA	75.56	14.5	11	47	-2							
QUETTA	82.32	59.1	12	26	1							
STALINABAD	85.00	51.0	12	40	1							
FAYETTEVILLE	85.34	306.4	11	40	-61							

SOUTH POLE	86.81	180.0	12	47	-1						
BYRD STATION	89.81	189.6	13	3	1					16	33 PP
KHEYS	89.99	8.9	13	2	-1						
RESOLUTE	91.12	344.7	13	7	-1						
TUCSON TELE.	98.84	302.1	18	1	777						
TUCSON	98.93	302.0	18	1	777						
EUREKA	102.60	309.6	16	57	777						
COLLEGE	110.77	341.3	13	31	777						
BRISBANE	146.34	155.6	19	25	-17						
CHARTERS TS.	148.69	138.6								18	57

MAY 2 12.H 10.M 12.S EPICENTRE -0.23 121.55 DEPTH= 0.KM

A=-0.52323 B= 0.85218 C=-0.00400 D= 0.8522 E= 0.5232
G= 0.0021 H=-0.0034 K=-1.0000 HT= 7.2

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	
LEMBANG	15.36	244.4	3	46	6	6	46	14					
DJAKARTA	15.83	247.8	3	48	2	6	50	7					
BAGUIO CITY	16.57	356.7	3	59	4								
NHATRANG	17.41	315.7	4	8	2						4	30	PP
HENGCHUN	22.11	358.0	5	4	5								
TAWU	22.45	358.4	5	6	4								
MEDAN	23.17	279.6	5	10	1	9	20	2					
HONG KONG	23.52	342.7	5	14A	1	9	28	4			5	44	PP
HWALIEN	24.06	0.2	5	20	2								
CANTON	24.52	341.5	5	24A	2	9	43	2					
TAIPEI	25.11	359.9	5	31	3								
GUAM	26.70	58.5	5	45	2	10	12	-5					
PORT MORESBY	27.06	110.4	5	47	1	10	24	1					
RABAUL	30.84	97.8	6	20K	0	11	23	-1			7	38	PP
PORT BLAIR	30.98	293.4	6	19	-2	11	35	9			7	46	PP
ZO-SE	31.16	359.4	6	23	0	11	27	-2					
CHARTERS TS.	31.22	130.7	6	24	1	11	31	1					
WUHAN	31.30	348.3	6	25	1	11	31	0			6	46	*SP
MUNDARING	31.97	188.6	6	29	-1								
NANKING	32.22	355.6	6	33A	1	11	45	0	6	47	6	53	*SP
SIAN	36.29	342.2	7	8A	1								
TOCKLAI	37.20	318.2	7	20	5								
ABUYAMA	37.30	19.2	7	15A	-1								
ADELAIDE	38.10	156.9	7	23K	1						9	5	
SHILLONG	38.47	314.0	7	24A	-2	13	19	-3			9	15	PPP
CALCUTTA	39.44	307.2									8	2	
LANCHOW	39.68	337.3	7	37A	1				7	50	7	57	*SP
MATUSIRO	39.72	21.2	7	34	-2	13	31	-9			9	9	PP
TUKUBASAN	40.16	23.5	7	38K	-2				7	43	9	43	PPP
BRISBANE	40.35	134.6	7	43	2	13	51	.1					
PEKING	40.37	353.6	7	42	1	13	48	-2			8	3	*SP
LHASA	41.58	318.2	7	54A	3	14	10	2			8	14	*SP
PAOTOW	41.95	346.8	7	55	1	14	11	-3					
COLOMBO	42.18	280.5	7	54	-2	14	7	-10					
CHATRA	42.64	311.8	8	2A	2	14	22	-2					
MADRAS	43.07	289.4	8	4	1	14	30	0			10	3	
MELBOURNE	43.19	152.6	8	5K	1								
CANBERRA	43.28	146.6	8	6A	1								
RIVERVIEW	43.45	143.3	8	9A	2						9	50	PP
CHANGCHUN	43.99	3.9	8	9	-2								
KODAIKANAL	45.06	284.7	8	19	-1								
HYDERABAD	45.90	294.7	8	26A	0	15	15	4			10	17	PP
NOUMEA	48.89	119.8	8	52	2						10	31	
ULAN-BATOR	49.62	347.1	8	56	1	16	1	-3					
AGRA	49.88	306.6	8	56A	-1	16	2	-5			10	56	PP
POONA	50.41	294.4	9	0A	-1	16	12	-2					
Y.-SAKHLINSK	50.57	18.7	9	1	-2								
DEHRA DUN	51.30	310.3	9	9	1	16	24	-3			11	11	PP
BOMBAY	51.45	294.5	9	9	0	16	28	-1			16	43	PS
UGLEGORSK	52.21	17.0	9	16	1	16	37	-2					
IRKUTSK	54.28	347.0	9	29A	-1								
LAHORE	54.71	309.8	9	36A	3	17	14	1					
WARSAK DAM	57.87	311.3	9	56A	0								
ALMATA	58.84	323.2	10	3A	0								
QUETTA	60.03	305.4	10	9A	-2	18	18	-5			12	24	PP
ANDIJAN	60.39	318.6	10	13A	-1	18	29	1					

NAMANGAN	60.97	318.5	10	17	-1	18	33	-2				
COBB RIVER	61.54	137.9	10	20	-1							
STALINABAD	61.86	314.9	10	23	-1	18	44	-2				
KARAPIRO	62.14	133.7	10	26	1						11	6
YAKUTSK	62.40	4.3	10	25	-2	18	46	-7				
TONGARIRO	62.65	135.0	10	29	0							
WELLINGTON	63.01	137.4	10	30	-1							
MAGADAN	63.84	16.1	10	36	-1	19	11	0				
WILKES	66.44	184.8				20	12	29				
AFIAMALU	67.33	104.9	11	1	2							
TERRE ADELIE	67.91	171.7	10	59	-4							
TIKSI	71.90	2.4	11	24	-3	20	38	-10				
SHIRAZ	71.97	301.3	11	26K	-2	20	58	9				
TEHERAN	74.11	307.3	11	38	-2	21	15	2				
SVERDLOVSK	74.70	330.1	11	41	-2	21	12	-7				
TANANARIVE	74.80	250.6	11	45	1						11	52 PCP
CAPE HALLETT	78.13	166.4	12	5	2	22	18	21			12	46 PCP
MAKHACH-KALA	78.52	313.9	12	5	0							
TIFLIS	80.27	312.3	12	14A	0	22	16	-4				
SCOTT BASE	81.19	171.3	12	20A	1							
KHEYS	86.03	351.5	12	42	-2	23	16	-1				
KSARA	86.52	303.7	12	46	0	23	17	-5	13	5	16	9 PP
MOSCOW	86.75	325.7	12	45A	-2							
JERUSALEM	86.99	301.7	12	49	0						15	55 PP
SIMFEROPOL	88.34	314.8	12	55A	0						16	37 PP
APATITY	89.49	337.4	12	58	-3	23	25	-25			25	44
SOUTH POLE	89.77	180.0	13	2	0	23	45	-8			16	52 PP
COLLEGE	90.48	25.3	13	0	-5	23	59	0			29	22 PKKP
PULKOVO	90.82	329.6	13	2A	-5	23	57	-5				
ISTANBUL UN.	92.09	310.9	13	10	-3							
SODANKYLA	92.11	337.3	13	10	-3						16	51 PP
BULAWAYO	92.68	250.0	13	14A	-1							
LWIRO	92.74	267.8	13	15A	-1						24	48
BROKEN HILL	92.93	255.6	13	15K	-1							
PRETORIA	92.94	244.4	13	17	1							
HELSINKI	93.48	330.2	13	17	-2							
NURMIJARVI	93.60	330.5	13	18	-1						17	8 PP
KIRUNA	94.41	338.1	13	22	-1						17	14 PP
BYRD STATION	94.61	171.2	13	25	1						29	42 PKKP
LWOW	95.04	319.9	13	24	-2						17	22
KIMBERLEY	95.83	241.2	13	17	-13							
SOFIA	96.21	312.8	13	29	-2						17	22 PP
ATHENS	96.32	308.0	12	30	-62							
NORD	96.52	354.3	13	31	-2							
WARSAW	96.64	322.5									17	33 PP
UPPSALA	97.17	330.4	13	33A	-3						17	31 PP
KRAKOW	97.64	320.4	13	36	-2						17	37 PP
SKALSTUGAN	98.70	334.7	13	41	-2						17	32 PP
RACIBORZ	98.73	320.6									17	56 PP
GOTEBORG	100.56	329.0	13	48	-3						18	0 PP
PRUHONICE	101.06	321.0	13	52	-1	24	30	-2			26	58 PS
PRAGUE	101.11	321.1									15	53
COLLMBERG	101.70	322.6	13	55	-1						18	5 PP
LJUBLJANA	101.94	317.1	13	56	-1						18	20 PP
HALLE	102.29	322.9	13	58	-1						18	2 PP
PLAUEN	102.42	321.9	13	56	-3						18	9
TRIESTE	102.55	316.8	17	52	777						24	55 SKKS
RESOLUTE	102.57	9.3	13	55	-5						24	26
JENA	102.66	322.4	13	58	-3						14	27
MESSINA	102.69	309.1	14	38	37						18	15
TOLMEZZO	102.87	317.7									18	35 PP
THULE	103.69	2.4	14	2	-3						29	57 PKKP
ROME	104.27	313.3									18	25
STUTTGART	104.70	320.7	14	8	-1						18	28 PP
MUNSTER	104.72	324.2									18	33
HEIDELBERG	104.86	321.5									18	4 PP
EBINGEN	105.07	320.2									17	56
BENSBERG	105.32	323.3	18	36	777							
STRASBOURG	105.71	320.9	18	41	777						19	2
SCORESBY SD.	105.90	348.0									18	27 PP
UCCLE	107.05	323.8				25	0	0			18	51 PP
BESANCON	107.28	319.9	18	57	777							
MONACO	107.40	316.1	18	28	777							
ISOLA	107.53	316.6	18	30K	777						17	58 PP
KEW	109.47	325.7	18	34	777						19	8
CLERMONT-FD.	109.64	319.2	18	48	777						19	17 PP
SHASTA	109.67	46.5	18	33	777							
MINERAL	110.35	46.7	18	36A	2							
BERKELEY	110.59	49.3									34	39 SS

FOLINIERE	110.72	323.2	18 38	3						
SETIF	111.03	308.9	18 36	1				19	19	PP
LICK	111.22	49.7	18 42A	6				19	50	PP
RATHFARNHAM	111.80	329.3						19	18	PP
RENO	111.91	47.0	18 41A	4						
HUNGRY HORSE	112.34	36.5	18 33	-5				19	21	PP
ALGIERS UNI.	112.68	310.1						19	27	PP
TAMANRASSET	113.99	294.8	18 38	-3				19	35	PP
BUTTE	114.29	38.3	18 38	-4				29	30	PKKP
EUREKA	114.72	45.9	18 43	0				29	22	PKKP
PASADENA	114.86	52.1	18 44	1				29	30	
BOZEMAN	115.39	38.1	18 44	0				29	25	PKKP
BOULDER CITY	116.84	49.2	18 49	2						
SALT LAKE C.	117.09	43.2	18 48	1				29	18	PKKP
TUCSON	121.29	51.8	18 57	2						
TUCSON TELE.	121.34	51.6	18 57	1				20	19	PP
LAWRENCE	128.81	36.8	19 10	0						
FAYETTEVILLE	131.28	39.0	18 14K	-61				21	36	
FLORISSANT	131.74	33.6						22	43	PKS
ST. LOUIS 1	131.93	33.7	19 17	1				22	38	PKS
BREBEUF	132.97	14.6	19 18	0				22	50	PKS
LITTLE ROCK	133.27	39.1	19 20	2				22	43	PKS
HALIFAX	135.57	5.3	19 23	0						
MORGANTOWN	136.14	24.1	19 25K	1				22	8	PP
MBOUR	136.63	290.8	19 27	2				22	0	PP
PALISADES	137.06	17.2						22	9	PP
SAN SALVADOR	146.75	65.0						25	45	
HUANCAYO	159.27	126.6	20 5	5				21	0	PKP2
SAN JUAN	160.45	22.3	20 2	1				20	44	
LA PAZ	160.83	150.6	19 53	-9	27	7	1			
CHINCHINA	162.22	74.4	20 5	2						
ANTIGUA	162.87	11.1	20 5	1						
DOMINICA	164.75	10.9	20 8	2						
CARACAS	166.77	39.3	20 5	-2						

MAY 3 6.H 58.M 55.S EPICENTRE 27.63 54.39 DEPTH= 0.KM

A= 0.51663 B= 0.72132 C= 0.46130 D= 0.8130 E=-0.5823
G= 0.2686 H= 0.3750 K=-0.8872 HT= 2.6

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHIRAZ	2.60	321.2	0 47K	3				
TEHERAN	8.48	343.2	2 6	-1	4 24	39		
QUETTA	11.30	74.0	2 46K	0	4 47	-7		2 57 PP
WARSAK DAM	16.04	62.5	3 51	2				
TIFLIS	16.10	333.3	3 52	3	6 55	6		
STALINABAD	16.23	44.1	3 50	-1	6 58	6		
MAKHACH-KALA	16.30	341.7	3 53	1				
KSARA	17.06	295.7	4 5	3	7 15	4		
JERUSALEM	17.16	288.6	4 4	1	7 30	17		
NAMANGAN	19.48	42.4	4 31	0	8 10	4		
ANDIJAN	19.76	43.9	4 34A	0				
HELWAN	20.34	281.8	4 40	-1	8 25	1		
SIMFEROPOL	23.68	322.2	5 6A	-8				
ALMATA	24.00	43.5	5 20	3				
CHATRA	29.12	83.9	6 5	0				
SVERDLOVSK	29.52	7.0	6 8	0				
SHILLONG	33.50	84.8	6 42A	-1				
CHITTAGONG	34.24	90.4	6 49	-1	12 5	-11		7 57 PP
LJUBLJANA	36.36	311.1	7 5	-3				
PRUHONICE	37.62	317.3	7 18A	0				
HELSINKI	38.20	336.6	7 23	0				
NURMIJARVI	38.55	336.8	7 27	1				
HALLE	39.70	318.7	7 36	0				
JENA	39.73	317.7	7 36	0				
UPPSALA	40.80	332.5	7 44	-1				
MONACO	40.82	305.9	7 41	-4				
ISOLA	41.15	306.5	7 48	0				8 2
APATITY	41.91	348.1	7 54A	0				
MUNSTER	42.41	318.1	7 20	-38				
SODANKYLA	43.18	344.7	8 4	0				9 55 PCP
UCCLE	44.10	315.7	8 14	2	14 41	-4		
TAMANRASSET	44.26	275.1	8 14A	1				

SKALSTUGAN	45.01	334.9	8	18	-1						
KIRUNA	45.08	342.6	8	19	-1						
FOLINIERE	46.87	312.1	8	33	-1						
KEW	47.11	315.8	8	36	0						
BULAWAYO	53.64	210.5	9	27K	2						
TIKSI	59.15	20.8	10	1	-4	18	13	1			
YAKUTSK	59.15	32.1	10	8	3						
SCORESBY SD.	59.68	337.8	10	9	0						
THULE	70.43	347.8	11	17	-1						
RESOLUTE	76.00	352.0	11	50A	-1						
COLLEGE	86.20	9.3	12	44	-1						
HUANCAYO	130.57	277.9								22	44 PP

MAY 3 7.H 55.M 11.S EPICENTRE 29.85 99.58 DEPTH= 0.KM

A=-0.14456 B= 0.85670 C= 0.49514 D= 0.9861 E= 0.1664
G=-0.0824 H= 0.4882 K=-0.8688 HT= 1.9
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	
CHENGTU	3.92	76.9	1	7A	5	1	43	-7			1	16	PG
TOCKLAI	5.24	235.1	1	29	8						2	57	
KUNMING	5.48	148.4	1	38	13								
LANCHOW	7.15	28.3	1	51K	2						2	18	PG
SHILLONG	8.05	239.9	1	58K	-3	3	29	-5			2	5	PP
SIAN	9.06	58.6	2	13	-2								
CHATRA	11.34	257.6	2	44A	-2								
CALCUTTA	12.42	236.7	3	23	22						6	40	
WUHAN	12.98	83.2	3	8	0								
BOKARO	13.68	247.3	3	13K	-4	5	45	-6					
PAOTOW	13.69	35.7	3	19	2								
CANTON	14.04	115.4	3	21	-1								
HONG KONG	15.10	116.4	3	43	7	6	45	20					
PEKING	16.95	48.8	4	3A	3								
DEHRA DUN	18.64	276.9	4	20	-1	7	45	-1			8	11	SS
ZO-SE	18.66	80.7	4	22	1								
ULAN-BATOR	18.91	15.3	4	27	3								
AGRA	19.14	267.1									6	4	
PORT BLAIR	19.18	200.9	4	22	-5	7	52	-7					
NHATRANG	19.69	151.0	4	31	-2	8	9	-1					
ALMATA	22.49	312.7	5	4K	2	9	13	8					
IRKUTSK	22.68	7.6	5	7A	3	9	18	10					
HYDERABAD	22.92	242.1	5	5K	-1	9	26	13			10	35	SS
BAGUIO CITY	23.43	120.1	5	14	3						12	23	
FRUNSE	23.82	309.8	5	18	3						9	44	
WARSAK DAM	24.11	287.2	5	24	6								
MADRAS	24.57	231.1	5	23	1								
ANDIJAN	24.63	303.6	5	25K	2	9	50	8					
CHANGCHUN	24.75	48.6	5	24	0								
MANILA	24.91	122.6									5	48	PP
SEMIPALATNSK	25.16	330.1	5	28	0	9	56	5					
NAMANGAN	25.21	303.7	5	30	2								
POONA	25.97	250.1	5	42K	6	10	17	12					
MEDAN	26.14	182.0	5	37A	0	10	9	1					
BOMBAY	26.63	252.0	5	47	5	10	36	20			14	7	
STALINABAD	26.83	297.2	5	45	2								
DUZHANBE	26.83	297.2	5	45	2						10	36	
TASHKENT	27.04	303.3	5	46	1	10	45	23			11	43	SS
QUETTA	28.21	278.9	5	56K	0	10	44	3			11	12	
MATUSIRO	32.85	68.0	6	37	0	11	55	0			14	42	
ASHKABAD	34.94	294.5	6	56	1								
Y.-SAKHLINSK	37.36	50.4	7	17	1								
YAKUTSK	37.72	22.8	7	16	-3	13	9	-1					
SVERDLOVSK	38.27	326.1	7	24	1								
TEHERAN	40.61	291.3	7	44	1								
GUAM	44.72	101.4									9	48	
TIKSI	44.78	12.7	8	12K	-5	14	47	-7					
TIFLIS	45.30	300.6	8	21	0								
PETROPAVLOVK	48.37	43.9	8	43	-2								
SIMFEROPOL	52.78	305.8	9	19	0	16	47	1					
KSARA	53.50	291.8	9	25	1								
PULKOVO	54.35	324.4	9	30	0	17	10	2					
SODANKYLA	56.28	333.6	9	42	-2								
HELSINKI	57.04	324.9	9	48	-2								
NURMIJARVI	57.17	325.4	9	51	0								

HELWAN	58.33	288.6	9 56	-3		
KIRUNA	58.66	334.1	10 0	-1		
LWOW	58.82	312.9	10 0K	-2		
UPPSALA	60.73	325.0	10 14	-1		
SKALSTUGAN	62.54	329.8	10 26	-2		
GOTEBORG	64.07	323.4	10 40	2		
PRUHONICE	64.74	314.7	10 42K	0	13 4	PP
PRAGUE	64.79	314.8	10 44	2	13 2	PP
COLLMBERG	65.29	316.4	10 45	-1	11 17	PCP
HALLE	65.86	316.8	10 49	0		
LJUBLJANA	65.96	310.6	10 48	-2		
PLAUEN	66.05	315.7			11 46	PCP
JENA	66.26	316.3	10 50	-2	13 15	PP
TRIESTE	66.59	310.3	10 54	0		
MUNSTER	68.24	318.3	11 4	0		
STUTTGART	68.39	314.6	11 5	0	20 26	PKP
STRASBOURG	69.39	314.8	11 12	1	11 40	PCP
TANANARIVE	69.73	232.7	11 13	0		
UCCLE	70.58	317.9	11 14	-5		
DOURBES	70.72	317.2	11 20	1		
BESANCON	71.02	314.0	11 20	-1		
MONACO	71.49	310.2	11 24	0		
ISOLA	71.56	310.7	11 23	-2		
DURHAM	72.17	323.3	11 28K	0		
COLLEGE	72.23	24.5	11 26	-3		
KEW	72.97	319.9	11 33	0		
CLERMONT-FD.	73.43	313.5	11 36	0		
FOLINIERE	74.28	317.4	11 40	-1		
ADELAIDE	74.28	147.4	11 39	-2		
RESOLUTE	75.31	3.9	11 44	-2		
RATHFARNHAM	75.31	323.4	11 44	-2		
SETIF	76.12	303.8	11 51	0		
CANBERRA	79.79	140.9	12 11	0		
TAMANRASSET	82.31	291.7	12 25K	1		
BULAWAYO	84.45	243.2	12 33A	-2		
CORVALLIS	96.24	29.3	13 22	-9		
HUNGRY HORSE	96.54	21.8	13 36	4		
PALISADES	109.24	354.8			29 49	PPS
BYRD STATION	127.24	172.1	19 5	-1		
LA PAZ	162.58	317.0	20 5	2		

MAY 3 13.H 22.M 8.S EPICENTRE -0.23 121.57 DEPTH= 0.KM

A=-0.52350 B= 0.85202 C=-0.00391 D= 0.8520 E= 0.5235
G= 0.0020 H=-0.0033 K=-1.0000 HT= 7.2

SE= 2.56

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	14.81	358.2	3 39	7	5 17	-61		
LEMBANG	15.38	244.5	3 45K	5	6 45	14		
DJAKARTA	15.85	247.8			7 19	37		4 9 PP
BAGUIO CITY	16.57	356.7	3 56	1	7 8	9		
NHATRANG	17.42	315.7	4 8	3				4 27 PP
HENGCHUN	22.10	358.0	5 3	5				
TAWU	22.45	358.4	5 6	5				
HONG KONG	23.52	342.6	5 14A	2	9 0	-23		
CANTON	24.52	341.5	5 23A	1				
GUAM	26.69	58.5	5 44	2				
PORT BLAIR	30.99	293.4						9 52
KUNMING	31.09	325.5	6 23A	1				7 25 PP
ZO-SE	31.16	359.4	6 23A	1	11 27	-1		
CHARTERS TS.	31.21	130.7	6 23	0				16 55
WUHAN	31.30	348.3	6 25A	1	11 34	4		
MUNDARING	31.98	188.6	6 28	-1				
NANKING	32.22	355.6	6 32A	0	11 43	-2		
CHENGTU	34.96	333.0	6 55	0				
SIAN	36.29	342.2	7 8A	1				
CHITTAGONG	36.66	309.7	7 0	-10	12 36	-17		8 20 PP
TOCKLAI	37.21	318.2	6 17	-57				
ADELAIDE	38.10	156.9	7 23	1				
SHILLONG	38.48	314.0	7 25A	0				
LANCHOW	39.69	337.3	7 36A	1				
MATUSIRO	39.71	21.2	7 33	-2	13 28	-12		9 41 PCP

TUKUBASAN	40.15	23.5	7	38	-1			9	42 PPP
BRISBANE	40.34	134.6	7	43	3	13	44 -5		
PEKING	40.37	353.6	7	41A	0	13	47 -3		
LHASA	41.58	318.2	7	54A	3	14	8 0		
PAOTOW	41.95	346.8	7	54	0				
COLOMBO	42.20	280.5	8	13	17	14	13 -4		
CHATRA	42.65	311.8	7	59A	0	14	21 -2		
MADRAS	43.08	289.4	8	4	1				
MELBOURNE	43.19	152.6	8	4	0			9	54 PP
CANBERRA	43.28	146.7	8	6A	2			9	56 PP
RIVERVIEW	43.44	143.3	8	9	3	14	37 2		
CHANGCHUN	43.99	3.9	8	9	-1				
NOUMEA	48.88	119.8	8	47	-2			9	55
ULAN-BATOR	49.62	347.1	8	54	-1	15	58 -5		
AGRA	49.90	306.6	8	56A	-1	16	0 -7	10	56 PP
POONA	50.42	294.4	8	59A	-2				
DEHRA DUN	51.31	310.3	9	13	5	16	23 -3		
BOMBAY	51.46	294.5	9	6	-3	16	24 -4	16	42 PS
UGLEGORSK	52.20	16.9	9	13A	-1	16	6 -32		
IRKUTSK	54.28	347.0	8	59	-31				
WARSAK DAM	57.88	311.3	9	56	0				
ALMATA	58.85	323.2	10	2A	0				
QUETTA	60.04	305.4	10	8A	-3	18	17 -6	12	24 PP
ANDIJAN	60.40	318.6	10	12	-1	18	27 0		
NAMANGAN	60.98	318.5	10	17	0	18	36 1		
PETROPAVLOVK	61.39	24.5	10	17A	-3	18	38 -2		
STALINABAD	61.87	314.9	10	21	-2	18	42 -4		
KARAPIRO	62.13	133.7	10	25	0				
YAKUTSK	62.39	4.3	10	24	-2	18	46 -7		
MAGADAN	63.83	16.1	10	35	-1				
AFIAMALU	67.31	104.9	11	15	17				
TERRE ADELIE	67.92	171.7	10	59	-3				
TIKSI	71.89	2.4	11	22A	-4	20	37 -10		
SHIRAZ	71.98	301.3	11	25	-2	20	57 9		
TEHERAN	74.12	307.3	11	38	-1				
SVERDLOVSK	74.71	330.1	11	41	-2				
TANANARIVE	74.82	250.6	11	44	1			13	15
CAPE HALLETT	78.13	166.4	13	3	61				
MAKHACH-KALA	78.53	313.9	12	2	-2				
TIFLIS	80.28	312.3	12	13A	-1	22	16 -3		
SCOTT BASE	81.19	171.3	12	24	5				
KHEYS	86.03	351.5	12	41	-2	23	2 -15		
KSARA	86.54	303.7	12	45	-1	23	25 3	16	5 PP
MOSCOW	86.76	325.7	12	45	-2				
JERUSALEM	87.01	301.7	12	49	1				
APATITY	89.49	337.4	12	57	-3	23	43 -6	23	21 SKS
SOUTH POLE	89.78	180.0	13	1	0			13	39
COLLEGE	90.46	25.3	13	2	-2				
PULKOVO	90.82	329.6	13	4	-2	23	51 -10		
SODANKYLA	92.12	337.3	13	10	-2			16	51 PP
BULAWAYO	92.70	249.9	13	13A	-2				
BROKEN HILL	92.94	255.6	13	15A	-1				
NURMIJARVI	93.61	330.5	13	18	-1			16	59 PP
KIRUNA	94.41	338.1	13	21	-2			16	18
BYRD STATION	94.62	171.2	13	25	2				
LWOW	95.05	319.9	13	23	-2			17	20
UPPSALA	97.18	330.4						17	31 PP
SKALSTUGAN	98.70	334.7						17	45 PP
PRUHONICE	101.07	321.0	13	50	-3			18	2 PP
LJUBLJANA	101.95	317.1						18	19 PP
PLAUEN	102.43	321.9						17	21
STUTTGART	104.70	320.7	17	33	777			18	12 PP
BENSBERG	105.32	323.3						16	35 PP
STRASBOURG	105.72	320.9	18	42	777				
UCCLE	107.05	323.8						18	50 PP
DOURBES	107.16	323.1						18	50 PP
CLERMONT-FD.	109.65	319.2						19	9 PP
HUNGRY HORSE	112.32	36.5	18	38	1			19	24 PP
TAMANRASSET	114.00	294.8	18	40	-1				
EUREKA	114.70	46.0	18	43	1				
BOULDER CITY	116.82	49.2	18	48	2				
LAWRENCE	128.79	36.8	19	10	1				
FAYETTEVILLE	131.27	39.0	18	14	-60				
BREBEUF	132.96	14.6	19	17	0				
MORGANTOWN	136.13	24.1	19	25A	2				
HUANCAYO	159.26	126.6	20	3	3				
SAN JUAN	160.44	22.3						21	44 PP
LA PAZ	160.82	150.5	20	6	5				

MAY 3 22.H 22.M 42.S EPICENTRE 32.32 140.08 DEPTH= 119.KM

A=-0.64934 B= 0.54333 C= 0.53211 D= 0.6417 E= 0.7669
G=-0.4081 H= 0.3415 K=-0.8467 HT= 1.0

DEPTH OF FOCUS= 0.014R

SE= 2.43

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HATIDYOZIMA	0.81	342.6	0	20	-1	0	33	-4				
TORISIMA	1.85	174.1	0	31	-1	0	55	-1				
OSIMA	2.51	346.7	0	38A	-2	1	8	-3			1	46
MERA	2.60	355.5	0	40	-2	1	10	-3				
OMAESAKI	2.75	326.1	0	44A	0	1	19	2				
AJIRO	2.84	343.6	0	45	0	1	21	2				
MISIMA	2.94	341.7	0	47	1	1	23	2				
SHIZUOKA	2.99	332.5	0	46A	-1	1	28	5			4	17
HAMAMATU	3.10	321.1	0	49	1	1	26	1			2	0
YOKOHAMA	3.12	353.5	0	48	-1	1	24	-2				
HUNATU	3.35	341.4	0	52K	0	1	31	0				
TOKYO C.M.O.	3.36	355.4	0	52	0	1	31	0				
HONGO	3.39	355.7	0	44	-8							
TYOSI	3.45	10.5	0	51K	-2	1	30	-4				
KOHU	3.57	339.7	0	56	1	1	40	4				
OWASE	3.69	299.2	0	56	0	1	39	0				
IIDA	3.70	330.2	0	59	3	1	43	3				
TITIBU	3.74	347.5	0	59	2	1	41	0				
SIOMISAKI	3.80	288.4	0	57	-1	1	41	-1				
TU	3.80	309.5	0	59	1							
NAGOYA	3.84	318.5	1	0A	2	1	44	1				
KUMAGAYA	3.86	351.6	0	57	-2	1	41	-2				
TUKUBASAN	3.89	0.2	0	56A	-3							
KAKIOKA	3.90	1.2	0	57	-2							
KAMEYAMA	3.93	310.9	0	59	0	1	47	2				
MITO	4.06	4.5	1	2K	1	1	44	-4				
GIHU	4.12	319.0	1	2A	0	1	49	-1				
MAEBASI	4.15	348.7	1	0	-2	1	53	2				
OIWAKE	4.19	342.9	1	5	2	1	55	4				
UTUNOMIYA	4.22	357.7	1	1	-2	1	46	-6				
NARA	4.26	304.7	1	5	1							
MATUMOTO	4.29	336.6	1	7	3	2	0	6				
HIKONE	4.34	313.7	1	7A	2	1	57	2				
OSAKA	4.45	302.6	1	7A	0	1	57	-1				
MATUSIRO	4.48	340.4	1	7	0	1	58	0			1	45
WAKAYAMA	4.53	296.1	1	8A	0	1	59	-1				
ABUYAMA	4.54	305.2	1	7K	-1	2	2	2				
NAGANO	4.61	340.8	1	10	1	2	3	1				
ONAHAMA	4.67	8.1	1	6	-3	1	55	-8				
TSURUGA	4.70	316.0	1	10	0	2	6	2				
KOBE	4.72	301.2	1	10	0	2	7	3				
SUMOTO	4.77	296.3	1	12A	1	2	6	0			3	2
SHIRAKAWA	4.79	1.3	1	12	1	2	0	-6				
HUKUI	4.90	320.4	1	14	1	2	14	5				
TOKUSIMA	4.93	292.2	1	14A	1	2	13	4				
TOYAMA	4.97	332.2	1	12	-1	2	15	5				
TAKADA	5.00	343.0	1	17	3	2	9	-2				
MUROTO	5.05	282.1	1	14A	-1	2	16	4				
KANAZAWA	5.06	326.9	1	24	9							
TOYOOKA	5.42	307.6	1	20A	1	2	21	0				
HUKUSIMA	5.42	3.3	1	17	-3	2	13	-8				
KOTI	5.64	284.3	1	23A	1	2	28	1				
NIIGATA	5.65	351.7				2	28	1			1	49
WAZIMA	5.68	333.5	1	24	1	2	32	4				
AIKAWA	5.88	345.7	1	15	-11							
YAMAGATA	5.92	2.1	1	24	-2	2	24	-9				
SENDAI	5.97	6.2	1	23	-4	2	26	-9				
SIMIDU	6.02	276.2	1	28	0	2	38	2				
ISINOMAKI	6.18	9.1	1	26A	-4	2	24	-16				
MATUYAMA	6.31	285.8	1	30	-2	2	43	0				
YONAGO	6.40	300.8	1	32	-1	2	48	3			2	14
UWAZIMA	6.41	280.1	1	33	0	2	50	5				
SAKATA	6.57	358.3	1	35	0	3	3	14				
MATSUE	6.61	300.1	1	37	1	2	54	4				
HIROSIMA	6.72	289.8	1	38A	1	3	4	11				

SAIGO	6.79	306.5	1	38	0	2	57	2				
MIZUSAWA	6.85	6.9	1	40	1	2	48	-8				
HAMADA	7.16	293.2	1	46	3	3	10	6				
MIYAZAKI	7.36	269.2	1	48	2	3	16	8				
AKITA	7.38	0.1	1	53	7	3	20	11			3	2
MORIOKA	7.41	6.5	1	44	-3	3	0	-10				
MIYAKO	7.47	11.3	1	38	-9	2	58	-13			2	4
HATINOHE	8.27	7.7	1	46	-12	3	20	-11				
SAGA	8.29	279.0	2	1	3	3	34	3				
AOMORI	8.50	3.6	2	4	3	3	26	-10			3	9
HAKODATE	9.49	3.1	2	24	10	4	15	15				
MORI	9.77	2.2									3	4
URAKAWA	10.04	11.6	2	16	-6	4	6	-7			3	49
HIROO	10.27	13.6									4	8
TOMAKOMAI	10.36	6.2									4	13
SAPPORO	10.78	5.0									4	34
OBIHIRO	10.86	12.3	2	29	-4	4	22	-11				
KUSIRO	11.17	16.6	2	42	5	4	27	-13				
NEMURO	11.81	20.0	2	47	2	4	41	-14				
ABASHIRI	12.13	14.6				4	51	-12				
Y.-SAKHLINSK	14.82	7.1	3	21	-3							
ZO-SE	16.13	270.7	3	41K	0	6	43	8				
CHANGCHUN	16.32	319.0	3	43	0							
UGLEGORSK	16.81	4.5	3	59	10	7	2	11				
NANKING	18.03	274.9	4	4	0						4	35 *SP
GUAM	19.25	166.1	4	16	-1	7	46	3				
PEKING	20.74	298.5	4	32	0	8	30	18	4	53	5	5 *SP
WUHAN	21.84	272.1	4	44	1				5	6		
BAGUIO CITY	23.73	232.8	5	0	-2	9	56	51				
PETROPAVLOVK	24.65	27.5	5	11K	1	9	19	-1				
MANILA	24.67	229.0	5	13	2	10	9	48				
HONG KONG	25.04	253.0	5	36	22	10	24	57				
PAOTOW	25.44	297.4	5	17	-1							
MAGADAN	28.16	11.6	5	43	0	10	20	2				
ULAN-BATOR	29.49	311.6	5	53	-2							
LANCHOW	30.11	287.2	5	57	-2							
YAKUTSK	30.46	350.4	6	1	-2	10	51	-3				
CHENGTU	30.71	276.6	6	4	-1							
IRKUTSK	32.65	318.3	6	22A	0							
KUNMING	33.40	267.3	6	28	-1				6	51		
NHATRANG	34.68	241.8	6	39	-1				7	7		
TIKSI	39.83	354.5	7	20K	-3	13	16	-2				
LHASA	41.84	279.7	7	38	-1							
PORT MORESBY	42.03	169.5	7	40	-1	13	49	-1				
SHILLONG	42.44	273.7	7	42A	-2							
CHATRA	45.96	277.5	8	10	-2							
LEMBANG	49.72	224.3	8	38K	-4							
ALMATA	49.99	301.7	8	43K	-1							
DEHRA DUN	52.36	285.3	9	1	-1							
CHARTERS TS.	52.45	172.7	8	30	-32						16	15
COLLEGE	53.68	30.3	9	11	0							
WARSAK DAM	56.38	291.8	9	29	-2						13	6 PPP
KHEYS	57.03	348.8	9	34	-1							
STALINABAD	57.11	297.8	9	36	0							
SVERDLOVSK	58.01	320.4	9	41	-1							
HAWAII V.OB.	58.80	85.6	9	49	1							
POONA	60.54	274.2	9	57K	-3							
BRISBANE	60.60	167.0	10	1	1							
QUETTA	61.38	289.3	10	4K	-1						10	58 *SP
AFIAMALU	65.07	127.1	10	29	-1							
APATITY	66.54	336.4	10	37K	-2	19	18	0				
RIVERVIEW	66.62	170.0	10	40A	1							
ADELAIDE	66.95	181.2	10	41	0							
RESOLUTE	67.43	13.6	10	43	-1							
CANBERRA	67.81	172.1	10	47A	0				11	30		
MUNDARING	67.81	201.8	10	46A	-1				11	11		
SODANKYLA	68.88	337.6	10	53	0				11	24		
ALBERNI	69.34	44.2	10	57	1							
MELBOURNE	69.94	175.9	10	59A	-1							
THULE	70.06	6.9	10	59	-2				11	33		
MOSCOW	70.39	324.1	11	1K	-2	20	5	1				
KIRUNA	70.53	339.5	11	3	0							
TEHERAN	71.02	300.7	11	6	0							
PULKOVO	71.69	329.9	11	10K	0	20	19	0				
PENTICTON	72.34	42.5	11	16	2							
CORVALLIS	72.40	48.1	11	16A	1							
TIFLIS	72.87	308.7	11	17	0							
SHIRAZ	72.95	294.5	11	17	-1	20	33	0				
NURMIJARVI	73.58	332.2	11	21	0							

HELSINKI	73.67	331.9	11 21	-1					
SHASTA	74.85	51.3	11 9	-20			11 31		
UKIAH	75.07	53.1	11 31	1					
MINERAL	75.55	51.3	11 28	-5					
SKALSTUGAN	75.89	338.6	11 34	-1					
HUNGRY HORSE	76.01	41.4	11 37	2					
BERKELEY	76.35	53.8	11 38K	1					
SCORESBY SD.	76.68	353.9	11 41	2					
UPPSALA	76.70	334.0	11 38	-1				11 54	
LICK	77.05	54.0	11 42A	1					
RENO	77.15	51.3	11 43A	1					
KARAPIRO	77.31	152.0	11 44	1				12 10	
SIMFEROPOL	77.92	315.7	11 46K	0	21 30	2			
BUTTE	78.13	42.8	11 53	6			12 46		
FRESNO	78.60	53.7	11 51A	1					
BOZEMAN	79.20	42.5	11 55	2					
EUREKA	79.69	49.8	11 56	0					
KISHINEV	79.74	319.6	11 55	-1					
GOTEBORG	80.31	334.6	11 59	0					
WARSAW	80.41	327.0	11 59	0			12 25		
LWOW	80.53	323.8	12 OK	0					
PASADENA	81.12	55.3	12 4	1	22 5	4			
SALT LAKE C.	81.57	46.9	12 7	2					
COPENHAGEN	81.62	333.0	12 6	0			12 46		
KRAKOW	82.38	325.8	12 10	0			12 42	12 18	PCP
BOULDER CITY	82.39	52.2	12 12	2					
KSARA	83.00	305.6	12 13	0					
RACIBORZ	83.17	326.6	12 14	0				12 55	
POTSDAM	83.80	330.5	12 17	0					
COLLMBERG	84.62	329.8	12 22K	1			12 58	15 38	PP
PRAGUE	84.90	328.3	12 23	1	22 42	3			
PRUHONICE	84.91	328.2	12 23K	1				15 38	PP
HALLE	84.92	330.4	12 22	0			12 59	15 47	PP
LARAMIE	85.01	43.6	12 26	3					
BRATISLAVA	85.02	325.7	12 24A	1			12 38	15 32	PP
JENA	85.50	330.2	12 24	-1			13 15	15 44	PP
PLAUEN	85.58	329.6	12 22	-4				15 42	PP
BELGRADE	85.65	321.7	12 26K	0	22 49	3		20 4	
WITTEVEEN	86.00	333.8	12 30A	2					
SONNEBERG	86.07	330.0	12 30	2				15 50	PP
MUNSTER	86.30	332.8	12 30	1					
DURHAM	87.20	338.9	12 35K	1					
TUCSON	87.25	53.3	12 37	3					
BENSBERG	87.27	332.4	12 35	1					
TUCSON TELE.	87.27	53.2	12 36	2				16 0	PP
LJUBLJANA	87.77	325.5	12 36	0					
HEIDELBERG	87.86	330.6	12 36	-1					
STUTTGART	88.11	329.9	12 38	0					
TOLMEZZO	88.22	326.5	12 36	-2	23 11	0		13 26	
TUBINGEN	88.38	329.9	12 40	1					
TRIESTE	88.43	325.6	12 38	-1					
HELWAN	88.44	304.6	12 38	-1					
UCCLE	88.48	333.7	12 41	1					
EBINGEN	88.69	329.7	12 40	-1					
RAVENSBURG	88.72	329.1	12 40	-1					
STRASBOURG	88.89	330.6	12 42	0					
DOURBES	88.95	333.2	12 45	3					
KEW	89.59	336.5	12 46	1					
BASLE	89.79	330.0	12 59A	13					
RATHFARNHAM	89.86	340.6	12 42	-4					
BESANCON	90.68	330.7	12 51	1					
FOLINIERE	91.92	335.1	12 55	-1					
ISOLA	92.64	328.2	12 59	0			13 28		
CLERMONT-FD.	93.04	331.4	13 2A	1					
TAMANRASSET	110.09	315.6	18 20	3			19 3	19 6	PP
BROKEN HILL	115.72	268.7	18 31	3					
BULAWAYO	118.25	263.0	18 34	1					
PRETORIA	120.98	257.4	18 41	3					
SOUTH POLE	122.15	180.0	18 41	1				20 19	PP
BYRD STATION	123.41	168.1	18 44	1					
KIMBERLEY	124.91	255.5	18 55K	9					
HUANCAYO	141.76	66.3	19 15	-2					
LA PAZ	149.99	65.1	19 41	10					

MAY 3 23.H 57.M 41.S EPICENTRE -19.55-178.12 DEPTH= 580.KM

A=-0.94255 B=-0.03093 C=-0.33263 D=-0.0328 E= 0.9995
G= 0.3324 H= 0.0109 K=-0.9431 HT= 4.8

DEPTH OF FOCUS= 0.086R

SE= 1.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	8.27	48.2	2 1A	-1	3 37	-2		
PORT VILA	12.98	275.8	2 48	0	5 10	6		
NOUMEA	14.67	256.6	3 5	0				4 11
ONERAHI	17.46	200.7	3 35	3				
KARAPIRO	19.13	195.5	3 49	2				
WELLINGTON	22.49	194.1	4 16	-2				
GEBBIES PASS	25.29	195.8	4 41	-2				
BRISBANE	27.76	248.2	5 4	-1				10 48
CHARTERS TS.	33.48	262.9	5 54K	1	10 34	-2		
PORT MORESBY	35.04	281.7	6 8	2				
ADELAIDE	41.00	238.9	6 53K	-2				
GUAM	49.12	309.0	7 57	0				
CAPE HALLETT	53.20	184.4	8 28K	2				
TERRE ADELIE	53.88	198.5	8 32	1				
SCOTT BASE	58.81	183.7	9 4	-1				
MUNDARING	59.64	243.8	9 10	-1				
BYRD STATION	65.59	170.6	9 48	-1				
MATUSIRO	69.38	323.5	10 11	-1				
SOUTH POLE	70.57	180.0	10 18	-1	18 44	-3		
LEMBANG	72.94	268.7	10 33K	1				
BERKELEY	77.55	42.1	10 58A	0				
LICK	77.63	42.9	10 59A	1				
CORVALLIS	81.05	36.3	11 17	1				
TUCSON	82.42	52.0	11 24	1				
EUREKA	82.51	43.6	11 23	0				
TUCSON TELE.	82.55	52.0	11 24	0				
COLLEGE	87.31	12.5	11 44	-3			13 55	
QUETTA	120.70	294.0	17 47	1				
SODANKYLA	129.65	347.9						20 30 SKP
KIRUNA	130.32	350.9	18 0	-5				20 32 SKP
SHIRAZ	133.18	292.6						20 43 SKP
NURMIJARVI	135.99	344.0	18 4	-11				20 52 SKP
HELSINKI	136.20	343.5	18 13	-3				
UPPSALA	138.19	348.1	18 11	-8				
DURHAM	144.74	3.5	18 32	0				
LWIRO	145.82	233.6	18 35K	2				
KSARA	146.63	302.2	18 38	4				
RACIBORZ	146.88	340.7	18 38	3				
COLLMBERG	147.12	347.1	18 38	3			21 4	
HALLE	147.14	348.4	18 38	3				
JERUSALEM	147.70	298.8	18 42	6				
JENA	147.76	348.5	18 36	0				
PRUHONICE	148.00	344.5	18 41K	5			20 59	
PLAUEN	148.06	347.6	18 37	1				
SONNEBERG	148.36	348.6	18 43	6				
BENSBERG	148.38	353.6	18 42	5				
UCCLE	148.76	357.0	18 44	7				
DOURBES	149.44	356.6	18 47	9				
HEIDELBERG	149.72	351.1						18 45 PKP2
STUTTGART	150.24	350.1	18 39	-1				18 45 PKP2
TUBINGEN	150.51	350.3						18 47 PKP2
STRASBOURG	150.65	352.0	18 37	-3				
FOLINIERE	150.79	3.2	18 47	7				
EBINGEN	150.87	350.2						18 47 PKP2
RAVENSBURG	151.14	349.2						18 47 PKP2
HELWAN	151.42	296.8	18 48	7				
LJUBLJANA	151.59	341.3	18 42	0				

MAY 4 18.H 29.M 42.S EPICENTRE -20.33 173.01 DEPTH= 0.KM

A=-0.93147 B= 0.11427 C=-0.34540 D= 0.1218 E= 0.9926
G= 0.3428 H=-0.0421 K=-0.9385 HT= 4.6

SE= 2.15

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

PORT VILA	5.13	299.5	1 22	2	2 27	6					
SUVA	5.56	68.0	1 38	12	2 53	22					
NOUMEA	6.42	251.1	1 38	0	2 48	-5					
ONERAHI	15.43	175.8	3 43	3							
AFIAMALU	15.88	68.7	3 43	-3						3 58	PP
AUCKLAND	16.55	174.9	3 52	-3	7 8	9					
KARAPIRO	17.67	173.4	4 8	-1							
TUAI	18.75	169.9	4 23	1							
CHATEAU	18.93	173.9	4 25	1							
BRISBANE	19.77	245.3	4 33	-1	8 18	6					
COBB RIVER	20.68	180.6	4 47	3							
WELLINGTON	20.94	176.3	4 45	-2	8 27	-9					
KAIMATA	22.16	183.1	5 6	7							
GEBBIES PASS	23.30	180.7	5 10	0							
RIVERVIEW	23.59	230.8	5 13A	0	9 33	8					
CHARTERS TS.	25.09	265.9	5 27	0	9 56	6					
ROXBURGH	25.26	186.1			9 58	5					
PORT MORESBY	27.21	289.7	5 47	0	10 24	-1	5 58		6 35	PP	
MUNDARING	51.77	244.9	9 10	-1							
CAPE HALLETT	52.02	181.1	9 11	-2	16 41	5					
SCOTT BASE	57.64	181.6	9 26	-28							
LEMBANG	64.60	272.0	10 39A	-2							
MATUSIRO	65.42	329.6	10 46	-1	19 27	-4			13 39		
BYRD STATION	66.25	169.9	10 48	-4							
SOUTH POLE	69.79	180.0	11 12	-2							
NHATRANG	70.58	291.6	11 20	1					11 44		
LICK	84.07	46.7	12 34K	0							
PASADENA	84.94	50.9	12 42	4							
FRESNO	85.05	48.0	12 40	1							
SHASTA	85.32	43.6	12 41	1							
MINERAL	85.65	44.2	13 5	23							
RENO	86.42	45.6	13 7	22							
EUREKA	89.00	47.1	12 57	-1							
TUCSON	89.61	55.4	13 1	0							
TUCSON TELE.	89.74	55.3	13 1	0							
COLLEGE	90.09	15.6	13 0	-3							
SHILLONG	91.01	296.8	13 7	0							
PENTICTON	91.43	37.2	13 9	0							
SALT LAKE C.	92.40	47.3	13 14	0							
HUNGRY HORSE	94.24	39.8	13 23	1							
LA PAZ	109.70	116.8	18 21	777							
PALISADES	120.28	53.7							36 53	SS	
SHIRAZ	125.76	292.4	19 2	-2							
TIFLIS	131.57	308.2	19 14	-1							
NURMIJARVI	134.06	338.8	19 14	-5							
HELWAN	144.16	293.1	19 35	-2					21 29		
COLLMBERG	145.34	337.8	19 40	0					19 48	PKP2	
HALLE	145.53	339.0	19 40	0					22 31	PP	
PRAGUE	145.80	335.2	19 50	10							
PRUHONICE	145.82	335.0	19 40	0					20 3		
WITTEVEEN	145.89	345.2	19 42	1							
BRATISLAVA	146.11	330.7	19 43	2							
JENA	146.14	338.8	19 40	-1					22 23	PP	
PLAUEN	146.31	337.8	19 38	-3							
BENSBERG	147.46	343.3	19 42	-1							
ATHENS	148.13	310.1	19 47	3							
STUTTGART	148.76	339.1	19 49	4							
LJUBLJANA	148.86	330.4	19 50A	5					21 49		
DOURBES	148.90	345.5	19 53	8							
STRASBOURG	149.41	340.6	19 52	6					20 13		
TRIESTE	149.52	330.7	19 52	6					21 48		
BESANCON	151.15	341.5	19 56	7							
FOLINIERE	151.15	351.1	19 56	7							
TAMANRASSET	168.10	284.1	20 8	0					25 12	PP	

MAY 5 11.H 25.M 57.S EPICENTRE 52.04 158.41 DEPTH= 0.KM

A=-0.57441 B= 0.22730 C= 0.78638 D= 0.3680 E= 0.9298
G=-0.7312 H= 0.2894 K=-0.6177 HT= -6.2

SE= 2.51

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	1.00	8.4	0 30	9	0 45	9		
SEVERO-KUR.	1.99	227.5	0 40	4	1 4	2		
KLYUCHI	4.53	17.6	1 21	9	2 19	13		2 11

MAGADAN	8.66	333.4	2	18	8					5	11
OKHA	9.50	285.3	2	30	8	4	25	15			
KURILSK	9.74	229.8	2	30	5	4	24	8			
UGLEGORSK	10.81	260.6	2	47	8					5	2
Y.-SAKHLINSK	11.36	250.0	2	55	8	5	9	13			
YAKUTSK	18.38	314.1	4	19	1	7	54	13		4	38 PP
VLADIVOSTOK	19.89	253.9	4	35	-1	8	17	2			
MATUSIRO	21.08	230.6	4	49	0	8	40	1		9	3 PCP
TIKSI	23.62	337.0	5	16	2	9	24	-2	5 41	5	50 PP
ABUYAMA	23.70	232.6	5	16A	1						
COLLEGE	29.89	43.7	6	12	0	11	7	-2		11	36
ULAN-BATOR	32.81	283.7								7	51
KHEYS	40.76	345.7	7	44	-1	13	54	-2	8 12	9	20 PP
RESOLUTE	44.69	21.2	8	17A	0	14	51	-3			
NORD	46.58	359.0	8	31K	-1						
ALBERNI	46.62	61.3	8	33K	1						
SEMIPALATNSK	46.74	300.7	8	31	-2						
VICTORIA	47.81	61.4	8	42	0						
THULE	48.39	13.3	8	44	-2						
PENTICTON	49.37	58.6	8	54	0						
CORVALLIS	50.23	65.6	9	1K	1						
SVERDLOVSK	52.34	316.5	9	15	-1						
HUNGRY HORSE	52.89	56.7	9	20	0						
SHASTA	53.21	68.8	9	23	0						
UKIAH	53.76	70.8	9	40	13						
APATITY	53.84	337.1	9	26	-1	16	53	-9			
MINERAL	53.90	68.7	9	28A	0				10 1		
FRUNSE	54.42	295.9	9	28	-4					10	35 PCP
BUTTE	55.15	58.1	9	37	0					10	18 PCP
BERKELEY	55.16	71.4	9	37A	0				9 49		
RENO	55.46	68.3	9	40	1						
SODANKYLA	55.54	339.5	9	40	0						
LICK	55.88	71.4	9	42K	0				9 55		
SHILLONG	55.97	268.8	9	41	-2						
BOZEMAN	56.18	57.6	9	45	1						
RABAUL	56.27	187.5	9	42	-3						
KIRUNA	56.40	342.2	9	45	-1					10	31
ANDIJAN	57.06	295.4	9	50	-1						
FRESNO	57.35	70.7	9	54	1						
EUREKA	57.69	65.9	9	55	0					39	9 PKPPKP
SCORESBY SD.	57.79	0.1	9	53A	-3						
CHATRA	57.96	273.5	9	57	0						
SALT LAKE C.	59.09	62.3	10	5	0					10	46 PCP
PASADENA	60.12	71.8	10	12	0	18	30	5		22	27 SS
BOULDER CITY	60.77	68.1	10	17	1						
RAPID CITY	61.30	54.4	10	19	-1					39	44 PKPPKP
SKALSTUGAN	61.72	343.6	10	22	-1						
NURMIJARVI	61.84	336.1	10	23	-1						
PORT MORESBY	61.95	192.6	10	23	-1						
MOSCOW	61.99	326.6	10	23	-2					14	25 PPP
HELSINKI	62.05	335.7	10	25	0						
LARAMIE	62.07	58.0	10	25	0						
UPPSALA	64.07	339.2	10	37	-1						
TUCSON TELE.	65.75	68.2	10	49	0					11	5
TUCSON	65.75	68.3	10	48	-1						
GOTEBORG	67.23	341.2	10	59	0					11	24 PCP
QUETTA	67.68	290.7	11	1	-1					13	36 PP
COPENHAGEN	69.01	340.1	11	10	0						
LAWRENCE	69.08	53.2	11	8	-2						
WARSAW	70.10	333.7	11	11	-5	20	19	-8		12	27
TIFLIS	70.36	313.3	11	18	0						
LWOW	71.38	330.8	11	25	1						
GORIS	71.43	310.9	11	21	-3						
FLORISSANT	71.58	50.2	11	27	2	20	41	-3			
ST. LOUIS 1	71.77	50.2	11	25	-2	20	44	-3			
FAYETTEVILLE	71.85	54.4	10	26A	-61						
TEHERAN	71.93	305.1	11	28	1						
SIMFEROPOL	72.15	321.9	11	27	-2						
DURHAM	72.27	348.0	11	30K	0						
SHAWINIGAN	72.43	34.3	11	30	0						
CHARTERS TS.	72.60	192.0	11	29	-2					11	48
RACIBORZ	72.81	334.4	11	33	0					11	43 PCP
WITTEVEEN	72.86	342.5	11	35	2						
COLLMBERG	72.97	338.1	11	33	-1					14	22 PP
BREBEUF	73.04	35.4	11	32A	-2						
MUNSTER	73.49	341.6	11	37	0						
JENA	73.64	338.8	11	37	-1					12	20
LITTLE ROCK	73.80	54.0	11	37	-1						

PRUHONICE	73.83	336.6	11	39K	0				12	30
PLAUEN	73.92	338.3	11	35	-4					
RATHFARNHAM	74.26	350.5	11	41A	0					
BENSBERG	74.53	341.6	11	43	0					
BRATISLAVA	74.85	334.3	11	42	-3				11	48 PCP
UCCLE	75.21	343.3	11	48	1					
KEW	75.32	346.4	11	47	0					
MORGANTOWN	75.56	42.8	11	50	1					
HEIDELBERG	75.70	340.1	11	49	0					
SHIRAZ	76.12	300.4	11	50	-2					
STUTTGART	76.18	339.5	11	52	0					
TUBINGEN	76.45	339.6	11	54	0					
WESTON	76.57	35.5	11	54	0					
STRASBOURG	76.68	340.5	11	55	0				12	10 PCP
PALISADES	76.80	38.0	11	55	-1	21	34	-9	27	34 SS
EBINGEN	76.81	339.5	11	55	-1					
RAVENSBURG	77.04	339.0	11	57	0					
HALIFAX	77.13	29.4	11	58	1					
LJUBLJANA	77.48	335.1	11	58	-1				12	16 PCP
TOLMEZZO	77.54	336.3	12	1	1				12	22
BASLE	77.72	340.2	12	14A	13				13	40
FOLINIERE	77.97	345.9	12	2	0					
BESANCON	78.31	341.2	12	4	0					
BRISBANE	79.24	185.1	12	23	14					
COLUMBIA	79.82	46.6	12	12	0					
CLERMONT-FD.	80.28	342.7	12	16	1				12	53
KSARA	80.85	314.7	12	19	1					
ISOLA	81.02	339.6	12	19	0					
MONACO	81.37	339.2	12	21	1					
ATHENS	82.04	325.4	12	22K	-2					
TACUBAYA	82.27	68.5	12	32	7					
HELWAN	86.21	316.0	12	43K	-2					
SETIF	89.02	338.5	12	59	1					
MELBOURNE	90.26	190.6	13	4	0					
KARAPIRO	90.83	166.5	13	5	-2					
TAMANRASSET	101.82	334.6	13	56	-1					
LA PAZ	129.02	63.7	19	13	2					
BULAWAYO	129.84	289.9	19	13K	1					
PRETORIA	134.39	285.5	19	56	35					
KIMBERLEY	138.64	285.9	19	38	10					
BYRD STATION	139.42	164.6	19	23	-7					
SOUTH POLE	141.85	180.0	19	27	-7				31	2 7**

MAY 5 17.H 13.M 44.S EPICENTRE 42.59 144.28 DEPTH= 99.KM

A=-0.59955 B= 0.43119 C= 0.67425 D= 0.5839 E= 0.8118
G=-0.5474 H= 0.3937 K=-0.7385 HT= -2.6

DEPTH OF FOCUS= 0.01OR

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KUSIRO	0.40	13.0	0	15K	-2	0	25	-4				
HIROO	0.77	246.8	0	18	-1	0	31	-3				
OBIHIRO	0.86	293.0	0	19K	-1	0	32	-3				
URAKAWA	1.19	248.9	0	25A	2	0	41	1				
NEMURO	1.21	51.8	0	23K	0	0	38	-3				
ABASHIRI	1.43	0.1	0	26	0	0	45	0				
ASAHIGAWA	1.83	311.1	0	30	-1	0	52	-2				
SAPPORO	2.21	283.6	0	37	1	1	2	-1				
MURORAN	2.45	264.8	0	40	1	1	7	-2				
HAKODATE	2.73	254.6	0	42	-1	1	13	-2				
MORI	2.79	261.2	0	47	3	1	19	2				
HATINOHE	2.91	226.0	0	45	-1	1	18	-2				
AOMORI	3.16	237.2	0	53	4	1	26	0				
WAKKANAI	3.39	327.4	0	54A	2	1	35	3				
MIYAKO	3.41	211.5	0	52	0	1	28	-4				
MORIOKA	3.72	220.1	0	56	-1	1	38	-2				
MIZUSAWA	4.20	215.7	1	5	2	1	49	-2				
AKITA	4.26	229.1	1	19	15						1	49
Y.-SAKHLINSK	4.57	346.5	1	22	14	2	22	22				
ISINOMAKI	4.73	209.5	1	9A	-1	2	0	-4				
SAKATA	5.00	224.0									2	12
SENDAI	5.02	212.0	1	14	0	2	8	-4				
YAMAGATA	5.27	216.0	1	18	0	2	13	-5				
HUKUSIMA	5.64	212.4	1	22	-1	2	23	-4				
NIIGATA	6.14	222.3									2	28

ONAHAMA	6.20	205.9								2	34
AIKAWA	6.48	227.3	1	30	-4						
UGLEGORSK	6.67	347.4	1	37A	0						
MITO	6.86	206.6	1	38	-2	2	53	-4			
UTUNOMIYA	6.92	210.9	1	40	0	2	53	-5			
KAKIOKA	7.10	207.9	1	42	-1	2	57	-6			
TUKUBASAN	7.13	208.3	1	40A	-3	2	57	-6			
TYOSI	7.36	202.3	1	44	-2	3	2	-7			
MAEBASI	7.37	214.8	1	46	-1	3	12	3			
KUMAGAYA	7.46	212.1	1	50	2	3	7	-4			
NAGANO	7.54	220.4	1	55	6						
MATUSIRO	7.64	219.8	1	49	-1	3	11	-5			
TITIBU	7.73	213.1	2	9	18					3	20
TOKYO C.M.O.	7.74	208.5	1	50	-2	3	13	-5			
YOKOHAMA	8.00	208.2								3	23
KOHU	8.21	214.6	2	1	3	3	28	-2			
HUNATU	8.27	213.0	2	3	4	3	26	-5			
OSIMA	8.69	207.7								3	34
NAGOYA	9.34	219.9								2	29
YAKUTSK	21.30	341.0	4	35	-5	8	20	-6			
ULAN-BATOR	26.66	294.5	5	33	2						
COLLEGE	43.25	35.3	7	54	1				8 16		
SHILLONG	45.87	265.6	8	13	-1						
RABAUL	47.12	169.2	8	26	2						
RESOLUTE	56.68	15.9	9	33	-2						
APATITY	58.56	335.1	10	48	60						
SODANKYLA	60.72	336.9	10	3	0						
VICTORIA	61.06	49.4	10	7	1						
QUETTA	61.47	285.9	10	6	-2						
KIRUNA	62.12	339.1	10	34	21						
CHARTERS TS.	62.39	177.9	10	14	0					10	40
NURMIJARVI	66.09	331.9	10	38	0						
HELSINKI	66.22	331.5	10	41	2						
HUNGRY HORSE	66.27	45.5	10	41	1						
UPPSALA	68.93	334.3	10	55	-1						
EUREKA	70.72	53.9	11	8	1				11 30		
GOTEBORG	72.42	335.4	11	17	0					11	36
BOULDER CITY	73.67	56.1	11	26	2						
RAPID CITY	74.72	43.6	11	54	23						
COLLMBERG	77.35	331.1	11	44	-1					12	37
PRUHONICE	77.87	329.5	11	48	0						
TUCSON	78.63	56.6	12	17	25						
TUCSON TELE.	78.63	56.5	11	54	2				12 17		
STUTTGART	80.79	331.7	12	27	23						
FAYETTEVILLE	85.26	43.8	11	27	-60						
BYRD STATION	132.67	166.4	19	7	4						

MAY 6 18.H 47.M 25.S EPICENTRE 54.01 160.93 DEPTH= 0.KM

A=-0.55782 B= 0.19279 C= 0.80726 D= 0.3267 E= 0.9451
G=-0.7630 H= 0.2637 K=-0.5902 HT= -6.9

SE= 2.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	1.69	234.8	0	33	2							
MAGADAN	7.85	319.0	2	6	8							
UGLEGORSK	12.72	254.8	3	11	6	5	43	14				
YAKUTSK	18.21	308.6	4	16	0	7	44	7				
TIKSI	22.45	333.9	5	2	0							
MATUSIRO	23.51	231.2	5	12	0	9	19	-4				
COLLEGE	27.41	46.3	5	50	1							
KHEYS	39.22	345.3	7	32	0							
RESOLUTE	42.29	22.5	7	57A	0							
NORD	44.62	359.5	8	16	0							
THULE	46.11	14.4	8	28	0							
PENTICTON	47.06	61.5	8	37	2							
CORVALLIS	48.06	68.6	8	45K	2							
HUNGRY HORSE	50.55	59.4	9	1	-1						10	20 PCP
SHASTA	51.11	71.9	9	18	11							
MINERAL	51.79	71.7	9	12K	0							
APATITY	52.60	337.4	9	17	-1							
RENO	53.35	71.3	9	36	13							
BOZEMAN	53.85	60.2	9	44	17							
SODANKYLA	54.21	340.0	9	29	-1						9	54

KIRUNA	54.97	342.9	9	43	8				
EUREKA	55.52	68.8	9	39	0			10	38 PCP
SCORESBY SD.	55.80	1.2	9	41A	0				
SHILLONG	57.52	269.5	9	51	-2				
PASADENA	58.09	74.7	9	57	-1				
RABAUL	58.46	190.3	10	43	43				
CHATRA	59.35	274.2	10	5K	-1				
SKALSTUGAN	60.23	344.4	10	11	-1				
NURMIJARVI	60.63	336.9	10	14	-1				
HELSINKI	60.86	336.6	10	16	-1				
MOSCOW	61.16	327.3	10	19	0				
REYKJAVIK	62.17	1.4	10	27	2				
UPPSALA	62.74	340.2	10	28	-1				
LAHORE	63.25	287.4	10	30	-3				
TUCSON TELE.	63.63	70.8	10	40	5				
TUCSON	63.64	71.0	10	41	6				
GOTEBORG	65.83	342.3	10	48	-1				
COPENHAGEN	67.65	341.3	11	1K	0				
QUETTA	68.39	291.7	11	3	-3				
FLORISSANT	69.15	52.4	11	7	-3				
ST. LOUIS 1	69.34	52.4	11	10	-1	11	29		
FAYETTEVILLE	69.47	56.7	10	9A	-63				
SHAWINIGAN	69.94	36.3	11	13	-2				
TIFLIS	70.09	314.4	11	15	-1				
BREBEUF	70.54	37.4	11	17	-2				
DURHAM	70.63	349.4	11	20A	1				
POTSDAM	70.64	339.8	11	19	0				
RACIBORZ	71.65	335.7	11	26	1				
COLLMBERG	71.68	339.4	11	25	-1			12	13
HALLE	71.70	340.2	11	25	-1			11	50 PCP
TEHERAN	72.01	306.3	11	27	-1				
MUNSTER	72.06	343.0	11	28	0				
JENA	72.32	340.2	11	29	0			11	47
RATHFARNHAM	72.53	352.0	11	27A	-4			12	3
PRUHONICE	72.59	338.0	11	31A	0			12	11
BENSBERG	73.11	343.0	11	34	0				
BRATISLAVA	73.70	335.7	11	36	-1			11	53 PCP
KEW	73.72	347.9	11	38	0				
UCCLE	73.73	344.8	11	38	0				
WESTON	74.07	37.5	11	39	-1				
HEIDELBERG	74.33	341.6	11	41	0				
DOURBES	74.37	344.4	11	43	2				
HALIFAX	74.66	31.3	11	43	0				
STUTTGART	74.83	341.0	11	44	0				
CHARTERS TS.	74.87	194.3	11	42	-2			12	18
TUBINGEN	75.10	341.1	11	46	0				
STRASBOURG	75.30	341.9	11	47A	0			12	6
EBINGEN	75.46	341.0	11	48	0				
RAVENSBURG	75.71	340.5	11	49	0				
LJUBLJANA	76.30	336.6	11	52A	0			12	6 PCP
TOLMEZZO	76.31	337.8	11	53	1				
SHIRAZ	76.41	301.8	11	51	-2				
BESANCON	76.90	342.8	11	55A	-1				
CLERMONT-FD.	78.81	344.4	12	8	2				
ISOLA	79.67	341.2	12	11	0				
MONACO	80.03	340.8	12	13	0				
KSARA	80.50	316.3	12	18	3				
ATHENS	81.24	327.1	12	18K	-1				
HELWAN	85.80	317.9	12	41A	-2			13	20
SETIF	87.70	340.4	12	49	-3				
TAMANRASSET	100.63	337.0	13	44	-7			17	53 PP

MAY 7 14.H 11.M 28.S EPICENTRE 42.32 143.14 DEPTH= 73.KM

A=-0.59335 B= 0.44493 C= 0.67080 D= 0.5999 E= 0.8001
G=-0.5367 H= 0.4024 K=-0.7416 HT= -2.5

DEPTH OF FOCUS= 0.006R

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
HIROO	0.14	106.7	0	10A	-2	0	16	-5				
URAKAWA	0.31	237.1	0	11K	-2	0	18	-5				
OBIHIRO	0.60	4.6	0	14K	-2	0	24	-4				
KUSIRO	1.14	54.4	0	21A	0	0	36	-1				

TOMAKOMAI	1.19	285.5	0	24	2	0	39	1			
SAPPORO	1.51	300.2	0	26K	0	0	46	0			
MURORAN	1.60	270.7	0	26	-1	0	46	-2			
HAKODATE	1.84	254.7	0	31A	0	0	52	-1			
ABASHIRI	1.89	25.9	0	32	1	0	56	2			
MORI	1.92	264.2	0	32	0	0	55	0			
RUMOE	1.97	326.2							1	0	
NEMURO	2.06	59.9	0	37	3	0	58	0	1	22	
HATINOHE	2.16	214.5	0	34	-1	0	59	-2			
SUTTSU	2.20	283.5	0	47	12	1	2	0	1	25	
AOMORI	2.32	230.5	0	38	1	1	7	2			
MIYAKO	2.81	198.7							1	13	
MORIOKA	3.01	210.2	0	46	-1	1	20	-2			
WAKKANAI	3.27	341.7	0	53	3				1	53	
AKITA	3.47	222.5	0	58	5	1	42	9	1	28	
MIZUSAWA	3.53	206.2	0	55	1	1	33	-2			
ISINOMAKI	4.13	200.2	1	1	-1	2	6	16			
SAKATA	4.24	217.4							2	8	
SENDAI	4.39	203.6	1	6	0	1	52	-4			
KURILSK	4.50	48.1	1	5	-2	2	3	4			
YAMAGATA	4.59	208.6	1	7	-2						
Y.-SAKHLINSK	4.71	356.5	1	11A	1	2	7	3			
HUKUSIMA	5.00	205.0	1	14	0	2	11	-1			
NIIGATA	5.40	216.8				2	26	6			
ONAHAMA	5.63	198.6				2	21	-5			
SHIRAKAWA	5.66	204.3	1	26	2	2	42	14			
MITO	6.28	200.1	1	38	6	2	40	-3			
UTUNOMIYA	6.29	204.7	1	31	-1	2	38	-6			
KAKIOKA	6.50	201.6	1	32	-3	2	44	-5			
TUKUBASAN	6.53	202.1	1	32A	-4	2	37	-12			
MAEBASI	6.70	209.4	1	39	1				2	59	
UGLEGORSK	6.80	354.1	1	41K	2						
NAGANO	6.81	215.7	1	52	12						
KUMAGAYA	6.82	206.5	1	51	11	2	53	-4			
MATUSIRO	6.92	215.0	1	39	-2	3	0	1			
OIWAKE	6.96	212.2	1	58	16						
TITIBU	7.07	207.8							3	3	
TOKYO C.M.O.	7.14	202.8	1	47	3	2	58	-6			
YOKOHAMA	7.40	202.7							3	2	
KOHU	7.54	209.7	2	9	19						
HUNATU	7.61	208.0							3	22	
OSIMA	8.09	202.5							3	16	
ABUYAMA	9.50	221.0	2	16K	0						
MAGADAN	17.89	12.8	4	6K	1						
YAKUTSK	21.29	342.5	4	41	-1	8	29	-1			
ULAN-BATOR	26.01	294.9	5	28	0						
COLLEGE	43.96	35.1	8	3	1				8	24	
CHATRA	47.77	269.8	8	33A	1						
NORD	55.86	356.5	9	31A	-1						
RESOLUTE	57.16	15.6	9	40	-2						
APATITY	58.45	334.9	9	50	-1						
SODANKYLA	60.63	336.6	10	5	-1						
QUETTA	60.73	285.4	10	6	0						
KIRUNA	62.06	338.8	10	14	-1						
MOSCOW	63.83	322.6	10	27	0						
NURMIJARVI	65.92	331.6	10	40	-1				11	0	
HELSINKI	66.05	331.2	10		0						
HUNGRY HORSE	67.06	44.9	10	50	2						
SKALSTUGAN	67.49	338.5	10	45	-5						
TIFLIS	68.64	307.3	10	59	1						
UPPSALA	68.80	333.8	10	58	-1				11	19	
SHIRAZ	71.14	293.1	11	13K	0						
EUREKA	71.56	53.2	11	17	2						
GOTEBORG	72.31	334.9	11	18	-2						
CHORZOW	75.66	326.8							19	20	
COLLMBERG	77.17	330.5	11	48	0				12	9	PCP
PRUHONICE	77.66	328.9	11	51A	1				12	2	
JENA	77.99	331.0	11	51	-1				12	51	
STUTTGART	80.62	331.1	12	6	0						
FOLINIERE	83.80	336.7	12	24	1						
ISOLA	85.33	330.0	12	32	2						

MAY 8 14.H 29.M 20.S EPICENTRE 45.69 151.00 DEPTH= 51.KM

A=-0.61311 B= 0.33987 C= 0.71315 D= 0.4848 E= 0.8746

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.

G=-0.6237 H= 0.3458 K=-0.7010 HT= -3.8

DEPTH OF FOCUS= 0.003R

SE= 2.40

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NEMURO	4.53	240.6	1 7	-1	1 55	-5		
ABASHIRI	5.06	253.2	1 17	2	2 17	4		
KUSIRO	5.45	242.6	1 20A	-1	2 18	-5		
Y.-SAKHLINSK	5.88	286.1	1 28K	1	2 47	13		
OBIHIRO	6.24	246.5	1 32	0				
ASAHIGAWA	6.43	255.9	1 37	2	2 59	11		
HIROO	6.50	241.1	1 35	0	2 45	-4		
URAKAWA	6.91	242.1	1 41	0	2 50	-9		
UGLEGORSK	6.95	302.5	1 44K	2	3 16	16		
SAPPORO	7.39	252.7	1 50	2	3 11	0		
TOMAKOMAI	7.43	249.1	2 0	12	3 27	15		
MURORAN	7.97	248.6	1 57	1	3 22	-4		
MORI	8.34	248.3	2 1	0	3 37	2		
HAKODATE	8.36	246.0	1 59	-2	3 30	-5		
HATINOHE	8.63	236.7	2 1	-4	3 31	-11		
AOMORI	8.90	240.5	2 10	1	3 42	-7		
MORIOKA	9.38	233.9	2 11	-4	3 49	-12		
MIZUSAWA	9.80	231.5	2 24	3	4 0	-11		
AKITA	9.99	237.2			4 6	-10		
ISINOMAKI	10.21	228.2	2 23	-4	4 8	-13		
SENDAI	10.55	228.9			4 15	-14		
YAMAGATA	10.86	230.6			4 22	-15		
HUKUSIMA	11.16	228.4	2 38	-2	4 31	-13		
MITO	12.22	224.2			5 2	-7		4 53
UTUNOMIYA	12.39	226.4						5 2
KAKIOKA	12.48	224.6	2 57	0	5 4	-12		
TUKUBASAN	12.53	224.8	2 53	-5	5 3	-14		
MAEBASI	12.91	228.3						5 20
KUMAGAYA	12.95	226.7						5 1
TOKYO C.M.O.	13.13	224.4						5 20
NAGANO	13.18	231.4						3 33
OIWAKE	13.24	229.5	3 13	6	5 34	0		
MATUSIRO	13.27	231.0	3 4	-4	5 42	8		
KOHU	13.74	227.6						5 38
MAGADAN	13.89	359.6	3 18	2				
ABUYAMA	15.95	232.8	3 46A	4				
CHANGCHUN	18.32	273.4	4 11	-1	7 31	0		
YAKUTSK	20.46	330.7	4 35	-1				
PEKING	26.01	269.9	5 30	0	9 52	-3		
ZO-SE	27.34	248.2	5 42	0	10 13	-4		
TIKSI	28.08	345.3	5 46	-3				
NANKING	28.32	252.6	5 52	1	10 33	1		
WUHAN	32.11	254.6	6 25	0				
SIAN	33.85	265.3	6 39A	-1				
LANCHOW	36.48	271.7	7 3	1				
COLLEGE	37.89	37.5	7 16	2				
CHENGTU	39.29	264.2	7 26	1	13 21	-2		
KUNMING	43.60	258.8	8 1A	0	14 28	2		
KHEYS	45.77	346.8						9 56
LHASA	48.97	272.6	8 45A	2	15 44	1		
RABAUL	49.67	178.5	8 53	4				
SHILLONG	50.88	267.8	8 56A	-2				
RESOLUTE	52.31	17.9	9 8A	-1				10 19
SVERDLOVSK	53.61	316.9	9 15	-3				
THULE	55.61	10.4	9 29	-4				
PENTICTON	57.03	51.3	9 43	0				
CORVALLIS	57.56	57.6	9 48K	1				
APATITY	57.73	336.3	9 46	-2				
SODANKYLA	59.71	338.3	10 1	-1				
HUNGRY HORSE	60.61	49.7	10 8	0				
KIRUNA	60.87	340.7	10 8	-2				
MINERAL	61.04	60.8	10 11K	0				
RENO	62.62	60.5	10 17A	-4				
BUTTE	62.82	51.1	10 22	-1				
SCORESBY SD.	64.04	357.4	10 30K	-1				
EUREKA	64.98	58.5	10 37	0				
QUETTA	65.19	288.4	10 38A	0				12 45
NURMIJARVI	65.53	334.0	10 38	-2				
CHARTERS TS.	65.60	184.9	10 39	-2				
HELSINKI	65.70	333.7	10 39	-2				
SKALSTUGAN	66.29	341.2	10 43	-2				

SALT LAKE C.	66.57	55.2	10 47	0	
PASADENA	67.04	64.2	10 50	0	
BOULDER CITY	67.93	60.8	10 56	1	
UPPSALA	68.12	336.7	10 55	-2	11 21 PCP
RAPID CITY	69.10	47.9	11 4	1	
LARAMIE	69.67	51.4	12 6	61	
TIFLIS	70.95	310.5	11 15	1	
TEHERAN	71.37	302.2	11 16	0	
GOTEBORG	71.49	338.2	11 14	-3	
BRISBANE	72.74	178.3	11 27	2	
TUCSON	72.89	61.4	11 26	1	
TUCSON TELE.	72.89	61.2	11 26	1	14 19 PP
COLLMBERG	76.82	334.4	11 47	-1	13 38
LAWRENCE	76.90	47.1	11 48	-1	
HALLE	76.96	335.1	11 54	5	
DURHAM	77.25	344.1	11 34	-16	
PRUHONICE	77.49	332.9	11 52A	0	12 16
JENA	77.57	335.1	11 51	-1	12 47
BRATISLAVA	78.21	330.5	11 54	-2	
BENSBERG	78.78	337.6	11 59	0	
RATHFARNHAM	79.50	346.4	12 1	-2	13 46
FAYETTEVILLE	79.63	48.4	11 3A	-61	
UCCLE	79.66	339.2	12 10	6	
ST. LOUIS 1	79.67	44.2	12 3A	-1	
KEW	80.11	342.3	12 6	0	
STUTTGART	80.17	335.4	12 6A	0	12 32
DOURBES	80.24	338.8	12 8	1	
TUBINGEN	80.45	335.4	12 8	0	
STRASBOURG	80.78	336.3	12 10	0	
EBINGEN	80.79	335.3	12 10	0	
LJUBLJANA	80.92	330.9	12 10	0	
RAVENSBURG	80.96	334.8	12 12	1	
BREBEUF	81.02	30.0	12 11A	0	
KSARA	81.53	310.3	12 19	5	
LITTLE ROCK	81.60	48.0	12 14	0	
BESANCON	82.49	336.8	12 20	2	
FOLINIERE	82.69	341.4	12 19	-1	
JERUSALEM	83.45	309.5	12 25	2	
MORGANTOWN	83.57	37.1	12 25K	1	
ATHENS	84.18	320.8	12 26K	-1	
WESTON	84.56	30.1	12 29	0	
CLERMONT-FD.	84.62	338.0	12 32	3	
ISOLA	84.98	334.8	12 32	1	
SETIF	92.78	332.8	13 7	-1	
BYRD STATION	134.52	165.8	19 11	-2	22 38 SKP
SOUTH POLE	135.49	180.0	19 5	-10	22 55

MAY 9 0.H 11.M 27.S EPICENTRE 29.90 129.65 DEPTH= 170.KM

A=-0.55413 B= 0.66860 C= 0.49590 D= 0.7699 E= 0.6381
G=-0.3164 H= 0.3818 K=-0.8684 HT= 1.9

DEPTH OF FOCUS= 0.022R

SE= 2.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
YAKUSIMA	0.92	52.8	0	23A	-4	0	40	-7				
KAGOSIMA	1.84	24.6	0	34K	-2	1	2	-1				
MIYAZAKI	2.53	36.5	0	42K	-2	1	17	0				
TOMIE	2.82	344.7	0	48	1	1	24	1				
NAGASAKI	2.83	3.9	0	48K	1	1	23	0				
UNZENDAKE	2.87	10.1	0	49	1	1	27	3				
KUMAMOTO	3.05	16.8	0	50K	0	1	31	3				
ASOSAN	3.23	21.7	0	52	0	1	29	-3				
SAGA	3.39	9.2	0	55	1	1	38	2				
OOITA	3.72	26.3	0	57	-2	1	40	-3				
HUKUOKA	3.73	9.4	1	OK	1	1	48	5				
SIMIDU	4.04	43.8	0	59	-4	1	44	-6				
UWAZIMA	4.14	35.9	1	2	-2	1	47	-6				
SIMONOSEKI	4.19	14.7	1	5	1							
MATUYAMA	4.75	33.3	1	6	-6	2	1	-6				
KOTI	4.92	41.2	1	14	0	2	6	-5				
HIROSIMA	5.05	27.1	1	15	-1	2	10	-4				
HAMADA	5.39	21.7	1	31	11	2	20	-2				
TAKAMATU	5.78	39.1	1	24	-1	2	29	-2				

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TOKUSIMA	5.90	43.9	1	26	-1	2	31	-3		
MATSUE	6.24	26.6	1	51	20	3	8	26		
SUMOTO	6.29	43.8	1	30K	-2	2	38	-5		
SIOMISAKI	6.30	54.2	1	30	-2	2	39	-5		
WAKAYAMA	6.37	45.9				2	41	-4		
KOBE	6.68	43.0				2	54	1		
OSAKA	6.87	44.9	1	41	1	3	5	8		
OWASE	6.95	51.5	1	39	-2	2	59	0		
ABUYAMA	7.05	43.7	1	40K	-2					
TOYOOKA	7.11	36.4	1	45	2	2	59	-4		
KYOTO	7.24	43.6	1	43	-2	3	4	-2		
MAIZURU	7.37	39.5	1	46	0	3	9	0		
ZO-SE	7.41	281.4	1	45	-2	3	8	-2		
KAMEYAMA	7.59	47.7	1	49	0	3	17	3		
HIKONE	7.73	44.4	1	52	1	3	17	0		
TSURUGA	7.88	41.6	1	52	-1	3	22	1		
NAGOYA	8.11	47.7	1	56	0	3	28	1		
GIHU	8.13	45.7	1	57	1	3	24	-3		
OMAESAKI	8.64	54.9	2	8	5					
SHIZUOKA	8.96	53.4							3	51
MISIMA	9.42	54.0	2	13	0	4	1	4		
KOHU	9.45	50.2	2	29	15	4	32	34		
OSIMA	9.56	56.9	2	11	-4	4	4	3		
NANKING	9.58	285.8	2	16	1	4	2	1		
MATUSIRO	9.76	45.0	2	18	0	4	4	-1	4	23
NAGANO	9.84	44.4	2	27	8					
OIWAKE	9.84	47.0	2	23	4					
MAEBASI	10.21	48.1	2	21	-3	4	40	24		
KUMAGAYA	10.27	50.1	2	26	2	4	37	20		
TUKUBASAN	10.80	51.5	2	32A	1	4	56	26		
UTUNOMIYA	10.82	49.5	2	33	1	4	44	14		
NIIGATA	11.18	41.8	2	41	5					
HUKUSIMA	11.92	46.1							2	48
WUHAN	13.07	276.5	3	6	5					
CHANGCHUN	14.33	347.2	3	19	3					
BAGUIO CITY	15.78	213.8	3	41	6					
HONG KONG	15.82	245.1	3	55	20	6	30	5		
SIAN	18.09	289.2	4	0	-2					
Y.-SAKHLINSK	19.88	27.1	4	23	3	8	5	16		
CHENGTU	22.15	278.4	4	43	0					
LANCHOW	22.48	292.6	4	46	0					
ULAN-BATOR	25.09	322.2	5	13	2					
YAKUTSK	32.13	0.1	6	16	2					
SHILLONG	33.62	271.9	6	26K	0					
CHATRA	37.36	276.0	6	58A	0					
TIKSI	41.79	359.6	7	33	-2					
CHARTERS TS.	52.21	160.1	8	51	-5				9	26
QUETTA	53.64	287.1	9	7	1				10	10
KHEYS	57.71	349.4	9	34	-1					
COLLEGE	60.22	29.2	9	54	1					
APATITY	65.06	335.1	10	22A	-3					
SHIRAZ	65.64	291.3	10	28A	0	20	5	66		
MOSCOW	66.95	322.1	10	36	-1					
TIFLIS	67.23	306.0	10	39	1					
NORD	67.40	354.9	10	38A	-1				11	5
SODANKYLA	67.57	335.9	10	39	-1					
KIRUNA	69.50	337.5	10	51	-1					
NURMIJARVI	71.35	329.7	11	2	-1					
HELSINKI	71.37	329.3	11	3	-1					
RESOLUTE	71.73	11.3	11	5A	-1					
THULE	73.34	4.4	11	13	-2					
SKALSTUGAN	74.64	335.7	11	21	-2					
UPPSALA	74.71	331.0	11	22	-1				11	36
LWOW	76.92	320.2	11	41	6					
SCORESBY SD.	77.86	350.6	11	41A	0					
VICTORIA	78.33	40.5	11	38	-5					
GOTEBORG	78.36	331.0	11	39	-4					
SKALNATE PL.	79.34	321.0	11	47	-2					
CORVALLIS	80.51	43.8	11	57K	2					
BRATISLAVA	81.64	321.3	12	0	-1					
COLLMBERG	81.87	325.5	12	2	0				12	21 PCP
PRUHONICE	81.90	323.8	12	2A	0				13	7 *SP
VIENNA-H.	81.98	321.7	12	4	1					
HELWAN	82.15	299.8	12	12A	9					
HALLE	82.26	326.0	12	5	1				12	42
JENA	82.80	325.7	12	7	0					
ATHENS	83.37	310.1	12	8K	-2					
WITTEVEEN	83.84	329.2	12	13	1					

MINERAL	83.89	46.7	11	15A	-57						
MUNSTER	83.99	328.2	12	3	-10						
LJUBLJANA	84.32	320.7	12	14A	0						
BERKELEY	84.85	49.1	12	19K	2						
BENSBERG	84.88	327.6	12	17	0						
TOLMEZZO	84.92	321.6	12	16	-1					12	30
TRIESTE	84.99	320.7	12	19	1						
HEIDELBERG	85.19	325.8	12	19	0						
STUTTGART	85.33	325.1	12	20	1					14	7
RENO	85.48	46.6	12	22A	2						
LICK	85.56	49.2	12	23K	3						
TUBINGEN	85.60	325.0	12	20	-1						
BUTTE	85.78	38.2	12	23	1						
DURHAM	85.84	334.1	12	20	-2						
EBINGEN	85.88	324.8	12	22	0						
STRASBOURG	86.21	325.6	12	23	-1						
UCCLE	86.28	328.7	12	19	-5						
DOURBES	86.66	328.1	12	26	0						
EUREKA	87.90	44.9	12	34	2			13	11		
SALT LAKE C.	89.55	41.9	12	42	3						
FOLINIERE	89.91	329.6	12	40	-1						
RAPID CITY	91.96	35.1	13	53	62						
TUCSON TELE.	95.71	47.7	13	10	2						
SOUTH POLE	119.73	180.0	18	30	0						
BYRD STATION	122.83	168.8	18	37	1						
HUANCAYO	150.80	57.9	19	32	6					20	18
LA PAZ	158.95	54.6	19	43	6					20	19 PKP2

MAY 9 16.H 27.M 25.S EPICENTRE 6.36 -33.06 DEPTH= 0.KM

A= 0.83298 B=-0.54224 C= 0.11006 D=-0.5456 E=-0.8391
G= 0.0922 H=-0.0600 K=-0.9939 HT= 6.9

SE= 1.16

	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	
MBOUR	17.71	62.0	4	11	1	7	16	-10					
TAMANRASSET	40.58	62.2	7	44	1						10	21	PP
LA PAZ	41.46	236.3	7	52	1								
ALGIERS UNI.	44.74	42.3	8	19	2						8	36	
HUANCAYO	45.84	246.5	8	25	-1						10	14	PP
SETIF	46.04	44.3	8	29	1						8	47	
CLERMONT-FD.	50.20	32.5	9	1	1								
MONACO	51.41	37.0	9	5	-4								
ISOLA	51.44	36.4	9	11	2								
RATHFARNHAM	51.64	20.2									9	53	
KEW	52.50	25.2	9	18	1								
DOURBES	53.78	29.2	9	28	1								
STRASBOURG	54.43	32.3	9	32	0								
DURHAM	54.49	21.R	9	31	-1								
STUTTGART	55.35	32.8	9	38	0								
TRIESTE	56.25	38.0	9	45	0								
LJUBLJANA	56.91	37.9	9	50	0								
JENA	57.81	31.7	9	55	-1						10	7	
COLLMBERG	58.76	31.9	10	2	-1						10	40	PCP
PRUHONICE	58.89	33.8	10	3K	-1						10	54	PCP
VIENNA-H.	59.08	36.3	10	4	-1								
BRATISLAVA	59.47	36.6	10	7	-1								
ST. LOUIS 1	60.63	311.0	10	14	-1								
LITTLE ROCK	61.29	306.2	10	19	-1								
GOTEBORG	61.97	25.5	10	25	0								
FAYETTEVILLE	63.05	307.3	9	29A	-63								
BROKEN HILL	64.43	109.2	10	40	-1								
SCORESBY SD.	64.44	4.1	10	43	2								
UPPSALA	65.62	25.4	10	47	-1								
KIMBERLEY	65.68	125.3	10	48	-1								
SKALSTUGAN	65.74	20.4	10	49	0								
KSARA	69.01	56.3	11	10	0								
NURMI JARVI	69.01	26.6	11	10	0								
KIRUNA	70.96	18.8	11	21	-1								
THULE	72.62	351.8	11	30	-2								
SODANKYLA	72.81	20.5	11	33	0								
NORD	75.58	2.5	11	48A	-1								
TUCSON TELE.	76.21	301.6	11	52	0						12	46	
TUCSON	76.30	301.5	11	53	0								
RESOLUTE	76.65	346.1	11	54A	-1								

SALT LAKE C.	77.39	310.2	11 59	0	
HUNGRY HORSE	79.28	317.9	12 9	0	
BOULDER CITY	79.64	305.3	12 12	1	
EUREKA	80.52	308.9	12 17	1	
PASADENA	82.43	303.5	12 25	-1	
SHIRAZ	83.06	61.0	12 29	0	
RENO	83.49	309.0	12 34	3	
MINERAL	84.81	309.9	12 57A	19	
LICK	85.06	306.9	12 41A	2	
SHASTA	85.39	310.3	12 40	-1	
BERKELEY	85.51	307.5	12 42K	0	
COLLEGE	94.49	337.1	13 24	0	
SOUTH POLE	96.32	180.0	13 31	-1	
ADELAIDE	150.54	166.2	19 55	6	
CANBERRA	151.12	183.5			19 57 PP

MAY 9 20.H 13.M 23.S EPICENTRE -4.64-105.03 DEPTH= 0.KM

A=-0.25845 B=-0.96267 C=-0.08039 D=-0.9658 E= 0.2593
G= 0.0208 H= 0.0776 K=-0.9968 HT= 7.0

SE= 3.37

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
OAXACA	23.02	20.6						11 13
MANZANILLO	23.55	1.7						6 41
TACUBAYA	24.57	13.3	5 47	24				10 57
GUADALAJARA	25.22	3.8						12 46
VERA CRUZ	25.26	20.0						9 40
MAZATLAN	27.68	357.3						13 52
HUANCAYO	30.27	105.9						5 47
CHINCHINA	30.89	72.4	6 37	17				
BOGOTA	32.26	73.9	6 38	6	11 56	10		
CHIHUAHUA	33.09	358.3						14 40
TUCSON	37.10	351.8	7 29	15	13 7	7		8 4
TUCSON TELE.	37.17	352.0	7 12	-2				
LA PAZ	38.06	110.9	7 17	-5	13 13	-2		8 34
PASADENA	40.53	343.1	7 55	13	14 26	34		
LITTLE ROCK	40.99	16.0	7 46	0				
BOULDER CITY	41.44	348.0	7 49	-1				
SANTA LUCIA	42.95	136.1			13 43	-45		9 43 PP
FRESNO	43.45	342.7	8 5	-1				
LAWRENCE	44.33	10.9	8 11	-2				
LICK	44.54	341.0	8 24A	9				
COLUMBIA	44.62	28.8	8 15	-1				
EUREKA	45.05	348.0	8 21	2				10 10 PP
ST. LOUIS 1	45.19	16.4	8 24	4	15 4	3		
BERKELEY	45.23	340.7	8 22A	1	15 3	2		9 54 *SP
FLORISSANT	45.30	16.2			15 8	6		
RENO	46.03	344.1	8 29	2				
UKIAH	46.69	340.5	8 32	0				
MINERAL	47.29	342.7	8 35A	-2				
RAPID CITY	48.53	1.8	8 46	-1				
MORGANTOWN	49.75	25.4	8 56	0				
CORVALLIS	51.67	343.4	9 12	1				
HUNGRY HORSE	53.36	352.5	9 20	-3				
PALISADES	53.61	29.1	9 16	-9	17 0	2		20 40 SS
BREBEUF	57.24	25.8	9 54	3				
BYRD STATION	75.67	182.6	11 49	0				
COLLEGE	76.13	342.6	11 50	-1	21 35	0		
RESOLUTE	79.43	2.7	12 6	-4	22 9	-1		27 17
CAPE HALLETT	84.01	197.8	12 34	1	23 14	17		
SOUTH POLE	85.39	180.0	12 42	2				
TUKUBASAN	112.72	307.3						29 9 PKKP
MATUSIRO	114.15	308.0						35 32 SS
LEMBANG	145.48	251.0	19 39	-1				
SHIRAZ	147.30	38.0	19 43	0				21 52 PP
QUETTA	153.49	15.7	20 7	15				

MAY 10 23.H 17.M 59.S EPICENTRE 33.90 131.82 DEPTH= 93.KM

A=-0.55458 B= 0.61987 C= 0.55516 D= 0.7453 E= 0.6668

G=-0.3702 H= 0.4137 K=-0.8317 HT= 0.5

DEPTH OF FOCUS= 0.009R

SE= 1.83

	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
HIROSIMA	0.69	47.1	0	15A	-3	0	25	-7				
SIMONOSEKI	0.74	274.1	0	17	-2	0	29	-3				
MATUYAMA	0.80	94.0	0	17	-2	0	30	-3				
UWAZIMA	0.91	137.4	0	19A	-1	0	32	-2				
HAMADA	1.02	11.7	0	20K	-1	0	35	-1				
ASOSAN	1.18	212.3	0	23	0	0	46	6				
HUKUOKA	1.24	255.5	0	24K	1	0	41	0				
KUMAMOTO	1.43	221.3	0	25K	-1	0	45	0				
KOTI	1.47	103.3	0	24	-2	0	42	-4				
SIMIDU	1.48	138.9	0	25A	-1	0	43	-3				
UNZENDAKE	1.76	228.8	0	31A	1	0	47	-5				
MATSUE	1.86	33.4	0	30	-1	0	51	-3				
TAKAMATU	1.90	76.6	0	30	-2	0	52	-3				
OKAYAMA	1.91	65.3	0	31A	-1	0	51	-4				
YONAGO	1.98	39.2	0	32K	-1	0	55	-2				
NAGASAKI	2.00	234.8	0	32K	-1	0	58	1				
MIYAZAKI	2.00	189.7	0	34K	1	1	3	6				
MUROTO	2.08	107.6	0	32	-2	0	57	-2				
ITUHARA	2.13	278.8	0	34	-1	0	58	-2				
HIMEJI	2.22	73.7	0	40	4	1	1	-2				
TOKUSIMA	2.30	85.0	0	36A	-1	1	1	-4				
TOTTORI	2.52	49.8	0	42	2	1	11	1				
KAGOSIMA	2.56	205.0	0	43	2						1	25
SUMOTO	2.60	79.4	0	40A	-1	1	7	-5				
SAIGO	2.61	28.0	0	41	0	1	6	-6				
WAKAYAMA	2.80	82.3	0	42A	-2	1	13	-4				
TOMIE	2.86	244.3	0	48	3	1	21	3				
KOBE	2.89	73.4	0	44	-1	1	17	-2				
OSAKA	3.16	75.3	0	48A	-1	1	25	-1				
ABUYAMA	3.25	71.6	0	48A	-2							
SIOMISAKI	3.33	96.7	0	48	-3	1	25	-5				
MAIZURU	3.33	61.0	0	51	0	1	26	-4				
NARA	3.41	75.7	0	51	-2	1	30	-2				
KYOTO	3.42	69.8	0	51A	-2	1	29	-3				
YAKUSIMA	3.62	198.4	0	55	0	1	37	0				
OWASE	3.64	86.1	0	53	-3	1	34	-4				
HIKONE	3.90	68.3	1	0A	1	1	44	0				
TSURUGA	3.91	62.3	0	59	0	1	42	-2				
KAMEYAMA	3.96	74.9	0	59	-1	1	42	-4				
TU	3.97	77.1	1	2	2	1	44	-2				
GIHU	4.35	68.5	1	5A	0	1	52	-3				
NAGOYA	4.44	72.0	1	7	0	1	57	0				
KANAZAWA	4.75	55.1	1	9	-2							
HAMAMATU	4.95	78.8	1	14	0	2	5	-5			1	46
TAKAYAMA	4.99	61.7	1	15	1							
OMAESAKI	5.35	80.7	1	21	2	2	26	6				
WAZIMA	5.40	48.6	1	20	0							
SHIZUOKA	5.54	77.1	1	22	0	2	21	-4				
MATUMOTO	5.56	63.3	1	22	0							
KOHU	5.82	70.5	1	25	-1	2	30	-2				
MATUSIRO	5.86	61.5	1	25	-1	2	31	-1			3	20
NAGANO	5.91	60.3	1	28	1	2	45	11				
HUNATU	5.94	72.5	1	27	0	2	36	1			3	32
MISIMA	6.01	76.3	1	27	-1	2	31	-5				
OIWAKE	6.03	64.4	1	29	1							
AJIRO	6.12	77.2				2	35	-4			2	22
TAKADA	6.14	56.9	1	31	1							
OSIMA	6.32	80.0	1	31	-1	2	40	-4				
MAEBASI	6.44	65.2	1	34A	0	3	6	19			2	34
KUMAGAYA	6.60	68.0	1	37	1	2	54	3				
YOKOHAMA	6.63	74.5									2	55
AIKAWA	6.64	49.9	1	37	0							
TOKYO C.M.O.	6.76	72.6	1	46	7	2	58	3				
UTUNOMIYA	7.10	65.9	1	41	-2							
NIIGATA	7.11	53.6	1	46	3							
TUKUBASAN	7.17	68.8	1	43A	-1							
KAKIOKA	7.24	68.9	1	44	-1							
MITO	7.51	68.3	1	50	1							
HUKUSIMA	8.01	58.9									2	1
ISINOMAKI	8.91	56.8									2	9
ZO-SE	9.41	255.6	2	16A	1	4	9	10				

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MORI	10.70	37.6								2	46	
NANKING	11.10	264.1	2	39A	2	4	50	10				
CHANGCHUN	11.13	334.9	2	40A	2	4	52	11				
TOMAKOMAI	11.60	38.5								3	8	
SAPPORO	11.81	36.4								2	45	
URAKAWA	11.93	43.2								3	23	
PEKING	13.92	300.6	3	21	7	6	7	20				
WUHAN	14.99	261.8	3	30A	2							
Y.-SAKHLINSK	15.49	29.0	3	36	2							
HONG KONG	19.36	237.9	4	21A	0	8	8	19		4	50	*SP
CANTON	19.46	241.2	4	22A	0	8	0	9				
LANCHOW	23.01	283.3	4	58A	1	9	7	10				
ULAN-BATOR	23.34	314.3	5	1	0							
KUNMING	26.71	258.6	5	31	-2							
LHASA	34.77	274.4	6	45	2							
SHILLONG	35.49	267.3	6	49	-1					9	17	
SVERDLOVSK	52.32	318.9	9	4	-1							
KHEYS	54.14	348.8	9	19	1							
QUETTA	54.30	285.1	9	18A	-1	16	44	-4	9 39			
CHARTERS TS.	55.42	163.5	9	27	0							
COLLEGE	55.84	30.6	9	49	19							
APATITY	62.23	334.6	10	12	-2							
NORD	63.59	355.1	10	20A	-3							
SODANKYLA	64.69	335.6	10	27	-3							
MOSCOW	64.95	321.5	10	31	-1							
SHIRAZ	65.94	290.5	10	37	-2	19	17	0				
KIRUNA	66.52	337.3	10	40	-2							
PULKOVO	66.74	327.3	10	43	-1							
ADELAIDE	68.81	173.9	10	57	1							
NURMIJARVI	68.84	329.5	10	55	-2							
HELSINKI	68.88	329.1	10	55	-2							
THULE	69.21	5.0	10	56	-3				11 18			
SKALSTUGAN	71.76	335.8	10	46	-28						11 13	
UPPSALA	72.11	331.1	11	14	-2							
SCORESBY SD.	74.21	351.1	11	29K	0				11 50			
LWOW	75.03	320.3	11	33	0							
GOTEBORG	75.75	331.3	11	35	-2							
CORVALLIS	76.37	45.3	11	43	2							
SHASTA	79.13	48.2	11	58	2							
HUNGRY HORSE	79.25	38.3	11	58	1				12 19			
COLLMBERG	79.61	326.0	11	57	-2				12 20	12	32	*SP
PRUHONICE	79.75	324.3	11	59A	0				12 21	12	33	*SP
MINERAL	79.83	48.1	12	1K	1				12 22			
BERKELEY	80.86	50.4							12 27			
RENO	81.41	47.9	12	31	23				12 31			
BUTTE	81.51	39.4	12	11	2				12 31			
LICK	81.57	50.6							12 34			
LJUBLJANA	82.37	321.4	12	12	-1							
HEIDELBERG	82.90	326.5	12	15	-1							
TRIESTE	83.04	321.4	12	16	-1							
STUTTGART	83.09	325.8	12	15	-2				12 39			
EUREKA	83.79	46.1	12	22	2				12 43			
PASADENA	85.75	51.4	12	53	23				13 12			
RAPID CITY	87.64	36.2	12	43	4							
LARAMIE	88.43	39.4	12	45	2							
TUCSON	91.66	48.8							13 21			
TUCSON TELE.	91.67	48.7							13 21			
SOUTH POLE	123.72	180.0	18	47	0					20	31	PP
BYRD STATION	126.38	148.2	18	54	2							
HUANCAYO	147.05	55.2	19	34	4							
LA PAZ	155.06	50.9	19	47	5				20 32			

MAY 11 18.H 36.M 1.S EPICENTRE -3.30 130.78 DEPTH= 0.KM

A=-0.65204 B= 0.75602 C=-0.05725 D= 0.7573 E= 0.6531
G= 0.0374 H=-0.0433 K=-0.9984 HT= 7.1

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	17.36	111.2	4	8	3	7	18	1				
MANILA	20.28	331.9	4	37	-3	8	17	-5				
RABAUL	21.37	93.1	4	50	-1	8	43	-1			6	46
GUAM	21.67	39.5	4	55	1	8	57	7				
BAGUIO CITY	22.04	333.1	5	2	5	9	4	8				

CHARTERS TS.	22.50	139.0	5	1	-1	9	6	1				
LEMBANG	23.33	260.5	5	12K	2	9	24	4				
DJAKARTA	24.03	262.3	5	18	1	9	21	-11				
HONG KONG	30.1R	328.2	6	14	0	11	8	-5			10	25
CANTON	31.27	327.9	6	26	3	11	29	-1				
PERTH	31.77	204.6	6	29	1	11	49	11				
BRISBANE	31.87	140.9	6	30	1	11	38	-1				
ADELAIDE	32.36	167.8	6	32	-1	11	45	-2				
MEDAN	32.80	281.8	6	17A	-20	11	14	-40				
ZO-SE	35.41	345.7	7	1	2	12	32	-2				
RIVERVIEW	35.83	150.3	7	3A	0	12	41	0	7	13	15	12 SS
CANBERRA	36.06	154.2	7	4K	-1	12	41	-3			8	31 PP
MELBOURNE	36.74	161.1	7	11	1	12	57	2			13	29
NANKING	36.97	342.9	7	13	1	12	56	-2				
WUHAN	37.04	336.4	7	14	1	12	58	-1				
ABUYAMA	38.24	6.4	7	25A	2							
KUNMING	39.23	317.6	7	33	2	13	33	1				
NOUMEA	39.40	121.7	7	45	12						8	35
MATUSIRO	40.24	9.3	7	36	-4	13	36	-12			9	26 PP
TUKUBASAN	40.27	11.7	7	27K	-13	13	58	10			9	9 PP
PORT BLAIR	40.66	292.1	7	53	10	13	56	2			9	26 PP
FORT NELSON	42.13	161.8				14	14	-2			17	27 SS
CHENGTU	42.35	324.8	7	56	-1	14	14	-5				
SIAN	42.65	332.9	7	58	-1	14	23	0				
PEKING	45.16	344.2	8	21	1	14	57	-3				
VLADIVOSTOK	46.22	1.1	8	29	1							
LANCHOW	46.55	329.6	8	31	0	15	18	-2				
CHANGCHUN	47.18	354.6	8	38	2	15	27	-2				
SHILLONG	47.38	309.6	8	37	0	15	27	-4			10	29 PP
PAOTOW	47.62	338.6	8	36	-3							
CALCUTTA	48.72	303.9	8	47	-1	15	45	-5				
LHASA	50.19	313.6	9	0	1	16	10	-1				
Y.-SAKHLINSK	51.20	10.5	9	5	-2	16	19	-6				
BOKARO	51.41	304.1	9	7	-1							
CHATRA	51.66	308.2	9	8	-2	16	29	-2				
COLOMBO	51.81	281.4	9	11	0	16	33	0				
MADRAS	52.78	288.9	9	21K	2	16	47	1			11	19 PP
UGLEGORSK	53.09	9.3	9	22	1	16	51	0				
KARAPIRO	53.45	136.1	9	24	0				9	41		
ROXBURGH	53.84	147.1				17	17	16			22	58 SSS
CHATEAU	54.07	137.5	9	28	0				9	47		
GEBBIES PASS	54.65	143.6	9	50	18							
KODAIKANAL	54.75	284.9	9	23	-10							
ULAN-BATOR	55.13	340.6	9	34	-2							
AFIAMALU	57.63	104.3	9	53	-1	17	47	-4			21	41 SS
AGRA	59.17	304.3	10	4A	-1	18	8	-3			10	31
POONA	60.08	293.5	10	9	-2	18	19	-4				
DEHRA DUN	60.39	307.7	10	17	4	18	26	-1			13	56 PPP
PETROPAVLOVK	60.82	18.9	10	15K	-1	18	27	-6				
BOMBAY	61.11	293.6	10	16	-2	18	30	-6			12	31 PP
LAHORE	63.81	307.5	10	34	-2	19	9	-1			11	10 PCP
TERRE ADELIE	63.83	175.3	10	28	-8	19	11	0				
WILKES	64.51	188.9	10	37	-3	19	13	-6			10	58 *SP
MAGADAN	64.63	11.1	10	41	0	19	19	-2				
YAKUTSK	65.15	359.5	10	45	0	19	23	-4				
WARSAK DAM	66.89	309.1	10	53	-3							
KARACHI	67.82	298.4	11	1	-1							
MIRNY	68.39	195.3	11	13	8							
ANDIJAN	68.89	316.1	11	8A	0	20	12	0				
QUETTA	69.35	303.9	11	10A	-1	20	16	-2			13	52 PP
NAMANGAN	69.47	316.1	11	10	-2	20	19	0				
CAPE HALLETT	73.13	168.3	11	35K	1	21	3	2				
KIPAPA	73.80	66.7	11	38	0							
TIKSI	74.81	359.4	11	42K	-1	21	14	-6				
SCOTT BASE	76.87	172.7	11	55	0	22	1	18				
SHIRAZ	81.45	300.5	12	19K	-1	22	29	-2				
TANANARIVE	82.54	251.5	12	28A	2						13	17
TEHERAN	83.32	306.4	12	30	0	22	49	-1				
SOUTH POLE	86.72	180.0	12	45	-2						13	32
MAKHACH-KALA	87.31	313.1	12	49A	-1	23	30	1				
GORIS	87.79	309.6	12	52	0							
TIFLIS	89.17	311.7	13	1	3						24	42 PS
COLLEGE	89.31	25.0	13	0	1	23	44	-4			26	9
BYRD STATION	90.13	170.5	13	2	-1						16	34 PP
KHEYS	90.45	351.0	13	4	0	23	56	-2				
MOSCOW	94.49	325.5	13	21	-2	23	55	-38				
APATITY	95.85	337.5	13	28	-1	24	3	-2			24	37 S
KSARA	95.89	303.5	13	32	3	24	56	50			17	20 PP
JERUSALEM	96.45	301.5	13	32	0						17	35 PP

PULKOVO	98.11	329.8	13	36A	-3	24	49	32			
SODANKYLA	98.47	337.7	13	39	-2				17	43	PP
HELWAN	99.83	299.6							18	28	
BULAWAYO	100.26	249.0	13	50	1						
KIRUNA	100.64	338.8	13	50	-1						
NURMIJARVI	100.77	331.1	13	50	-1	24	31	1	30	5	PKKP
BROKEN HILL	101.07	254.7	13	56	3						
LWIRO	101.82	267.0	13	58	2						
BUCHAREST	102.78	314.7	18	5	777				25	21	
LWOW	103.29	320.4				24	51	9	17	41	PP
RESOLUTE	103.92	11.3	14	4	-1	24	38	-7			
UPPSALA	104.33	331.4	14	10	3				18	21	PP
WARSAW	104.64	323.3				24	42	-6	18	31	PP
SKALSTUGAN	105.32	335.9	14	11	777				18	22	PP
HERMANUS	105.72	233.0				24	59	6	25	45	SKKS
COPENHAGEN	108.39	328.3							18	59	PP
HUNGRY HORSE	109.03	39.7	14	35	777				29	40	PKKP
PRUHONICE	109.18	322.2							19	3	PP
PASADENA	109.23	55.1				25	9	0	18	58	PP
COLLMBERG	109.67	323.8	18	16	777				22	12	
EUREKA	109.96	49.2	14	37	777				19	9	PP
LJUBLJANA	110.41	318.2	18	35	1				19	18	
TRIESTE	111.04	318.0							19	18	PP
TOLMEZZO	111.29	318.9	18	39	4				26	3	
MESSINA	111.75	309.9	14	43	777				26	13	
STUTTGART	112.83	322.3	18	31	-7	27	10	107	19	17	PP
DE BILT	113.80	326.8							19	35	PP
STRASBOURG	113.83	322.5							29	59	PPS
ABERDEEN	114.71	333.9				27	23	112	36	6	SS
UCCLE	114.86	325.8				25	32	1			
TUCSON TELE.	115.71	55.7	18	47	3				19	49	PP
SETIF	120.08	310.3	18	51	-1						
TAMANRASSET	123.64	295.2	19	2	3				29	50	PKKP
LAWRENCE	125.19	43.3	19	5	3						
FLORISSANT	128.55	41.1				26	12	-4	22	30	PKS
ST. LOUIS 1	128.73	41.2							22	30	PKS
PENNSYLVANIA	134.62	30.8				26	31	1	22	38	PP
PALISADES	136.38	27.3	19	29	6				21	31	PP
SANTA LUCIA	138.22	152.7							23	35	SKSP
MBOUR	146.34	291.1	19	47	6				35	47	SKKS
HUANCAYO	149.90	120.9	19	54	7				20	14	PKP2
LA PAZ	152.87	137.0	19	58	7						
CHINCHINA	153.62	85.5	19	55	3						
BOGOTA	155.18	86.2	20	13	19				23	49	PP
SAN JUAN	157.68	46.6	20	32	34						
CARACAS	161.03	67.0	20	24	23				24	51	PP

MAY 12 22.H 32.M 33.S EPICENTRE 7.59 -80.77 DEPTH= 0.KM

A= 0.15906 B=-0.97852 C= 0.13113 D=-0.9870 E=-0.1604
G= 0.0210 H=-0.1294 K=-0.9914 HT= 6.8

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	
BALBOA HTS.	1.81	41.1	0	32	0	0	56	0					
CHINCHINA	5.74	116.6	1	25K	-3	2	34	-2			2	49	S*
GALERAZAMBA	6.29	59.3	1	36	0	2	53	4					
BOGOTA	7.28	113.5	1	50K	0	3	2	-12					
SANTIAGO MA.	9.58	308.4	2	24	2						4	57	
SAN SALVADOR	10.26	306.9	2	28	-3	5	46	78					
CARACAS	13.97	77.0	3	26	5	6	7	9					
COMITAN	14.06	308.8	3	19	-3						7	58	
MERIDA	15.80	328.1	3	43	-2	6	43	2			10	10	
SAN JUAN	17.84	51.6	4	11	0								
OAXACA	18.22	302.5	4	19	3	7	51	14			11	30	
VERA CRUZ	18.86	309.3	4	27	4	8	2	11			8	39	SS
GRENADA	19.27	75.2	4	29A	1								
TRINIDAD	19.36	79.5	4	28	-1								
ST. VINCENT	19.96	72.3	4	39	3								
ST. KITTS	20.09	59.4	4	36	-2								
HUANCAYO	20.24	164.5	4	40A	1	8	32	10					
DOMINICA	20.46	66.3	4	42	1								
FORT FRANCE	20.50	68.0	5	15	33	9	14	47					
ANTIGUA	20.76	61.0	4	46	1								

TACUBAYA	21.40	305.1	4	49K	-2	8	33	-12			5	15 PP
BARBADOS	21.53	73.5	4	54	2							
GUADALAJARA	25.40	303.2	5	36	6	10	7	12			9	11
MANZANILLO	25.56	298.8				10	15	17				
COLUMBIA	26.29	359.5	5	39	0	10	19	9				
LA PAZ	27.00	152.5	5	45	0	10	23	1			6	30 PP
CHAPEL HILL	28.25	2.9	5	57	1							
MAZATLAN	29.09	305.0				10	44	-11				
FAYETTEVILLE	30.91	338.5	5	19	-61						6	18 PP
WASHINGTON	31.35	5.5	6	25	1	11	17	-14				
CHIHUAHUA	31.75	314.4	6	30	2						13	23 SS
MORGANTOWN	31.91	1.2	6	30A	1							
ST. LOUIS 1	32.08	346.0	6	28K	-2	11	39	-3				
FLORISSANT	32.26	345.9	6	31	-1	11	44	-1				
PENNSYLVANIA	33.17	4.0	6	41	1	11	57	-3				
FORDHAM	33.69	9.4	5	39	-65	12	6	-2				
PALISADES	33.84	9.3	6	45A	-1	12	13	3			7	23 PP
WESTON	35.64	12.0	7	1	0	12	41	3				
TUCSON TELE.	37.16	315.6	7	13	-1						8	44 PP
TUCSON	37.19	315.4	7	15	1						8	45 PP
OTTAWA	37.93	5.8	7	20K	0							
BREBEUF	38.28	8.1	7	23K	0	13	25	7				
SHAWINIGAN	39.43	8.7	7	35A	2							
HALIFAX	39.81	19.2	7	39	3							
LARAMIE	40.17	330.7	7	39	0						9	13
SEVEN FALLS	40.30	10.5	7	41	1							
RAPID CITY	41.29	335.4	7	49	1						9	46
SANTA LUCIA	41.92	167.3	7	54	1	14	10	-3			9	34 PP
BOULDER CITY	42.03	317.3	7	56	2							
PASADENA	43.42	312.9	8	7	1	14	54	19			9	55 PP
BOZEMAN	46.07	330.6	8	28	1							
UKIAH	49.36	316.2	8	53	0							
HUNGRY HORSE	49.41	331.2	8	53	0							
PENTICTON	52.82	329.0	9	18	-1							
VICTORIA	54.36	326.3	9	30	0						10	36
PONTA DELGDA	58.01	50.1	9	59K	2							
MBOUR	62.83	77.8	10	29	0	18	58	0				
RESOLUTE	67.54	356.0	10	55	-5	19	51	-5				
THULE	69.14	3.1	11	7	-3							
REYKJAVIK	69.96	23.6	11	14	-1							
SIDA	71.37	24.6	11	25	2							
SERRA PILAR	71.62	49.3	11	16A	-9	20	29	-15	11	26	11	36 PCP
SCORESBY SD.	72.78	17.5	11	30	-2	21	0	3				
COLLEGE	73.52	335.8	11	34	-2	21	10	4				
MALAGA	74.59	54.1	11	47A	5	21	32	14			14	39 PP
RATHFARNHAM	74.69	36.8	11	39	-4							
TOLEDO	74.99	50.8	11	43K	-2	21	12	-10			26	1 SS
GRANADA	75.24	53.6	11	52K	6	21	29	4			26	34 SS
ALMERIA	76.14	54.0	11	52K	1	21	28	-7			14	43 PP
JERSEY	76.89	41.3	11	44	-11	21	48	5				
ABERDEEN	77.52	33.2	11	59	0	21	50	0			26	49 SS
DURHAM	77.61	35.6	12	1A	2	21	53	2				
ALICANTE	77.73	52.5	12	4	4	22	1	9			22	15 SKS
FOLINIERE	77.94	41.8	11	59	-2							
KEW	78.16	39.1	12	2	0	21	57	0				
TORTOSA	78.49	50.0	12	7	3	22	2	2				
RELIZANE	78.58	55.1	12	2	-3						12	24
NORD	78.85	7.7	12	3K	-3	22	4	0				
CLERMONT-FD.	80.36	44.9	12	15	1	22	27	7				
ALGIERS UNI.	80.57	54.0	12	14	-1	22	23	1			15	22 PP
UCCLE	81.09	39.8	12	21	3	22	31	4				
DOURBES	81.26	40.5	12	22	3	22	31	2				
BERGEN	81.51	30.1	12	20	0				12	25		
DE BILT	81.58	38.5	12	22	1	22	37	4				
WITTEVEEN	82.47	37.7	12	25	0							
SETIF	82.49	54.5	12	24	-1						12	29 PCP
BENSBERG	82.87	39.6	12	28	1							
MUNSTER	83.09	38.5	12	29	0							
ISOLA	83.21	46.4	12	30	1						12	32 PCP
STRASBOURG	83.41	41.9	12	29	-1	22	53	2			23	45 PS
MONACO	83.52	46.8	12	31	0							
TAMANRASSET	83.70	67.9	12	32	0	23	1	7				
HEIDELBERG	83.97	41.1	12	32	-1							
EBINGEN	84.23	42.3	12	33	-1							
TUBINGEN	84.27	41.9	12	34	-1							
STUTTGART	84.39	41.7	12	34	-1	22	58	-3			23	53 PS
SKALSTUGAN	84.62	26.7	12	35	-1						12	51
RAVENSBURG	84.70	42.6	12	36	-1							

CHUR	84.73	43.6	12	39	2	23	4	0				
CHIAVARI	84.82	46.1				23	8	3			17	17 PPP
SONNEBERG	85.47	39.9	12	42	1							
COPENHAGEN	85.61	34.6	12	36	-5	23	19	6			23	6 SKS
JENA	85.65	39.4	12	40	-1	23	12	-1			16	7 PP
HALLE	85.82	38.8	12	42	0	23	10	-5			16	9 PP
PLAUEN	86.07	39.7	12	41	-3							
PRATO	86.15	46.4	12	42	-2	23	16	-2				
COLLMBERG	86.49	38.9	12	45	-1						16	15 PP
TOLMEZZO	87.17	43.7	12	49	0	23	33	5			13	53
KIRUNA	87.23	21.9	12	48	-1							
ROME	87.40	48.3	12	50A	0	23	37	7	13	8	16	25 PP
PRAGUE	87.57	40.0	12	51	0	23	38	6			24	55 PS
PRUHONICE	87.66	40.0	12	51K	0	23	36	4			23	21 SKS
UPPSALA	87.70	30.0	12	50	-1							
TRIESTE	87.78	44.4	12	53	1	23	39	5			16	20 PP
LJUBLJANA	88.25	43.9	12	55	1						13	32
VIENNA-H.	89.13	41.6	12	56	-2	23	28	-18				
ZAGREB	89.30	44.0				23	18	-30			23	52 PS
KHEYS	89.60	6.2	13	5	5	23	54	4				
BRATISLAVA	89.62	41.5	13	20A	19							
SODANKYLA	89.64	21.7	12	59	-2							
BYRD STATION	89.67	186.3	12	59	-2						16	47
RACIBORZ	89.96	39.5	13	2	0						13	7 PCP
MESSINA	90.30	51.5				23	55	-2			16	32 PP
NURMIJARVI	90.95	28.5	13	7	0	24	4	1			16	48 PP
HELSINKI	91.20	28.8	13	7	-1							
WARSAW	91.21	37.0	13	7	-1	24	7	2			16	49 PP
APATITY	92.01	20.5	13	10	-2	23	43	-29			16	48 PP
AFIAMALU	92.77	256.4	13	18	3							
LWOW	93.68	38.9	13	19	0	24	30	3				
PULKOVO	93.86	28.2	13	18K	-2	24	28	0				
SOFIA	95.13	45.9	13	27	1	24	49	48			17	11 PP
BUCHAREST	96.58	43.7	12	35A	-58	24	11	2			25	1
ATHENS	96.64	50.4	13	33A	0							
SOUTH POLE	97.53	180.0	13	36	-1						17	37
TIKSI	98.56	350.9	13	39	-2							
MOSCOW	99.12	30.3	13	43	-1	24	23	1				
PETROPAVLOVK	101.55	327.9	13	57	2	25	37	63				
MAGADAN	101.60	336.0									16	49
HERMANUS	102.48	123.5				24	42	3				
CAPE HALLETT	102.92	197.3	18	15	777	24	45	4			27	37 PS
HELWAN	105.01	56.4	18	27	777						22	33
YAKUTSK	106.70	345.5	18	10	777							
KSARA	107.31	51.2	14	21	777	26	16	76			18	50 PP
LWIRO	109.69	89.7									19	11 PP
TIFLIS	110.17	40.4									19	3 PP
BROKEN HILL	110.42	102.6									17	20
MAKHACH-KALA	111.20	38.2									19	19 PP
VLADIVOSTOK	121.45	332.4									20	33 PP
SHIRAZ	121.81	48.2	18	55	-1						20	32
TUKUBASAN	121.94	321.4									20	35 PP
MATUSIRO	122.88	322.9	19	57	59	26	2	3			32	16 PS
CHANGCHUN	123.64	337.5									20	39
ULAN-BATOR	124.32	353.8									20	43 PP
ANDIJAN	125.92	25.1	19	5	1							
PEKING	130.10	343.0	19	12	0						21	25 PP
QUETTA	131.31	38.0	19	9	-5	26	25	2			22	41 PKS
PORT MORESBY	132.60	264.2									22	46
CHARTERS TS.	132.84	249.7	19	18	1							
ZO-SE	136.17	332.4	19	24	1						21	47 PP
LANCHOW	136.38	354.6	19	19	-5						22	4 PP
NANKING	136.38	335.7	19	25	1						22	8 PP
DEHRA DUN	137.18	27.4	19	42	17						23	2
WUHAN	139.35	339.5									18	29
AGRA	139.83	30.0									23	7
CHENGTU	141.70	353.4	19	32	-1							
LHASA	142.16	11.7	19	33	-1						22	38 PP
BOMBAY	142.98	44.4	19	35	0						23	20
CHATRA	143.85	18.5	19	29	-8							
POONA	143.94	43.7	19	32K	-5							
SHILLONG	146.28	12.0	19	41	0							
CANTON	146.53	336.5	19	45	-3						23	12 PP
HONG KONG	146.89	334.1	19	44	2						23	11 PP
KUNMING	147.31	354.1	19	45	2							
BAGUIO CITY	148.14	318.6	19	49	5							
CHITTAGONG	149.37	13.6	19	48	2							
MUNDARING	151.04	210.8	19	50	1							

DJAKARTA 172.33 280.0 20 37

MAY 13 16.H 7.M 12.S EPICENTRE 54.96-161.51 DEPTH= 0.KM

A=-0.54697 B=-0.18286 C= 0.81694 D=-0.3171 E= 0.9484
G=-0.7748 H=-0.2590 K=-0.5767 HT= -7.2

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	12.05	29.0	2 55	-1	5 26	14		
PETROPAVLOVK	23.28	281.8	5 11A	1				
VICTORIA	24.22	89.5	5 19	0	9 36	1		6 23 PP
MAGADAN	25.74	299.9	5 34	1				
PENTICTON	26.02	85.0	5 36	0				
CORVALLIS	26.46	97.1	5 47	7				
BANFF	27.49	78.7	5 49	-1				
ARCATA	28.38	104.1	5 59	1				
SHASTA	29.45	102.6	6 7	0				6 16
HUNGRY HORSE	29.70	82.9	6 8	-1				9 12
MINERAL	30.13	102.3	6 12K	-1				
SAN FRANCSCO	31.45	106.8	6 24	-1				
BERKELEY	31.48	106.5	6 25A	0	11 28	-5		
BRANNER	31.85	107.0	6 28A	0				
RESOLUTE	31.96	27.5	6 28A	-1	11 36	-5		
LICK	32.20	106.5	6 28A	-4				6 40
BOZEMAN	32.87	85.1	6 37	0				
TIKSI	33.02	326.9	6 53A	14				
KIPAPA	33.59	174.1	6 42	-2				7 51 PP
FRESNO	33.63	105.3	6 44K	0				
EUREKA	33.91	98.0	6 45	-1				39 44 PKPPKP
UGLEGORSK	34.38	284.1	6 53A	3				
RUTH	34.64	97.4	7 1	8	12 15	-7		
Y.-SAKHLINSK	35.14	280.6	6 56	-1				13 56
SALT LAKE C.	35.42	92.6	6 49	-10				7 25
HAWAII V.OB.	35.79	169.9	7 2	0				
PASADENA	36.46	106.7	7 8A	0	12 42	-8		12 47 SCP
BOULDER CITY	36.99	101.2	7 12	-1				
THULE	38.17	22.4	7 21	-2	13 7	-10		8 2
RAPID CITY	38.31	81.6	7 13	-11				8 37 PP
LARAMIE	38.68	86.8	7 27	0				
TUCSON TELE.	41.97	101.2	7 53	-1				
TUCSON	41.97	101.4	7 54	0	14 12	-1		17 45
NORD	42.38	7.2	7 58A	1				16 55 SS
KHEYS	42.87	351.2	8 1A	0				
TUKUBASAN	43.53	269.4	8 7A	0				
VLADIVOSTOK	43.60	283.0	8 8	1				
MATUSIRO	44.39	271.3	8 14	0	14 46	-3		10 16 PP
LAWRENCE	46.16	81.6	8 25	-3				
CHANGCHUN	46.80	288.1	8 33A	0	15 18	-5	8 49	
ABUYAMA	47.09	271.8	8 36A	1				
FAYETTEVILLE	48.76	83.7	7 45A	-63	15 8	-43		7 55
FLORISSANT	49.05	78.3	8 48A	-2	15 47	-8	8 59	
ST. LOUIS 1	49.24	78.3	8 49A	-3	15 50	-8	9 0	
LITTLE ROCK	50.75	83.5	9 0	-3				
SCORESBY SD.	51.55	16.2	9 9	0	16 28	-2	9 25	19 3 SCS
IRKUTSK	51.78	308.7	9 10A	-1	16 30	-3		
OTTAWA	52.44	62.4	9 14A	-2				
SHAWINIGAN	53.14	59.6	9 18	-3				
BREBEUF	53.44	61.0	9 20	-4	16 49	-6		
ULAN-BATOR	53.58	303.3	9 25	0				
SEVEN FALLS	53.70	57.9	9 25	0	16 54	-5		
MORGANTOWN	54.25	70.3	9 27A	-2				
PEKING	54.37	290.6	9 31A	1	17 2	-6	9 47	
PENNSYLVANIA	54.53	67.9	9 30	-2	17 4	-6		
WASHINGTON	56.33	68.9	9 42	-3				10 27
PALISADES	56.48	65.1	9 46A	0	17 32	-4	9 53	11 46 PP
FORDHAM	56.61	65.2	9 46	-1	17 30	-8		
WESTON	56.83	62.3	9 46	-2				
REYKJAVIK	57.22	19.8	9 51	0				
PAOTOW	57.24	295.1	9 53	2	17 48	2		
APATITY	57.30	353.2	9 50A	-2	17 43	-4		12 1 PP
CHAPEL HILL	57.42	72.7	9 49	-3				10 56
KIRUNA	57.52	359.1	9 52	-1				18 1
COLUMBIA	57.73	75.7	9 51	-4	17 44	-9		

SODANKYLA	57.84	356.3	9	54	-1					18	9	PPS
ZO-SE	58.09	279.7	9	57A	0	17	57	0	10 12			
SIDA	58.26	18.1	9	58	0							
TACUBAYA	58.49	101.4	10	8	8	17	56	-7		12	4	PP
GUAM	58.62	246.8	9	57	-4							
NANKING	58.73	282.2	10	1A	-1	17	59	-7	10 16			
HALIFAX	58.99	55.6	10	1A	-2							
OULU	60.23	356.6	10	12	0							
VERA CRUZ	60.39	98.8	10	16	3							
SKALSTUGAN	61.70	3.1	10	20	-2					10	35	
WUHAN	62.25	284.2	10	26A	0	18	49	-2	10 42			
SIAN	62.53	291.0	10	28A	1	18	57	3				
MERIDA	62.75	92.1	10	27	-2					10	42	
LANCHOW	63.85	295.9	10	36	0	19	9	-2	10 52			
BERGEN	64.51	7.2	10	40	0				10 54			
NURMIJARVI	64.77	356.6	10	43	1	19	21	-1		19	39	PS
HELSINKI	65.10	356.4	10	44	0					19	43	PS
PULKOVO	65.23	353.4	10	44A	-1	19	22	-6				
UPPSALA	65.54	0.5	10	46	-1					10	58	
ABERDEEN	66.98	12.0	10	55	-1	19	45	-4		21	6	
GOTEBORG	67.57	3.8	11	5	5					11	20	
MOSCOW	68.56	348.5	11	6A	0	20	5	-3				
CANTON	68.68	280.0	11	5A	-2	20	7	-3	11 21			
HONG KONG	68.83	278.8	11	8A	0	20	11	0		11	23	PCP
AFIAMALU	69.15	190.7	11	18	8							
DURHAM	69.40	12.3	11	11K	0	20	16	-2		21	5	SKS
COPENHAGEN	69.61	3.6	11	13A	0	20	18	-3		11	28	PCP
BAGUIO CITY	69.79	269.9	11	14	0	20	20	-3				
RATHFARNHAM	70.18	15.5	11	25	9							
RABAUL	70.25	230.0	11	14	-3					13	49	
MANILA	70.90	268.3	11	16	-5					21	28	
WITTEVEEN	72.14	7.5	11	28	0							
DE BILT	72.74	8.5	11	33	2	20	54	-3		11	48	PCP
KEW	72.79	12.2	11	31	-1	20	56	-1		25	30	SS
POTSDAM	72.93	3.5	11	33	0	20	59	0		11	50	PCP
MUNSTER	73.06	7.0	11	10	-23					11	23	
WARSAW	73.16	358.4	11	34	0	21	1	-1		14	20	PP
HALLE	73.77	4.2	11	38	0	21	7	-1		14	35	PP
UCCLE	73.95	9.3	11	39	0	21	9	-2				
COLLMBERG	74.01	3.6	11	39	0					11	52	PCP
BENSBERG	74.03	7.4	11	39	0	21	31	20				
ANDIJAN	74.16	320.4	11	41A	1	21	16	3				
NAMANGAN	74.22	321.0	11	41	1							
JENA	74.32	4.5	11	40	-1	21	12	-3		22	8	PS
DOURBES	74.67	9.2	11	23	-20	21	17	-2				
PLAUEN	74.79	4.2	11	40	-3					11	56	PCP
SONNEBERG	74.85	4.8	11	44	0					11	59	PCP
CHEB	75.21	4.1	11	46	0							
PRAGUE	75.29	2.7	11	46A	0	21	19	-6		12	2	PCP
RACIBORZ	75.33	0.2	11	47	0					11	59	PCP
KRAKOW	75.35	359.0	11	46	-1					12	28	
PRUHONICE	75.38	2.6	11	47A	0	21	23	-3		12	3	PCP
FOLINIERE	75.42	12.8	11	48	1							
LHASA	75.44	300.9	11	49A	2	21	25	-2	12 5			
LWOW	75.49	356.3	11	48	1							
HEIDELBERG	75.69	6.6	11	48	-1					12	5	PCP
TOCKLAI	75.91	296.4	11	58	8							
STUTTGART	76.35	6.3	11	52A	0	21	31	-6		14	24	PP
STRASBOURG	76.44	7.3	11	52	-1	21	12	-26		12	7	PCP
TUBINGEN	76.58	6.4	11	54	0					12	10	PCP
EBINGEN	76.92	6.5	11	56	0					12	12	PCP
PORT MORESBY	77.12	232.2	11	55	-2	21	42	-3	12 10	12	6	PCP
BRATISLAVA	77.24	1.0	11	58K	1	21	38	-9		14	42	PP
RAVENSBURG	77.36	6.1	11	58	0					12	14	PCP
BASLE	77.47	7.5	12	3A	4							
HURBANOVO	77.54	0.2	12	2	3	22	22	32				
BESANCON	77.62	8.7	12	1	2					12	15	PCP
NEUCHATEL	77.95	8.0	12	2	1							
SAN JUAN	78.20	75.0	12	1	-2							
CHUR	78.28	6.3	12	3	0							
SHILLONG	78.36	297.9	12	3A	0							
CLERMONT-FD.	78.80	10.9	12	10	4							
TOLMEZZO	78.91	3.9	12	7	1					22	28	
LJUBLJANA	79.31	2.8	12	8A	-1					15	16	PP
MAKHACH-KALA	79.36	338.8	12	10A	1							
OROPA	79.40	7.5	12	15	6	22	22	12				
ZAGREB	79.57	1.8	12	11A	1	22	9	-3		12	33	PCP
TIMISOARA	79.64	358.1	12	12	2					22	42	
CHATRA	79.66	302.2	12	8A	-3	22	3	-10				

TRIESTE	79.68	3.4	12	10	-1	22	13	0		15	24 PP
PAVIA	79.92	6.7	12	15A	3	22	21	6		14	47
PONTA DELGDA	80.22	34.1	12	14K	0					12	26 PCP
BELGRADE	80.58	358.6	12	17K	2	22	18	-4		27	59 SS
BOLOGNA	80.73	5.2	12	17	1					15	16 PP
ISOLA	80.76	8.3	12	18	2	22	45	21			
BUCHAREST	80.78	354.5	12	17	0	22	21	-3	12 32	22	39 PS
DEHRA DUN	80.93	311.0	12	1	-16	22	22	-4		14	55 PP
CHITTAGONG	81.03	296.1	12	19	1	22	32	5		15	28 PP
TIFLIS	81.11	340.4	12	20	2	22	27	-1			
LAHORE	81.44	314.4	12	21	1						
SERRA PILAR	81.52	20.4	12	18A	-2	22	18	-14	12 28	15	28 PP
ANTIGUA	81.57	72.3	12	19	-2						
COIMBRA	82.45	20.5	12	25A	0					12	37 PCP
SOFIA	82.62	356.4	12	27	-1	22	55	-12		15	54 PP
BOKARO	82.85	301.6	12	26	-1	22	32	-13			
GORIS	82.94	338.6	12	28	0						
DOMINICA	83.31	73.0	12	27	-3					12	36 PCP
ROME	83.38	4.5	12	30A	0	23	7	16	12 46	28	13 SS
TOLEDO	83.58	17.3	12	31A	0	22	58	5		15	56 PP
CHINCHINA	83.60	90.5	12	29	-2	22	46	-7		13	41
AGRA	83.69	309.4	12	29	-3	22	46	-8		15	47 PP
LISBON	83.73	21.4	12	33K	1	22	36	-18		15	40 PP
CARACAS	84.11	80.2	12	39	5	21	56	-62			
FUQUENE	84.29	88.7	12	30	-5					12	43
BOGOTA	84.78	89.4	12	40	3	22	57	-8		24	15 PS
TARANTO	84.94	0.9				22	55	-11			
QUETTA	85.56	319.4	12	42A	1	23	14	2		15	56 PP
ALICANTE	85.65	14.8	12	40	-1	23	11	-2		16	0 PP
GRANADA	86.29	17.5	12	47A	2	23	38	19		16	10 PP
MALAGA	86.59	18.2	12	49A	3	23	38	16		16	12 PP
ALMERIA	86.80	16.7	12	45	-2	23	21	-3		16	4 PP
CHARTERS TS.	86.96	228.1	12	46A	-2					12	57
TRINIDAD	87.11	75.7	12	46	-3						
MESSINA	87.17	2.3	12	48	-1	23	20	-8		16	7 PP
REGGIO CALA.	87.28	2.2	12	50	1						
ATHENS	87.33	355.9	12	47	-3						
ALGIERS UNI.	87.68	12.4	12	51	0	23	32	-1		16	27 PP
RELIZANE	88.35	14.5	12	53	-2					16	23 PP
SETIF	88.51	10.6	12	54	-1					16	17 PP
KSARA	90.32	345.6	13	6	2	23	56	-1		16	30 PP
SHIRAZ	90.80	330.8	13	7	1	23	53	-8			
BRISBANE	90.90	219.5	13	7	0						
HYDERABAD	91.86	304.2								25	3
JERUSALEM	92.42	345.8	13	26	13						
MEDAN	92.71	280.1								13	34
POONA	93.04	308.6								15	15 PP
BOMBAY	93.17	309.6	13	12	-5	24	3	-19		16	57 PP
KARAPIRO	94.59	198.0	13	32	9						
HELWAN	94.80	348.8	13	23	-1					17	15 PP
MADRAS	94.82	300.5	13	25	0	24	36	0		24	14 SKS
LEMBANG	96.04	266.8								17	26
RIVERVIEW	97.32	218.1				25	4	51			
HUANCAYO	97.58	100.0	13	36	-1					17	48 PP
COLOMBO	100.18	297.7								23	18
TAMANRASSET	101.78	12.2	13	55	-1					18	8 PP
LA PAZ	105.26	96.9	14	13	777						
SANTA LUCIA	117.09	110.1								29	40 PS
LWIRO	126.79	347.1	19	7A	2					59	12
CAPE HALLETT	128.50	190.7								22	42 PKS
TERRE ADELIE	128.77	205.2								20	2
BYRD STATION	136.86	170.2	19	14	-10					22	14 PP
BROKEN HILL	138.84	345.2	19	21	-7						
MIRNY	144.12	221.2	19	34	-3						
BULAWAYO	144.40	343.5	19	37	-1						
SOUTH POLE	144.78	180.0	19	35	-3					23	28 SKP
WINDHOEK	147.64	2.4	19	47	4						
PRETORIA	149.96	342.3	20	1	14						
PIETERMZBURG	153.26	336.4	20	1	9						
KIMBERLEY	153.41	347.6								20	19 PKP2

MAY 14 17.H 43.M 23.S EPICENTRE 42.61 142.53 DEPTH= 94.KM

A=-0.58591 B= 0.44908 C= 0.67456 D= 0.6083 E= 0.7937
G=-0.5354 H= 0.4104 K=-0.7382 HT= -2.7

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DEPTH OF FOCUS= 0.010R

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
URAKAWA	0.50	158.2	0	15A	-1	0	27	-2				
OBIHIRO	0.58	57.8	0	16K	-1	0	28	-2				
HIROO	0.67	119.4	0	17K	-1	0	28	-3				
TOMAKOMAI	0.70	271.8	0	17	-1	0	29	-2				
SAPPORO	0.98	298.2	0	20K	0	0	34	-1				
ASAHIGAWA	1.17	354.3	0	17	-5	0	34	-5				
MURORAN	1.18	256.2	0	21	-1	0	36	-3				
KUSIRO	1.42	74.4	0	25A	0	0	44	0				
HAKODATE	1.54	239.2	0	25A	-2	0	45	-2				
MORI	1.54	251.3	0	26A	-1	0	45	-2				
SUTTSU	1.71	277.1	0	29	0	0	49	-1				
ABASHIRI	1.90	41.6	0	33A	2	0	57	2				
HATINOHE	2.21	200.2	0	33	-2	0	58	-4				
AOMORI	2.22	216.8	0	35	0	1	0	-2				
NEMURO	2.35	71.2	0	38K	1	1	7	2				
MIYAKO	2.99	188.3	0	43	-3	1	15	-6				
MORIOKA	3.09	199.9	0	45K	-2	1	18	-5				
AKITA	3.42	213.2	0	52	0	1	19	-13				
MIZUSAWA	3.64	197.4	0	58	3	1	34	-3				
SAKATA	4.24	209.8	1	5	2	1	51	-1				
Y.-SAKHLINSK	4.41	1.7	1	7	1	1	56	0				
SENDAI	4.51	196.5	1	6	-1	2	0	1				
KURILSK	4.66	54.0	1	12A	3	2	7	5				
YAMAGATA	4.66	201.6	1	9	0	1	56	-6				
HUKUSIMA	5.11	198.7	1	11	-4	2	19	6				
NIIGATA	5.39	210.7	1	23	4	2	32	12				
AIKAWA	5.63	216.9	1	22	0							
SHIRAKAWA	5.77	198.7	1	27	3	2	28	-2				
ONAHAMA	5.79	193.1									2	15
UTUNOMIYA	6.39	199.6	1	31	-2							
TAKADA	6.41	212.3	1	36	3							
MITO	6.42	195.0	1	33A	0	2	40	-6				
UGLEGORSK	6.48	357.3	1	35K	1							
KAKIOKA	6.63	196.7	1	29	-7	2	39	-12				
TUKUBASAN	6.66	197.2	1	31	-5	2	43	-8				
MAEBASI	6.76	204.5	1	42	4	3	1	7				
KUMAGAYA	6.90	201.7	1	42	2	2	48	-9			3	27
MATUSIRO	6.92	210.2	1	38	-2	2	52	-6			3	27
OIWAKE	6.99	207.4	1	51	10							
TYOSI	7.01	191.3	1	39	-2	2	51	-9				
TITIBU	7.14	203.1	2	0	17							
TOKYO C.M.O.	7.25	198.2	1	44	-1	2	58	-8				
YOKOHAMA	7.51	198.3									3	8
KOHU	7.59	205.3	1	48	-1	3	11	-3				
HUNATU	7.68	203.6	2	0	10							
MERA	7.96	196.2									3	14
MISIMA	7.98	201.6	2	8	13							
GIHU	8.48	213.8	2	2	1							
NAGOYA	8.60	212.1	2	6	3						2	46
ABUYAMA	9.45	217.4	2	13A	-1							
YAKUTSK	20.88	342.9	4	39	3	8	17	-1				
COLLEGE	43.98	35.2	8	0	1							
SHILLONG	44.58	264.3	8	4A	0							
CHATRA	47.33	269.1	8	25	-1							
RESOLUTE	57.00	15.5	9	35	-3							
APATITY	57.99	334.7	9	44	-1							
THULE	59.62	8.1	9	53	-3							
SODANKYLA	60.18	336.3	9	58	-2							
QUETTA	60.23	284.9	10	0	0							
KIRUNA	61.63	338.6	10	9	0							
NURMIJARVI	65.45	331.3	10	34	-1							
SKALSTUGAN	67.05	338.2	10	42	-3							
HUNGRY HORSE	67.16	44.7	10	47	2							
UPPSALA	68.34	333.5	10	51	-2							
SHIRAZ	70.62	292.7	11	6	-1							
EUREKA	71.74	53.0	11	15	2				11	46		
GOTEBORG	71.86	334.6	11	13	-1							
COLLMBERG	76.70	330.2	11	39	-3						12	5 PCP
RATHFARNHAM	80.76	341.6									15	23 PP
LAWRENCE	83.36	41.6	12	17	0							
ISOLA	84.85	329.6	12	30	5							
BYRD STATION	133.00	166.3	19	7	3							

MAY 14 22.H 19.M 51.S EPICENTRE 52.98 159.73 DEPTH= 0.KM

A=-0.56717 B= 0.20951 C= 0.79651 D= 0.3465 E= 0.9380
G=-0.7472 H= 0.2760 K=-0.6046 HT= -6.5

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	
PETROPAVLOVK	0.65	273.6	0	23	7	0	33	5					
SEVERO-KUR.	3.23	225.6	0	59	6	1	39	6					
KLYUCHI	3.41	10.8	1	3	7	1	45	7			1	15	*SP
MAGADAN	8.24	326.5	2	11	7						2	49	
OKHA	10.08	279.9	2	37	8	4	35	10					
KURILSK	10.97	229.7	2	47	5	4	54	8			2	59	*SP
UGLEGORSK	11.78	257.7	3	1	8	5	19	13			3	13	*SP
Y.-SAKHLINSK	12.45	248.2	3	7	5	5	31	9					
YAKUTSK	18.32	311.4	4	20	3	7	52	12			4	39	PP
VLADIVOSTOK	20.93	253.1	4	47	0	8	35	-1					
TUKUBASAN	21.70	227.3	4	55K	0	8	51	0					
MATUSIRO	22.31	231.1	5	2	1	9	5	3			5	54	PP
TIKSI	23.08	335.5	5	10	2	9	17	1			5	52	PPP
CHANGCHUN	24.40	261.9	5	20A	-1	9	19	-20					
ABUYAMA	24.91	233.0	5	28A	2								
COLLEGE	28.65	44.9	6	1	0								
PEKING	32.14	264.0	6	31	-1								
IRKUTSK	32.93	291.5	6	39	0						7	59	PP
ULAN-BATOR	33.37	283.0	6	42	0	12	3	0					
ZO-SE	35.41	247.3	7	2	2								
NANKING	36.05	251.0	7	6	1								
WUHAN	39.61	253.7	7	35	0								
KHEYS	40.04	345.5	7	38	-1	13	40	-5			9	13	PP
SIAN	40.30	263.1	7	41A	0								
LANCHOW	42.15	269.3	7	57A	1								
RESOLUTE	43.51	21.9	8	7A	0	14	35	-2					
NORD	45.64	359.3	8	23A	-1								
CHENGTU	45.76	263.6	8	28	3								
CANTON	46.00	247.9	8	28A	1								
HONG KONG	46.17	246.4	8	29	1								
SEMIPALATNSK	46.94	300.6	8	33	-2						15	41	PS
THULE	47.28	13.8	8	36	-1	15	15	-16			10	14	PP
BAGUIO CITY	47.64	235.1	8	41	1								
CORVALLIS	49.11	67.1	8	54	2								
KUNMING	50.59	259.7	9	3	0								
HUNGRY HORSE	51.70	58.0	9	11	0						10	24	PCP
SHASTA	52.13	70.3	9	15	1								
ALMATA	53.16	295.1	9	21	-1								
APATITY	53.28	337.3	9	20	-3	16	44	-10					
LHASA	54.32	273.2	9	32	1								
RENO	54.37	69.8	9	33K	2								
FRUNSE	54.73	296.1	9	33	-1						17	9	SSS
LICK	54.83	72.9	9	34	0								
SODANKYLA	54.93	339.8	9	34	-1						10	36	PCP
KIRUNA	55.74	342.6	9	39	-2								
EUREKA	56.58	67.3	9	47	0						14	37	SCP
SHILLONG	56.79	269.2	9	47A	-2								
SCORESBY SD.	56.84	0.7	9	50A	1								
RABAUL	57.33	189.0	9	51	-1								
SALT LAKE C.	57.94	63.6	9	57	0								
TASHKENT	58.64	298.1	9	59	-3								
CHATRA	58.70	273.9	10	0A	-2								
PASADENA	59.07	73.3	10	6	1								
CHITTAGONG	59.22	266.8	10	6	0	18	10	-3			12	18	PP
BOULDER CITY	59.68	69.5	10	9	0								
RAPID CITY	60.10	55.6	10	12	0						10	51	
DUZHANBE	60.88	296.2	10	15	-2						13	58	PP
LARAMIE	60.89	59.2	10	18	1								
SKALSTUGAN	61.03	344.0	10	17	-1								
NURMIJARVI	61.29	336.5	10	20	0								
HELSINKI	61.51	336.2	10	21	0								
MOSCOW	61.64	327.0	10	21	-1						14	17	PPP
LAHORE	62.86	287.0	10	27	-3								
PORT MORESBY	63.06	193.9	10	30	-2								
REYKJAVIK	63.22	0.8	10	35	2								
UPPSALA	63.47	339.7	10	33	-1						10	40	
TUCSON	64.66	69.6	10	42	0								

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BERGEN	65.12	346.3	10	45	0					
GOTEBORG	66.58	341.8	10	54	0					
ASHKABAD	66.83	302.5	10	53	-3					
LAWRENCE	67.87	54.4	11	1	-2					
QUETTA	68.10	291.2	11	3A	-1	20	0	-3	13 33	PP
COPENHAGEN	68.39	340.8	11	6	0				11 29	PCP
WARSAW	69.60	334.3	10	13A	-60	20	24	3	11 30	PCP
MEDAN	70.03	248.3	11	13	-3					
TIFLIS	70.29	313.8	11	17	0				11 34	PCP
FLORISSANT	70.35	51.3	11	18A	0	20	26	-4		
ST. LOUIS 1	70.55	51.3	11	18A	-1					
LWOW	70.94	331.4	11	21	0	21	22	45		
OTTAWA	71.12	37.8	11	21	-2					
SHAWINIGAN	71.20	35.3	11	18	-5					
POTSDAM	71.36	339.2	11	26	2	20	39	-3		
GORIS	71.41	311.5	11	24	0				21 21	PS
DURHAM	71.50	348.7	11	23A	-2					
BREBEUF	71.80	36.4	11	25A	-2					
KRAKOW	71.87	334.0	11	27	0				12 11	
SIMFEROPOL	71.89	322.6	11	27	0					
RACIBORZ	72.29	335.1	11	30	0				11 47	PCP
COLLMBERG	72.39	338.8	11	30	0				13 33	
HALLE	72.42	339.5	11	31	1	20	51	-3		
SKALNATE PL.	72.58	333.5	11	31	0					
LITTLE ROCK	72.60	55.2	11	30	-1					
MUNSTER	72.83	342.4	11	34	1				11 55	
POONA	72.97	278.2	11	33A	-1					
JENA	73.04	339.6	11	35	1	20	54	-7	12 4	
PRAGUE	73.22	337.5	11	38	3					
PRUHONICE	73.27	337.4	11	37	2	21	21	17	12 49	
PLAUEN	73.33	339.0	11	34	-2					
RATHFARNHAM	73.44	351.3	11	36A	0					
SONNEBERG	73.64	339.6	11	36	-1					
CHARTERS TS.	73.70	193.2	11	37	-1					
BENSBERG	73.88	342.3	11	40A	1					
MORGANTOWN	74.32	43.8	11	41A	0					
BRATISLAVA	74.33	335.0	11	41K	0				12 2	PCP
UCCLE	74.53	344.1	11	43	0					
KEW	74.58	347.2	11	42A	-1					
HEIDELBERG	75.08	340.9	11	47A	1					
DOURBES	75.16	343.7	11	48	2					
WESTON	75.33	36.6	11	47	0					
PALISADES	75.56	39.0	11	48	-1	21	23	-6	26 29	SS
STUTTGART	75.56	340.3	11	49A	0	21	20	-9	22 14	
TUBINGEN	75.84	340.4	11	51A	1					
STRASBOURG	76.05	341.2	11	52A	1				12 5	PCP
EBINGEN	76.19	340.3	11	53A	1					
SHIRAZ	76.33	301.2	11	53K	0				20 33	
RAVENSBURG	76.44	339.8	11	54A	1					
BELGRADE	76.50	331.5	11	55A	1					
ZAGREB	76.80	334.9	11	58A	3					
LJUBLJANA	76.95	335.9	11	57A	1				12 17	
TOLMEZZO	76.99	337.1	11	57	0				13 7	
FOLINIERE	77.24	346.7	11	58	0					
CHUR	77.34	339.5	12	0	2					
TRIESTE	77.52	336.3	12	0	1					
SOFIA	77.56	328.6	12	0	0					
NEUCHATEL	77.72	341.3	12	1	0					
CHAPEL HILL	77.83	45.2	12	1	0					
COLUMBIA	78.58	47.7	12	5	0					
CLERMONT-FD.	79.60	343.6	12	12A	1					
ISOLA	80.41	340.4	12	16A	1				12 36	
KSARA	80.74	315.5	12	18A	1	22	34	9	15 26	PP
MONACO	80.76	340.0	12	18A	1					
ROME	81.35	335.9	12	20A	0	23	2	31		
ATHENS	81.71	326.3	12	21A	-1					
JERUSALEM	82.78	315.0	12	29	1					
MESSINA	84.02	332.4	12	32	-2	21	54	-64		
TORTOSA	84.86	344.3	13	21	43					
HELWAN	86.07	317.0	12	45A	1				19 42	
TOLEDO	86.45	347.6	12	45A	-1	23	16	-6		
SETIF	88.42	339.5	12	55	-1					
MUNDARING	92.70	215.9	13	14	-1					
TAMANRASSET	101.29	335.8	13	53	-2				17 56	PP
BROKEN HILL	125.72	296.2	19	9A	5					
LA PAZ	127.88	64.3	19	11	3					
BULAWAYO	130.26	291.9	19	15K	2					
KIMBERLEY	139.33	288.2							24 35	PPP

BYRD STATION	140.12	164.4	19	23	-8				23	3	SKP
SOUTH POLE	142.80	180.0	19	31	-5				23	10	SKP

MAY 15 13.H 30.M 22.S EPICENTRE 24.21 122.05 DEPTH= 0.KM

A=-0.48455 B= 0.77391 C= 0.40777 D= 0.8476 E= 0.5307
G=-0.2164 H= 0.3456 K=-0.9131 HT= 3.6

SE= 2.51

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
HWALIEN	0.46	238.9	0	13K	0	0	17	-5				
ILAN	0.62	333.9	0	22K	7	0	31	5				
TAIPEI	0.95	329.5	0	25K	5	0	39	5				
HSINCHU	1.15	301.1	0	26	3	0	42	3				
YUSHAN	1.24	234.5	0	24	0	0	38	-4				
TAICHUNG	1.25	267.6	0	25K	1	0	38	-4				
HSINKONG	1.27	209.6	0	17	-7	0	36	-6				
ALISHAN	1.33	239.3	0	28K	3	0	42	-2				
TAITUNG	1.67	209.8	0	29	-1	0	37	-16				
TAINAN	2.07	234.7	0	38A	2	1	1	-2				
TAWU	2.13	210.0	0	40	3	1	4	0				
KAOHSIUNG	2.28	226.3	0	46	7	1	6	-2				
PENGHU	2.39	254.1									1	38
HENGCHUN	2.50	208.8	0	44	2	1	13	-1				
ZO-SE	6.91	353.8	1	45	0	3	16	11				
HONG KONG	7.49	256.9	1	50	-3	3	10	-9				
BAGUIO CITY	7.87	190.4	1	57	-1	3	25	-4			1	57 P*
NANKING	8.34	340.5	2	4	-1							
WUHAN	9.16	315.0	2	14	-2							
SIAN	15.20	314.1	3	38A	1							
PEKING	16.53	344.0	4	0	6	7	14	16				
CHENGTU	17.25	295.8	4	4	1	7	21	6				
KUNMING	17.58	277.0	4	11	4	7	33	11				
MATUSIRO	18.55	44.8	4	21	1	7	50	6			4	59
PAOTOW	19.19	331.1	4	29	2							
LANCHOW	19.65	311.1	4	34	1	8	16	7				
CHANGCHUN	19.75	7.0	4	35	1	8	12	1				
GUAM	23.95	112.4	5	15	-1							
ULAN-BATOR	26.55	336.8	5	40	-1							
SHILLONG	27.39	279.2	5	46A	-2							
CHITTAGONG	27.81	272.4	5	51A	-1	10	34	-1			6	42 PP
LHASA	28.12	287.9	5	55	0							
Y.-SAKHLINSK	28.13	30.8	6	14	19							
CHATRA	31.53	282.3	6	25A	-1							
YAKUTSK	38.15	5.8	7	21	-1							
DEHRA DUN	39.40	288.8	7	33	0							
PETROPAVLOVK	39.84	34.2									17	10
MAGADAN	40.65	22.1									22	21
PORT MORESBY	41.43	140.8	7	50	1							
ALMATA	41.47	308.6	7	51	1							
ANDIJAN	44.44	304.2	8	14A	0	15	13	24				
NAMANGAN	44.99	304.4	8	19	1							
TIKSI	47.61	2.9	8	37A	-2							
QUETTA	48.98	289.7	8	49A	-1	15	55	1				
CHARTERS TS.	49.95	149.8	8	56A	-1						9	29
SVERDLOVSK	54.50	323.6	9	29	-2							
MUNDARING	56.14	186.0	9	39	-4							
BRISBANE	59.25	148.1	10	6	1							
ADELAIDE	60.94	164.4	10	18	1							
SHIRAZ	61.40	291.7	10	17	-3							
KHEYS	62.10	350.4	10	24	-1							
RIVERVIEW	64.01	153.2	10	36A	-1						12	12
CANBERRA	64.47	155.8	10	44	4							
TIFLIS	65.09	306.4	10	43	-1							
MOSCOW	67.26	322.4	10	55	-3							
APATITY	67.36	335.4	10	56	-3							
COLLEGE	68.42	27.3	11	5	0							
SODANKYLA	69.96	335.8	11	12	-3							
PULKOVO	70.26	327.5	11	14	-3							
SIMFEROPOL	71.91	311.7									13	58 PP
KIRUNA	72.09	337.0	11	25	-3							
HELSINKI	72.73	328.7	11	31	0							
NURMIJARVI	72.77	329.1	11	32	0							
UPPSALA	76.28	329.8	11	49	-3							
SKALSTUGAN	76.91	334.4	11	55	0							

RESOLUTE	78.52	9.4	12 2A	-2		
HELWAN	78.93	297.7	12 6	0		
THULE	79.40	2.5	12 5	-4		
GOTEBORG	79.88	329.2	12 10	-2		
SCORESBY SD.	82.20	348.5	12 24	0		
PRUHONICE	82.29	321.6	12 24	0	12 46	
COLLMBERG	82.51	323.2	12 24	-1	15 53	PP
HALLE	82.98	323.7	12 26	-2		
JENA	83.47	323.4	12 29	-1		
LJUBLJANA	84.20	318.1	12 32	-2		
TANANARIVE	84.29	246.5	12 35	1		
TRIESTE	84.86	318.0	12 43	6		
STUTTGART	85.87	322.3	12 41	-1		
ABERDEEN	86.40	333.1			15 45	PP
CORVALLIS	89.25	40.5	13 2	3		
SHASTA	91.99	43.3	13 13	2		
HUNGRY HORSE	92.07	33.6	13 12	0		
RENO	94.27	43.1	13 36	14		
BUTTE	94.35	34.7	13 22	0		
SETIF	95.25	313.5	13 31	5		
EUREKA	96.66	41.4	13 35	2		
PASADENA	98.53	46.7	14 12	31		
TAMANRASSET	102.68	302.2			18 6	PP
CHINCHINA	146.27	33.0	19 44K	3	20 0	PKP2
FUQUENE	146.73	29.6	19 44	2		
BOGOTA	147.32	30.8	19 49	6		
HUANCAYO	159.56	56.8			20 50	PKP2

MAY 15 21.H 37.M 9.S EPICENTRE 54.60–164.41 DEPTH= 0.KM

A=–0.56054 B=–0.15636 C= 0.81323 D=–0.2687 E= 0.9632
G=–0.7833 H=–0.2185 K=–0.5819 HT= -7.1

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M S	O–C S	S M S	O–C S	*PP M S	SUPP. M S
COLLEGE	13.22	32.2	3 15	3				
VICTORIA	25.91	86.5	5 33	-3				
CORVALLIS	28.09	93.7	6 3A	7				
SHASTA	31.03	99.1	6 20	-2				
HUNGRY HORSE	31.42	80.3	6 22	-3				9 15
TIKSI	32.41	327.1	6 36A	2				
RESOLUTE	33.06	27.2	6 39A	-1				
RENO	33.28	98.3	6 50K	9				
YAKUTSK	33.97	309.6	6 46	-2				
EUREKA	35.54	94.8	6 58	-3				
PASADENA	37.98	103.3	7 25	3				
BOULDER CITY	38.58	98.0	7 33	6				
THULE	39.14	21.9	7 30	-1				
RAPID CITY	40.03	79.1	7 36	-3				
MATUSIRO	42.71	269.3	7 59	-2				9 50
NORD	42.94	6.6	8 4A	2				
KHEYS	42.96	350.6	8 16	13				
TUCSON	43.57	98.3	8 12	4				
LAWRENCE	47.88	79.2	8 38	-4				
FAYETTEVILLE	50.48	81.2	7 57	-65				
FLORISSANT	50.77	75.9	9 1	-3				
ST. LOUIS 1	50.96	76.0	9 1K	-5	16 13	-9		
SCORESBY SD.	52.35	15.0	9 15	-1				
OTTAWA	54.09	60.4	9 26	-3				
BREBEUF	55.08	59.1	9 33A	-3				
MORGANTOWN	55.95	68.1	9 39	-3				
APATITY	57.45	352.0	9 52	-1				
KIRUNA	57.84	357.8	9 56	0				10 47 PCP
SODANKYLA	58.07	355.0	9 58	0				10 48 PCP
PALISADES	58.15	63.0			18 11	12		
SKALSTUGAN	62.13	1.7	10 25	0				
NURMIJARVI	65.02	355.1	10 45	1				
HELSINKI	65.34	354.9	10 47	1				
UPPSALA	65.89	358.9	10 49	-1				11 1
GOTEBORG	68.02	2.1	11 3	-1				
AFIAMALU	68.52	187.7	10 47	-20				
MOSCOW	68.56	346.8	11 7	0				
WITTEVEEN	72.70	5.7	11 32	0				
ANDIJAN	73.35	318.4	11 37	1				

COLLMBERG	74.45	1.7	11 42	0				
LWOW	75.72	354.4	11 50	1				
FOLINIERE	76.12	10.9	11 52	0				
STUTTGART	76.87	4.3	11 57	1				
SHILLONG	77.03	295.8	11 55A	-2				
BASLE	78.02	5.5	12 3	1				
CHATRA	78.42	300.1	12 5A	1				
CHITTAGONG	79.67	293.9	12 12	1	22 16	3	15 14	PP
LJUBLJANA	79.73	0.8	12 12	1				
TIFLIS	80.86	338.3	12 18	1				
ISOLA	81.33	6.2	12 21A	1				
QUETTA	84.71	317.2	12 38A	1				
TEHERAN	84.90	331.5	12 40	2				
CHARTERS TS.	85.48	225.6	12 37	-4				
KSARA	90.22	343.2	13 6	2				
SHIRAZ	90.27	328.5	13 4K	0				
LWIRO	126.71	343.4	19 7	1				
BYRD STATION	136.79	169.6	19 19	-6				
BULAWAYO	144.20	338.8	19 37A	-1				
SOUTH POLE	144.41	180.0	19 32	-6				
WINDHOEK	148.00	357.4	19 53K	9				
PRETORIA	149.72	337.0	19 52	5				

MAY 17 9.H 19.M 29.S EPICENTRE 78.35 7.88 DEPTH= 0.KM

A= 0.20135 B= 0.02785 C= 0.97912 D= 0.1370 E=-0.9906
G= 0.9699 H= 0.1342 K=-0.2033 HT=-13.4

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NORD	5.33	318.9	1 20	-3	2 18	-8		1 41 PG
KHEYS	9.17	52.2	2 14	-2	3 56	-5		
SCORESBY SD.	11.06	240.6	2 41K	-1				
KIRUNA	11.14	154.7	2 44	1				
SODANKYLA	12.23	144.0	2 55	-3	5 4	-12		
APATITY	12.98	132.5	3 3	-5	5 21	-13		6 33 SS
SKALSTUGAN	14.91	172.3	3 35	2				
THULE	15.66	301.8	3 41	-2				
BERGEN	18.06	184.1	4 14	0				
NURMIJARVI	18.71	153.5	4 21	-1				
UPPSALA	18.85	164.7	4 22	-1				
PULKOVO	20.02	145.6	4 35A	-2				
RESOLUTE	21.26	314.4	4 50	0				
MOSCOW	24.87	138.1	5 27	2				
TIKSI	26.44	37.6	5 42A	2				
SVERDLOVSK	27.68	109.6	5 51	0				
LWOW	29.26	158.4						17 16
STUTTGART	29.70	178.1	6 10	1				
BRATISLAVA	30.49	167.8	6 18	1				
ISOLA	34.29	181.1	6 51	1				
YAKUTSK	35.63	43.5	7 2	1				
COLLEGE	36.27	342.7	7 8	1				
TIFLIS	39.57	135.1	7 36	2				
NAMANGAN	44.96	106.0	8 20	2				
STALINABAD	46.73	109.8	8 33	1				
PALISADES	48.55	272.1			15 51	3		
HUNGRY HORSE	48.87	311.3	8 49	0				
RAPID CITY	51.24	300.4	9 6	-1				
SHIRAZ	52.57	129.6	9 26	9				
QUETTA	54.54	114.2	9 33	1				
LAWRENCE	54.74	291.6	9 32	-1				
TAMANRASSET	55.64	182.6	9 40K	0				
FAYETTEVILLE	57.33	289.8	8 50K	-62				
MINERAL	57.81	315.8	9 55	0				
EUREKA	57.83	310.6	9 55	0				
BOULDER CITY	61.08	308.8	10 18	0				12 39
CHATRA	61.75	94.6	10 23A	1				
TUCSON	64.07	304.3	10 38	0				
BYRD STATION	170.28	235.2	21 16	67				

MAY 18 6.H 35.M 12.S EPICENTRE 29.35 129.98 DEPTH= 81.KM

A=-0.56097 B= 0.66898 C= 0.48763 D= 0.7663 E= 0.6425
G=-0.3133 H= 0.3737 K=-0.8730 HT= 2.0

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	
KAGOSIMA	2.27	12.4	0 36K	-1	1 0	-4			
MIYAZAKI	2.85	25.5	0 44K	-1	1 18	0			
NAGASAKI	3.37	358.5	0 52	0	1 34	3			
TOMIE	3.42	342.6	0 49K	-4	1 30	-2			
ASOSAN	3.66	14.5	0 56	0	1 46	8			
SAGA	3.90	3.9	1 2A	3	1 59	15			
OOITA	4.11	19.5	1 1A	-1	1 57	7			
HUKUOKA	4.23	4.5	1 5A	1	1 59	6			
SIMIDU	4.27	36.1	1 2	-2	1 38	-16			
UWAZIMA	4.45	29.0	1 10	3	2 15	17			
SIMONOSEKI	4.66	9.8	1 10A	0	2 9	6			
ITUHARA	4.87	353.1	1 14	1	2 8	0			
MATUYAMA	5.07	27.4	1 17	1	2 22	9			
KOTI	5.17	35.0	1 17	0	2 9	-7	1 48		
MUROTO	5.29	41.7	1 16	-3	2 19	0	3 0		
HIROSIMA	5.42	22.0	1 17	-3	2 23	1			
HAMADA	5.81	17.2	1 29A	3	2 36	4			
TAKAMATU	6.04	33.9	1 28	-1	2 40	3			
TOKUSIMA	6.12	38.6	1 30	0	2 38	-1	1 52		
OKAYAMA	6.28	31.2	1 29	-3	2 46	3			
HIMEJI	6.36	35.1	1 36	3	3 14	29	2 52		
SIOMISAKI	6.42	49.0	1 32	-2	2 39	-8			
SUMOTO	6.51	38.9	1 34K	-1	3 23	34	1 58	PP	
WAKAYAMA	6.57	40.9	1 39	3	3 29	39	2 44		
MATSUE	6.62	22.4	1 37	0	3 8	16			
YONAGO	6.70	24.3	1 39	1	2 49	-5			
KOBE	6.91	38.4	1 39	-2	2 59	0	3 33		
OWASE	7.09	46.8	1 40	-3			3 5		
TOTTORI	7.09	28.9	1 43	0	2 58	-5			
ABUYAMA	7.26	39.3	1 42A	-4					
NARA	7.27	41.6	1 44	-2	3 14	6	4 2		
SAIGO	7.39	21.6	1 47	0	3 27	16			
TOYOOKA	7.39	32.3	1 46A	-2	3 5	-6			
KYOTO	7.46	39.3	1 44	-4	3 9	-3			
KAMEYAMA	7.77	43.4	1 54	1	3 31	11			
ZO-SE	7.81	285.1	1 51K	-2	3 30	9			
HIKONE	7.93	40.3	1 56K	1	3 27	3			
TSURUGA	8.12	37.7	1 58	1	3 30	2	4 15		
NAGOYA	8.29	43.8	2 1A	1	4 10	37			
GIHU	8.33	41.8	1 57	-3	3 29	-5	4 21		
HAMAMATU	8.47	48.8	2 1	-1	4 2	25	3 35		
HUKUI	8.50	36.6	2 3	0	3 31	-7	2 34	PP	
ILAN	8.64	240.1	2 9	4	3 56	15			
TAIPEI	8.67	242.3	2 6	1	3 22	-20			
OMAESAKI	8.74	51.1	2 2	-4	3 48	4	4 58		
TORISIMA	9.03	80.3	2 7	-3	4 6	15	15 31	SCS	
SHIZUOKA	9.07	49.7	2 9	-1	5 6	74	4 34		
KANAZAWA	9.09	36.3	2 13	2					
HATIDYOZIMA	9.19	63.5	2 10	-2					
HWALIEN	9.20	236.3	2 15	3	4 10	15			
HSINCHU	9.22	242.7	2 32	20	4 33	38			
TOYAMA	9.51	37.7	2 14	-2	4 41	39			
MISIMA	9.53	50.6	2 14A	-3			4 51		
AJIRO	9.59	51.3	2 15	-2	4 26	22	5 21		
KOHU	9.60	46.8	2 18	0	4 15	10	5 11		
MATUMOTO	9.62	42.3	2 20	2			5 12		
HUNATU	9.63	48.2	2 17	-1	4 21	16	5 16		
OSIMA	9.63	53.5	2 15K	-3			4 9		
TAICHUNG	9.79	240.2	2 24	4	4 18	9			
WAZIMA	9.88	34.0	2 20	-1	4 8	-3			
MATUSIRO	9.96	41.8	2 19	-3	4 6	-7	8 42	PCP	
YUSHAN	9.98	236.2	2 28	5					
NANKING	10.01	288.4	2 22K	-1	4 23	8			
OIWAKE	10.02	43.8	2 25	2	4 39	24			
MERA	10.02	53.9	2 26	3			5 43		
NAGANO	10.04	41.2	2 27	3	4 34	19			
ALISHAN	10.07	236.9	2 24	0	4 36	20			
TITIBU	10.12	46.9	2 27	2	4 40	23			
YOKOHAMA	10.17	50.9	2 26	1			5 22		
TAKADA	10.37	39.7	2 28	0					

MAEBASI	10.38	45.0	2 29	1	4 38	15		5 41		
TOKYO C.M.O.	10.38	50.1	2 27	-1	4 26	3		2 50		
HONGO	10.41	50.0	2 33	4				4 33		
KUMAGAYA	10.42	47.0	2 30	1	4 46	22		5 44		
TAWU	10.74	231.6	2 37	4	4 44	12				
TAINAN	10.81	236.4	2 43	9	5 18	44				
TUKUBASAN	10.92	48.6	2 29K	-6	4 17	-20		3 0	*SP	
UTUNOMIYA	10.97	46.6	2 41	5	4 54	16		3 18		
KAKIOKA	10.98	48.7	2 35	-1	4 42	4				
KAOHSIUNG	11.01	234.7	2 39	2						
AIKAWA	11.05	36.3	2 37	0						
HENGCHUN	11.08	230.8	2 34	-4						
TYOSI	11.15	52.5	2 49	10						
MITO	11.26	48.8	2 43	3				6 8		
NIIGATA	11.40	39.1	2 41	-1	5 7	19				
SHIRAKAWA	11.55	45.2	2 49	5	5 0	8				
ONAHAMA	11.87	47.5	2 52	4	5 4	5				
HUKUSIMA	12.11	43.5	2 56	5	5 17	12				
YAMAGATA	12.37	41.4	2 53	-2	5 23	12				
SAKATA	12.53	38.0	3 25	28	5 38	23				
SENDAI	12.70	42.7	3 2	3	5 26	7		3 37		
ISINOMAKI	13.06	43.1	3 6	2	5 34	6				
AKITA	13.28	36.2	3 10K	3	5 44	11		15 40	SCS	
MIZUSAWA	13.41	40.4	3 9	1	5 45	9				
WUHAN	13.43	278.8	3 7A	-2	5 44	-2				
VLADIVOSTOK	13.83	5.9	3 16	2	5 56	10				
MORIOKA	13.83	38.8	3 13	-1	5 49	3				
MIYAKO	14.24	40.7	3 18	-1	5 49	-7				
AOMORI	14.45	34.8	3 23	1	6 5	5				
HATINOHE	14.62	37.2	3 25	1	6 9	5				
CHANGCHUN	14.93	346.8	3 31A	3	6 28	16				
HAKODATE	15.20	32.2	3 35	4				6 30		
MORI	15.34	31.1	3 35	2	6 20	-1		15 28		
BAGUIO CITY	15.50	215.9	3 32	-3	6 33	8				
PEKING	15.55	316.9	3 38A	2	6 40	14				
MURORAN	15.70	31.5	3 42	4						
SUTTSU	15.75	28.8	3 39A	0	6 35	4		15 44	SCS	
HONG KONG	15.86	247.4	3 32	-8	6 28	-5	3 42			
CANTON	16.17	251.2	3 40A	-4						
TOMAKOMAI	16.22	32.1	3 56	12						
URAKAWA	16.44	35.6	3 46	-1	6 53	7		4 32		
SAPPORO	16.46	30.7	3 46	-1	6 55	8		7 16		
HIROO	16.81	36.3	3 47	-5				7 7		
OBIHIRO	17.21	34.6	3 57	0	7 15	11				
ASAHIGAWA	17.47	31.2	3 58	-2	7 16	6				
KUSIRO	17.87	36.6	4 4	-1	7 22	4				
WAKKANAI	18.51	26.7	4 41	29						
SIAN	18.55	290.6	4 12A	-1						
NEMURO	18.73	37.7	4 14	-1						
PAOTOW	19.77	309.8	4 27A	1						
Y.-SAKHLINSK	20.24	25.9	4 30A	-1				4 48	PP	
GUAM	20.91	136.0	4 33	-5	8 24	3	4 47	9 5	*SS	
CHENGTU	22.52	279.8	4 54A	0	9 0	9				
LANCHOW	22.96	293.7	4 57A	-1	9 9	11				
KUNMING	24.56	266.6	5 11A	-3	9 34	8		5 53	PP	
ULAN-BATOR	25.70	322.5	5 24	0						
IRKUTSK	29.74	327.6	6 0A	-1				7 3	PP	
PETROPAVLOVK	31.64	33.5	6 18A	0	11 26	6		7 33	PP	
YAKUTSK	32.68	359.8	6 26	-1				7 40	PP	
MAGADAN	33.36	19.2	6 32	-1	11 49	2		7 51	PP	
LHASA	33.79	280.3	6 36	0				7 54	PP	
CHITTAGONG	34.93	267.5	6 44A	-2	12 10	-1	7 12	8 8	PP	
MEDAN	39.21	235.1	7 24K	2	13 21	5				
RABAUL	39.58	143.8	7 25	0				14 19		
DJAKARTA	41.76	215.9	7 43K	0	13 54	0				
LEMBANG	41.91	214.4	7 42A	-2	14 0	4				
PORT MORESBY	41.93	154.2	7 39	-5				13 32	PCS	
TIKSI	42.33	359.5	7 45	-3	14 1	-1		9 23	PP	
SEMIPALATNSK	42.62	313.9	7 49	-1				9 35	PP	
FRUNSE	45.94	302.6	8 14A	-3						
LAHORE	47.59	287.3	8 26	-4						
MADRAS	48.83	261.5	8 40K	1	15 39	4		10 35	PP	
WARSAK DAM	49.37	291.2	8 44	0						
TASHKENT	50.02	301.0	8 47	-1	15 54	2		10 46	PP	
DUZHANBE	50.78	297.5	8 55	1				16 9		
CHARTERS TS.	51.60	160.4	8 56	-4	16 11	-3				
POONA	52.00	271.3	9 2K	-1						
KODAIKANAL	52.48	260.0	9 5	-2	16 47	21		11 8	PP	

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BOMBAY	52.75	272.2	9	7	-2	16	38	9		17	30 PPS
QUETTA	54.07	287.6	9	18A	-1	16	37	-10	9 45	11	24 PP
SVERDLOVSK	54.79	321.0	9	23	-1	17	0	3		11	36 PP
KHEYS	58.30	349.4	9	47	-2					10	40 PCP
ASHKABAD	58.93	298.8	9	53	0					10	43 PCP
BRISBANE	60.50	156.7	10	1	-3	18	12	0			
COLLEGE	60.56	29.1	10	3	-2	18	20	8		19	32 SCS
MUNDARING	62.37	193.2	10	15	-2						
PERTH	62.43	193.6	10	20	3	18	44	8			
ADELAIDE	64.50	172.1	10	30	-1	19	6	4		12	52 PP
HONOLULU	64.61	78.9	10	42	11	19	8	5			
TEHERAN	64.91	298.3	10	33	0					14	34
APATITY	65.67	335.2	10	36A	-2	19	19	3		13	2 PP
RIVERVIEW	65.95	160.8	10	40K	0	19	25	5		19	43 PS
SHIRAZ	66.11	291.7	10	41	0	19	57	36			
CANBERRA	66.78	163.1	10	54A	9						
GORIS	67.44	303.6	10	48	-1					20	8 PS
MOSCOW	67.55	322.3	10	48A	-2	19	38	-1		20	2 PS
TIFLIS	67.78	306.3	10	52A	1					20	47 SCS
NORD	67.97	355.0	10	50	-3	19	25	-19			
SODANKYLA	68.18	336.1	10	52	-2	19	56	10		13	23 PP
MELBOURNE	68.29	167.2	10	52	-3	19	53	6			
PULKOVO	69.73	327.9	11	2	-1	20	7	2			
KIRUNA	70.11	337.6	11	4	-2					14	19
AFIAMALU	70.75	119.0	11	10	0	19	48	-28			
NURMIJARVI	71.96	329.9	11	15	-2	20	33	3			
HELSINKI	71.99	329.5	11	15	-2	20	33	2			
RESOLUTE	72.21	11.4	11	18A	0	20	38	5			
SIMFEROPOL	73.74	312.6	11	26A	-1	20	54	4		14	14 PP
THULE	73.86	4.4	11	26	-2				11 43		
SKALSTUGAN	75.25	335.8	11	34	-2						
UPPSALA	75.32	331.1	11	35	-1					11	51
KSARA	77.40	301.7	11	48A	0					14	51 PP
LWOW	77.52	320.4	11	48	-1	21	51	19		29	30 SSS
WARSAW	77.88	323.5	11	51A	0	21	40	4	12 5	14	49 PP
SCORESBY SD.	78.45	350.7	11	53	-1	21	49	7			
VICTORIA	78.56	40.5	11	55	1						
JERUSALEM	78.82	300.1	11	55	-1					14	51 PP
GOTEBORG	78.97	331.1	11	52	-5						
BUCHAREST	79.05	314.9	11	57	0	22	1	13		14	48 PP
KARAPIRO	79.34	144.9	11	57	-2					12	9
KRAKOW	79.64	322.0	12	0	0	21	56	2		14	57 PP
BERGEN	79.82	335.5	12	1	0						
SKALNATE PL.	79.95	321.1	12	1	-1					21	1
COPENHAGEN	80.02	329.3	12	2A	0	22	0	2	12 23	22	17 SKS
PENTICTON	80.23	38.5	12	4	0						
CHATEAU	80.33	145.8	12	2	-2						
RACIBORZ	80.55	322.7	12	7	2					12	19 PCP
CORVALLIS	80.70	43.9	12	11	5						
TIMISOARA	81.28	317.9	12	0	-9					22	53
WELLINGTON	81.57	147.5	12	20	9	22	2	-13		23	10 PS
SOFIA	81.66	314.5	12	12	1	22	21	6	12 40	15	35 PP
POTSDAM	81.78	326.5	12	13	1	22	16	-1	12 27	15	15 PP
HURBANOVO	81.81	320.8	12	16	4	22	28	11		15	46 PP
ARCATA	82.18	47.4	12	17	3						
BRATISLAVA	82.24	321.5	12	15A	1					15	21 PP
BELGRADE	82.25	317.4	12	15A	1	22	28	7		17	57 PPP
COLLMBERG	82.48	325.6	12	14	-1	22	28	4	12 39	15	26 PP
PRUHONICE	82.51	324.0	12	15A	0				12 30	15	23 PP
PRAGUE	82.52	324.1	12	18A	3					15	21 PP
VIENNA-H.	82.59	321.9	12	17A	1	22	33	8		15	29 PP
ROXBURGH	82.62	153.3				22	24	-1			
HELWAN	82.67	300.0	12	16A	0					15	30 PP
HALLE	82.87	326.2	12	17	0	22	32	4	12 35	23	37 PS
PLAUEN	83.40	325.3	12	18	-2	22	34	1	12 34		
JENA	83.41	325.9	12	20	0	22	38	5	12 49	15	33 PP
CHEB	83.55	324.9	12	20	-1	22	28	-6		15	39 PP
UKIAH	83.67	48.5	12	25	4						
HUNGRY HORSE	83.80	37.1	12	23	1				12 39	23	44
SIDA	83.81	346.3	12	23	1						
ATHENS	83.94	310.3	12	22A	-1						
SONNEBERG	83.95	325.6	12	24	1	22	48	10	12 39		
MINERAL	84.05	46.8	12	23K	0						
REYKJAVIK	84.24	348.0	12	25	-1						
ZAGREB	84.25	320.1	12	25A	1	22	41	0		21	40
WITTEVEEN	84.46	329.4	12	26	-1						
MUNSTER	84.61	328.3	12	26	0						
ABERDEEN	84.82	336.0	12	34A	7	23	4	17		15	44 PP

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SAN FRANCSCO	84.92	49.3	12	30	2							
LJUBLJANA	84.92	320.9	12	29A	1				12	46	14	29
BERKELEY	84.99	49.2	12	28A	0	22	54	5				
BENSBERG	85.50	327.8	12	32K	2	23	1	7				
TOLMEZZO	85.52	321.8	12	30	-1	23	0	6			16	24
TRIESTE	85.59	320.9	12	32	1	23	4	9			15	52 PP
DE BILT	85.62	329.5	12	32	1	22	56	1			15	53 PP
RENO	85.64	46.7	12	32	1							
LICK	85.69	49.3	12	31A	0				12	47		
HEIDELBERG	85.80	325.9	12	31	-1							
STUTTGART	85.94	325.2	12	32	-1				12	49	15	55 PP
BUTTE	86.03	38.3	12	33	0	22	59	0			13	28
VINEYARD	86.19	49.7	12	37	3							
TUBINGEN	86.21	325.1	12	36	2							
DURHAM	86.46	334.3	12	33K	-2	22	56	-7	13	1	15	58 PP
EBINGEN	86.49	324.9	12	35	0							
TARANTO	86.68	315.2	12	44	8						23	9 SKKS
STRASBOURG	86.82	325.8	12	36A	-1	23	2	-4	12	53	16	1 PP
UCCLE	86.90	328.9	12	38	1	23	9	2				
BOZEMAN	87.07	37.9	12	40	2				13	30		
CHUR	87.08	323.7	12	40	2	23	12	3				
FRESNO	87.23	49.0	12	41	2				12	54		
DOURBES	87.28	328.3	12	39	0	22	52	-19				
BASLE	87.62	325.1	12	42A	1	23	20	6				
BOLOGNA	87.65	321.1	12	50	9	23	21	7			16	37 PP
EUREKA	88.08	45.0	12	43	0							
NEUCHATEL	88.29	325.0				23	27	7			19	18
PAVIA	88.37	322.6	12	45A	1						23	39
KEW	88.44	331.5	12	43A	-2	23	23	2	12	59	16	13 PP
BESANCON	88.60	325.6	12	47	2						16	16 PP
ROME	88.66	318.5	12	46A	0	23	11	-13	13	2	16	16 PP
OROPA	88.71	323.5	12	56	10	23	23	-1				
CHIAVARI	88.86	321.9				23	38	12			15	38
REGGIO CALA.	89.09	314.0	12	47	-1						13	27
MESSINA	89.09	314.2	12	47	-1	22	21	-67	13	3	16	17 PP
RATHFARNHAM	89.35	335.5	12	47	-2						16	20 PP
SALT LAKE C.	89.76	42.0	12	52	1	23	43	9	12	18		
PASADENA	89.83	50.3	12	53K	2	23	42	8			16	21 PP
ISOLA	90.16	322.9	12	53	0	23	38	1				
MONACO	90.27	322.3	12	55K	2							
FOLINIERE	90.53	329.8	12	54	0							
JERSEY	90.92	330.9	12	52	-4	23	24	-20				
BOULDER CITY	90.93	47.2	12	58	2				13	11		
CLERMONT-FD.	91.05	325.9	12	59	2	23	47	2				
TANANARIVE	92.77	250.0	13	9K	4				13	35		
TUCSON	95.84	48.0	13	19	0	24	36	50	13	48	17	11 PP
TUCSON TELE.	95.86	47.9	13	18	-1							
TORTOSA	95.96	323.9									23	53
WILKES	96.54	187.8	13	22	0	23	55	-5			24	35 S
SETIF	96.55	317.9	13	19	-3				13	47	17	7 PP
ALGIERS UNI.	97.50	319.7	13	25	-1	23	58	3			17	26 PP
ALICANTE	98.29	322.8	13	21	-9	23	43	-12			19	37 PPP
TOLEDO	98.95	325.9	13	33	0	24	10	8	13	50	17	36 PP
MIRNY	99.66	194.1	13	32	-4							
LAWRENCE	100.01	34.2	13	40	2							
ALMERIA	100.46	323.0	13	39K	-1	24	13	3				
GRANADA	100.79	323.9				24	14	2				
LWIRO	100.85	273.5	13	42A	1							
MALAGA	101.56	324.1	13	47	7	21	12	-4			17	55 PP
SHAWINIGAN	101.70	15.8	13	47K	2							
FLORISSANT	102.45	31.2	13	49	0	25	29	70				
BREBEUF	102.48	16.8	12	50	-59	24	26	6				
ST. LOUIS 1	102.64	31.2	13	50	1	24	26	4			25	33 S
FAYETTEVILLE	102.78	35.4	12	52	-58							
LITTLE ROCK	104.74	35.0	14	2	3							
CAPE HALLETT	105.10	168.2	18	25	777	24	43	11			27	38 PS
TAMANRASSET	105.56	307.8	13	52	777	24	44	10			18	15 PP
PENNSYLVANIA	105.58	21.6	14	5	777	24	40	6			18	24 PP
MORGANTOWN	105.93	23.6	17	34	777	24	37	2				
WESTON	105.98	16.3	14	0	777						18	16 PP
PALISADES	106.58	18.7	14	6	777	24	44	6			18	28 PP
FORDHAM	106.74	18.7	18	4	777							
WASHINGTON	107.56	21.9	18	14	777						27	55 SP
CHAPEL HILL	109.56	24.7	18	38	777							
KIMBERLEY	115.74	250.2	18	35	2							
SOUTH POLE	119.18	180.0	18	38	-2				19	4	20	2 PP
BYRD STATION	122.24	168.9	18	45	-1						28	43 PKKP
MBOUR	126.07	319.2	18	57	4						20	41 PP
SAN JUAN	130.07	20.1	19	3	2						22	24 SKP

GALERAZAMBA	133.26	35.1							22 47	PP
FORT FRANCE	134.88	15.3	19 14	4						
CARACAS	137.16	24.9	19 14	0					22 5	PP
CHINCHINA	137.94	40.0	19 21	5					22 55	PP
FUQUENE	138.55	37.2							22 56	PP
TRINIDAD	138.75	17.1	19 17	0						
BOGOTA	139.09	38.3	19 24	6					22 57	PP
HUANCAYO	150.83	59.1	19 44	6					20 29	*SPKP
LA PAZ	159.02	56.4	19 52	3	27 0	16	20 18		23 25	PKS

MAY 18 8.H 41.M 1.S EPICENTRE 27.12 53.13 DEPTH= 0.KM

A= 0.53476 B= 0.71302 C= 0.45347 D= 0.8000 E=-0.6000
G= 0.2721 H= 0.3628 K=-0.8913 HT= 2.7

SE= 3.27

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SHIRAZ	2.57	348.1	0 45K	1				0 51	P*
TEHERAN	8.72	350.6	1 59	-11				2 47	
QUETTA	12.51	72.7	3 3A	1	5 21	-3		3 12	PP
GORIS	13.58	337.0	3 25	9					
TIFLIS	16.09	337.0	3 50	1	6 51	3			
JERUSALEM	16.27	290.8	3 54	3				5 20	
KSARA	16.29	298.4	3 55	3	7 8	15		4 9	PP
MAKHACH-KALA	16.46	345.3	3 54	0					
STALINABAD	17.38	45.0	4 8	3					
HELWAN	19.35	283.2	4 31	1	8 3	0			
SOTCHI	19.69	330.0	4 32	-1	8 10	0			
BOMBAY	19.87	110.2						8 32	
NAMANGAN	20.61	43.2	4 43A	0					
ANDIJAN	20.90	44.6	4 47A	1					
DEHRA DUN	22.07	75.8	5 13	15	9 14	16		5 47	PPP
AGRA	22.15	84.3	5 4A	5	9 10	11			
ADDIS ABABA	22.55	219.7	5 7	4					
SIMFEROPOL	23.41	324.4	5 13K	2	9 22	0			
ATHENS	26.94	301.1	5 46A	1					
BUCHAREST	27.72	315.6			10 35	1		6 43	
CHATRA	30.29	82.7	6 16A	1					
MOSCOW	30.71	342.8	6 18	-1	11 18	-3			
LWOW	31.80	323.3	6 44	16				12 44	
MESSINA	33.30	298.9			12 1	-1		10 10	
KRAKOW	34.16	321.1	6 51	2	12 13	-2			
SHILLONG	34.66	83.6	6 51A	-2					
WARSAW	34.73	325.0	6 58	4	12 25	1		8 21	PP
LJUBLJANA	35.86	312.1	7 4A	1				7 25	
PULKOVO	36.21	340.6	7 6	0	12 44	-3			
ROME	36.24	304.7	12 48	341					
TRIESTE	36.25	311.2			12 47	-1			
TOLMEZZO	36.96	312.1	7 12	-1				8 11	
PRUHONICE	37.24	318.3	7 14	-1				9 13	
PRAGUE	37.35	318.4	7 15	-1					
LWIRO	37.46	222.6	7 10	-7					
HELSINKI	38.23	337.6	7 23	0					
NURMIJARVI	38.58	337.8	7 25	-1	13 16	-7		8 47	PP
COLLMBERG	38.67	319.6	7 26	-1	13 27	3		9 2	PP
POTSDAM	39.06	321.2	7 34	4	13 26	-4			
HALLE	39.35	319.5	7 31	-2	13 34	-1		9 8	PP
JENA	39.36	318.6	7 23	-10				8 37	
SONNEBERG	39.39	317.6						9 7	
STUTTGART	40.07	314.6	7 47	8				8 43	
EBINGEN	40.10	313.6	7 38	-1					
UPPSALA	40.74	333.3	7 42	-2				9 16	PP
COPENHAGEN	40.84	325.6	7 45	0	13 54	-3			
BASLE	40.85	312.3	8 3	18				13 54	
SETIF	41.28	294.9	7 50	1				9 31	PP
GOTEBORG	42.02	328.1	7 50	-5					
MUNSTER	42.04	318.8	7 56	1					
APATITY	42.19	348.9	7 53	-3	14 11	-6		9 36	PP
TAMANRASSET	43.19	275.1	8 4	0	14 33	1	9 45		
SODANKYLA	43.38	345.4	8 5	-1					
UCCLE	43.68	316.3	8 25	17				9 47	PP
SKALSTUGAN	45.00	335.6	8 17	-2					
KIRUNA	45.23	343.2	8 19	-2				9 57	PP
IRKUTSK	45.49	42.2	8 26	3					

ULAN-BATOR	46.38	48.5	8	31	1					
FOLINIERE	46.38	312.6	8	28	-2					
KEW	46.70	316.3				15	18	-4		
MALAGA	49.12	296.3	8	52A	1	15	56	0	10	28 PCP
KHEYS	53.02	358.7	9	25	4	16	59	9		
SCORESBY SD.	59.72	337.9	10	6	-3					
TIKSI	60.02	20.8	10	8	-3	18	20	-3		
YAKUTSK	60.17	31.9	10	11	-1					
NORD	60.41	350.9	10	11A	-2					
KIMBERLEY	61.85	208.2	10	23	0					
MATUSIRO	70.71	58.2	11	19	-1					
MAGADAN	70.75	32.3	11	19	-1					
RESOLUTE	76.34	351.7	11	51	-2					
COLLEGE	86.87	8.8	12	47	-1				16	13 PP
EUREKA	112.97	350.9	18	26	-13					
SOUTH POLE	116.97	180.0	19	19	32					
HUANCAYO	129.52	276.8	19	18	7					

MAY 19 2.H 6.M 56.S EPICENTRE 36.31 71.14 DEPTH= 101.KM

A= 0.26105 B= 0.76440 C= 0.58952 D= 0.9463 E=-0.3232
G= 0.1905 H= 0.5579 K=-0.8078 HT= -0.3

DEPTH OF FOCUS= 0.011R

SE= 2.10

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KHOROG	1.21	14.7	0	25	2	0	42	1				
KULYAB	1.94	325.4	0	32	0	0	56	0				
WARSAK DAM	2.33	171.7	0	37	0							
GARM	2.77	346.3	0	44	1	1	16	0				
KARA-SU	2.77	322.2	0	43	0	1	16	0				
CHUIAN-GARON	2.82	326.7	0	43	-1	1	15	-2				
DZERGETAL	2.91	1.3	0	46	1	1	20	1				
DUZHANBE	2.94	320.8	0	46	0	1	19	-1				
ZIMCHURUD	3.08	323.5	0	47	-1							
FERGANA	4.10	6.8	1	2	1	1	48	0				
ANDIJAN	4.54	11.8	1	8	1				2	5		
NAMANGAN	4.68	4.9	1	10	1	2	3	0	1	39	*SP	
SAMARKAND	4.70	316.8	1	7	-3							
LUNACHARSKOE	5.21	344.8	1	15	-2	2	10	-6				
TASHKENT	5.21	344.3	1	16	-1	2	10	-6	1	43	*SP	
LAHORE	5.43	149.9	1	21	1	2	19	-2	1	51	*SP	
TCHIMKENT	6.10	349.2	1	28	-1				2	27		
NARYN	6.36	35.0	1	31	-1				2	47		
FRUNSE	7.04	21.3	1	42	0	3	2	1	3	50		
QUETTA	7.05	211.1	1	41	-1	2	55	-6	2	11	*SP	
RYBACHE	7.27	30.9	1	44	-1	3	4	-2	2	16	*SP	
FABRICHNAYA	7.94	29.2	1	53	-1							
ALMATA	8.26	30.9	1	58	0				2	30	*SP	
DEHRA DUN	8.31	134.0	1	59	0	3	27	-5	2	6	PP	
PRZHEVALSK	8.34	40.1	1	59	0							
ALMATA-2	8.44	32.7	2	0	-1				3	4		
KURMENTY	8.65	37.3	2	2	-1				2	48		
ASHKABAD	10.35	282.9							2	37		
AGRA	10.86	145.5	2	38K	5	4	28	-5	3	10	*SP	
KARACHI	11.97	198.3	2	46	-2	4	46	-14	3	36	*SP	
KIZYL-ARVAT	12.12	288.2	2	45	-5				3	46		
SEMIPALATNSK	15.55	22.2				6	19	-4	3	29		
TEHERAN	16.00	273.8	3	41	1	6	46	12				
CHATRA	16.59	120.2	3	44	-3	6	34	-13				
SHIRAZ	16.97	252.3	3	52K	0	7	5	9				
BOMBAY	17.40	174.7	3	56	-1	6	56	-9			4	29
BOKARO	17.74	130.5	3	58	-3	6	58	-15				
POONA	17.87	171.6	4	1K	-2						7	26
LHASA	17.95	106.0	4	4	0							
GORIS	19.82	286.7	4	25	1	7	57	0			4	57 *SP
HYDERABAD	19.89	159.1				7	54	-4			8	30
CALCUTTA	20.29	127.9	4	29K	0	7	55	-11				
SHILLONG	20.71	115.3	4	33K	0	8	10	-4	5	9	5	35 *SP
VIZIANAGRAM	21.13	145.8	4	32	-6	8	13	-9	5	4	10	58
TIFLIS	21.13	292.9	4	40	2						5	13 *SP
SVERDLOVSK	21.71	344.3	4	44	1	8	35	3			5	18 PP
CHITTAGONG	22.70	122.1	4	56K	3				5	22	5	34 PP
MADRAS	24.59	158.4	5	16	5	9	25	3	5	58		

LANCHOW	26.32	80.8	5	29	1	9	58	7				
CHENGTU	27.90	92.1	5	42	0	10	20	4	6	7		
IRKUTSK	28.29	45.2	5	45	0						6	21 *SP
ULAN-BATOR	28.70	54.9	5	49	0							
KSARA	28.88	275.6	5	52	1				6	28	12	26 SS
SIMFEROPOL	29.19	298.7	5	53A	0						6	28 *SP
KUNMING	29.24	103.5	5	54	0	10	40	2	6	18		
MOSCOW	29.88	321.2	6	0	0	10	49	1			6	32 *SP
JERUSALEM	30.00	271.9	6	1	0				6	36		
PAOTOW	30.58	70.0	6	7	1							
HELWAN	33.79	270.7	6	33A	-1				7	10		
BUCHAREST	34.90	297.6	6	45	2						14	55
PEKING	35.31	70.0	6	47	0	12	18	6	7	14		
LWOW	36.37	306.8	6	56	0	12	34	5			8	16 PP
WUHAN	36.46	86.3	6	57	1	12	37	7	7	23		
SOFIA	37.04	294.9	7	4	3	12	35	-4			8	28 PP
HELSINKI	37.80	323.9	7	9	2	12	54	4				
APATITY	37.84	337.5	7	9	1	12	52	1	7	42	8	37 PP
NURMIJARVI	38.05	324.4	7	11	1	12	57	3				
TIMISOARA	38.28	300.1	7	15	4						8	46 PP
WARSAW	38.43	310.6	7	14A	1	13	5	5	7	48	9	2 PP
SKALNATE PL.	38.81	305.7	7	36	20							
BELGRADE	38.90	298.7	7	18A	1	13	14	7			8	46 PP
KRAKOW	39.03	307.1	7	18	0	13	12	3	7	53	8	46 PP
NANKING	39.32	81.9	7	21	1	13	21	8	7	46		
HONG KONG	39.71	98.5	7	25	2	13	4	-15	7	50		
SODANKYLA	39.96	335.0	7	26	1	13	25	2			8	59 PP
ADDIS ABABA	40.02	235.3	7	29	3							
RACIBORZ	40.14	307.1	7	30	3						9	38 PPP
BRATISLAVA	40.94	304.2	7	35A	2				8	28	9	9 PP
MEDAN	41.28	135.6	7	34	-2						15	12
UPPSALA	41.29	322.0	7	36	0						9	9 PP
ZO-SE	41.58	82.2	7	39	0	13	50	3	8	4		
ZAGREB	41.92	300.8	7	43K	2						9	22 PP
KIRUNA	42.31	334.1	7	45	0						9	16 PP
PRUHONICE	42.50	307.1	7	47A	1	14	2	2	8	20	17	10 SS
PRAGUE	42.57	307.2	7	48A	1	14	0	-1			9	22 PP
LJUBLJANA	42.90	301.3	7	50A	0				8	28	9	36 PP
POTSDAM	43.31	310.7	7	54	1	14	16	4	8	28	9	44 PP
COLLMBERG	43.41	309.1	7	53	-1	14	17	3			9	39 PP
TRIESTE	43.49	300.8	7	56K	2	14	20	5	8	31	9	40 PP
COPENHAGEN	43.65	315.5	7	56A	0	14	23	6	8	31	10	3 PP
MESSINA	43.73	289.9	7	54	-2	14	18	0	8	36	9	44 PP
TOLMEZZO	43.88	302.0	7	55	-2						10	33 PP
CHEB	43.89	307.4	7	57	0						9	58 PP
GOTEBORG	43.97	318.4	8	1	3						9	47 PP
PLAUEN	43.99	308.0	7	56	-2	14	27	5				
HALLE	44.05	309.4	7	59	0	14	28	5			9	43 PP
YAKUTSK	44.07	35.4	7	58	-1	14	22	-1	8	24	15	2 *SS
JENA	44.32	308.7	8	1	0	14	28	1	8	34	9	45 PP
SKALSTUGAN	44.43	326.8	7	52	-10						9	45 PP
SONNEBERG	44.61	307.9	8	4	1	14	35	4	8	37	9	47 PP
KHEYS	44.72	357.0									9	47 PP
ROME	45.10	295.8	8	5A	-2	14	41	3	8	41	9	59 PP
TIKSI	45.90	21.9	8	12	-2	14	49	0			10	0 PP
RAVENSBURG	45.97	304.5	8	13	-1						10	4
STUTTGART	46.05	305.9	8	15	0	14	57	6	8	46	10	4 PP
CHUR	46.19	303.2	8	17	1	14	56	3				
TUBINGEN	46.22	305.6	8	15	-1						8	52
HEIDELBERG	46.32	306.8	8	16	-1							
VLADIVOSTOK	46.33	62.0									23	24
EBINGEN	46.34	305.1	8	20	3							
MUNSTER	46.69	310.4	8	20	0						8	43
CHIAVARI	46.83	299.8	7	54	-27	15	21	18			11	2
STRASBOURG	47.07	305.8	8	22A	-1	15	4	-2	9	0	10	16 PP
BENSBERG	47.09	309.1	8	25K	2	15	16	10				
WITTEVEEN	47.17	311.7	8	24	0							
BERGEN	47.48	322.1	8	26	0						15	44 PPS
NEUCHATEL	47.90	303.8	8	30	1	15	21	3				
BAGUIO CITY	47.95	100.9	8	30	0	15	21	3				
ISFJORD	48.17	346.4	8	32	1							
DE BILT	48.17	310.9	8	34A	3	15	30	9	9	4	10	26 PP
MONACO	48.29	299.5	8	31A	-1							
ISOLA	48.45	300.1	8	28	-5						10	32 PP
BESANCON	48.50	304.4	8	29	-5							
DOURBES	48.85	308.3	8	38	1	15	37	6				
UCCLE	48.88	309.3	8	38	1	15	36	5				
CLERMONT-FD.	50.76	303.1	8	53	2	16	5	8				

ABERDEEN	51.59	318.3			16	10	1			20 9	SS
KEW	51.64	310.9	8	57	16	11	2	9	33	19 58	SS
DURHAM	51.72	315.2	8	59A	16	12	1			19 53	SS
SETIF	52.04	290.7	9	0K				9	46	11 5	PP
FOLINIERE	52.37	307.6	9	3							
MATUSIRO	52.92	68.4	9	6K	16	29	2			13 58	SCP
ALGIERS UNI.	53.61	292.3	9	9				9	48	11 16	PP
NORD	54.01	349.5	9	14A	16	44	2				
LWIRO	55.00	235.3	9	22A							
SCORESBY SD.	57.28	336.5	9	39	17	32	7	10	15		
ALMERIA	57.67	294.4	9	39A	17	17	-13	10	18	12 27	
TAMANRASSET	57.68	275.9	9	40A	17	30	0	10	26	11 55	PP
SIDA	57.78	328.3	9	42							
GRANADA	58.37	295.2	9	36K						10 57	
MALAGA	59.14	295.0	9	49K				10	29		
REYKJAVIK	59.27	329.4	9	55							
TANANARIVE	59.29	206.1	9	54				10	33		
BROKEN HILL	64.59	226.6	10	27A							
THULE	64.67	350.2	10	27				10	54		
RESOLUTE	68.91	356.1	10	54A	19	52	2				
BULAWAYO	69.05	222.9	10	56A							
PRETORIA	73.84	219.8	11	54							
PIETERMZBURG	75.94	215.9	11	38K							
KIMBERLEY	78.03	220.5	11	50K							
MUNDARING	79.96	142.3	11	59							
GRAHAMSTOWN	80.82	216.5	12	5A							
CHARTERS TS.	90.36	114.7	12	49						13 20	
SHAWINIGAN	91.37	336.0	12	54							
HUNGRY HORSE	95.59	3.5	13	16							
PALISADES	96.65	334.1								17 38	PP
BOZEMAN	98.38	1.6	13	29							
EUREKA	104.30	5.7	13	57						17 16	
TUCSON TELE.	111.69	1.7								19 4	
KARAPIRO	121.31	116.3	18	41							
SOUTH POLE	126.12	180.0	18	49				19	37	21 52	
BYRD STATION	135.97	177.3	19	0						22 29	
LA PAZ	138.91	287.8	19	13						22 47	PKS
HUANCAYO	141.35	300.1						19	55	22 47	PKS

MAY 19 10.H 12.M 0.S EPICENTRE -18.06 65.79 DEPTH= 0.KM

A= 0.39017 B= 0.86763 C=-0.30820 D= 0.9120 E=-0.4101
G=-0.1264 H=-0.2811 K=-0.9513 HT= 5.1

SE= 7.19

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
TANANARIVE	17.32	264.3	4	2	-2	7	24	8			4	21	PP
COLOMBO	28.44	30.5	6	30	32						11	27	
KODAIKANAL	30.39	23.2									7	0	PP
KERGUELEN I.	31.40	174.6									9	12	
MADRAS	33.98	25.7	6	35	-12	12	25	13			8	5	PP
PIETERMZBURG	34.22	243.7	6	31	-18								
BULAWAYO	35.15	260.5	6	49K	-8								
PRETORIA	35.63	250.9	6	58	-3								
BROKEN HILL	35.96	270.2	6	55	-9								
POONA	37.22	12.7	7	12	-2	13	11	9			12	36	
BOMBAY	37.38	11.2	7	6	-10	13	22	17			8	0	PP
ADDIS ABABA	37.90	313.1	7	16	-4								
MEDAN	38.91	59.7	7	40	11	14	1	33					
KIMBERLEY	38.94	246.5	7	25A	-4								
PORT BLAIR	39.75	43.9	7	50	15						17	17	
VIZIANAGRAM	39.93	26.7	7	56	19								
DJAKARTA	41.73	78.8	7	55	3	14	14	4					
LEMBANG	42.25	80.1	7	48K	-8	14	12	-5					
HERMANUS	44.42	239.0				14	35	-14			9	45	PP
WINDHOEK	45.72	255.9	8	23	-1								
BOKARO	45.99	25.8	8	16	-10	15	10	-2			10	9	PP
CALCUTTA	45.99	29.6	8	42	16						15	21	
AGRA	46.47	15.1	8	56	26						14	42	
PERTH	47.03	117.0	8	55	21						16	14	
QUETTA	47.98	1.4	8	31A	-11	15	24	-16			10	19	PP
SHIRAZ	49.13	344.7	8	33	-18	15	44	-12					
CHATRA	49.22	25.5	9	2	11								
DEHRA DUN	49.53	14.0	8	21	-33						9	55	PP
MAWSON	49.55	181.5	8	49	-5								

LAHORE	50.01	9.5	8	43	-15					
SHILLONG	50.25	31.1	9	5	6	16	24	12		
MIRNY	51.61	166.5	9	7	-3	16	32	2		
LUANDA	51.78	272.9	9	8A	-3				12	19 PPP
WARSAK DAM	52.06	6.1	8	57	-16					
LHASA	53.32	27.6	9	9	-14	16	32	-22		
TEHERAN	55.22	345.7	9	12	-24	15	55	-84		
KUNMING	56.01	41.1	9	30	-12	17	14	-16		
WILKES	56.31	160.0							9 50	17 50 PPS
STALINABAD	56.40	2.8	9	31	-14					
JERUSALEM	57.58	329.1	9	56	3	18	15	24		
HELWAN	58.09	324.6	9	51	-6	18	5	8		
ANDIJAN	58.83	5.8	9	48	-14					
KSARA	58.95	331.0	10	5	2	18	8	-1		12 14 PP
NAMANGAN	58.99	5.2	9	49	-14					
GORIS	60.08	342.7	10	16	5					
CHENGTU	60.82	37.6	10	6	-10	18	24	-9		
FRUNSE	61.13	7.4	10	16	-2					
CANTON	61.90	50.4	10	18	-5	18	46	0		
HONG KONG	62.04	51.6	10	20	-4	19	1	13		
TIFLIS	62.57	342.4	10	17	-11				19	2 PS
MAKHACH-KALA	63.02	345.0	10	18	-13				19	20 PS
MANILA	63.47	62.8	10	16	-18				23	56
LANCHOW	64.75	33.5	10	29	-13				19	39
SOTCHI	65.84	339.5	10	41	-8					
ADELAIDE	66.10	120.8	10	42	-9				19	30
SIAN	66.27	38.2	10	45	-7					
WUHAN	67.34	44.7	10	47	-11	19	36	-18		
TERRE ADELIE	67.88	155.5	10	53	-9	20	7	7		
LOME	68.06	284.5	11	18	15	20	30	28		
ATHENS	68.33	325.3	11	9K	4					
SIMFEROPOL	69.03	336.5	11	2	-7					
MELBOURNE	70.76	124.5	11	15	-5	21	17	43	11	37 PCP
NANKING	71.13	45.8	11	18	-4	20	40	2		
PAOTOW	71.37	34.1	11	35	12					
TAMANRASSET	71.53	302.3	11	13	-11				13	50 PP
BUCHAREST	71.96	331.2	11	32	5	21	9	21	14	18 PP
SOFIA	71.99	328.4	11	20	-7	21	8	20	14	17 PP
SOUTH POLE	72.05	180.0	11	16	-11	20	13	-36	14	34 PP
ZO-SE	72.24	47.8	11	23	-5	20	48	-3		
REGGIO CALA.	73.04	320.7	11	25	-8				21	46
MESSINA	73.17	320.7	11	38	4					
TARANTO	73.66	323.4	10	59	-38	21	0	-7	14	0 PP
CANBERRA	74.38	122.5	11	32	-9				11	59
PEKING	74.44	37.9	11	28	-13	20	59	-17		
SVERDLOVSK	74.73	357.1	11	31	-12	21	36	17		
SCOTT BASE	74.76	167.6	11	48	5	21	30	11	12	6 PCP
BELGRADE	74.96	328.4	11	52A	8	22	32	70	15	21 PP
TIMISOARA	75.25	329.5	11	57	11					
ULAN-BATOR	75.28	27.2	11	31	-15					
CHARTERS TS.	75.33	106.6	11	38	-8	21	39	13		
RIVERVIEW	76.42	121.4	12	20	27	21	40	2	22	15 PS
LWOW	77.01	333.7	11	46	-10				17	29
CAPE HALLETT	77.24	162.3	11	53	-4	21	40	-7	12	14 PCP
MOSCOW	77.27	344.1	11	49	-8				22	3 PS
ROME	77.33	322.2	11	33	-25	22	20	32	22	43 PPS
ZAGREB	77.93	326.9	12	7K	6					
SKALNATE PL.	78.19	331.4	12	10	8					
HURBANOVO	78.22	329.5				22	20	23		
SETIF	78.52	314.1	12	5	1				14	57 PP
LJUBLJANA	78.85	326.4	12	11	5				12	18 PCP
KRAKOW	78.96	331.9	12	14	7					
BRATISLAVA	78.96	329.2	12	2	-5	22	14	9	12	11 PCP
PORT MORESBY	78.99	96.4	12	18	11	22	8	3		
TRIESTE	79.00	325.7	12	13	6	22	23	18	12	22 PCP
BRISBANE	79.32	115.4	11	50	-19				21	48
RACIBORZ	79.77	331.1	12	18	7				13	16
TOLMEZZO	79.87	326.0	12	6	-6	22	22	7	13	17
WARSAW	80.07	333.9				22	15	-2	21	20
ALGIERS UNI.	80.43	313.6	12	11	-3	22	21	1	15	19 PP
CHIAVARI	80.64	322.7	12	50	34	22	54	31	13 32	16 50 PP
PAVIA	81.24	323.3	12	14	-5				23	50
MONACO	81.40	321.4	12	17	-3					
PRUHONICE	81.42	329.4	12	8	-12	22	28	-3		
PRAGUE	81.54	329.4	11	58	-22					
RELIZANE	81.67	311.7	12	24	3				12	42
ISOLA	81.88	321.6	12	16	-6	23	7	31		
CHUR	82.04	324.8	12	23	0					

BYRD STATION	82.05	179.1	12 15	-8						
CHANGCHUN	82.15	39.0	12 22	-2						
RAVENSBURG	82.55	325.6	12 27	1						
PULKOVO	82.75	342.8	12 36	9	23 13	29				
PLAUEN	82.92	328.8	12 26	-1	22 48	2				
COLLMBERG	83.03	329.8	12 19	-9	23 7	20			12 30	PCP
EBINGEN	83.14	325.7	12 29	0						
TUBINGEN	83.29	326.0	12 35	6						
STUTTGART	83.33	326.3	12 20	-10	22 33	-17			28 0	SS
SONNEBERG	83.33	328.3	12 46	16						
JENA	83.48	328.9	12 22	-8	22 54	2			15 36	PP
NEUCHATEL	83.55	323.9	12 52	21						
ALICANTE	83.65	313.6	12 20	-11	22 40	-13			28 7	SS
HALLE	83.67	329.5	12 32	1	23 6	12				
POTSDAM	83.70	330.6	12 37	6					13 12	
GUAM	83.91	73.8	12 48	15						
HEIDELBERG	84.00	326.5	12 34	1						
STRASBOURG	84.02	325.5	12 35	2	23 0	3			24 52	PPS
TORTOSA	84.19	316.1	13 5	31	23 19	20				
BESANCON	84.24	323.7	12 29	-5						
ALMERIA	84.34	311.5	12 15	-20					15 28	PP
ABUYAMA	84.55	50.8	12 50	14						
HELSINKI	84.66	340.8	12 44	8	23 22	19				
NURMIJARVI	85.02	340.9	12 27	-11	23 27	20				
CLERMONT-FD.	85.09	321.4	12 47	9	23 29	21				
RABAUL	85.28	92.9	12 43	4						
GRANADA	85.29	311.4	12 54A	15	24 46	96			13 2	PP
MALAGA	85.66	310.7	12 40	-1	22 40	-33			16 12	PP
BENSBERG	85.72	327.2	12 48	6					12 56	PCP
VLADIVOSTOK	85.86	42.2	13 7	25						
MUNSTER	86.08	328.2	12 45	2					13 0	
COPENHAGEN	86.12	332.9	12 49	5	23 25	7				
ROXBURGH	86.42	136.7			23 42	21				
DOURBES	86.59	325.6	12 35	-11	23 5	-17				
TOLEDO	86.82	313.7	12 49	2	23 53	29			16 8	PP
UPPSALA	86.89	337.9	12 52	5						
WITTEVEEN	87.05	328.6	13 0	12						
UCCLE	87.11	326.1	12 37	-11	23 17	-10				
MATUSIRO	87.21	50.2	12 37A	-12	23 44	16	13 5		18 45	
DE BILT	87.40	327.5	13 0	10	23 30	0				
GOTEBORG	87.61	334.3	12 46	-5					13 10	
MBOUR	87.70	285.8	12 58	7	23 33	0				
TUKUBASAN	88.47	51.2	12 59	4	23 52	12			23 41	SKS
APATITY	88.62	348.1	13 10	14	24 12	31			16 53	PP
FOLINIERE	88.73	322.7	13 5	9						
JERSEY	89.86	322.6							15 24	
LISBON	89.92	310.9	13 23A	21						
SODANKYLA	89.93	345.9	13 0	-2						
KEW	89.97	325.1	13 22	20	23 56	2			29 54	SS
COIMBRA	90.00	312.5	13 20	18						
SERRA PILAR	90.49	313.3	12 48A	-16						
SKALSTUGAN	91.29	338.9	13 23	15						
WELLINGTON	91.76	134.5			23 54	-16				
KIRUNA	91.80	344.3	13 15	5						
DURHAM	92.24	327.6	13 24	12	24 25	11				
ABERDEEN	93.63	329.6	13 33	14	23 21	-65			17 45	
KARAPIRO	93.76	131.8	13 40	20						
RATHFARNHAM	94.05	325.1	13 40	19						
YAKUTSK	94.28	25.1	13 34	12						
KHEYS	98.59	358.7	13 52	11						
TIKSI	98.96	16.6	13 25	-18						
MAGADAN	102.89	31.4	18 24	263						
PETROPAVLOVK	105.92	38.9	19 31	777						
SCORESBY SD.	106.12	339.5							18 48	PP
SANTA LUCIA	114.03	219.1							29 10	SKSP
RESOLUTE	122.40	354.0	18 48	-9						
LA PAZ	123.09	235.6	19 9	11			19 25		37 8	SS
COLLEGE	128.10	17.5	19 2	-6					21 34	
FORT FRANCE	129.12	274.5	19 21	11						
HALIFAX	130.30	313.6	19 23	11						
HUANCAYO	131.34	234.9	19 25	11					22 8	PP
CARACAS	133.67	267.4	19 0	-18						
SHAWINIGAN	135.66	319.2	19 47	25						
WESTON	136.33	313.1							22 10	PP
BREBEUF	136.65	318.2	19 49	25						
OTTAWA	138.01	319.0	19 22	-4						
BOGOTA	138.55	256.1	19 25	-2						
PALISADES	138.63	312.2	20 10	42					24 22	PPP

FORDHAM	138.68	311.6	19 47	19						
CHINCHINA	140.11	255.7	19 26	-4						
PENNSYLVANIA	141.47	313.8	20 0	27	26 37	-4			23 36	
WASHINGTON	141.67	310.6	19 45	12						
MORGANTOWN	143.42	313.2							19 54	PPP
CHAPEL HILL	144.22	306.9	19 48	11						
COLUMBIA	146.41	304.7	19 37	-4					19 58	
HUNGRY HORSE	149.79	359.8	19 45	-2					23 41	PP
FLORISSANT	150.72	319.8	19 57	9						
ST. LOUIS 1	150.73	319.4	19 48	0						
BUTTE	152.09	357.6	19 59	9						
BOZEMAN	152.35	355.2	19 49	-1					20 18	
RAPID CITY	152.46	342.7	19 51	0					24 0	PP
CORVALLIS	152.49	14.1	20 6	15						
LAWRENCE	153.43	325.5	19 54	2						
LITTLE ROCK	154.39	314.8	19 57	4						
LARAMIE	155.68	344.1	20 15	20					24 20	
SHASTA	156.37	15.6	19 57	1					20 53	
MINERAL	156.89	14.5	20 18A	21						
SALT LAKE C.	157.28	355.3	20 20	23						
RENO	158.06	11.6	20 26K	28						
EUREKA	158.61	3.7	19 54	-5					24 12	PP
BERKELEY	159.05	18.0	20 32	33						
LICK	159.72	17.3	20 28	28					21 11	
BOULDER CITY	162.15	1.6	20 17	15						
PASADENA	163.59	11.7	20 30	26					32 6	
TUCSON TELE.	165.44	348.2	20 19	13					25 0	PP
TUCSON	165.55	348.4	20 5	-1					25 4	PP

MAY 20 4.H 14.M 30.S EPICENTRE 27.45 53.13 DEPTH= 53.KM

A= 0.53325 B= 0.71094 C= 0.45848 D= 0.8000 E=-0.6000
G= 0.2751 H= 0.3668 K=-0.8887 HT= 2.6

DEPTH OF FOCUS= 0.003R

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	
SHIRAZ	2.26	346.5	0 36	0				1 20	PG
TEHERAN	8.40	350.3	1 59	-2				3 17	
QUETTA	12.42	74.1	2 55	-1	5 19	5			
TIFLIS	15.79	336.5	3 40	0	6 41	8			
KSARA	16.14	297.4	3 45	1	6 55	14		7 19	SS
MAKHACH-KALA	16.15	345.0	3 45	1					
STALINABAD	17.15	45.8	3 58	1	7 17	13			
HELWAN	19.28	282.3	4 21K	-2	8 0	8			
BOMBAY	19.98	111.0						8 12	
NAMANGAN	20.37	43.8	4 36A	2					
DEHRA DUN	22.00	76.6						5 35	
ADDIS ABABA	22.79	219.2	4 58	-1					
SIMFEROPOL	23.15	324.0	5 4	2	9 13	7			
FRUNSE	23.24	43.1	5 5	2					
SOFIA	28.56	310.0	5 53	0				7 20	
CHATRA	30.25	83.2	6 9A	1					
MOSCOW	30.40	342.6	6 10	1	11 10	5			
LWOW	31.54	323.0	6 20	1				11 24	
CHITTAGONG	35.36	89.5	6 31	-21					
LJUBLJANA	35.64	311.8	6 55A	1				7 12	
PULKOVO	35.91	340.5	6 57	0	12 33	3			
TRIESTE	36.04	310.9			12 35	3			
ROME	36.06	304.3			12 35	2			
TOLMEZZO	36.74	311.8	7 1	-3				7 37	
PRUHONICE	37.00	318.0	7 5	-1				7 40	*SP
LWIRO	37.69	222.3	7 13	1					
HELSINKI	37.93	337.4	7 14	0					
NURMIJARVI	38.28	337.6	7 17	0					
COLLMBERG	38.42	319.4	7 18	0				9 44	
STUTTGART	39.84	314.3	7 48	19					
ISOLA	40.36	306.8	7 35	1					
UPPSALA	40.45	333.1	7 34	0					
COPENHAGEN	40.57	325.4	7 37	2	13 47	6			
SETIF	41.14	294.5	7 41	1				8 18	PP
GOTEBORG	41.75	328.0	7 43	-2					
APATITY	41.87	348.8	7 46	0	14 7	7		17 3	SS
ALGIERS UNI.	43.01	295.5	7 54	-2	14 16	-1		17 52	SCS

SODANKYLA	43.07	345.4	7	56	0						
DOURBES	43.13	315.1	7	58	1	14	24	5			
TAMANRASSET	43.16	274.8	7	56	-1	14	19	0	9	38	PP
UCCLE	43.45	316.0				14	24	1	9	40	PP
SKALSTUGAN	44.70	335.4	8	9	0						
KIRUNA	44.93	343.1	8	11	0						
FOLINIERE	46.16	312.4	8	20	-1						
ULAN-BATOR	46.17	48.8	8	22	1						
KEW	46.47	316.1				15	9	2			
KHEYS	53.31	1.0	9	17	2						
SIDA	57.45	330.1	9	46	1						
TIKSI	59.72	20.8	9	56A	-5						
YAKUTSK	59.90	32.0	10	2	0						
NORD	60.09	350.8	10	3	-1						
THULE	70.37	347.6	11	9	-1						
MATUSIRO	70.54	58.3	11	0	-11						
RESOLUTE	76.02	351.7	11	43	0						
COLLEGE	86.55	8.8	12	39	1						
MORGANTOWN	100.22	325.0							15	3	
HUNGRY HORSE	103.68	351.2							15	57	
LAWRENCE	107.62	334.6	14	8	777						
FAYETTEVILLE	109.69	332.3	12	40	777						
EUREKA	112.65	350.9	14	59	777						
TUCSON TELE.	118.59	344.4	13	38	777						
TUCSON	118.70	344.5	13	38	777				13	55	

MAY 20 11.H 12.M 33.S EPICENTRE -28.51 167.53 DEPTH= 0.KM

A=-0.85934 B= 0.19008 C=-0.47477 D= 0.2160 E= 0.9764
G= 0.4636 H=-0.1025 K=-0.8801 HT= 2.3

SE= 2.90

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NOUMEA	6.26	350.8	1	36	1								
ONERAHI	9.28	143.1	2	16	-2								
AUCKLAND	10.34	145.6	2	42	10								
PORT VILA	10.75	4.1	2	40	2	4	37	-3					
KARAPIRO	11.54	146.6	2	45	-4								
TONGARIRO	12.56	150.2	3	1	-1								
CHATEAU	12.57	150.1	3	0	-3								
TUAI	13.01	144.5	3	8	-1								
BRISBANE	13.09	271.4	3	3A	-6	5	18	-19					
COBB RIVER	13.25	162.6	3	11	-1								
WELLINGTON	14.05	157.0	3	24	2								
KAIMATA	14.33	168.3	3	29	3								
RIVERVIEW	14.99	245.2	3	34A	0	6	32	10			3	55	PPP
GEBBIES PASS	15.71	166.2	3	47	3	7	0	21					
ROXBURGH	17.00	175.7	3	59	-1	7	18	9					
CANBERRA	17.12	242.0	4	2	0	7	15	3			4	35	PPP
MELBOURNE	21.01	237.9	4	47A	0	8	45	8			9	42	SSS
CHARTERS TS.	21.09	288.7	4	47A	-1	8	45	6					
FORT NELSON	21.73	223.2	4	56	2	9	2	11					
AFIAMALU	24.09	57.2	5	17	-1	9	33	0			6	1	PP
ADELAIDE	25.28	247.9	5	31K	2	9	57	4			6	4	PP
PORT MORESBY	26.98	310.8	5	48	3	10	29	8					
RABAUL	28.24	326.1	5	56	0	10	46	4					
TERRE ADELIE	41.51	195.2	7	52	2	14	11	4					
CAPE HALLETT	43.88	178.8	8	7K	-2	14	48	7			9	56	PP
MUNDARING	44.14	252.3	8	12	0	14	41	-4					
PERTH	44.46	252.3	8	17	3	15	3	13			10	9	PP
GUAM	47.19	329.1	8	35	-1	15	28	-1					
SCOTT BASE	49.43	180.2	8	53	0	15	51	-9			11	33	PPP
WILKES	51.11	205.8	9	7	1	16	25	1			16	28	SP
MIRNY	58.06	207.0	9	54	-3								
BYRD STATION	59.17	168.8	10	2	-3	18	25	13			11	45	
HONOLULU	59.61	37.6	10	6	-2	18	32	15			23	11	
KIPAPA	59.75	37.6	10	6	-3								
LEMBANG	60.38	278.8	10	12A	-1	18	32	5					
DJAKARTA	61.38	279.0	10	16	-4	18	42	2					
SOUTH POLE	61.66	180.0	10	20	-2	19	1	18			11	24	PCP
MANILA	62.13	307.5	10	19	-16						14	36	
BAGUIO CITY	63.69	308.5	10	32	-3								
TUKUBASAN	69.37	336.5	11	OK	-11	20	11	-7			11	28	PCP
ABUYAMA	69.89	332.4	11	15A	1								

MATUSIRO	70.33	335.2	11	16	-1	20	31	2	14 12	PP
HONG KONG	72.10	308.7	11	29A	1	20	51	1	26 19	SS
MEDAN	73.29	283.6	11	32A	-3	21	14	11		
KERGUELEN I.	73.47	222.6	11	43	7	21	18	13		
NANKING	76.00	318.9	11	50A	0	21	35	2		
WUHAN	77.44	315.1	11	58A	0					
ARGENTINE I.	78.38	160.3	12	4	0					
VLADIVOSTOK	78.44	334.2	12	5	1	22	2	2	15 7	PP
Y.-SAKHLINSK	78.44	343.0	12	6	2	21	53	-7	22 14	SCS
PETROPAVLOVK	81.55	354.6	12	19A	-2				22 41	SCS
CHANGCHUN	81.71	330.6	12	21A	0	22	37	3		
KUNMING	81.99	304.1	12	25A	2	22	45	8		
PEKING	83.23	322.8	12	30	1	22	54	5		
SIAN	83.47	314.6	12	31A	1	22	59	7		
CHENGTU	84.42	309.2	12	36A	1	23	4	3		
PAOTOW	86.99	320.0	12	49	1					
LANCHOW	87.83	313.4	12	54A	2					
MAGADAN	88.81	351.6	12	57	0				23 26	SKKS
SHILLONG	90.39	298.9	13	4A	0	23	45	-13	16 34	PP
PORT STANLEY	90.74	153.7	13	7	1					
COLOMBO	91.20	277.1				23	57	-8	16 23	
CALCUTTA	91.59	294.7							22 36	
BERKELEY	93.12	48.2	13	19	2				25 52	PS
LHASA	93.13	302.0	13	18A	1					
UKIAH	93.20	46.8	13	8	-9					
LICK	93.24	48.9	13	19	2				25 5	
ULAN-BATOR	93.49	324.0	13	18	0					
MADRAS	93.81	282.6							25 30	PS
PASADENA	93.89	53.2	13	21	1	24	5	-23	17 1	PP
FRESNO	94.16	50.2	13	23	2					
BOKARO	94.29	294.7							14 49	
SHASTA	94.61	45.8	13	24	0					
CHATRA	94.67	297.9	13	26	2					
KODAIKANAL	94.86	278.9							19 59	
MINERAL	94.92	46.4	13	24A	-1					
YAKUTSK	95.20	343.1	13	26	0	24	0	-2		
RENO	95.64	47.9	13	31K	3					
BOULDER CITY	97.18	53.0	13	35	0					
IRKUTSK	97.51	326.4	13	36A	-1				26 26	PS
EUREKA	98.14	49.5	12	39	-61				29 59	PKKP
TUCSON	98.26	57.9	13	40	0				17 48	PP
TUCSON TELE.	98.39	57.9	13	42	1				17 42	PP
COLLEGE	99.32	17.7	13	43	-2	24	17	-6	17 49	PP
SALT LAKE C.	101.53	49.9	17	47	777				18 6	
POONA	101.74	284.7							17 19	
AGRA	102.04	294.3	13	56A	-1				32 46	
BOMBAY	102.78	284.6							18 14	PP
DEHRA DUN	103.39	297.3							18 42	
TIKSI	103.44	348.3	13	55	-8				18 5	PP
BUTTE	103.47	44.9	14	7	3				18 17	PP
HUNGRY HORSE	103.66	42.3	14	10	6				18 15	PP
BOZEMAN	104.27	45.7	13	46	-21				17 34	
LARAMIE	106.04	51.5	18	35	777					
RAPID CITY	108.73	49.5	18	13	777				18 57	PP
SEMIPALATNSK	109.76	317.2							18 57	PP
LA PAZ	110.02	122.5				25	15	3	19 8	PP
FRUNSE	110.76	308.2							19 18	PP
QUETTA	112.17	293.2	17	49	-48	25	12	-9	19 22	PP
FAYETTEVILLE	112.40	60.1	17	48	-50					
LAWRENCE	112.56	56.9	18	37	-1					
KIMBERLEY	112.83	215.2	18	39	1					
LITTLE ROCK	113.39	62.0	18	40	0					
DUZHANBE	113.57	302.3	18	39	-1					
TASHKENT	114.04	305.3	18	42	1				43 27	SSS
CHINCHINA	115.91	98.8	18	46	2				19 52	PP
FLORISSANT	116.13	58.3							19 51	PP
ST. LOUIS 1	116.19	58.5							19 49	PP
BOGOTA	117.08	100.0							20 1	PP
BULAWAYO	117.44	224.1	18	44	-3					
FUQUENE	117.79	99.4							20 5	PP
RESOLUTE	119.24	17.6	18	49	-2				20 11	
KHEYS	121.10	349.6	18	54	-1				20 20	PP
ASHKABAD	121.29	299.1	18	53	-2				20 17	PP
COLUMBIA	122.11	65.9	18	58	2				20 35	PP
SVERDLOVSK	122.49	321.4							20 30	PP
SHIRAZ	123.89	288.1	18	43	-17				28 11	
CHAPEL HILL	124.14	64.2	19	1	1				19 57	
MORGANTOWN	124.19	59.6	19	1	0				20 43	PP
THULE	125.32	13.9	19	1	-2				20 49	PP

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PENNSYLVANIA	125.96	58.5	19	6	2					21 0	PP
CARACAS	126.09	98.0	19	9	5					21 17	PP
TEHERAN	126.26	295.1	19	6	2					20 43	
GEORGETOWN	126.27	61.0	19	5	1						
NORD	126.78	0.8	19	5K	0	26	9	-2			
OTTAWA	128.03	53.0	19	7A	-1						
ADDIS ABABA	128.19	258.5	19	14	6						
PALISADES	128.96	58.7	19	9	-1					21 16	PP
BREBEUF	129.51	53.0	19	9	-2					22 33	PKS
LWIRO	129.97	239.3	19	13	1						
SAN JUAN	130.11	89.4	19	13	1					22 41	SKP
SHAWINIGAN	130.13	51.6	19	14A	2						
TRINIDAD	130.96	101.1	19	15	2						
WESTON	131.01	57.2	19	13	-1					21 31	PP
SEVEN FALLS	131.46	50.9	19	16	2					21 35	PP
TIFLIS	132.14	301.9	19	16	0					21 39	PP
APATITY	132.34	338.1	19	16	0					21 27	PP
SODANKYLA	134.59	340.0	19	17	-3						
MOSCOW	135.30	321.9	19	23	1					21 53	PP
KIRUNA	136.03	342.7	19	22	-1					19 42	
HALIFAX	136.62	54.0	19	25	1						
KSARA	138.58	289.9	19	31	3					22 22	PP
JERUSALEM	138.88	286.7	19	32	4						
NURMIJARVI	139.44	332.7	19	22	-7					22 34	PP
HELSINKI	139.51	332.1	19	23	-6					23 9	PKS
SIMFEROPOL	139.80	306.9	19	26	-4					25 27	PPP
SKALSTUGAN	141.46	342.5	19	27	-6						
HELWAN	141.90	283.0	19	27	-6					22 57	PKS
UPPSALA	142.58	335.4	19	30	-5						
SIDA	144.53	4.3	19	38	0						
LWOW	145.08	317.7	19	39	0					22 59	PP
BUCHAREST	145.51	307.9	19	39	-1					24 10	PKS
WARSAW	145.67	323.0	19	42A	2					22 55	PP
BERGEN	145.92	344.3	19	44	4						
GOTEBORG	146.17	336.5	19	40	-1					20 2	
KRAKOW	147.35	320.2	19	49	6					23 7	PP
COPENHAGEN	147.50	333.6	19	46	3					23 20	PP
SKALNATE PL.	147.58	318.6	19	45	2						
SOFIA	147.89	305.8	19	46	2	26	45	-6		23 42	PKS
RACIBORZ	148.30	321.3	19	46	2					19 49	PKP2
ATHENS	148.46	296.9	19	48A	3						
BELGRADE	149.24	310.9	19	49K	3					31 17	
HURBANOVO	149.40	317.6	19	53	7						
POTSDAM	149.53	328.6	19	49	3					23 19	PP
BRATISLAVA	149.90	318.8	19	47	0				20 5		
COLLMBERG	150.27	327.0	19	47	0	26	37	-17		23 26	PP
PRUHONICE	150.31	323.7	19	47	-1					42 52	SS
PRAGUE	150.32	323.9	19	53	5					23 33	PP
ABERDEEN	150.43	348.5	19	50	2					23 25	PP
HALLE	150.63	328.2	19	48	0					23 32	PP
JENA	151.19	327.6	19	49	0					23 35	PP
PLAUEN	151.20	326.5	19	44	-5					19 52	PKP2
ZAGREB	151.70	315.3	19	49K	-1						
SONNEBERG	151.74	327.1	19	56	6						
WITTEVEEN	151.88	335.0	19	50	0						
MUNSTER	152.17	332.9	19	53	3						
LJUBLJANA	152.48	316.8	19	51	0					23 44	PP
DURHAM	152.59	346.2	19	51	0	26	56	-1			
DE BILT	153.00	335.7	19	53	2					20 13	PKP2
BENSBERG	153.12	331.9	19	54	2						
TRIESTE	153.15	316.7	19	55	3	26	53	-4		23 48	PP
TOLMEZZO	153.19	318.7	19	58	6					23 41	PP
HEIDELBERG	153.58	327.9	19	52	0						
STUTTGART	153.74	326.3	19	52	0					23 50	PP
TUBINGEN	154.01	326.2	19	55	2						
RAVENSBURG	154.23	324.3	19	53	0						
LOME	154.23	212.8	20	2	9						
EBINGEN	154.29	325.7	19	52	-1						
UCCLE	154.36	334.9	19	50	-3	27	1	2			
STRASBOURG	154.60	327.6	19	54	0					23 57	PP
MESSINA	154.76	299.8	19	55	1	26	59	0		23 56	PP
RATHFARNHAM	154.81	351.2	20	1	7					24 7	PP
DOURBES	154.83	333.6	19	55	1	27	2	3			
KEW	155.31	341.6	19	54	-1					23 55	PP
BASLE	155.42	326.0	20	7	12					28 44	
PRATO	155.68	315.4	20	19	24					24 2	PP
ROME	155.73	310.0	19	58K	3	26	45	-15	20 23	23 53	PP
PAVIA	156.10	319.9	19	53	-3					22 0	

BESANCON	156.39	327.4	19	47	-9					20	28 PKP2
FOLINIERE	157.76	338.7	19	59	1						
ISOLA	157.90	320.3	20	2	4					24	25 PP
MONACO	157.96	318.9	20	1	3						
CLERMONT-FD.	158.82	328.6	20	4	5						
TAMANRASSET	162.81	254.7	20	4	1					24	48 PP
SETIF	163.08	301.5	20	4	0					24	26 PP
TORTOSA	163.75	322.5	20	0	-4					24	47 PP
ALGIERS UNI.	164.56	306.2	20	3	-2	26	55	-13		24	44 PP
MBOUR	165.34	162.5	20	8A	2					21	5 PKP2
ALICANTE	165.99	317.6	20	4	-2	27	7	-2		24	52 PP
TOLEDO	166.69	330.7	20	9	2	27	14	2		24	58 PP
RELIZANE	166.82	306.5	20	10	3					25	2 PP
SERRA PILAR	167.01	346.9	20	0K	-7					24	58 PP
COIMBRA	167.87	345.1	20	10K	2					27	3 PP
ALMERIA	168.17	317.2	20	8K	0	26	52	-18		25	7 PP
GRANADA	168.58	321.5	20	14K	6	27	43	33		25	13 PP
MALAGA	169.36	322.3	20	5K	-3	27	9	-2		25	1 PP
LISBON	169.44	345.7	20	15	6					25	16 PP

MAY 21 6.H 41.M 13.S EPICENTRE 37.64 20.22 DEPTH= 0.KM

A= 0.74490 B= 0.27442 C= 0.60813 D= 0.3457 E=-0.9384
G= 0.5706 H= 0.2102 K=-0.7938 HT= -0.8

SE= 3.74

	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	
ATHENS	2.79	82.2	0	51	5	1	29	8			0	56	PG
REGGIO CALA.	3.65	278.6	0	58	0	1	37	-6					
TARANTO	3.65	321.6									0	47	PG
MESSINA	3.74	280.0	0	57	-3	1	36	-9			1	6	PG
SOFIA	5.58	24.2	1	27	1	2	30	-2			1	51	PG
BELGRADE	7.17	1.3	2	16A	28						3	31	
ROME	7.32	307.9	2	18	28	3	4	-11			4	3	S*
TIMISOARA	8.14	4.9	2	37	35	4	9	33			5	5	SG
ZAGREB	8.76	340.1	2	6	-5						4	1	
PRATO	9.31	314.9									5	39	
TRIESTE	9.35	330.9	2	23	4	4	13	7			5	28	SGSGSG
LJUBLJANA	9.42	335.0	2	17	-3	4	6	-1			2	57	
TOLMEZZO	10.26	330.8	2	32	1	4	20	-8			3	19	
CHIAVARI	10.60	312.4	2	37	1						3	31	
BRATISLAVA	10.77	348.7	2	28	-10								
ISOLA	11.91	307.4	2	53	-1						5	50	
SETIF	11.95	267.6	2	53	-1						3	10	PPP
LWOW	12.48	11.5	3	16	15								
SIMFEROPOL	12.74	50.7	3	14	9						5	52	
PRUHONICE	12.99	343.5	3	5	-3						4	51	
PRAGUE	13.10	343.3	3	5	-5								
KSARA	13.28	102.0	3	12	0								
TUBINGEN	13.58	326.8	3	14	-2								
JERUSALEM	13.65	110.9	3	15	-2	5	40	-10					
STUTTGART	13.67	327.9	3	12	-5						5	44	
ALGIERS UNI.	13.72	271.6	3	16	-2	6	6	14					
PLAUEN	14.08	338.4	3	28	5								
STRASBOURG	14.20	324.3	3	24	0								
SONNEBERG	14.28	336.0	3	34	9								
HEIDELBERG	14.39	328.4	3	28	1								
JENA	14.64	337.9	3	33	3	6	17	3			4	2	
HALLE	15.04	339.7	3	41	6	6	40	17					
POTSDAM	15.57	343.5				6	50	14					
RELIZANE	15.90	269.2	3	58	12	7	23	39			4	14	PP
BENSBERG	16.23	329.3	3	55	4								
ALICANTE	16.34	278.8	3	59	7	7	9	15					
DOURBES	16.75	323.0	4	1	4	7	14	11					
MUNSTER	16.85	332.2	4	2	4								
UCCLE	17.34	324.4				7	7	-10			4	11	PP
ALMERIA	18.08	274.4	4	11	-3	7	40	6			4	24	PP
FOLINIERE	18.68	313.1	4	17	-4								
COPENHAGEN	18.79	346.2				7	53	3					
GRANADA	18.92	275.9	4	28A	4	8	23	30			4	50	PP
TOLEDO	19.05	284.3	4	20	-6								
TIFLIS	19.33	70.2	4	29	0	8	4	2					
TAMANRASSET	19.48	224.6	4	31	0	8	9	4			4	50	PP
MALAGA	19.63	274.8	4	32K	0						4	52	PP

KEW	20.04	320.2	4	36	-1	8	19	1		
GOTEBORG	20.79	347.5	4	43	-2				5	0
MAKHACH-KALA	21.42	67.1	4	51	0	8	50	5		
MOSCOW	21.57	27.4	4	53	0					
UPPSALA	22.29	356.5	4	58	-2					
SERRA PILAR	22.50	287.9	5	1K	-1	9	6	1	5	31 PP
DURHAM	22.67	326.1	5	0	-4	9	10	2		
HELSINKI	22.75	6.1	5	5	0					
NURMIJARVI	23.06	5.6	5	6	-2	9	19	4		
PULKOVO	23.07	13.1	5	6	-2					
RATHFARNHAM	24.10	319.0	5	20	2				5	56
ABERDEEN	24.49	330.1							9	32
SKALSTUGAN	26.41	352.0	5	37	-3					
SHIRAZ	27.94	97.0	5	54	0				10	35
SODANKYLA	30.00	5.0	6	11	-1					
KIRUNA	30.24	0.2	6	13	-1					
APATITY	30.87	9.8	6	16	-4					
SVERDLOVSK	32.83	41.1	6	35	-2					
QUETTA	39.16	86.7	7	32	1					
SCORESBY SD.	39.60	339.3	7	35	1					
LWIRO	40.48	166.7	8	45	63					
NORD	45.98	352.9	8	25	-1					
THULE	53.43	342.9	9	17	-6					
BULAWAYO	58.01	170.7	9	58	2					
RESOLUTE	60.22	343.9	10	10	-2					
SHILLONG	60.87	78.9	10	15	-1					
HALIFAX	60.88	305.6	10	18	2					
SHAWINIGAN	65.70	310.9	10	32	-16					
YAKUTSK	65.71	29.2	10	49	1					
OTTAWA	68.06	310.9	11	7	4					
COLLEGE	77.39	354.8	11	58	0					
HUNGRY HORSE	85.21	331.3	12	40	1					
MATUSIRO	86.53	45.4							24	11
CAPE HALLETT	142.11	165.6				27	46	64		

MAY 21 8.H 17.M 0.S EPICENTRE 15.52 121.77 DEPTH= 0.KM

A=-0.50761 B= 0.81953 C= 0.26591 D= 0.8501 E= 0.5266
G=-0.1400 H= 0.2261 K=-0.9640 HT= 5.7

SE= 1.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BAGUIO CITY	1.46	308.1	0	30	2	0	41	-7				
HONG KONG	9.86	314.3	2	25	-1							
CANTON	10.95	314.7	2	45	4	4	57	11				
ZO-SE	15.52	358.1	3	43	1							
WUHAN	16.34	337.3	3	55	3	7	8	14				
NANKING	16.69	351.1	3	58	1	7	14	12				
KUNMING	20.22	301.2	4	42A	3	8	35	13				
SIAN	21.95	330.5	4	58A	1							
CHENGTU	22.18	315.9	4	59A	0	9	8	9				
GUAM	22.33	92.3	5	4	3							
PEKING	24.90	349.7	5	26	0	9	53	6				
MATUSIRO	25.54	31.9	5	32	0	10	11	13			6	6
LANCHOW	25.97	325.2	5	37A	1							
LEMBANG	26.26	213.3	5	40K	1						9	34
PAOTOW	26.98	340.0	5	44	-1							
CHITTAGONG	29.10	288.1	5	52	-12	10	31	-25			6	39 PP
SHILLONG	29.67	294.5	6	8A	-2							
CHATRA	34.07	295.1	7	52	64							
ULAN-BATOR	34.57	342.3	6	52	0							
RABAUL	35.91	120.6	7	6	2							
CHARTERS TS.	42.80	145.0	8	1	0							
POONA	45.82	280.9	8	25K	0							
LAHORE	45.97	299.0	8	26A	-1							
YAKUTSK	46.78	5.1	8	32	-1							
MUNDARING	47.52	186.4	8	39	0							
FRUNSE	48.52	313.9	8	47A	0							
NAMANGAN	50.07	310.8	9	0A	1							
STALINABAD	51.70	307.1	9	8	-3							
QUETTA	52.13	296.3	9	14A	0						11	16 PP
BRISBANE	52.19	144.6	9	16	1							
ADELAIDE	52.73	162.5	9	18	-1							
TIKSI	56.25	2.7	9	32A	-12						15	20

RIVERVIEW	56.50	150.7	9	33K	-13					9	57	
CANBERRA	56.77	153.4	9	50	2							
SHIRAZ	64.65	295.7	10	40K	-2	19	30	9				
KHEYS	70.59	351.0	11	18	-1							
MOSCOW	74.04	324.2	11	38	-1							
APATITY	75.15	336.6	11	44	-2							
COLLEGE	76.26	26.1	11	51	-1							
PULKOVO	77.47	328.8	11	58	-1							
SODANKYLA	77.78	336.8	12	0	-1							
KSARA	78.18	302.0	12	5	2							
KIRUNA	79.98	337.8	12	12	-1							
NURMIJARVI	80.10	330.1	12	12	-1							
NORD	80.97	354.3	12	17A	-1							
TERRE ADELIE	83.38	172.3	12	28	-2							
UPPSALA	83.65	330.5	12	30	-2							
SKALSTUGAN	84.61	334.9	12	35	-2							
SOFIA	85.68	313.0	12	46	4							
RACIBORZ	86.70	321.1	12	47	0							
RESOLUTE	87.09	9.1	12	32	-17							
GOTEBORG	87.19	329.6	13	4	15							
THULE	88.05	2.4	12	50	-3					16	17	PP
BRATISLAVA	88.05	319.6	12	53	0							
VIENNA-H.	88.47	319.9	12	56	1							
PRUHONICE	88.92	321.9	12	57A	-1					13	25	
COLLMBERG	89.30	323.5	12	58	-1					16	28	PP
LJUBLJANA	90.48	318.3	13	5	0							
STUTTGART	92.56	322.3	13	14	0							
HUNGRY HORSE	99.40	34.0	14	3	17							
BYRD STATION	110.04	170.6	18	44	11							
HUANCAYO	163.03	80.4	20	11	7							

MAY 21 10.H 2.M 52.S EPICENTRE -37.57 -73.07 DEPTH= 0.KM

A= 0.23136 B=-0.76012 C=-0.60720 D=-0.9567 E=-0.2912
G=-0.1768 H= 0.5809 K=-0.7946 HT= -0.8

SE= 3.39

	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	
SANTA LUCIA	4.58	26.4	1	14A	1	2	14	7					
TALA POZO	12.23	39.9	3	7A	8	5	43	26					
PORT STANLEY	17.74	147.6	4	8	-2								
LA PAZ	21.44	13.1	4	56A	4	8	57	11					
HUANCAYO	25.50	354.9	5	34A	2	10	27	29					
ARGENTINE I.	28.20	172.2	5	58	1								
BOGOTA	41.99	358.5	7	57K	2	14	1	-13					
CHINCHINA	42.39	356.2	7	58K	0	14	14	-6					
FUQUENE	42.82	359.0	8	2A	0								
BYRD STATION	46.10	190.1	8	25	-3								
BALBOA HTS.	46.69	351.2	8	32	-1	15	2	-20					
CARACAS	48.16	8.1	8	40A	-4	15	38	-5					
TRINIDAD	49.20	15.2	8	54	2								
GRENADA	50.49	14.4	9	2	0								
ST. VINCENT	51.68	14.7	9	8	-3								
BARBADOS	51.99	16.7	9	18	4								
SOUTH POLE	52.61	180.0	9	14	-4	16	55	10			19	4	SCS
SANTIAGO MA.	52.81	341.1	9	15	-5	16	51	3					
SAN SALVADOR	53.19	340.3	9	17	-6	16	55	2					
DOMINICA	53.72	14.0	9	27	1								
ANTIGUA	55.44	13.1	9	38	-1								
ST. KITTS	55.48	12.0	9	40	1								
SAN JUAN	56.04	8.0	9	38A	-5								
COMITAN	56.46	337.9	9	49	3	17	33	-4			21	25	SS
OAXACA	58.70	333.3	10	12	10	18	12	6			22	8	SS
SCOTT BASE	59.42	192.3	10	12	5	18	14	-2					
MERIDA	60.26	342.1	10	11	-2	18	23	-3			12	32	PP
VERA CRUZ	60.50	334.8	10	8	-7	18	32	3			10	48	
PUEBLA	61.07	332.7	10	20	2	18	23	-14			18	0	
TACUBAYA	61.78	331.9	10	24K	1	18	44	-2			12	46	PP
CAPE HALLETT	62.03	198.0	10	19K	-6	18	36	-13			10	25	PCP
MANZANILLO	63.55	326.8	10	35	0	19	3	-5					
LEON	64.29	330.3	10	44	4	19	8	-9			13	0	PP
GUADALAJARA	64.56	328.5	10	50	8	19	24	3			23	46	SS
MAWSON	70.00	163.5	11	11	-5	20	23	-3					
COLUMBIA	71.59	353.0	11	23A	-3	20	38	-7					

HERMANUS	71.62	119.5	11	25	-1	20	48	3			
TERRE ADELIE	72.65	193.6	11	30	-2	20	55	-2			
CHIHUAHUA	72.76	329.9	11	32	0	20	52	-6		25	46 SS
MBOUR	73.76	56.9	11	39	1	21	7	-2			
LITTLE ROCK	74.18	343.6	11	38	-3	21	19	5			
MIRNY	75.65	174.3	11	44	-5	21	21	-9			
FAYETTEVILLE	75.86	342.5	10	48A	-62					13	39 PP
WASHINGTON	76.19	356.8	11	50K	-2						
WILKES	76.38	181.5	11	52A	-1	21	57	19			
WINDHOEK	76.73	108.3	11	55	0						
MORGANTOWN	77.09	354.6	11	55	-2	21	18	-28			
GRAHAMSTOWN	77.26	122.2	11	56	-2						
ST. LOUIS 1	77.47	346.3	11	57	-2	21	47	-3			
FLORISSANT	77.65	346.2	11	58	-2	21	49	-3			
TUCSON	77.89	327.9	12	0A	-2	21	56	1		27	31 SS
PITTSBURGH	77.89	354.6	12	4K	2	22	0	5			
TUCSON TELE.	77.92	328.1	12	0A	-2						
PENNSYLVANIA	78.12	356.3	12	1	-2	21	56	-1			
PALISADES	78.21	359.4	12	2A	-1	21	49	-9	12 16	15	23 PP
KIMBERLEY	78.74	117.5	12	32K	26						
GEBBIES PASS	79.57	222.2								12	25
WESTON	79.59	1.3	12	10	-1	22	15	2			
WELLINGTON	80.03	225.1	12	18	5	22	17	0	12 33	22	38 PS
ROXBURGH	80.07	219.3	12	18	4	22	14	-4		15	34 PP
TUAI	80.28	228.2								12	50
CHATEAU	80.96	227.1	12	20	2					30	23 PKKP
KAIMATA	81.03	222.5								12	51
COBB RIVER	81.30	224.2	12	26	6	22	24	-6			
LOME	81.40	75.5	12	24	3	22	41	10			
LUANDA	81.75	94.8	12	24A	2	22	40	5	12 34	16	41 PP
KARAPIRO	81.81	228.1	12	23	0					31	2 PKKP
PIETERMZBURG	82.10	121.3	12	25	1						
HALIFAX	82.26	6.8	12	25A	0						
OTTAWA	82.63	358.1	12	25A	-2						
BREBEUF	82.70	359.6	12	26A	-1	22	43	-2			
PASADENA	82.77	323.7	12	26A	-2	22	38	-8			
BOULDER CITY	82.79	327.0	12	27A	-1	22	47	1		13	8
PRETORIA	82.96	117.0	12	30	1						
SHAWINIGAN	83.74	0.2	12	31A	-2						
ONERAHI	83.95	229.0								12	56
SEVEN FALLS	84.34	1.5	12	32	-4	23	2	1		28	15 SS
SALT LAKE C.	85.67	331.5	12	41	-1	23	14	0			
FRESNO	85.67	324.1	12	41	-1						
RAPID CITY	85.74	338.7	12	41A	-2					39	2 PKPPKP
EUREKA	86.22	328.1	12	42A	-3						
VINEYARD	86.40	323.1	12	49	3						
BULAWAYO	86.75	112.8	12	47	-1						
PONTA DELGDA	86.76	35.8	12	50K	2				12 56	16	16 PP
ANGRA DO HO.	86.80	34.2	12	52	4	23	48	23		23	28 SKS
LICK	87.00	323.2	12	50K	1	23	31	4			
BRANNER	87.32	322.9	12	55K	5						
KERGUELEN I.	87.50	156.9	12	55	4	23	43	11			
BERKELEY	87.72	323.2	12	52A	0	23	32	-2		39	31 PKPPKP
SAN FRANCSCO	87.73	323.0	12	58	6						
RENO	87.93	325.7	12	53A	0						
AFIAMALU	88.38	253.8	13	0	4	23	38	-2		16	5 PP
UKIAH	89.18	323.3	13	0K	1						
MINERAL	89.40	325.1	13	2A	2						
BOZEMAN	89.64	334.4	13	4A	2					15	12
SHASTA	90.04	324.8	13	3	0						
BROKEN HILL	90.20	108.3	13	5	1						
BUTTE	90.47	333.7	13	3K	-2	23	23	-36		17	23 PP
ARCATA	90.96	323.9	13	25	17						
FORT NELSON	91.85	208.5	13	30	18	23	53	-18			
HUNGRY HORSE	92.99	334.0	13	15A	-2					17	28 PP
AVERROES	93.29	49.8	13	17	-1					18	7
CORVALLIS	93.53	326.6	13	31A	12						
TAMANRASSET	95.09	65.3	13	28A	1					17	9 PP
BANFF	95.90	334.7	12	56	-34						
LISBON	96.03	45.0	13	31A	0	24	22	15		17	24 PP
VICTORIA	96.69	329.0	13	40	6						
MELBOURNE	97.16	209.5	13	36	0	24	8	-5		17	28 PP
MALAGA	97.43	49.0	13	37K	0	24	2	-13		17	36 PP
COIMBRA	97.45	44.3	13	37	0	24	17	2		17	35 PP
CANBERRA	97.63	213.6	13	52	14	24	12	-4		17	22
ALBERNI	97.85	328.7	13	59	20						
RIVERVIEW	97.90	215.9	13	37A	-2	24	15	-2		17	26 PP
SERRA PILAR	98.00	43.5	13	33K	-7	24	8	-9	13 43	17	35 PP
LWIRO	98.03	99.1	13	42	2	24	23	5			

GRANADA	98.21	49.1	13	43K	2	24	32	13	17	33	PP
NOUMEA	98.29	233.8	14	1	20				26	4	
ALMERIA	98.68	49.9	13	41A	-2	24	20	-1	17	44	PP
HONOLULU	98.92	289.9	13	48	4	23	56	-26	17	52	PP
TOLEDO	99.72	46.8	13	49A	1	24	31	15	18	0	PP
RELIZANE	99.84	52.4	13	58	10	25	21	54	17	55	PP
TANANARIVE	100.80	124.0	14	4A	12	24	36	5	18	4	PP
ALICANTE	100.85	49.8	13	54	1	24	31	1	18	7	PP
ADELAIDE	102.02	206.3	14	14	16	24	34	-3	18	12	PP
ALGIERS UNI.	102.06	52.9	13	56A	-2	24	24	-7	18	5	PP
BRISBANE	102.37	220.8	14	13	13	24	31	-8			
TORTOSA	102.99	48.3	13	58	-4	24	55	13			
SETIF	103.21	54.5	14	7	4	25	29	46	18	20	PP
BARCELONA	104.33	48.6							18	28	PP
JERSEY	106.75	40.4	14	22	777				26	17	
RATHFARNHAM	107.32	35.3	14	24	777	25	3	2	18	54	PP
FOLINIERE	107.34	41.4	14	27	777						
CLERMONT-FD.	107.51	45.5	14	21A	777				26	45	
CUGLIERI	107.56	52.7	13	58	777				21	38	PPP
MONACO	108.86	49.1	14	18	777				19	2	PP
ISOLA	108.88	48.5	14	30	777	26	25	77			
KEW	109.05	39.2	14	28A	777	25	2	-9	18	56	PP
REYKJAVIK	109.09	21.2	19	8	777				21	24	
SIDA	109.97	22.8	19	13	777						
BESANCON	109.98	45.4							22	10	PKS
OROPA	110.22	47.6	18	38	4	25	25	11			
HUNDARING	110.28	188.4	18	41	7				19	28	PP
CHIAVARI	110.32	49.3	14	42	777	25	11	-3	19	20	PP
PERTH	110.34	188.1	14	40	777	25	8	-6	19	16	PP
EDINBURGH	110.37	34.3	18	33	-1	25	14	0	19	16	PP
NEUCHATEL	110.39	46.0							19	9	PP
DURHAM	110.41	35.9	14	33	777	25	22	8	19	10	PP
PAVIA	110.69	48.5	18	40	5	25	28	12	30	30	PPS
DOURBES	110.81	42.3	14	39	777	25	16	0			
ROME	110.98	52.9	18	37A	1	25	29	12	22	1	PPP
MESSINA	111.03	57.6	18	33	-3	25	14	-3	19	17	PP
BASLE	111.04	45.8							17	32	
REGGIO CALA.	111.05	57.7							19	14	PP
UCCLE	111.07	41.6	14	40	777	25	15	-2			
PRATO	111.16	50.5	19	2	26	27	15	118			
ABERDEEN	111.60	33.6	14	44	777	26	54	95	19	14	PP
BOLOGNA	111.63	50.0	18	41	4				29	31	PP
STRASBOURG	111.72	44.9	14	42	777	25	23	3	19	18	PP
CHARTERS TS.	111.73	219.9	14	29	777	25	13	-7			
CHUR	111.80	47.1							19	20	PP
EBINGEN	112.18	45.7							18	36	
DE BILT	112.22	40.7	14	44	777	27	28	126	19	26	PP
RAVENSBURG	112.34	46.3	14	43	777				19	41	PP
TUBINGEN	112.42	45.4	14	44	777				19	19	PP
BENSBERG	112.65	42.5	15	5	777	27	31	128			
STUTTGART	112.67	45.3	14	44	777				19	28	PP
HEIDELBERG	112.68	44.5	14	45	777				19	30	PP
RESOLUTE	112.91	353.8	14	46	777				27	8	
TARANTO	113.33	56.2	19	4	24				30	4	PPS
WITTEVEEN	113.37	40.6	18	32	-8				19	23	PP
MUNSTER	113.42	41.7	18	46	6						
TOLMEZZO	113.63	48.9	18	46	5	25	39	12	19	45	PP
TRIESTE	113.69	49.9	18	37	-4	25	39	12	19	35	PP
THULE	113.76	1.2	14	54K	777				29	15	PKKP
SCORESBY SD.	113.84	16.6							19	34	PP
LJUBLJANA	114.36	49.8	18	40A	-2	25	34	4	19	42	PP
SONNEBERG	114.56	44.5	18	40	-3	25	43	12	19	51	PP
JENA	115.04	44.1	18	43	-1	25	48	15	20	1	PP
CHEB	115.07	45.2				27	43	130	20	2	
ZAGREB	115.14	50.6	18	41K	-3				19	41	PP
PLAUEN	115.15	44.7	18	44	0	25	37	4	29	38	PS
HALLE	115.52	43.6	18	44	-1	25	47	13	20	12	PP
COLLMBERG	116.00	44.2	18	43	8	25	46	10	20	8	PP
PRAGUE	116.23	45.9				25	50	13	19	18	
PRUHONICE	116.26	46.0	15	2	777	25	45	8	29	53	PS
ATHENS	116.50	61.3	18	54A	8	25	44	6	20	7	PP
VIENNA-H.	116.52	48.3	18	35	-11	25	21	-17	19	56	PP
POTSDAM	116.55	43.1	14	2	777				19	48	
BERGEN	116.59	32.9							19	50	PP
BRATISLAVA	116.91	48.7	14	58K	777				20	7	PP
COLLEGE	117.37	332.4	18	56	8	26	7	26	20	3	PP
HURBANOVO	117.44	49.3							19	48	PP
BELGRADE	117.47	53.2	18	56A	-2				20	1	PP

COPENHAGEN	117.73	39.6	18	49	0	25	51	8	19 55	PP
KECSKEMET	117.93	50.8							19 58	PP
HELWAN	118.20	72.7	15	8	777				20 2	PP
TIMISOARA	118.37	52.5	19	6	16				30 14	PS
GOTEBORG	118.39	37.4	18	51	1				20 7	PP
SOFIA	118.40	56.4	18	57	7	26	0	15	20 14	PP
RACIBORZ	118.41	47.1	18	54	4				20 10	PP
CHORZOW	118.96	47.1				25	57	10	22 57	PPP
SKALNATE PL.	119.23	48.7							20 19	PP
PORT MORESBY	120.01	227.4	19	14	21				20 34	PP
CAMPULUNG	120.60	54.3							20 24	PP
WARSAW	120.91	45.6				26	6	13	23 29	PKS
RABAUL	120.92	235.6	18	52	-3				20 28	
SKALSTUGAN	120.95	31.3	18	57	2				20 22	PP
BUCHAREST	120.95	55.6	18	53	-2	26	7	13	20 21	PP
LWOW	121.75	49.1	18	56	-1				20 29	PP
UPPSALA	121.94	36.5	18	59	2				20 30	PP
JERUSALEM	122.05	72.6	15	28	777	26	17	20		
FOCSANI	122.17	54.6							20 30	PP
BACAU	122.31	53.5							19 34	
NORD	122.41	8.3	18	55	-3				20 29	PP
KSARA	123.45	70.7	19	1	1	26	12	10	20 47	PP
KIRUNA	125.46	27.7	19	4	0				20 56	PP
NURMIJARVI	125.49	37.0	19	1	-3				21 9	PP
HELSINKI	125.55	37.5	19	3	-1					
SIMFEROPOL	126.46	57.5	19	4	-2				20 55	PP
SODANKYLA	127.71	28.8	19	8	0				21 11	PP
PULKOVO	128.09	38.7	19	11	2	26	7	-8	22 27	PKS
APATITY	130.34	28.9	19	16K	3	26	17	-4	21 27	PP
MOSCOW	131.27	44.8	19	14	-1					
TIFLIS	132.89	64.6	19	18	0				21 40	PP
KHEYS	133.21	9.8	19	16	-3	26	10	-18	22 39	SKP
GORIS	133.35	68.0	19	19	0				24 41	PPP
SHIRAZ	134.54	83.3	19	14	-7				21 52	PP
LEMBANG	135.82	181.0	19	21A	-2				22 7	PP
TEHERAN	135.96	74.8	19	18	-6				22 6	PP
DJAKARTA	136.47	179.9	19	20	-5				22 56	PP
GUAM	138.69	244.6	19	29	0	26	25	-12	23 19	PKS
KLYUCHI	139.89	315.6	19	26	-5					
COLOMBO	140.80	134.4	19	41	9				22 47	
PETROPAVLOVK	141.37	310.6	19	23	-10	26	28	-14	22 52	PKS
ASHKABAD	141.94	74.1	19	26	-8					
KODAIKANAL	142.01	128.1	19	30	-5	26	28	-15	22 39	PP
KARACHI	143.85	98.9	19	37A	-1				23 10	PKS
SVERDLOVSK	144.00	42.5	19	32	-6					
BOMBAY	144.92	112.5	19	38	-2				23 13	PP
POONA	145.44	114.1	19	40	0	26	53	5	23 7	PP
QUETTA	146.19	90.6	19	43A	1	26	50	1	19 53	PKP2
DUZHANBE	150.08	76.2	19	51	3					
NEMURO	150.22	293.4	19	55	7				42 52	SS
SEHORE	150.66	110.8							30 2	
TASHKENT	150.84	70.8	19	51	2				33 59	PS
KUSIRO	151.07	292.6	19	55	6				23 51	PP
ABASHIRI	151.18	294.8	19	46	-4					
WARSAK DAM	151.18	86.3							19 58	PKP2
PORT BLAIR	151.23	150.0	19	51	1				27 51	
TORISIMA	151.56	265.6	20	4	14					
YAKUTSK	151.75	337.3	19	47	-4					
OBIHIRO	151.95	292.4	19	52	1					
Y.-SAKHLINSK	152.10	301.2	19	48	-3				27 0	PPP
URAKAWA	152.24	290.8	20	0	9					
ASAHIGAWA	152.56	294.3	19	55	3					
LAHORE	152.58	92.9	19	51	-1					
MIYAKO	152.64	285.3	20	1	9				23 50	PKS
ISINOMAKI	152.97	282.5	19	59	7				23 51	PP
WAKKANAI	152.98	297.9	20	8	16					
ONAHAMA	153.04	279.2	20	5	13				23 48	
HATINOHE	153.07	287.1	20	11	19					
MIZUSAWA	153.22	284.0	20	10	17					
MITO	153.25	277.8	20	3	10				25 2	
MORIOKA	153.26	285.2	19	40	-13				20 16	
SENDAI	153.28	282.0	20	4	11				23 48	
SAPPORO	153.31	292.7	19	50	-3				23 35	PP
MERA	153.41	274.3	19	56	3					
KAKIOKA	153.45	277.3	19	43	-10				23 51	
TUKUBASAN	153.51	277.3	19	48A	-5				23 47	PP
HUKUSIMA	153.52	280.8	19	54	1					
AGRA	153.55	104.7	19	52A	-1	26	45	-14	23 54	PP

MURORAN	153.58	291.1	19	45	-8				
SHIRAKAWA	153.60	279.3	20	8	15				
HONGÔ	153.65	276.0	20	14	21			23 43	PKS
AOMORI	153.66	287.7	20	13	20			21 35	
TOKYO C.M.O.	153.66	275.9	20	9	16			25 29	
YOKOHAMA	153.68	275.4	20	6	13			22 9	
YAMAGATA	153.70	281.8	20	13	20				
OSIMA	153.72	273.8	19	56	3			20 18	
HAKODATE	153.73	289.9	20	1	8				
UTUNOMIYA	153.76	277.9	20	6	13			20 45	
MORI	153.88	290.5	20	0	6			30 16	
AJIRO	154.02	274.3	20	6	12				
KUHAGAYA	154.06	276.8	20	11	17				
AKITA	154.08	285.1	20	8	14			32 51	
SUTTSU	154.14	292.1	20	7	13			24 7	
MISIMA	154.16	274.3	19	52	-2				
SAKATA	154.20	283.2						20 34	
TITIBU	154.26	276.3	20	17	23				
MAEBASI	154.36	277.3	19	56	2			33 38	
HUNATU	154.39	275.1	20	1	7			24 11	PP
SHIZUOKA	154.55	273.7	19	52	-2				
OMAESAKI	154.60	272.8	20	21	27			23 12	
KOHU	154.60	275.4	20	11	17			34 37	
NIIGATA	154.66	280.7	20	16	21			24 21	PP
OIWAKE	154.76	276.9	20	23	28			24 46	
FRUNSE	154.86	67.8	19	55	0				
HAMAMATU	155.03	272.8	20	1	6			21 29	
DEHRA DUN	155.04	98.3	20	8	13			23 55	PP
MATUSIRO	155.07	277.2	19	54	-1			24 13	PP
NAGANO	155.10	277.5	20	8	13			24 29	
IIDA	155.14	274.7	20	31	36			44 59	
TAKADA	155.15	278.6	19	55	0				
MATUMOTO	155.20	276.5	20	0	5				
AIKAWA	155.30	280.7	20	16	21			31 17	
BAGUIO CITY	155.73	213.4	19	55	-1				
NAGOYA	155.74	273.5	20	7	11			44 42	
GIHU	155.95	273.9	20	0	4			43 48	
OWASE	156.05	270.5	20	14	18				
KAMEYAMA	156.05	272.5	20	11	15			24 21	PP
WAZIMA	156.26	278.8	20	13	16			33 44	
HIKONE	156.33	273.4	20	3	6			20 35	
NARA	156.52	271.7						20 36	
HUKUI	156.53	275.2	20	6	9				
KYOTO	156.68	272.5	19	52	-5				
OSAKA	156.75	271.5	20	21	24			22 29	
ABUYAMA	156.77	272.0	19	57A	0				
KOBE	157.03	271.4	20	9	11			38 5	PPS
SEMIPALATNSK	157.06	47.5	19	57	-1				
SUMOTO	157.15	270.4	20	31	33			24 22	
BOKARO	157.31	121.1	20	0	2	27 2	-1	23 33	PKS
TOKUSIMA	157.34	269.5	20	33	35				
MUROTO	157.41	267.2	20	5	7			24 36	
TOYOOKA	157.53	273.3	19	57	-1			20 45	PKP2
TAKAMATU	157.83	269.8	20	18	19			30 56	
KOTI	158.02	267.5	20	22	23			24 36	PP
CALCUTTA	158.09	128.0	20	20	21			24 25	PP
SIMIDU	158.21	265.1	19	52	-7			24 30	
YONAGO	158.67	272.3	20	38	38			24 0	
MATUYAMA	158.70	267.7	20	15	15			24 17	
MATSUE	158.90	272.2						20 59	
MIYAZAKI	159.13	261.6	20	0	0			22 2	
HIROSIMA	159.13	268.9	19	59	-1			31 10	SKKS
YAKUSIMA	159.24	257.0	20	11	11			24 35	PP
HAMADA	159.56	270.1	20	7	6			25 8	PP
KAGOSIMA	159.67	259.9	20	27	26			24 55	
CHITTAGONG	160.01	135.1						20 39	PKP2
CHATRA	160.18	117.0	20	1	0			24 47	PP
SIMONOSEKI	160.20	266.7	20	36	35			21 1	
UNZENDAKE	160.34	262.8	20	6	4			32 58	
SAGA	160.48	264.2						24 34	PP
HUKUOKA	160.53	265.2	20	7	5			24 25	
TAWU	160.63	222.4	20	27	25				
NAGASAKI	160.64	262.4	20	0	-2			24 39	
TOMIE	161.47	261.1						21 2	
HWALIEN	161.51	227.0	20	25	22				
ILAN	162.04	228.9						21 14	
TAICHUNG	162.18	225.2	10	5	2				
TAIPEI	162.37	229.0	20	8	4				
SHILLONG	162.48	128.8	20	4	0			24 51	PP

HONG KONG	163.55	204.3	20	5A	0		21 4	PKP2
CANTON	164.55	202.7	20	7A	1			
LHASA	164.59	116.2	20	7A	1			
CHANGCHUN	164.73	299.9	20	3A	-3		24 53	PP
TOCKLAI	165.10	132.9	20	14	8			
IRKUTSK	165.19	6.3	20	4	-2		21 34	PKP2
ZO-SE	166.58	245.5	20	6A	-2		25 14	PP
KUNMING	167.08	162.8	20	8A	0		25 12	PP
NANKING	168.82	244.0	20	8A	-1		25 6	PP
ULAN-BATOR	169.66	0.1	20	23	14			
WUHAN	170.55	224.2	20	9A	-1			
PEKING	172.38	291.6	20	10A	-1		25 31	PP
PAOTOW	176.15	322.2	20	11A	-1		25 37	PP
SIAN	176.31	206.6	20	11A	-1			
LANCHOW	177.09	120.5	20	13A	1		25 54	PP

MAY 21 10.H 53.M 53.S EPICENTRE -37.49 -73.03 DEPTH= 0.KM

A= 0.23222 B=-0.76079 C=-0.60603 D=-0.9564 E=-0.2919
G=-0.1769 H= 0.5796 K=-0.7954 HT= -0.8

SE= 3.15

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	4.49	26.4	1	46	35								
PORT STANLEY	17.79	147.8	4	9	-2	7	43	15					
LA PAZ	21.35	13.0	5	0	9								
HUANCAYO	25.42	354.7	5	30	-1								
ARGENTINE I.	28.28	172.2	6	7	10								
BYRD STATION	46.19	190.1	8	24	-5								
BALBOA HTS.	46.61	351.1									10	0	
TRINIDAD	49.11	15.2	8	55	4								
GRENADA	50.40	14.4	8	57	-4								
ST. VINCENT	51.59	14.7	9	7	-3								
ANTIGUA	55.35	13.0	9	37	-1								
ST. KITTS	55.39	12.0	9	35	-3								
SAN JUAN	55.95	7.9	9	40	-2								
COMITAN	56.40	337.8				17	44	8			12	4	PP
OAXACA	58.65	333.2				18	7	2			12	7	PP
MERIDA	60.19	342.1				18	25	0			22	25	SS
VERA CRUZ	60.44	334.8				18	47	19					
PUEBLA	61.01	332.6	10	25	7						17	57	
TACUBAYA	61.72	331.8	10	23K	0	18	43	-2			12	43	PP
MANZANILLO	63.50	326.7	10	42	8	19	0	-7			23	30	SS
LEON	64.24	330.2									12	40	
GUADALAJARA	64.51	328.4	10	55	14	19	28	8			11	11	
MAZATLAN	68.03	326.9									18	52	
MAWSON	70.07	163.5	11	14	-2								
CHIHUAHUA	72.71	329.9				20	55	-2			16	13	PPP
TERRE ADELIE	72.74	193.6	11	32	0								
CHAPEL HILL	73.25	354.9	11	29	-6								
MBOUR	73.69	56.9	11	40	2						6	13	PCP
LITTLE ROCK	74.11	343.5	11	39	-1								
WINDHOEK	76.72	108.2	11	55	0								
GRAHAMSTOWN	77.27	122.2	11	58A	0								
ST. LOUIS 1	77.40	346.3	11	57	-2	21	48	-1					
FLORISSANT	77.58	346.2	11	59	-1	21	51	0					
TUCSON	77.84	327.9	11	59	-2								
PENNSYLVANIA	78.04	356.2	12	2	0								
PALISADES	78.13	359.3	12	3	0								
KIMBERLEY	78.75	117.5	12	8	2								
LAWRENCE	78.79	342.5	12	5	-1								
CHATEAU	81.05	227.1	12	17	-2								
LUANDA	81.72	94.8	12	25K	3								
KARAPIRO	81.89	228.0	12	22	-1								
PIETERMZBURG	82.12	121.2	12	25	1								
BREBEUF	82.61	359.6	12	28	1								
PASADENA	82.72	323.7	12	27	0						12	47	
BOULDER CITY	82.73	327.0	12	27	0								
PRETORIA	82.97	117.0	12	59	31								
SHAWINIGAN	83.66	0.2	12	32	0								
LARAMIE	83.88	335.9	12	33	0								
SEVEN FALLS	84.25	1.5	12	35	0								
FRESNO	85.63	324.1	12	42	0								

RAPID CITY	85.67	338.7	12	43	1	
BULAWAYO	86.75	112.8	12	45	-2	
LICK	86.95	323.2	12	52K	4	
BERKELEY	87.67	323.1	12	52	0	
RENO	87.88	325.7	12	55	2	
MINERAL	89.35	325.0	12	59	-1	
SHASTA	89.99	324.8	13	2	-1	
BROKEN HILL	90.19	108.3	13	6	2	
HUNGRY HORSE	92.93	334.0	13	16	0	
LWIRO	98.01	99.0	13	44	4	
GRANADA	98.13	49.1	13	31K	-9	
DURHAM	110.32	35.9				19 16 PP
COLLEGE	117.32	332.4	18	45	-3	
RABAUL	120.99	235.6	18	55	0	20 19
JERUSALEM	121.99	72.5	18	59	2	20 45 PP
NORD	122.32	8.3	18	56	-1	
KSARA	123.39	70.6	19	3	3	
NURMIJARVI	125.40	37.0	19	6	3	
SIMFEROPOL	126.39	57.4	19	18	13	
SODANKYLA	127.62	28.8	19	8	0	
APATITY	130.25	28.9	19	13	0	
MOSCOW	131.18	44.7	19	17	2	
KHEYS	133.12	9.8	19	18	0	
SHIRAZ	134.49	83.2	19	13	-8	22 55 PKS
TIKSI	143.98	348.4	19	34	-4	
POONA	145.44	114.0	19	41	1	
QUETTA	146.16	90.4	19	41	0	
KURILSK	148.62	297.3	19	47	2	
WARSAK DAM	151.14	86.1	19	59	10	
LAHORE	152.55	92.7	19	53	2	
NAMANGAN	152.55	71.6	19	55	4	
TUKUBASAN	153.54	277.4	19	55	2	
FRUNSE	154.80	67.6	20	1	6	
MATUSIRO	155.09	277.4	19	58	3	23 54 PP
CHITTAGONG	160.05	134.8	20	0	-1	
SHILLONG	162.51	128.5	20	4	0	

MAY 21 13.H 0.M 6.S EPICENTRE -37.30 -72.93 DEPTH= 55.KM
A= 0.23413 B=-0.76233 C=-0.60335 D=-0.9559 E=-0.2936
G=-0.1771 H= 0.5768 K=-0.7975 HT= -0.7

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	
SANTA LUCIA	4.28	26.6	1	24	19								
PORT STANLEY	17.91	148.3	4	5	-2								
LA PAZ	21.15	12.8	4	46	3	8	26	-4			5	4	PP
HUANCAYO	25.23	354.5	5	26A	3	10	10	28					
ARGENTINE I.	28.46	172.4	5	59	7								
BYRD STATION	46.39	190.1	8	21	-2	15	10	4					
BALBOA HTS.	46.43	350.9	8	24	0								
CARACAS	47.87	8.0	8	32A	-3								
GRENADA	50.20	14.3	8	54	1								
ST. VINCENT	51.38	14.6	9	2	0								
SOUTH POLE	52.89	180.0	9	9	-4	16	13	-23			11	53	
FORT FRANCE	52.92	14.3	9	14	1								
ST. KITTS	55.18	11.9	9	30	0								
SAN JUAN	55.75	7.8	9	30	-4								
SCOTT BASE	59.71	192.2	10	6	4								
MERIDA	60.03	341.9	10	4	0						12	15	PP
VERA CRUZ	60.30	334.6	10	10	4						12	22	PP
PUEBLA	60.88	332.5									13	6	
TACUBAYA	61.59	331.6	10	8K	-7	18	28	-3			12	28	PP
CAPE HALLETT	62.33	197.9	10	16A	-4						10	25	PCP
MANZANILLO	63.38	326.5									11	50	
LEON	64.11	330.1	10	3	-28								
GUADALAJARA	64.39	328.3									12	28	
MAWSON	70.24	163.5	11	7	-3								
COLUMBIA	71.33	352.9	11	15	-1								
CHIHUAHUA	72.58	329.7				20	42	-1			18	16	
TERRE ADELIE	72.94	193.5	11	24	-2	20	48	1					
CHAPEL HILL	73.07	354.8	11	25	-2								
MBOUR	73.52	56.9	11	30	1						11	42	PCP

LITTLE ROCK	73.95	343.5	11	29	-3						
FAYETTEVILLE	75.63	342.3	10	40A	-61						
MIRNY	75.92	174.2	11	48	5						
WINDHOEK	76.71	108.2	11	48K	1						
MORGANTOWN	76.82	354.4	11	47A	-1						
ST. LOUIS 1	77.23	346.2	11	50	0	21	36	2			
GRAHAMSTOWN	77.31	122.2	11	49A	-2						
FLORISSANT	77.41	346.1	11	51	0	21	38	2			
TUCSON	77.71	327.8	11	52	-1	21	47	7			
TUCSON TELE.	77.75	327.9	11	53	0						15 6 PP
PENNSYLVANIA	77.85	356.2	11	55K	1	21	46	5			
PALISADES	77.93	359.2	10	54	-60				12	15	
LAWRENCE	78.63	342.4	11	56	-2						
KIMBERLEY	78.77	117.5	11	58	-1						
WESTON	79.31	1.2	12	3	1						
CHATEAU	81.24	227.0	12	19	7						
LUANDA	81.66	94.7	12	14A	0						
HALIFAX	81.97	6.7	12	17A	1						
KARAPIRO	82.08	228.0	12	15	-1						
PIETERMZBURG	82.15	121.2	12	17	0						
OTTAWA	82.36	358.0	12	17A	-1						
BREBEUF	82.42	359.5	12	18A	0						15 26 PP
PASADENA	82.62	323.6	12	20	1						
BOULDER CITY	82.62	326.9	12	20	1						
PRETORIA	82.98	116.9	12	20	-1						
SHAWINIGAN	83.47	0.1	12	23	-1						
LARAMIE	83.74	335.9	12	25	0						
SEVEN FALLS	84.06	1.4	12	26	0						
SALT LAKE C.	85.48	331.4	12	32	-2						
FRESNO	85.52	324.0	12	34	0						
RAPID CITY	85.52	338.6	12	34	0						
EUREKA	86.04	328.0	12	37	1						
BULAWAYO	86.75	112.8	12	39A	-1						
LICK	86.85	323.1	12	42A	2						
BERKELEY	87.57	323.1	12	44	0						
RENO	87.77	325.6	12	46A	1						
MINERAL	89.23	325.0	12	52K	0						
BOZEMAN	89.44	334.3	12	52	-1						
BROKEN HILL	90.17	108.3	12	57A	1						
BUTTE	90.28	333.6	12	56	-1						
HUNGRY HORSE	92.79	334.0	13	8	0						16 57
TAMANRASSET	94.87	65.2	13	22A	4						17 1 PP
MALAGA	97.16	48.9	13	30K	2						17 30 PP
SERRA PILAR	97.72	43.4	13	25A	-6				13	35	
GRANADA	97.94	49.0	13	33A	1	23	12	-51			17 10 PP
LWIRO	97.96	98.9	13	34A	2						
RIVERVIEW	98.20	215.8				24	7	2			
ALMERIA	98.41	49.8	13	33K	-1	24	4	-2			17 31 PP
RELIZANE	99.58	52.3	13	20	-19	24	10	-2			17 22 PP
ALICANTE	100.59	49.7	13	46	2						17 57 PP
ALGIERS UNI.	101.80	52.7	13	48	-1						18 1 PP
RATHFARNHAM	107.03	35.2	14	8	777						
DURHAM	110.12	35.8	14	26	777						19 14 PP
CHARTERS TS.	112.02	219.8									19 18 PP
BENSBERG	112.37	42.4	18	35	5						19 14
STUTTGART	112.39	45.1	18	12	-18						
TRIESTE	113.43	49.7									19 28 PP
THULE	113.48	1.2	18	24	-8						
JENA	114.76	43.9									19 30 PP
PLAUEN	114.87	44.5									19 39 PP
COLLMBERG	115.73	44.0	18	38	1						19 55 PP
PRUHONICE	115.98	45.8									19 44 PP
COLLEGE	117.18	332.4	18	38	-2						
HELWAN	118.01	72.5									19 54
GOTEBORG	118.10	37.3	18	55	14						
SOFIA	118.15	56.2	18	42	1	25	36	6			20 0 PP
WARSAW	120.63	45.5									20 14 PP
SKALSTUGAN	120.65	31.2	18	47	1						
RABAUL	121.17	235.6	18	42	-5						20 13
UPPSALA	121.65	36.4									20 19 PP
JERUSALEM	121.85	72.3	18	51	2						20 32 PP
NORD	122.12	8.3	18	50	1						
KSARA	123.25	70.4	18	53	2						
KIRUNA	125.16	27.6	18	58	3						
NURMIJARVI	125.20	36.9	18	55	0						
HELSINKI	125.26	37.3	18	58	3						
SIMFEROPOL	126.22	57.3	18	58	1						
SODANKYLA	127.41	28.7	19	0	1						

PULKOVO	127.80	38.6	19 10	10	22 31	SKP
APATITY	130.04	28.8	19 6	2		
MOSCOW	130.99	44.6	19 6	0		
TIFLIS	132.67	64.3	19 10	1		
SHIRAZ	134.39	82.9	19 13	0	22 50	PKS
LEMBANG	136.10	180.8	19 17A	1	22 51	
SVERDLOVSK	143.72	42.3	19 26	-3		
POONA	145.44	113.6	19 33A	1		
QUETTA	146.08	90.1	19 36A	3	19 48	PKP2
DUZHANBE	149.90	75.7	19 39	-1		
YAKUTSK	151.54	337.6	19 48	6		
FRUNSE	154.65	67.2	19 48	2	20 26	
MATUSIRO	155.15	277.8	19 56	9	20 22	
CHITTAGONG	160.12	134.2	19 58	5		
SHILLONG	162.56	127.8	19 57	1		

MAY 22 6.H 1.M 35.S EPICENTRE -38.15 -73.97 DEPTH= 0.KM
A= 0.21772 B=-0.75774 C=-0.61517 D=-0.9611 E=-0.2762
G=-0.1699 H= 0.5912 K=-0.7884 HT= -1.0

SE= 3.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SANTA LUCIA	5.42	30.9	1 35	10					
PORT STANLEY	17.65	145.3	4 8	-1					
LA PAZ	22.17	15.0	5 2	2	9 8	8		9 18	*SS
HUANCAYO	26.02	357.0	5 37	0	10 19	13			
BOGOTA	42.55	359.9	8 2	3	14 22	-1			
CHINCHINA	42.93	357.6	8 2	-1	14 27	-1			
FUQUENE	43.40	0.3	8 7K	1				9 52	PPP
BYRD STATION	45.41	190.1	8 24	1				10 20	PP
CARACAS	48.84	9.2	8 45	-5	15 53	0			
SOUTH POLE	52.04	180.0	9 14	0				10 33	PCP
CAPE HALLETT	61.26	198.3	10 19	-1	18 45	6			
MAWSON	69.65	163.8	10 41	-33					
LITTLE ROCK	74.54	344.4	11 41	-2					
FAYETTEVILLE	76.20	343.2	10 50	-62					
ST. LOUIS 1	77.87	347.0	11 59	-2	21 50	-4			
TUCSON	78.01	328.7	12 2	0					
TUCSON TELE.	78.04	328.8	12 3	1					
FLORISSANT	78.05	347.0	12 1	-1	21 53	-3			
PENNSYLVANIA	78.65	357.0			22 1	-2			
PALISADES	78.78	0.0	12 4	-3	22 4	0		22 42	PPS
KIMBERLEY	79.10	117.9						12 58	
LAWRENCE	79.20	343.3	12 7	-2					
KARAPIRO	80.89	228.6	12 33	15					
HALIFAX	82.92	7.4	12 28	0					
BREBEUF	83.27	0.2	12 39	9					
LARAMIE	84.19	336.6	11 58	-37					
SHAWINIGAN	84.33	0.8	12 36	0					
RAPID CITY	86.02	339.3	12 44	0					
EUREKA	86.34	328.7	12 47	1					
BROKEN HILL	90.69	108.9	13 9	3					
HUNGRY HORSE	93.20	334.5	13 18	0					
RIVERVIEW	97.02	216.5						26 19	PS
ALGIERS UNI.	102.97	53.4						18 14	PP
RATHFARNHAM	108.20	35.8						15 46	
FOLINIERE	108.24	41.9						27 20	
CHIAVARI	111.23	49.9						17 19	
TRIESTE	114.61	50.4						19 46	PP
MOSCOW	132.18	45.2	19 17	0					
TIFLIS	133.78	65.4	19 22	2					
SHIRAZ	135.31	84.3	19 18	-4				22 43	PKS
TIKSI	144.47	347.8	19 33	-6					
SVERDLOVSK	144.90	42.9	19 37	-2					
POONA	145.84	115.9	19 42A	1					
QUETTA	146.89	92.0	19 47	4				23 20	PKS
STALINABAD	150.91	77.4	19 53	4					
ANDIJAN	153.97	73.6	20 4	10					
FRUNSE	155.74	68.9						23 50	
ALMATA	157.43	67.7						22 36	

MAY 22 8.H 10.M 54.S EPICENTRE -37.81 -72.63 DEPTH= 0.KM

A= 0.23641 B=-0.75589 C=-0.61052 D=-0.9544 E=-0.2985
G=-0.1822 H= 0.5827 K=-0.7920 HT= -0.9

SE= 3.43

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	4.66	21.0	1	36	22								
PORT STANLEY	17.35	147.9	4	8	3								
LA PAZ	21.60	11.8	4	58A	4	9	1	12			9	16	SS
HUANCAYO	25.77	353.9	5	36	2	10	18	16					
BYRD STATION	45.93	190.2	8	23	-4								
CARACAS	48.35	7.5	8	41	-5	15	52	6					
GRENADA	50.64	13.8	9	4	1								
SOUTH POLE	52.37	180.0	9	13	-3						11	23	PCP
SAN JUAN	56.23	7.4	9	40	-5						10	4	
CAPE HALLETT	61.91	198.0	10	20	-4	18	44	-3			13	51	PPP
MAWSON	69.68	163.4	11	38	24								
MBOUR	73.60	56.5	11	40	3						11	50	PCP
LITTLE ROCK	74.51	343.3	11	40	-3								
FAYETTEVILLE	76.20	342.2	10	47K	-65								
MORGANTOWN	77.36	354.2	11	57K	-2	21	34	-15					
ST. LOUIS 1	77.79	346.0	11	58	-3	21	47	-6					
FLORISSANT	77.97	345.9	12	0	-2	21	50	-5					
TUCSON	78.28	327.6	12	1	-3								
TUCSON TELE.	78.31	327.8	12	1	-3								
KIMBERLEY	78.32	117.2	11	51	-13								
PENNSYLVANIA	78.38	355.9	12	3	-1	21	57	-3					
PALISADES	78.45	359.0	11	59	-6	21	59	-2					
LAWRENCE	79.19	342.2	12	5	-4								
CHATEAU	81.06	226.9	12	21	2								
PIETERMZBURG	81.68	121.0	12	22	0								
KARAPIRO	81.90	227.9	12	26	3								
HALIFAX	82.46	6.5	12	26	0								
OTTAWA	82.88	357.8	12	26	-2								
PASADENA	83.17	323.4	12	36	6								
BOULDER CITY	83.18	326.7	12	28	-2								
SHAWINIGAN	83.98	359.9	12	35	1								
LARAMIE	84.31	335.7	12	41	6								
FRESNO	86.07	323.8	12	49	5								
RAPID CITY	86.09	338.4	12	43	-1								
BULAWAYO	86.34	112.6	12	45A	-1								
EUREKA	86.61	327.9	12	45	-2								
LICK	87.40	323.0	12	58A	7								
BERKELEY	88.12	322.9	13	0	6								
RENO	88.33	325.4	13	2A	7								
BROKEN HILL	89.79	108.1	13	5	3								
MINERAL	89.79	324.8	13	5	3								
BOZEMAN	90.01	334.2	13	1	-2								
SHASTA	90.43	324.5	13	7	2								
BUTTE	90.84	333.4	13	5	-2								
HUNGRY HORSE	93.35	333.8	13	17	-2								
TAMANRASSET	94.87	65.0	13	27	1						17	14	PP
MALAGA	97.32	48.8	13	37K	0						17	36	PP
RIVERVIEW	97.91	215.6	13	40A	1						17	36	PP
GRANADA	98.11	48.9									17	50	PP
TRIESTE	113.58	49.8									19	36	PP
PRUHONICE	116.17	45.9	18	53	7						19	48	PP
COLLEGE	117.75	332.2	18	54	5								
SKALSTUGAN	120.97	31.3	18	58	3								
UPPSALA	121.93	36.5	19	1	4								
KSARA	123.20	70.6	19	9	10								
NURMIJARVI	125.47	37.1	19	2	-2								
KIRUNA	125.51	27.8	19	11	7								
HELSINKI	125.53	37.5	19	4	0								
SODANKYLA	127.75	28.9	19	15	7								
MOSCOW	131.19	44.8	19	15	0								
SHIRAZ	134.22	83.3	19	21	1						24	51	PKS
SVERDLOVSK	143.94	42.8	19	35	-3								
TIKSI	144.36	348.5	19	32A	-6								
MAGADAN	144.92	322.5	19	52	13								
POONA	145.02	114.0	19	40K	0								
QUETTA	145.84	90.6	19	42	1						23	18	PKS
STALINABAD	149.80	76.5	19	51	3								
MATUSIRO	155.44	276.5	20	0	4						24	0	PP
ALMATA	156.33	67.1									22	57	
SHILLONG	162.06	128.4	20	13A	10								

MAY 22 10.H 30.M 39.S EPICENTRE -37.84 -72.86 DEPTH= 0.KM

A= 0.23330 B=-0.75661 C=-0.61082 D=-0.9556 E=-0.2947
G=-0.1800 H= 0.5837 K=-0.7918 HT= -0.9

SE= 3.24

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SANTA LUCIA	4.75	23.1	2 28	74				
TALA POZO	12.33	38.4	3 16	17	5 21	2		
LA PLATA	12.39	80.8	3 1A	1				
PORT STANLEY	17.43	147.5	4 7	1				
LA PAZ	21.66	12.4	4 57A	3	9 16	27		5 30 PP
HUANCAYO	25.77	354.4	5 35A	1				9 25
BOGOTA	42.25	358.2	7 57K	1				
CHINCHINA	42.66	355.9	8 0K	0				
FUQUENE	43.09	358.7	8 3A	0				
BYRD STATION	45.87	190.2	8 24	-1	15 9	-1		
BALBOA HTS.	46.97	350.9	8 35	1				
CARACAS	48.40	7.8	8 41A	-4	15 48	2		
TRINIDAD	49.41	14.9	8 54	1				
GRENADA	50.71	14.1	9 2	-1				
ST. VINCENT	51.89	14.4	9 13	1				9 53
SOUTH POLE	52.35	180.0	9 13	-2	16 44	3		20 0 SS
SANTIAGO MA.	53.11	340.9	9 27	6				18 59
FORT FRANCE	53.43	14.2	9 21	-2				11 45
SAN SALVADOR	53.49	340.1	9 32	8				19 3
ST. KITTS	55.70	11.7	9 38	-2				
SAN JUAN	56.27	7.7	9 39	-5				
COMITAN	56.77	337.7			17 27	-13		19 49 SCS
SCOTT BASE	59.19	192.3	9 56	-9	18 15	3		
MERIDA	60.56	342.0	10 16	2	18 24	-5		12 27 PP
VERA CRUZ	60.81	334.7	10 17	1	18 29	-4		12 31 PP
CAPE HALLETT	61.84	198.0	10 19K	-4	18 46	0		10 28 PCP
TACUBAYA	62.09	331.7	10 26K	1	18 45	-4		12 42 PP
LEON	64.60	330.1	10 45	4				
MAWSON	69.71	163.4	11 11	-2				
HERMANUS	71.35	119.3	11 27	4	20 48	7		
COLUMBIA	71.87	352.9	11 26	0				
CHIHUAHUA	73.07	329.8			20 41	-20		16 8 PPP
CHAPEL HILL	73.61	354.8	11 34	-3				13 38
MBOUR	73.77	56.7	11 39	1	21 18	10		
LITTLE ROCK	74.48	343.4	11 38	-4	21 13	-3		
MIRNY	75.37	174.2	11 43	-4	21 19	-7		
WILKES	76.12	181.4	11 49A	-2	21 35	0.		
FAYETTEVILLE	76.16	342.3	10 48A	-63				12 53 PP
WASHINGTON	76.43	356.4	11 52K	-1				
WINDHOEK	76.49	108.1	11 54A	1				
GRAHAMSTOWN	76.98	122.0	11 55A	-1				
ST. LOUIS 1	77.76	346.2	11 57	-3	21 46	-6		
FLORISSANT	77.94	346.1	11 59	-2	21 49	-5		
PITTSBURGH	78.17	354.5	12 2	0				14 9 PP
TUCSON	78.20	327.8	12 1	-2				
TUCSON TELE.	78.23	327.9	12 1	-2				
FORDHAM	78.31	359.2	12 2	-1	21 55	-3		
PENNSYLVANIA	78.39	356.1	12 0	-4	21 57	-2		
PALISADES	78.47	359.2	12 3A	-1	21 58	-2		16 54 PPP
KIMBERLEY	78.47	117.4	11 29K	-35				
CLEVELAND	79.33	353.4	12 7	-2	22 4	-5		
WESTON	79.85	1.2	12 10	-2	22 15	0		
WELLINGTON	79.96	225.1	12 21	9	22 22	6		13 25
ROXBURGH	79.97	219.2			22 19	3		
CHATEAU	80.91	227.0	12 23	6				
LOME	81.30	75.3	12 24	5	22 45	15		
LUANDA	81.57	94.6	12 22A	1			12 35	
KARAPIRO	81.75	228.0	12 20	-2				
PIETERMZBURG	81.83	121.1	12 21K	-1				
HALIFAX	82.50	6.7	12 25A	0				
PRETORIA	82.70	116.8	12 58	32				
OTTAWA	82.90	358.0	12 26A	-2				
BREBEUF	82.96	359.5	12 26A	-2				
PASADENA	83.08	323.6	12 29A	1	22 43	-5		12 57
BOULDER CITY	83.10	326.9	12 29	0				

SHAWINIGAN	84.01	0.1	12	35A	2							
LARAMIE	84.25	335.8	12	33	-1						14	36
SEVEN FALLS	84.60	1.4	12	36	0							
SALT LAKE C.	85.98	331.4	12	43	0							
FRESNO	85.98	324.0	12	42	-1							
RAPID CITY	86.04	338.6	12	41	-2							
BULAWAYO	86.50	112.7	12	45A	-1							
EUREKA	86.53	328.0	12	44	-2							
VINEYARD	86.71	322.9	12	46	-1							
LICK	87.31	323.1	12	50K	0							
BERKELEY	88.03	323.0	12	52	-1	23	38	2				
RENO	88.24	325.6	12	55K	1							
AFIAMALU	88.47	253.7	13	4	9	23	21	-19			16	25 PP
UKIAH	89.49	323.2	13	9	9							
MINERAL	89.71	324.9	13	7K	6							
BOZEMAN	89.95	334.3	13	2	0							
BROKEN HILL	89.96	108.2	13	8	6							
SHASTA	90.35	324.7	13	2	-2							
BUTTE	90.78	333.6	13	6	0						23	56 SCS
HUNGRY HORSE	93.29	333.9	13	15	-2							
AVERROES	93.34	49.7	13	17	-1						19	13
CORVALLIS	93.84	326.5	13	41A	21							
TAMANRASSET	95.05	65.2	13	27A	1						17	11 PP
MALAGA	97.47	48.9	13	38A	1	24	12	-2			17	32 PP
CANBERRA	97.51	213.4									17	37 PP
COIMBRA	97.53	44.2	13	37A	0						17	21 PP
RIVERVIEW	97.79	215.7	13	44	6	23	57	-19			17	39 PP
LWIRO	97.82	99.0	13	40	2	24	22	6				
SERRA PILAR	98.08	43.4	13	36A	-3				13	47	17	40 PP
GRANADA	98.26	49.0	13	41A	1	24	28	10	13	53	17	41 PP
ALMERIA	98.72	49.9	13	41A	-1						17	41 PP
RELIZANE	99.87	52.3	13	35	-12						14	33
TANANARIVE	100.52	123.9									18	5 PP
ALICANTE	100.89	49.7	13	56	4	24	35	4			20	19 PPP
ALGIERS UNI.	102.08	52.8	13	58	1	24	32	-5			18	7 PP
TORTOSA	103.04	48.3				24	42	1			15	24
RATHFARNHAM	107.44	35.3	14	19A	777							
CLERMONT-FD.	107.58	45.4	14	22	777						18	52 PP
CUGLIERI	107.59	52.6									17	41
KEW	109.15	39.2	14	30	777						19	0 PP
BESANCON	110.05	45.4									19	21 PP
OROPA	110.28	47.6									19	1 PP
CHIAVARI	110.36	49.3	14	11	777						19	15 PP
NEUCHATEL	110.46	46.0									19	17 PP
DURHAM	110.52	35.9				25	15	1			19	10 PP
PAVIA	110.74	48.5	18	59	25						21	6 PP
ROME	111.00	52.8	14	40	777						19	18 PP
MESSINA	111.03	57.5	18	35	0						19	18 PP
UCCLE	111.15	41.6									19	23 PP
PRATO	111.20	50.5									19	10 PP
CHARTERS TS.	111.64	219.6	14	44	777						19	15 PP
BOLOGNA	111.67	50.0									19	0 PP
ABERDEEN	111.72	33.6									19	16 PP
STRASBOURG	111.78	44.9	14	41	777						19	29 PP
DE BILT	112.31	40.7	14	46	777						19	24 PP
RAVENSBURG	112.40	46.3									19	13
STUTTGART	112.73	45.3	14	45	777						19	25 PP
BENSBERG	112.74	42.5	19	0	22							
RESOLUTE	113.19	353.8	14	45	777	27	9	104				
TARANTO	113.33	56.2									16	4
TRIESTE	113.74	49.9									19	38 PP
SCORESBY SD.	114.05	16.6									19	32 PP
LJUBLJANA	114.40	49.8	18	36	-6						19	40 PP
JENA	115.11	44.1	18	55	12						19	41 PP
CHEB	115.14	45.2				25	39	7				
ZAGREB	115.18	50.6									19	46 PP
PLAUEN	115.22	44.7									19	38
HALLE	115.60	43.7									19	49
PRAGUE	116.29	45.9									19	52 PP
PRUHONICE	116.32	46.0									19	45 PP
VIENNA-H	116.57	48.4									19	31 PP
POTSDAM	116.63	43.2									19	55
BRATISLAVA	116.96	48.7									19	53 PP
BELGRADE	117.49	53.2									19	55 PP
COLLEGE	117.68	332.2	18	45	-3							
HELWAN	118.12	72.7									20	3 PP
TIMISOARA	118.40	52.6									20	1 PP
SOFIA	118.40	56.4									20	8 PP
RACIBORZ	118.46	47.1									20	16 PP

GOTEBORG	118.50	37.5	18	45	-4					
CHORZOW	119.01	47.1							20	19 PP
KRAKOW	119.46	47.7							20	1
RABAUL	120.91	235.3	19	0	6				20	25
BUCHAREST	120.96	55.6							20	25 PP
SKALSTUGAN	121.08	31.4	18	52	-3					
LWOW	121.80	49.2							20	30 PP
JERUSALEM	121.97	72.6	18	57	1				20	32 PP
UPPSALA	122.05	36.6	18	54	-2					
NORD	122.64	8.3	18	55K	-2				30	27 PS
KSARA	123.38	70.8	19	1	2				20	42 PP
NURMIJARVI	125.60	37.1	19	2	-1					
KIRUNA	125.62	27.8	19	2	-1				21	0 PP
HELSINKI	125.66	37.6	19	2	-1					
SIMFEROPOL	126.46	57.6	19	6	1				21	1 PP
SODANKYLA	127.86	28.9	19	6	-2					
PULKOVO	128.19	38.8	19	7	-1	26	7	-8	21	19 PP
APATITY	130.49	29.0	19	11	-2	26	14	-7	21	26 PP
MOSCOW	131.34	44.9	19	14	0				22	42 SKP
TIFLIS	132.86	64.8							21	38 PP
GORIS	133.30	68.1	19	19	1				21	51 PP
SHIRAZ	134.40	83.4	19	20K	0					
MAKHACH-KALA	135.11	63.9	19	21	0					
LEMBANG	135.56	180.7	19	21K	-1				22	4 PP
TEHERAN	135.87	75.0	19	23	0					
DJAKARTA	136.21	179.6	19	33	10				22	13 PP
ASHKABAD	141.86	74.3	19	30	-3					
SVERDLOVSK	144.08	42.8	19	34	-3				23	47
TIKSI	144.34	348.4	19	36	-2					
BOMBAY	144.67	112.6	19	37	-1					
MAGADAN	144.82	322.4	19	35	-1					
POONA	145.18	114.2	19	39	0				23	0 PP
QUETTA	146.03	90.8	19	42A	1				19	52 PKP2
HYDERABAD	147.66	121.0	19	44	1				21	57
DUZHANBE	149.98	76.6	19	48	1				19	58 PKP2
TASHKENT	150.77	71.2	19	49	1				21	49
WARSAK DAM	151.03	86.7	19	56	7					
KUSIRO	151.33	292.2	19	54	5					
YAKUTSK	152.06	337.3	19	47	-3				22	0
Y.-SAKHLINSK	152.38	300.8	19	47	-4				22	25
URAKAWA	152.48	290.3							21	20
MIYAKO	152.87	284.8							21	10
ISINOMAKI	153.19	281.9	19	57	5					
ONAHAMA	153.24	278.6	20	8	16					
AGRA	153.32	105.0	19	52A	0				21	56
MORIOKA	153.49	284.7	19	47	-5					
SENDAI	153.49	281.5	19	57	5					
SAPPORO	153.56	292.3	20	10	18					
MERA	153.59	273.7	20	15	23					
KAKIOKA	153.65	276.7	19	52	0					
TUKUBASAN	153.71	276.7	19	7	-45				23	49 PF
HUKUSIMA	153.73	280.2	19	53	1					
MANILA	153.82	211.9	20	1	8					
TOKYO C.M.O.	153.85	275.3	20	0	7					
YOKOHAMA	153.87	274.7							21	17
OSIMA	153.90	273.1	20	17	24					
YAMAGATA	153.91	281.2	20	12	19					
MORI	154.12	290.0							20	35
AJIRO	154.20	273.6	20	0	7					
KUMAGAYA	154.26	276.2	20	15	22					
SUTTSU	154.39	291.6							20	37
TITIBU	154.45	275.7	20	13	20					
MAEBASI	154.56	276.6	20	13	19					
FRUNSE	154.81	68.3	19	55	1				23	56
DEHRA DUN	154.84	98.6	20	14	20				25	35
OIWAKE	154.95	276.2	20	31	37					
MATUSIRO	155.26	276.6	19	54	0				20	56
NAGANO	155.30	276.9	20	0	5					
TAKADA	155.35	277.9	20	4	9					
BAGUIO CITY	155.60	212.7	20	11	16					
NAGOYA	155.92	272.8							20	35
GIHU	156.13	273.2	20	4	8					
KAMEYAMA	156.23	271.8	20	18	22					
HIKONE	156.51	272.7							20	39
KYOTO	156.86	271.8							21	3
ABUYAMA	156.95	271.3	19	56A	-1					
BOKARO	157.04	121.3	20	28	31	27	4	3	36	30 PPS
SEMIPALATNSK	157.12	48.1	19	56	-1				24	8 PP

CALCUTTA	157.80	128.1	20	32	34				22	45	
YONAGO	158.85	271.5							20	54	
MATUYAMA	158.86	266.9	20	21	22						
YAKUSIMA	159.34	256.1							20	44	
CHITTAGONG	159.71	135.2	20	0	0						
HAMADA	159.73	269.3							20	46	
KAGOSIMA	159.79	259.0							20	44	
CHATRA	159.91	117.3	20	3	3						
VLADIVOSTOK	160.47	293.5	19	59	-2						
UNZENDAKE	160.47	261.8	20	13	12						
SAGA	160.62	263.3							21	12	
HUKUOKA	160.67	264.3							20	52	
NAGASAKI	160.76	261.5	20	1	0						
SHILLONG	162.19	129.0	20	4	1				37	59	PPS
HONG KONG	163.37	203.3	19	52A	-12				21	5	PKP2
LHASA	164.33	116.7	20	7A	2				27	10	PKS
CANTON	164.37	201.7	20	6	1				21	9	PKP2
CHANGCHUN	165.01	299.2	20	2	-3	27	5	-3	24	55	PP
IRKUTSK	165.43	6.9	20	4	-2	26	59	-9			
ZO-SE	166.61	244.0	20	5	-2	27	8	-1	25	0	PP
KUNMING	166.78	162.3	20	7	0						
NANKING	168.85	242.4	20	7A	-1				23	38	PKS
ULAN-BATOR	169.92	0.9	20	6	-3				25	15	PP
WUHAN	170.47	222.3	20	9A	0				21	34	PKP2
PEKING	172.63	290.1	20	9A	-1				25	37	PP
SIAN	176.14	202.5	20	13A	2						
PAOTOW	176.46	321.5	20	11	-1	27	3	-10			
LANCHOW	176.81	122.9	20	12A	0				25	51	PP

MAY 22 10.H 32.M 42.S EPICENTRE -37.68 -72.67 DEPTH= 0.KM

A= 0.23631 B=-0.75742 C=-0.60867 D=-0.9546 E=-0.2978
G=-0.1813 H= 0.5810 K=-0.7934 HT= -0.8

SE= 3.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	PP S	SUPP. M	SUPP. S	
PORT STANLEY	17.48	148.0	4	6	-1								
LA PAZ	21.48	12.0	5	2	9	8	58	11					
HUANCAYO	25.63	354.0	5	37A	4	10	7	7					
ARGENTINE I.	28.05	172.5	5	52	-3								
BOGOTA	42.10	357.9	7	59	3								
CHINCHINA	42.52	355.7	8	0	1								
BYRD STATION	46.05	190.2	8	24	-4	15	3	-10			9	46	PCP
CARACAS	48.23	7.6	8	42A	-3	16	1	17					
TRINIDAD	49.22	14.7	8	57	5								
GRENADA	50.52	13.9	9	3	1								
ST. VINCENT	51.70	14.2	9	12	1								
BARBADOS	52.00	16.2	9	17	3								
SOUTH POLE	52.51	180.0	9	15	-2	16	42	-2			10	36	PCP
ST. KITTS	55.52	11.5	9	38	-2								
SAN JUAN	56.10	7.5	9	40K	-4						10	37	
COMITAN	56.68	337.5	9	44	-4	17	36	-4			19	40	SCS
OAXACA	58.94	332.9	10	0K	-4	18	6	-3			22	0	SS
SCOTT BASE	59.38	192.2	10	15	8	18	14	-1					
MERIDA	60.46	341.7	10	18	4	18	38	9			13	12	PP
VERA CRUZ	60.73	334.5				18	26	-6			12	26	PP
TACUBAYA	62.02	331.5	10	23K	-2	18	52	3			23	8	SS
CAPE HALLETT	62.03	197.9	10	22	-3						39	40	PKPPKP
GUADALAJARA	64.82	328.2	10	38	-5	19	34	10			27	6	
MAWSON	69.81	163.4	11	12	-3								
HERMANUS	71.30	119.3	11	24	0	20	46	5					
TERRE ADELIE	72.62	193.4	11	28	-4								
CHIHUAHUA	73.02	329.6	11	28	-6	20	48	-13			25	32	SS
MBOUR	73.56	56.6	11	39	2	21	24	17					
LITTLE ROCK	74.37	343.3	11	39	-3								
WILKES	76.28	181.3	11	52A	-1	21	34	-3					
WINDHOEK	76.40	108.0	11	23	-30								
GRAHAMSTOWN	76.93	122.0	11	55	-1								
ST. LOUIS 1	77.65	346.0	11	56	-4	21	46	-6					
FLORISSANT	77.83	345.9	11	59	-2	21	49	-5					
TUCSON	78.15	327.7	12	3K	0	21	58	1					
FORDHAM	78.16	359.1	12	3	0								
TUCSON TELE.	78.18	327.8	11	59	-4								
PENNSYLVANIA	78.25	356.0	12	0	-4	22	0	2			15	11	PP

PALISADES	78.32	359.0	12	3A	-1	21	57	-2			15	31 PP
WESTON	79.69	1.0	12	11	0	22	17	3				
WELLINGTON	80.18	224.9	13	8	54	22	6	-13			23	34 PS
ROXBURGH	80.19	219.1	12	25A	11	22	10	-9			27	18 SS
LOHE	81.12	75.2	12	23	4	22	47	18				
CHATEAU	81.12	226.9	12	22	3							
KAIMATA	81.17	222.3	12	40	21							
LUANDA	81.43	94.5	12	21A	0				12	33		
COBB RIVER	81.44	224.0	12	30	9							
PIETERMZBURG	81.78	121.0	12	20A	-2							
KARAPIRO	81.97	227.9	12	26	3						38	59 PKPPKP
HALIFAX	82.33	6.5	12	26K	1							
OTTAWA	82.75	357.8	12	27	-1							
BREBEUF	82.80	359.3	12	26	-2	22	46	0				
PASADENA	83.04	323.4	12	32	3	22	48	0				
BOULDER CITY	83.05	326.7	12	32A	3							
AUCKLAND	83.12	228.3				22	52	3				
SHAWINIGAN	83.85	359.9	12	35A	2							
ONERAHI	84.12	228.8	12	48	13							
SEVEN FALLS	84.44	1.3	12	37	1							
SALT LAKE C.	85.92	331.2	12	42K	-2							
FRESNO	85.95	323.8	12	51	7							
RAPID CITY	85.95	338.5	12	47K	3							
BULAWAYO	86.42	112.6	12	43A	-3							
EUREKA	86.48	327.9	12	46	0							
PONTA DELGDA	86.66	35.5	12	50K	3							
ANGRA DO HO.	86.71	34.0				23	56	32			23	35 SKS
LICK	87.28	323.0	12	48	-2						16	26
KERGUELEN I.	87.28	156.6	12	50	0	23	29	-1				
BRANNER	87.60	322.7	12	52	0							
BERKELEY	87.99	322.9	12	53	-1	23	33	-3				
SAN FRANCSCO	88.01	322.7	12	54	0							
RENO	88.20	325.5	12	53	-2							
AFIAMALU	88.66	253.6	13	9A	12	23	24	-19			16	24 PP
UKIAH	89.45	323.1	13	0A	-1						17	6 PP
MINERAL	89.66	324.8	12	59A	-3							
BROKEN HILL	89.86	108.1	13	5	2							
BOZEMAN	89.87	334.2	12	59K	-4							
SHASTA	90.31	324.5	13	3	-2							
HUNGRY HORSE	93.22	333.8	13	18K	0						17	16 PP
CORVALLIS	93.79	326.4	13	22	1							
TAMANRASSET	94.85	65.0	13	26A	1						17	11 PP
LISBON	95.88	44.7	13	39K	9	24	8	2			17	27 PP
VICTORIA	96.94	328.8	13	33	-2							
MELBOURNE	97.22	209.2	13	38	2	24	12	-1			17	40 PP
MALAGA	97.26	48.8	13	37K	1						17	37 PP
COIMBRA	97.31	44.1	13	36A	-1						17	18 PP
LWIRO	97.70	98.8	13	40	2	24	21	5				
CANBERRA	97.72	213.3				24	56	40			17	46 PP
SERRA PILAR	97.86	43.3	13	36K	-3						17	41 PP
RIVERVIEW	98.00	215.6	13	50A	10	24	12	-5			17	46 PP
GRANADA	98.04	48.9	13	55K	15							
NOUMEA	98.48	233.5	14	10	28							
ALMERIA	98.50	49.7	13	40A	-2	24	19	-1			17	47 PP
HONOLULU	99.25	289.6	13	50	5	24	26	2			17	54 PP
TOLEDO	99.56	46.6	13	47	0	24	49	24			17	57 PP
RELIZANE	99.66	52.2	13	34	-13	24	58	32			17	41 PP
TANANARIVE	100.48	123.7	14	14	23						18	0 PP
ALICANTE	100.68	49.6	13	55	3	25	32	61			18	6 PP
ALGIERS UNI.	101.87	52.7	13	58	1	24	37	0			18	8 PP
ADELAIDE	102.06	205.9	14	6	8							
BRISBANE	102.50	220.5	14	6	6	24	33	-6				
JERSEY	106.63	40.2	13	58	777	25	16	18				
FOLINIERE	107.21	41.3	14	21	777							
RATHFARNHAM	107.22	35.2	14	25A	777	26	38	97			18	53 PP
CLERMONT-FD.	107.36	45.3	14	34	777	26	33	92				
CUGLIERI	107.37	52.5									19	28 PP
MONACO	108.69	48.9	14	36	777						19	10 PP
KEW	108.93	39.1	14	31	777	25	8	0			19	0 PP
OROPA	110.06	47.5									19	14 PP
CHIAVARI	110.15	49.2	18	27	-7	25	19	6			18	48 PP
MUNDARING	110.22	188.0									19	18 PP
PERTH	110.28	187.7	14	36	777	25	26	12			19	16 PP
EDINBURGH	110.28	34.2				25	47	33			19	19 PP
DURHAM	110.31	35.8	14	45	777	25	32	18			19	18 PP
DOURBES	110.68	42.2	14	38	777	25	18	3				
ROME	110.79	52.7	14	40A	777	25	14	-2			19	15 PP
MESSINA	110.82	57.4	18	38	3						19	18 PP

REGGIO CALA.	110.83	57.5								19	25 PP
UCCLE	110.94	41.5	18	46	10	25	18	2			
PRATO	111.00	50.3								19	59 PP
BOLOGNA	111.46	49.9								19	41 PP
ABERDEEN	111.51	33.5				25	34	15		19	28 PP
STRASBOURG	111.57	44.8	14	42	777	25	14	-5		19	20 PP
CHUR	111.64	47.0								19	36 PP
CHARTERS TS.	111.86	219.5	14	38	777	25	10	-10			
DE BILT	112.09	40.6	14	46	777					19	18 PP
RAVENSBURG	112.19	46.2								19	32 PP
TUBINGEN	112.27	45.3								19	30 PP
STUTTGART	112.52	45.2	14	43	777					19	28 PP
HEIDELBERG	112.53	44.4	18	47	8						
RESOLUTE	113.05	353.7	14	45A	777	27	8	103			
TARANTO	113.12	56.1								19	11 PP
TRIESTE	113.52	49.8	18	49	8	25	28	1		19	41 PP
SCORESBY SD.	113.85	16.5								19	37 PP
LJUBLJANA	114.19	49.7	18	52A	10					19	43 PP
SONNEBERG	114.41	44.4								19	41 PP
JENA	114.90	44.0	18	49	6	25	35	3		19	47 PP
CHEB	114.92	45.1				25	30	-2		29	29 PS
ZAGREB	114.96	50.5				25	36	4		19	41 PP
PLAUEN	115.00	44.6	18	51	8					20	1 PP
HALLE	115.38	43.5	18	45	1	25	38	4		20	15 PP
COLLMBERG	115.86	44.1				25	43	7		20	8 PP
PRAGUE	116.08	45.8				25	58	22		20	0 PP
PRUHONICE	116.10	45.9								19	58 PP
ATHENS	116.28	61.2								19	56 PP
POTSDAM	116.41	43.0	15	5	777					19	50 PP
BERGEN	116.50	32.9								20	1 PP
BRATISLAVA	116.75	48.6	15	50	777					20	2 PP
HURBANOVO	117.27	49.2								20	2 PP
BELGRADE	117.29	53.1				25	48	7		20	4 PP
BUDAPEST	117.59	49.9								29	52 PS
COLLEGE	117.62	332.2	18	47	-2	26	25	43		20	8 PP
HELWAN	117.93	72.5								20	3 PP
SOFIA	118.19	56.3	18	57	7					20	14 PP
GOTEBORG	118.28	37.4	18	45	-5					19	3
SKALNATE PL.	119.07	48.6								20	8 PP
PORT MORESBY	120.17	227.0	19	1	8	26	3	12		20	23 PP
SKALSTUGAN	120.87	31.3	18	54	-1					19	10
RABAUL	121.12	235.2	18	58	3					20	29 PP
LWOW	121.58	49.0	15	31	777					30	43
JERUSALEM	121.78	72.4	18	57	0					21	5 PP
UPPSALA	121.84	36.5	19	3	6					20	30 PP
NORD	122.47	8.3	18	57	-1					20	29 PP
KSARA	123.19	70.6	19	2	3						
KIRUNA	125.41	27.7	19	4	0					21	0 PP
HELSINKI	125.44	37.5	19	4	0						
SIMFEROPOL	126.25	57.5	16	3	777	26	1	-9			
SODANKYLA	127.65	28.8	19	6	-2						
PULKOVO	127.97	38.7	15	56	777					22	26 PKS
SOTCHI	129.63	60.7	19	12	0						
APATITY	130.28	28.9	19	12	-1					21	27 PP
MOSCOW	131.12	44.8	16	18	777					22	43 PKS
TIFLIS	132.65	64.6	16	21	777						
KHEYS	133.26	9.8	19	26	7						
SHIRAZ	134.24	83.2	19	20	0					22	55 PKS
TEHERAN	135.68	74.7	19	24	1					22	4 PP
LEMBANG	135.72	180.4	19	20	-3						
DJAKARTA	136.37	179.3	19	30	6						
GUAM	138.93	244.1	19	34	5						
COLOMBO	140.50	134.0	19	49	17					22	34
PETROPAVLOVK	141.68	310.5	19	28	-6					22	49 PKS
KODAIKANAL	141.69	127.8	19	50	16	26	49	7		23	23 PP
SVERDLOVSK	143.86	42.7	19	33	-5						
BOMBAY	144.59	112.2	19	38	-1					23	12 PKS
POONA	145.10	113.8	19	29A	-11					23	4 PKS
QUETTA	145.88	90.5	19	42	1					23	8 PKS
KURILSK	148.95	297.0	19	48	2						
NEMURO	150.56	293.2	20	5	16					42	52 SS
WARSAK DAM	150.87	86.3								20	0 PKP2
KUSIRO	151.41	292.4	20	4	14						
VIZIANAGRAM	151.42	126.4	20	23	33						
ASAHIGAWA	152.89	294.1	19	51	-1						
ISINOMAKI	153.31	282.2	19	57	4						
WAKKANAI	153.31	297.8	20	2	9					23	54
ONAHAMA	153.37	278.8	20	3	10					20	27
HATINOHE	153.40	286.9	20	2	9						

TOMAKOMAI	153.47	291.6	20	14	21	
MIZUSAWA	153.55	283.7	20	15	22	
MITO	153.58	277.4	20	4	11	
MORIOKA	153.59	285.0	19	59	6	
SENDAI	153.61	281.7	19	59	6	
SAPPORO	153.64	292.5	20	4	11	23 48 PP
KAKIOKA	153.78	276.9	20	1	8	
TUKUBASAN	153.84	276.9	19	51	-2	23 52 PP
HUKUSIMA	153.85	280.4	20	4	11	
MURORAN	153.91	290.8	20	6	12	
HONGO	153.98	275.6	19	59	5	24 4 PP
TOKYO C.M.O.	153.99	275.6	20	18	24	
AOMORI	153.99	287.4	20	4	10	
YOKOHAMA	154.00	275.0	20	16	22	
OSIMA	154.05	273.4	20	7	13	24 1
UTUNOMIYA	154.09	277.5	20	5	11	23 55
KUMAGAYA	154.39	276.4	20	11	17	
AKITA	154.42	284.8	19	58	4	
SUTTSU	154.47	291.9	20	32	38	
MISIMA	154.48	273.9	20	2	8	
TITIBU	154.59	275.9	20	13	19	
FRUNSE	154.61	68.0	19	56	2	
MAEBASI	154.69	276.9	20	33	38	
HUNATU	154.72	274.7	20	8	13	
SHIZUOKA	154.88	273.3	20	18	23	
OMAESAKI	154.92	272.4	20	7	12	23 48
NIIGATA	154.99	280.4	20	24	29	24 54
OIWAKE	155.08	276.5	20	17	22	
HAMAMATU	155.35	272.4	20	11	16	
MATUSIRO	155.40	276.8	19	51	-4	23 49 PP
NAGANO	155.43	277.1	20	29	33	
TAKADA	155.48	278.2	20	0	4	
MATUMOTO	155.52	276.1	20	4	8	
AIKAWA	155.63	280.4	20	1	5	
NAGOYA	156.06	273.0	20	22	26	
GIHU	156.28	273.5	20	4	7	28 30
OWASE	156.37	270.0				20 37
KAMEYAMA	156.37	272.0	20	19	22	24 3
WAZIMA	156.59	278.4				20 42
HIKONE	156.66	272.9				20 44
NARA	156.84	271.2	20	8	11	28 20
HUKUI	156.85	274.8	20	29	32	
OSAKA	157.07	271.0	20	7	9	30 36
KOBE	157.35	270.9	20	7	9	21 27
SUMOTO	157.47	269.9	20	32	34	24 14
TOKUSIMA	157.66	269.0				20 42
MUROTO	157.72	266.7	19	34	-25	
TOYOOKA	157.85	272.8	19	34	-25	20 47
TAKAMATU	158.15	269.3	20	34	35	
KOTI	158.33	267.0	20	17	18	24 17 PP
SIMIDU	158.52	264.6	20	13	13	44 13
YONAGO	158.99	271.8	20	11	11	24 42
SAIGO	159.18	273.9				20 51
MIYAZAKI	159.42	261.0	19	22	-39	
HIROSIMA	159.45	268.4				20 49
CHITTAGONG	159.71	134.5	19	59	-2	
OOITA	159.74	264.7	20	10	9	
KAGOSIMA	159.96	259.2				20 57
SIMONOSEKI	160.51	266.1				20 38
VLADIVOSTOK	160.54	293.9				16 56
SAGA	160.79	263.6				21 21
NAGASAKI	160.93	261.8	20	4	2	20 52
TOMIE	161.76	260.4	20	14	11	32 2
SHILLONG	162.17	128.2	20	4K	1	24 33 PP
HONG KONG	163.58	203.0	20	4A	-1	
LHASA	164.26	115.8	20	8	2	
CHANGCHUN	165.06	299.9	20	3A	-3	
ZO-SE	166.82	244.2	20	7A	-1	
KUNMING	166.88	161.4	20	9A	1	
NANKING	169.05	242.6	20	9A	0	
WUHAN	170.69	222.2	20	10A	0	
PEKING	172.71	291.5	20	12	1	

MAY 22 12.H 16.M 44.S EPICENTRE -38.24 -73.20 DEPTH= 0.KM

A= 0.22765 B=-0.75379 C=-0.61642 D=-0.9573 E=-0.2891
G=-0.1782 H= 0.5901 K=-0.7874 HT= -1.0

SE= 3.50

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	5.22	24.2	2	3	42								
PORT STANLEY	17.23	146.3	4	5	2								
LA PAZ	22.11	13.0	5	0A	1	8	50	-8					
HUANCAYO	26.15	355.3	5	39	1	9	25	-43					
BYRD STATION	45.43	190.2	8	21	-1								
SOUTH POLE	51.94	180.0	9	11	-2						15	35	
ST. VINCENT	52.35	14.7	9	22	6								
FORT FRANCE	53.89	14.5	9	43	16								
ANTIGUA	56.11	13.1	9	44	1								
ST. KITTS	56.15	12.1	9	41	-3								
VERA CRUZ	61.06	335.1									13	56	
CAPE HALLETT	61.37	198.1	10	18	-2						10	30	PCP
TACUBAYA	62.32	332.1	10	31	5								
GUADALAJARA	65.08	328.8									16	34	
MAWSON	69.39	163.5	11	10	-2								
COLUMBIA	72.24	353.2	11	26	-3								
CHIHUAHUA	73.29	330.1									15	51	PPP
CHAPEL HILL	73.99	355.1	11	38	-1								
MBOUR	74.21	56.8	11	41	1						12	2	
LITTLE ROCK	74.80	343.7	11	42	-2								
FAYETTEVILLE	76.47	342.6	10	50	-63								
WINDHOEK	76.62	108.2	11	54	0								
MORGANTOWN	77.74	354.7	12	0A	0								
ST. LOUIS 1	78.10	346.4	11	59	-3	21	49	-7					
FLORISSANT	78.28	346.4	12	2	-1								
TUCSON	78.40	328.1	12	4	0						12	25	
TUCSON TELE.	78.44	328.2	12	3	-1								
PENNSYLVANIA	78.78	356.4	12	4	-2								
LAWRENCE	79.47	342.7	12	9	-1								
WESTON	80.26	1.4	12	14	0								
CHATEAU	80.44	227.3	12	18	3								
KARAPIRO	81.29	228.2	12	23	4								
PRETORIA	82.75	117.0	12	56	29						24	56	
HALIFAX	82.94	6.9	12	27	-1								
PASADENA	83.25	323.8	12	40	10						12	59	
BOULDER CITY	83.29	327.1	12	35	5								
OTTAWA	83.29	358.2	12	27	-3								
BREBEUF	83.36	359.7	12	29	-1								
SHAWINIGAN	84.41	0.3	12	36A	1								
SEVEN FALLS	85.01	1.6	12	38	0								
FRESNO	86.16	324.2	12	49	5								
SALT LAKE C.	86.21	331.6	12	46	2								
RAPID CITY	86.32	338.8	12	45	0								
BULAWAYO	86.58	112.9	12	29A	-17								
EUREKA	86.73	328.2	12	47	0								
LICK	87.48	323.3	12	43	-8								
AFIAMALU	88.10	253.9									14	51	
BERKELEY	88.20	323.3	12	49	-5								
RENO	88.43	325.8	13	6	11								
MINERAL	89.89	325.1	13	6	4								
BROKEN HILL	90.08	108.4	13	5A	2								
BOZEMAN	90.20	334.5	13	1	-3								
BUTTE	91.03	333.8	13	7	0								
HUNGRY HORSE	93.54	334.1	13	18	-1								
TAMANRASSET	95.46	65.4	13	28	0						17	16	PP
MALAGA	97.94	49.1	13	39K	0						17	41	PP
LWIRO	98.02	99.2	13	38	-1								
GRANADA	98.72	49.2									17	45	PP
ALMERIA	99.18	50.1	13	39	-6						17	43	PP
RELIZANE	100.33	52.5	13	37	-13						17	40	PP
DURHAM	111.01	36.1	14	45	777								
STUTTGART	113.20	45.5	18	31	-8								
TRIESTE	114.20	50.2									19	38	PP
LJUBLJANA	114.87	50.1									19	41	PP
PRUHONICE	116.79	46.3	18	51	5						19	19	
COLLEGE	117.92	332.2	18	44	-5								
NORD	123.08	8.4	18	57	-2								
KSARA	123.76	71.2	19	1	1								
NURMIJARVI	126.08	37.3	19	3	-1								
KIRUNA	126.10	28.0	19	2	-2						19	40	
HELSINKI	126.14	37.8	19	4	0								
SODANKYLA	128.34	29.1	19	6	-3								

APATITY	130.97	29.2	19	14	0						
SHIRAZ	134.71	84.0	19	20	-1				22	48	PKS
SVERDLOVSK	144.55	43.1	19	35	-3						
TIKSI	144.69	348.1	19	37	-2						
POONA	145.25	115.1	19	40A	0						
QUETTA	146.28	91.6	19	43	2				20	5	
MATUSIRO	155.05	275.9	19	59	5				23	50	PP
FRUNSE	155.20	69.1	19	55	0						
SHILLONG	162.13	130.7	20	4	1						

MAY 22 18.H 55.M 57.S EPICENTRE -38.06 -72.74 DEPTH= 0.KM

A= 0.23414 B=-0.75381 C=-0.61397 D=-0.9550 E=-0.2966
G=-0.1821 H= 0.5863 K=-0.7893 HT= -1.0

SE= 3.43

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	4.92	21.0	1	53	36							
BUENOS AIRES	12.01	77.6	2	3	-52							
LA PLATA	12.34	79.7	3	4	4				5	43	24	
TALA POZO	12.45	37.4	2	59	-2							
PORT STANLEY	17.18	147.3	4	3	0							
LA PAZ	21.86	12.0	5	0	4				9	3	9	
HUANCAYO	26.01	354.2	5	27A	-9				10	5	-1	
ARGENTINE I.	27.68	172.3	5	46	-6							
BOGOTA	42.48	358.0	8	0K	2				14	24	3	
CHINCHINA	42.90	355.8	8	4K	2							
FUQUENE	43.32	358.6	8	6A	1							
BYRD STATION	45.67	190.2	8	22	-2							
BALBOA HTS.	47.21	350.8	8	38A	2				15	28	-1	
CARACAS	48.61	7.6	8	44A	-3				15	44	-5	
TRINIDAD	49.61	14.7	8	56	1							
GRENADA	50.91	13.9	9	6	1							
ST. VINCENT	52.09	14.2	9	15	1							
SOUTH POLE	52.12	180.0	9	12	-2							
BARBADOS	52.38	16.2	9	20	4							
SANTIAGO MA.	53.36	340.8	9	24	1				16	56	1	
FORT FRANCE	53.63	14.0									10	25
SAN SALVADOR	53.73	340.0	9	27	1	17	2	2				
DOMINICA	54.14	13.5	9	29	0							
ANTIGUA	55.86	12.6	9	40	-2							
ST. KITTS	55.91	11.6	9	39	-3							
SAN JUAN	56.49	7.5	9	41	-5	17	14	-23				
COMITAN	57.01	337.7	9	46	-4	17	43	-1			19	39 SCS
SCOTT BASE	58.99	192.3	10	5	1	18	13	3				
OAXACA	59.26	333.0	10	3	-3	18	12	-1			22	9 SS
MERIDA	60.81	341.9	10	12	-4	18	27	-6			12	9 PP
VERA CRUZ	61.05	334.6	10	19	1	18	43	7			12	51
PUEBLA	61.62	332.5	10	27	5	18	51	8			12	39 PP
CAPE HALLETT	61.65	198.0	10	21K	-1	18	41	-3				
TACUBAYA	62.33	331.7	10	22K	-4	18	43	-9			14	9 PP
MANZANILLO	64.10	326.6	10	37	-1	19	7	-7			11	5 PCP
GUADALAJARA	65.12	328.3	10	41	-4	19	27	0			20	19 SCS
MAZATLAN	68.63	326.8				19	43	-26			20	45
HERMANUS	71.16	119.2	11	25	3	20	43	4			14	2 PP
COLUMBIA	72.11	352.8	11	27A	-1	20	35	-15				
TERRE ADELIE	72.23	193.5	11	27	-2	20	47	-4				
CHIHUAHUA	73.32	329.7	11	30	-5	20	55	-9			16	22
MBOUR	73.82	56.5	11	40A	2	21	10	1				
LITTLE ROCK	74.73	343.4	10	40	-63	21	16	-4				
MIRNY	75.14	174.1	11	42	-4	21	18	-6				
WILKES	75.90	181.4	11	51A	1	21	31	-1				
WINDHOEK	76.33	108.0	11	53	0							
FAYETTEVILLE	76.41	342.3	10	51A	-62							
WASHINGTON	76.69	356.5	11	54K	-1							
GEORGETOWN	76.69	356.5	11	55	0	21	41	0				
GRAHAMSTOWN	76.78	121.9	11	21	-34							
MORGANTOWN	77.60	354.3	11	59A	-1	21	47	-4				
ST. LOUIS 1	78.01	346.1	11	59	-3	21	50	-5				
FLORISSANT	78.19	346.0	12	1A	-2	21	51	-6				
TERRE HAUTE	78.21	348.5	11	3	-60	20	55	-63				
KIMBERLEY	78.29	117.2	11	53	-10							
PITTSBUIGH	78.40	354.4	12	2A	-2	21	56	-4				
TUCSON	78.44	327.8	12	6A	2	22	1	1				

TUCSON TELE.	78.47	327.9	12	5A	1							
FORDHAM	78.54	359.1	12	6	1	22	1	0				
PENNSYLVANIA	78.63	356.0	12	5	0	22	0	-2			15	3 PP
PALISADES	78.70	359.1	11	46A	-20	22	2	-1			15	24 PP
LAWRENCE	79.40	342.3	12	6	-3							
CLEVELAND	79.57	353.3	12	10	0	22	8	-4				
ROXBURGH	79.86	219.2	12	23	11	22	11	-4				
WELLINGTON	79.86	225.0	12	21	9	22	14	-1			15	3 PP
WESTON	80.07	1.1	12	14	1	22	19	2				
TUAI	80.15	228.1	12	33	20							
CHATEAU	80.82	227.0	12	15	-2							
KAIMATA	80.84	222.4	12	34	17							
COBB RIVER	81.13	224.1	12	35	16	22	21	-7				
LUANDA	81.45	94.5	12	23A	3	22	46	14	12	33	15	34 PP
KARAPIRO	81.67	227.9	12	20	-1						12	29
PRETORIA	82.51	116.7	12	17	-9							
HALIFAX	82.72	6.6	12	27	0							
AUCKLAND	82.82	228.3	12	36	9	22	50	4			13	55 PS
OTTAWA	83.13	357.9	12	28	-1							
BREBEUF	83.19	359.4	12	30A	1	22	46	-3				
PASADENA	83.32	323.5	12	33A	3	22	53	2				
BOULDER CITY	83.34	326.8	12	31A	1						13	35
ONERAHI	83.82	228.9	12	55	22	22	50	-6				
SHAWINIGAN	84.23	360.0	12	31	-4							
LARAMIE	84.50	335.8	12	35	-1							
SEVEN FALLS	84.82	1.3	12	38	0							
RUTH	86.15	328.4	12	48	4						23	9
FRESNO	86.22	323.9	12	45	0							
SALT LAKE C.	86.23	331.3	12	45	0							
RAPID CITY	86.29	338.5	12	43	-2							
BULAWAYO	86.32	112.6	12	45A	0							
EUREKA	86.77	327.9	12	46A	-1							
KERGUELEN I.	86.95	156.7	12	49	1	23	29	3				
VINEYARD	86.95	322.9	12	50	2							
PONTA DELGDA	87.01	35.5	12	51A	3						16	19 PP
ANGRA DO HO.	87.06	34.0	12	54	5	23	35	8			23	54 SS
LICK	87.55	323.1	12	52A	1							
BRANNER	87.87	322.8	12	53A	0							
BERKELEY	88.27	323.0	12	56A	2	23	44	6			23	23 SKS
SAN FRANCSCO	88.28	322.8	12	56	1							
RENO	88.48	325.5	12	57A	2							
AFIAMALU	88.49	253.6	12	57	1	23	43	2			16	16 PP
BROKEN HILL	89.80	108.1	13	3K	1							
MINERAL	89.95	324.9	13	2A	0							
BOZEMAN	90.20	334.2	13	4A	0							
BUTTE	91.03	333.5	13	7A	0	23	30	-34			30	38 PKKP
ARCATA	91.51	323.7	13	19	9							
AVERROES	93.41	49.7	13	18	0	23	58	-27				
HUNGRY HORSE	93.54	333.8	13	18A	-1							
CORVALLIS	94.08	326.4	13	25	4							
TAMANRASSET	95.06	65.1	13	27A	1						17	12 PP
LISBON	96.19	44.8	13	33A	2	24	5	-2			7	23 PP
MELBOURNE	96.86	209.2	13	33	-1	24	9	-2				
VICTORIA	97.24	328.8	13	34	-2							
CANBERRA	97.37	213.3	13	39	3	24	43	29			17	25 PP
MALAGA	97.55	48.9	13	39A	2	24	50	35			17	39 PP
COIMBRA	97.62	44.1	13	39A	1	24	15	0			17	36 PP
RIVERVIEW	97.66	215.6	13	40K	2	24	13	-2			17	41 PP
LWIRO	97.70	98.9	13	41	3	24	22	7				
SERRA PILAR	98.18	43.4	13	41A	1	24	17	-1	13	46	17	40 PP
GRANADA	98.34	49.0	13	38K	-3	24	35	16			17	42 PP
ALBERNI	98.40	328.5	13	48	7							
ALMERIA	98.80	49.8	13	43A	0	25	3	42			17	45 PP
TOLEDO	99.87	46.7	13	49	1	24	49	23			17	55 PP
RELIZANE	99.94	52.3	13	38A	-10						17	36 PP
TANANARIVE	100.31	123.8	13	53A	3						18	0 PP
ALICANTE	100.97	49.7	13	57	4	24	33	1			18	9 PP
ADELAIDE	101.69	206.0	14	3	7	24	32	-3			18	12 PP
ALGIERS UNI.	102.15	52.8	13	59	1	25	33	56			18	10 PP
BRISBANE	102.17	220.5	13	57	-1	24	35	-2				
TORTOSA	103.13	48.3	14	5	3	24	47	5				
BARCELONA	104.46	48.6									18	30 PP
FOLINIERE	107.54	41.4	14	25	777							
RATHFARNHAM	107.57	35.3	14	22A	777	26	45	103			18	50 PP
CUGLIERI	107.65	52.6	15	13	777						35	53 SS
CLERMONT-FD.	107.67	45.4	14	25	777	26	17	75				
MONACO	108.98	49.1									19	3 PP
ISOLA	109.01	48.5	14	32	777						29	4 PP

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KEW	109.27	39.2	18	17	777	25	7	-2	19 4 PP
REYKJAVIK	109.45	21.1	19	4	777				
MUNDARING	109.83	188.1	14	32	777				19 8 PP
PERTH	109.89	187.7	14	33	777	25	21	9	19 9 PP
BESANCON	110.14	45.4							19 5 PP
SIDA	110.33	22.7	19	8	34				
OROPA	110.36	47.6							19 12 PP
CHIAVARI	110.44	49.3	18	43	9	25	1	-13	19 20 PP
NEUCHATEL	110.55	46.0							19 3 PCSPKP
EDINBURGH	110.63	34.3	18	33	-1	25	39	24	19 41 PP
DURHAM	110.65	35.9	14	37K	777	25	12	-3	19 13 PP
PAVIA	110.83	48.5							19 8 PP
DOURBES	111.00	42.3	14	40	777	25	14	-2	
ROME	111.07	52.9	18	16	-19				19 14 PP
MESSINA	111.07	57.6	18	37	2				19 17 PP
REGGIO CALA.	111.09	57.7	17	59	-36				19 7 PP
UCCLE	111.26	41.6	14	40	777	25	15	-2	
PRATO	111.28	50.5	14	52	777				24 3
CHARTERS TS.	111.52	219.5	14	33	777	26	17	59	
BOLOGNA	111.75	50.0							19 16 PP
ABERDEEN	111.86	33.6	14	43K	777	25	31	11	19 18 PP
STRASBOURG	111.88	44.9	18	19	-18	25	17	-3	19 17 PP
CHUR	111.94	47.2							17 54
EBINGEN	112.34	45.7	14	45	777				19 36 PP
DE BILT	112.42	40.7	14	45A	777				19 28 PP
RAVENSBURG	112.49	46.3	14	46	777				19 16 PP
TUBINGEN	112.58	45.4	14	45	777				19 20 PP
STUTTGART	112.83	45.3	18	18	-21	25	24	0	19 30 PP
HEIDELBERG	112.85	44.5	14	49	777				
TARANTO	113.38	56.2	14	43	777				29 25 PS
RESOLUTE	113.42	353.7	18	39	-1	27	11	105	
WITTEVEEN	113.58	40.6							19 31 PP
MUNSTER	113.62	41.7	14	54	777				21 46
TOLMEZZO	113.76	48.9	18	53	12				19 35 PP
TRIESTE	113.81	49.9	14	53	777	25	27	0	19 35 PP
SCORESBY SD.	114.24	16.6	18	37	-5				19 35 PP
LJUBLJANA	114.48	49.9	18	47	5	25	32	2	19 37 PP
SONNEBERG	114.73	44.5				25	35	4	19 43 PP
JENA	115.21	44.1	18	43	0	25	35	2	19 44 PP
CHEB	115.24	45.2				25	34	1	19 45 PP
ZAGREB	115.25	50.6	18	31K	-12	25	33	0	19 49 PP
PLAUEN	115.32	44.7	18	43	-1				19 53 PP
HALLE	115.70	43.7	18	46	2	25	36	1	19 42 PP
COLLMBERG	116.18	44.2	18	50	5	25	38	2	20 5 PP
PRAGUE	116.39	45.9				25	38	1	19 44 PP
PRUHONICE	116.41	46.1	18	43	-3	25	39	2	19 48 PP
ATHENS	116.51	61.4	18	59K	13	25	39	1	29 36 PS
VIENNA-H.	116.65	48.4	18	47	1				19 43 PP
POTSDAM	116.73	43.2	18	47	1	25	39	1	19 45 PP
BERGEN	116.86	33.0				25	38	-1	19 57 PP
BRATISLAVA	117.04	48.7	18	41	-6				19 56 PP
BELGRADE	117.56	53.3	18	50A	2	25	55	14	20 5 PP
HURBANOVO	117.56	49.4							19 56 PP
BUDAPEST	117.88	50.1				25	26	-17	19 45
COLLEGE	117.93	332.2	18	48	-1	27	44	121	20 5 PP
COPENHAGEN	117.94	39.7	18	47	-2	25	45	2	19 52 PP
KECSKEMET	118.04	50.9							19 59 PP
HELWAN	118.10	72.8	15	12	777				20 3 PP
SOFIA	118.45	56.5	18	48	-2	25	46	1	20 11 PP
TIMISOARA	118.46	52.6							20 12 PP
RACIBORZ	118.55	47.2	18	51	1				20 14 PP
GOTEBORG	118.62	37.5	18	50	0				20 8 PP
CHORZOW	119.10	47.2				25	46	-1	20 14 PP
SKALNATE PL.	119.36	48.8				26	3	15	20 16 PP
KRAKOW	119.54	47.7	15	20	777				20 10 PP
PORT MORESBY	119.86	226.9	19	5	13	25	47	-3	20 23 PP
RABAUL	120.85	235.1	18	56	2				20 30
BUCHAREST	121.01	55.7	18	55	0	26	27	34	20 24 PP
WARSAW	121.06	45.8	18	56	1	26	5	12	20 36 PP
SKALSTUGAN	121.23	31.4	18	57	2				20 27 PP
LWOW	121.88	49.2	18	58	2	25	51	-5	20 31 PP
JERUSALEM	121.95	72.7	15	30	777				20 35 PP
UPPSALA	122.18	36.6	18	49	-8				20 24 PP
FOCSANI	122.24	54.7							20 41 PP
BACAU	122.39	53.7							20 38 PP
NORD	122.85	8.4	18	56	-2				20 34 PP
KSARA	123.37	70.8	19	2	3	26	14	13	20 45 PP
NURMIJARVI	125.72	37.2	19	3	-1				
KIRUNA	125.78	27.8	19	6	2				20 58 PP

HELSINKI	125.78	37.6	19	6	2					
SIMFEROPOL	126.51	57.7	19	6	1				21	0 PP
SODANKYLA	128.02	29.0	19	8	0					
PULKOVO	128.30	38.9	19	9	0				21	5 PP
APATITY	130.64	29.1	19	14A	1	26	16	-5	21	31 PP
MOSCOW	131.43	45.0	19	16	1				21	34 PP
TIFLIS	132.87	64.9	19	20	3				22	51 SKP
GORIS	113.29	68.3	19	21	3				21	47 PP
KHEYS	133.65	9.9	19	20	1				28	21 SKKS
SHIRAZ	134.34	83.6	19	8	-12					
LEMBANG	135.34	180.5	19	24K	2				22	8 PP
TEHERAN	135.84	75.1	19	9	-14				22	4 PP
DJAKARTA	135.98	179.4	19	23	0				22	9 PP
GUAM	138.71	243.8	19	20	-8				23	7 PKS
COLOMBO	140.28	134.4	19	25	-6				22	26 PP
KODAIKANAL	141.50	128.2	19	35	2	26	29	-13	23	5 PKS
ASHKABAD	141.83	74.6	19	31	-3					
PETROPAVLOVK	141.89	310.1	19	28	-6				22	49 SKP
SVERDLOVSK	144.18	43.1	19	34	-4				22	52 PP
BOMBAY	144.49	112.8	19	37	-1				23	6 PKS
TIKSI	144.58	348.4	19	34	-4					
POONA	145.00	114.4	19	39A	0				23	23 PKS
MAGADAN	145.06	322.2	19	39	0					
QUETTA	145.93	91.1	19	43A	2				26	33 PPP
HYDERABAD	147.47	121.2	19	48	5				33	26
DUZHANBE	149.95	76.9							19	49 PKP2
NEMURO	150.65	292.6	19	53	5					
PORT BLAIR	150.68	149.9	19	42	-6				35	6
TASHKENT	150.75	71.5							19	51 PKP2
WARSAK DAM	150.95	87.0							19	58 PKP2
KUSIRO	151.50	291.8	19	49	-1				23	41 PP
ABASHIRI	151.62	294.0	19	57	7					
TORISIMA	151.77	264.4	19	49	-1					
LAHORE	152.29	93.6	19	57	6				23	38 PP
OBIHIRO	152.38	291.6	19	59	8					
Y.-SAKHLINSK	152.58	300.5	19	51	0				23	37 PP
URAKAWA	152.65	289.9	20	4	13					
ASAHIGAWA	153.00	293.4							20	46
MIYAKO	153.02	284.3	20	1	9					
AGRA	153.17	105.3	19	54A	2				23	54 PP
ISINOMAKI	153.33	281.5	19	48	-4				23	56 PP
ONAHAMA	153.37	278.1	19	50	-2				23	57
WAKKANAI	153.43	297.1	20	1	9				23	50
MITO	153.57	276.7	19	55	2					
MIZUSAWA	153.59	282.9	20	6	13					
SENDAI	153.63	281.0	19	51	-2					
MORIOKA	153.64	284.2	19	49	-4					
MANILA	153.68	211.4	20	23	30					
MERA	153.70	273.2	19	56	3					
SAPPORO	153.74	291.8	19	49	-4	26	25	-33	23	40 PP
TUKUBASAN	153.83	276.1	19	50	-3	27	3	5	23	53 PP
HUKUSIMA	153.87	279.7	19	52	-1				23	41 PP
SHIRAKAWA	153.93	278.2	20	3	10					
HONGO	153.96	274.9	20	1	8				24	1 PP
TOKYO C.M.O.	153.97	274.8	19	55	2				30	36
YOKOHAMA	153.98	274.2	19	55	2				22	59
YAMAGATA	154.05	280.8	20	6	13				34	9
AOMORI	154.05	286.7	20	3	10					
UTUNOMIYA	154.08	276.8	19	54	1				30	34
HAKODATE	154.13	288.9	20	3	10					
MORI	154.29	289.6	20	17	23				24	29
AJIRO	154.31	273.1	19	54	0					
KUMAGAYA	154.37	275.7	19	59	5					
MISIMA	154.45	273.2	20	1	7					
AKITA	154.46	284.0	19	55	1				20	50
SAKATA	154.56	282.1							20	38
SUTTSU	154.56	291.2	20	2	8					
MAEBASI	154.68	276.1	19	55	1				20	13 PKP2
HUNATU	154.69	273.9	20	8	14					
DEHRA DUN	154.71	99.0	20	7	13				35	3
FRUNSE	154.81	68.7	19	55	1					
SHIZUOKA	154.84	272.5							20	34
KOHU	154.90	274.2	20	5	11					
NIIGATA	155.00	279.6	20	21	27					
OIWAKE	155.07	275.7	19	55	0					
HAMAMATU	155.30	271.6	20	20	25					
MATUSIRO	155.38	276.0	19	55	0				24	5 PP
NAGANO	155.42	276.3	19	58	3					

BAGUIO CITY	155.45	212.2	19	57	2						
TAKADA	155.47	277.4	19	55	0						
MATUMOTO	155.51	275.3	20	15	20						
AIKAWA	155.64	279.6	19	59	4						
NAGOYA	156.02	272.2	20	0	4				20	46	
TAKAYAMA	156.05	274.7	19	55	-1						
TOYAMA	156.21	276.0	19	58	2						
GIHU	156.24	272.7	19	55	-1				25	3	
KAMEYAMA	156.33	271.2	20	0	4				24	2	PP
SIOMISAKI	156.45	267.4	20	13	17				34	18	
WAZIMA	156.58	277.5	20	36	39				34	24	
HIKONE	156.62	272.1	20	27	30				21	0	
BOKARO	156.84	121.6	20	0	3				26	39	
OSAKA	157.01	270.1	20	1	4						
ABUYAMA	157.04	270.7	19	57A	0						
WAKAYAMA	157.17	268.9	19	55	-2						
SEMIPALATESK	157.20	48.6	19	58	1						
KOBE	157.30	270.0	20	1	3						
SUMOTO	157.41	269.0	20	14	16				24	44	
CALCUTTA	157.58	128.3	20	5	7				24	15	PP
MUROTO	157.64	265.8	20	2	4						
TOYOOKA	157.81	271.9	19	57	-1				20	41	PKP2
TAKAMATU	158.08	268.4	20	3	4						
SIMIDU	158.42	263.7	20	2	3				24	9	
YONAGO	158.95	270.8	20	5	5				23	28	
MIYAZAKI	159.30	260.1	20	3	3						
HIROSIMA	159.38	267.4	20	0	0				24	19	PP
CHITTAGONG	159.48	135.3	20	0	0	27	2	-2	24	21	PP
OOITA	159.64	263.7	20	1	1				24	17	
CHATRA	159.73	117.7	20	5	5				24	24	PP
HAMADA	159.81	268.6	20	0	-1				24	24	PP
HENGCHUN	160.22	219.8	19	54	-7						
SIMONOSEKI	160.43	265.1	20	16	15						
TAWU	160.43	220.7	20	27	26						
UNZENDAKE	160.53	261.1	20	6	5				33	10	
TAITUNG	160.63	221.9	20	30	29						
SAGA	160.68	262.6	20	26	25						
HUKUOKA	160.74	263.6	20	2	0				24	42	
NAGASAKI	160.82	260.7	20	1	-1				24	31	
TAINAN	161.32	220.2	20	16	14						
HWALIEN	161.35	225.2	20	6	4						
SHILLONG	161.97	129.3	20	4A	1				24	40	PP
TAICHUNG	162.02	223.4	20	6	3						
TAIPEI	162.23	227.1	20	13	10						
HONG KONG	163.20	202.7	20	7A	3				24	39	PP
LHASA	164.14	117.2	20	8A	3				21	9	PKP2
CANTON	164.19	201.0	20	7A	2						
TOCKLAI	164.58	133.4	20	16	11						
CHANGCHUN	165.20	298.6	20	5A	-1				24	58	PP
IRKUTSK	165.65	7.3	20	7	1				24	55	
KUNMING	166.54	162.1	20	9A	2						
ZO-SE	166.60	242.9	20	8A	1				25	5	PP
NANKING	168.82	241.0	20	10A	2				25	13	PP
WUHAN	170.36	220.9	20	11A	2				25	24	PP
CHENGTU	172.14	159.1	20	13A	3						
PEKING	172.79	288.6	20	12A	1				25	38	PP
SIAN	175.96	200.0	20	15	3						
LANCHOW	176.60	125.2	20	14A	2				25	44	PP
PAOTOW	176.69	320.3	20	14A	2						

MAY 22 19.H 10.M 40.S EPICENTRE -38.05 -72.19 DEPTH= 0.KM

A= 0.24146 B=-0.75165 C=-0.61377 D=-0.9521 E=-0.3058
G=-0.1877 H= 0.5844 K=-0.7895 HT= -1.0

SE= 4.83

	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
TALA POZO	12.18	35.4									4	40
PORT STANLEY	16.96	148.2	3	56	-4							
LA PAZ	21.76	10.6	5	3	8							
HUANCAYO	26.04	353.0	5	36A	0							
ARGENTINE I.	27.63	172.8	5	51	0							
BOGOTA	42.49	357.2	8	4	6							
CHINCHINA	42.92	355.0	8	3	1							

BYRD STATION	45.76	190.3	8	16	-9						
CARACAS	48.54	6.9	8	47A	0	15	50	2			
TRINIDAD	49.49	14.0	8	53	-1						
GRENADA	50.79	13.3	9	3	-1						
ST. VINCENT	51.97	13.5	9	13	0						
BARBADOS	52.25	15.6	9	17	2						
SANTIAGO MA.	53.49	340.2	9	25	1						
SAN SALVADOR	53.87	339.4	9	28	1					11	50
DOMINICA	54.02	12.9	9	27	-1						
ANTIGUA	55.75	12.0	9	38	-3						
ST. KITTS	55.81	10.9	9	38	-3						
SAN JUAN	56.42	6.9	9	40	-5						
COMITAN	57.17	337.1	10	4	13					13	18 PP
SCOTT BASE	59.10	192.2	10	6	2						
OAXACA	59.45	332.5	10	20	13	18	26	11		12	12 PP
MERIDA	60.93	341.3	10	23	6					19	44
VERA CRUZ	61.23	334.1	10	22	3						
CAPE HALLETT	61.80	197.9	10	11	-12					10	17 PCP
PUEBLA	61.82	331.9								14	16 PPP
TACUBAYA	62.53	331.1	10	32K	4	18	47	-8		13	43
MANZANILLO	64.33	326.1	10	45	6					13	6 PP
LEON	65.05	329.6	10	50	6					13	20 PP
GUADALAJARA	65.34	327.8	10	44	-2					11	6
MAZATLAN	68.86	326.3				19	56	-16		19	6
MBOUR	73.44	56.1	11	39	3						
CHIHUAHUA	73.53	329.3	11	36	0						
LITTLE ROCK	74.84	342.9	11	38	-6						
WINDHOEK	75.92	107.7	11	53	3						
GRAHAMSTOWN	76.42	121.6	11	51	-2						
GEORGETOWN	76.71	356.1	11	51	-3						
KIMBERLEY	77.90	117.0	11	13	-48						
ST. LOUIS 1	78.10	345.7	11	56	-6						
FLORISSANT	78.28	345.6	12	1	-2						
PITTSBURGH	78.43	354.0	12	5K	1						
PENNSYLVANIA	78.64	355.6	12	10	5						
TUCSON	78.66	327.3	12	OK	-5	22	22	20			
TUCSON TELE.	78.69	327.5	12	OK	-5						
PALISADES	78.70	358.7	12	1	-4						
GEBBIES PASS	79.68	221.9				22	2	-11		12	50
WESTON	80.05	0.7	12	11	-2						
ROXBURGH	80.14	218.9	12	21	8						
WELLINGTON	80.18	224.7	12	16	3						
TUAI	80.48	227.8	12	32	17						
LUANDA	81.02	94.2	12	28A	10					12	39
CHATEAU	81.15	226.7	12	13	-6						
KAIMATA	81.15	222.1	12	38	19						
COBB RIVER	81.44	223.8	12	32	12						
KARAPIRO	82.00	227.6	12	15	-8						
HALIFAX	82.66	6.2	12	24	-2						
OTTAWA	83.13	357.5	12	25	-4						
BREBEUF	83.18	359.0	12	32	3	23	48	-1			
BOULDER CITY	83.57	326.4	12	32K	1						
PASADENA	83.57	323.1	12	32A	1	23	12	19			
SHAWINIGAN	84.22	359.6	12	29	-5						
LARAMIE	84.67	335.4	12	32	-5						
SEVEN FALLS	84.80	0.9	12	32	-5						
BULAWAYO	85.92	112.3	12	43	0						
RAPID CITY	86.43	338.2	12	40K	-5						
FRESNO	86.47	323.5	12	47	1						
PONTA DELGDA	86.74	35.2	12	58	11					13	10
KERGUELEN I.	86.79	156.4	12	53	6	23	28	4			
VINEYARD	87.20	322.5	12	51	2						
LICK	87.80	322.7	12	54	2						
BRANNER	88.12	322.4	12	56K	2						
BERKELEY	88.52	322.6	12	57	2						
SAN FRANCSCO	88.53	322.4	12	59	3						
RENO	88.72	325.2	12	59A	3						
AFIAMALU	88.92	253.3	12	59	2	24	4	20		16	23 PP
BROKEN HILL	89.39	107.8	13	1K	1						
UKIAH	89.98	322.8	13	4K	2						
MINERAL	90.19	324.5	13	3A	0						
ARCATA	91.76	323.4	13	23	12						
HUNGRY HORSE	93.72	333.5	13	12A	-8						
CORVALLIS	94.31	326.1	13	32	10						
LISBON	95.88	44.5	13	38A	8						
MELBOURNE	97.09	208.8	13	45	10	24	23	11			
MALAGA	97.22	48.6	13	45K	9	24	25	12		17	52 PP
LWIRO	97.27	98.6	13	47A	11	24	30	17			

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COIMBRA	97.31	43.8	13	40A	4				15	38	
VICTORIA	97.46	328.5	13	32	-5						
CANBERRA	97.62	212.9	13	34	-3						
SERRA PILAR	97.87	43.1	13	44K	5						
RIVERVIEW	97.92	215.2	13	43A	4	24	24	8	17	31	PP
GRANADA	98.00	48.7	14	4A	25	25	5	48	18	11	PP
ALMERIA	98.45	49.5	13	58K	17	24	20	1	26	46	PS
RELIZANE	99.58	52.0	13	52	6						
HONOLULU	99.74	289.3	13	49	2						
KIPAPA	99.75	289.5	13	50	3						
TANANARIVE	99.96	123.4	14	1	13				18	15	PP
ALGIERS UNI.	101.79	52.5	14	4	8				18	7	PP
ADELAIDE	101.89	205.5	14	4	7						
BRISBANE	102.46	220.1	14	23	24						
TORTOSA	102.79	48.0	14	26	25						
RATHFARNHAM	107.31	35.0	14	41	777				19	6	PP
CLERMONT-FD.	107.35	45.2	18	45	777				30	25	
KEW	108.98	38.9	14	42	777				19	15	PP
REYKJAVIK	109.28	21.0	18	36	777						
VIK	109.59	22.5	19	40	777				30	40	
OROPA	110.03	47.4							19	41	
SIDA	110.15	22.5	19	50	21						
DURHAM	110.39	35.7	18	46K	12				19	39	PP
PAVIA	110.49	48.3							19	30	PP
DOURBES	110.69	42.1							19	48	PP
MESSINA	110.70	57.3	18	41	7	25	26	11	19	24	PP
ROME	110.71	52.6							19	24	PP
UCCLE	110.96	41.4				25	18	2			
AKUREYRI	111.52	21.1	19	0	24						
STRASBOURG	111.56	44.7				25	34	16	19	52	PPP
CHARTERS TS.	111.81	219.0	14	51	777						
STUTTGART	112.51	45.1	14	24	777						
BENSBERG	112.54	42.3							19	42	PP
TOLMEZZO	113.42	48.7	18	35	-5				19	24	
TRIESTE	113.47	49.7	19	5	25				19	47	PP
SCORESBY SD.	114.10	16.4	18	39	-2				19	24	PP
ZAGREB	114.90	50.4							24	29	
CHEB	114.92	45.0							19	48	PP
HALLE	115.39	43.5	19	0	16						
PRUHONICE	116.09	45.9	15	4	777				20	6	PP
ATHENS	116.12	61.1	18	55	10				22	38	PPP
VIENNA-H.	116.31	48.2							20	34	PP
BERGEN	116.61	32.8							20	9	PP
COLLEGE	118.12	332.0	15	16	777						
RACIBORZ	118.22	47.0	19	2	23	26	21	37	20	22	PP
CHORZOW	118.77	47.0	19	19	19				20	8	PP
SKALNATE PL.	119.03	48.6							20	5	PP
CAMPULUNG	120.31	54.2							21	50	
SKALSTUGAN	120.99	31.3	18	56	2						
JERUSALEM	121.52	72.4	15	25	777				20	9	PP
LWOW	121.54	49.1	19	5	9						
NORD	122.78	8.3	18	54	-4						
KSARA	122.95	70.6	18	50	-8				20	51	PP
NURMIJARVI	125.45	37.1	19	2	-1						
KIRUNA	125.56	27.8	19	2	-1						
SIMFEROPOL	126.13	57.5	19	4	0				21	33	
SODANKYLA	127.79	28.9	19	8	0						
PULKOVO	128.02	38.8	19	10	2						
APATITY	130.42	29.1	19	9	-4				21	59	PP
MOSCOW	131.11	44.9	19	13	-1				22	56	
TIFLIS	132.47	64.7	19	27	11						
SHIRAZ	133.90	83.3	19	18	-1				19	51	
LEMBANG	135.35	179.7	19	25A	3				22	8	PP
DJAKARTA	135.99	178.6	19	24	1				21	40	PP
GUAM	139.11	243.2	19	40	11						
PETROPAVLOVK	142.21	310.1	19	36	2						
BOMBAY	144.09	112.2	19	38	1						
POONA	144.60	113.8	19	35	-3						
MAGADAN	145.32	322.4	19	40	0						
QUETTA	145.49	90.7	19	48	8						
NEMURO	151.05	292.6	20	9	20				27	9	
LAHORE	151.86	93.2	20	0	10						
KUSIRO	151.90	291.8	19	55	5						
ABASHIRI	152.01	294.0	19	59	9				25	18	
HIROO	152.66	290.2	20	7	16						
OBIHIRO	152.78	291.6	20	2	11				20	44	
URAKAWA	153.06	289.8	20	5	13				21	35	
UGLEGORSK	153.06	305.2	19	36	-16						
ASAHIGAWA	153.39	293.4	19	57	5						

MIYAKO	153.44	284.2	20	6	14					23	27 PKS
TYOSI	153.54	275.2	20	17	25						
ISINOMAKI	153.76	281.3	19	54	1	27	9	11		24	35 PP
WAKKANAI	153.82	297.2	20	3	10						
HATINOHE	153.87	286.1	20	4	11					26	7
MITO	154.01	276.4	20	9	16						
SENDAI	154.05	280.8	19	57	4					24	44
MORIOKA	154.06	284.1	19	58	5					22	36 PKS
SAPPORO	154.14	291.8	19	54	1						
KAKIOKA	154.20	276.0	20	2	9					36	50
TUKUBASAN	154.26	275.9	20	1	8						
HUKUSIMA	154.29	279.5	20	5	12	27	1	2		24	17 PP
SHIRAKAWA	154.36	278.0	20	5	12						
HONGO	154.39	274.6								45	1 SS
YOKOHAMA	154.41	274.0	20	5	11					22	27
AOMORI	154.47	286.6	20	12	18					20	50
UTUNOMIYA	154.52	276.6	20	17	23					22	4
HAKODATE	154.54	288.9	20	10	16						
AJIRO	154.74	272.8	20	6	12					29	21
KUMAGAYA	154.81	275.4	20	10	16						
MISIMA	154.88	272.9	19	59	5						
MAEBASI	155.11	275.9	19	58A	4					20	14 PKP2
OMAESAKI	155.31	271.3	19	58	3						
NIIGATA	155.43	279.4	20	17	22						
OIWAKE	155.50	275.5	20	11	16						
HAMAMATU	155.74	271.3	20	16	21					22	38
MATUSIRO	155.82	275.8	19	55	0	27	24	24		30	43 SKKS
NAGANO	155.85	276.1	20	19	24					29	44
TAKADA	155.90	277.2	19	56	1						
MATUMOTO	155.94	275.0	20	8	12						
ALMATA	156.10	67.6								20	30 PKP2
TOYAMA	156.64	275.8	20	22	25					20	50
GIHU	156.68	272.4	20	15	18						
NARA	157.22	270.1	20	6	9					20	27
HUKUI	157.26	273.7	20	15	18						
SUMOTO	157.85	268.7	20	19	21					24	0
TOYOOKA	158.25	271.7	20	20	21					23	31
CHITTAGONG	159.18	134.2	20	7	7					20	29
CHATRA	159.34	116.8	20	3	3						
SAIGO	159.58	272.7	19	59	-1					31	28
KUMAMOTO	160.65	261.3	20	26	25					27	18
NAGASAKI	161.25	260.2	20	25	23						
YUSHAN	161.63	221.5	19	27	-35						
SHILLONG	161.64	128.1	20	8	6						
HWALIEN	161.67	224.0	20	28	26						
ALISHAN	161.74	221.2	19	33	-29						
ILAN	162.23	225.9	20	29	26						
HSINCHU	162.69	224.1	20	20	17						
HONG KONG	163.38	201.0	20	13	9						

MAY 22 19.H 11.M 14.S EPICENTRE -38.17 -72.57 DEPTH= 0.KM

A= 0.23612 B=-0.75198 C=-0.61544 D=-0.9541 E=-0.2996
G=-0.1844 H= 0.5872 K=-0.7882 HT= -1.0

SE= 4.95

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SANTA LUCIA	4.97	18.9	1	22A	4								
LA PAZ	21.94	11.5	4	52	-5								
HUANCAYO	26.13	353.9	5	36	-1								
SAN JUAN	56.57	7.3	9	21	-26								
COMITAN	57.16	337.5	9	58	7	17	52	7			12	2	PP
SCOTT BASE	58.92	192.3	10	2	-1								
OAXACA	59.42	332.9	10	6	-1	18	22	7			11	58	PP
MERIDA	60.95	341.7	10	16	-1						22	28	SSS
VERA CRUZ	61.21	334.5	10	22	3								
PUEBLA	61.78	332.3	10	31	8	18	42	-3			20	18	SCS
TACUBAYA	62.49	331.5	10	26K	-1								
MANZANILLO	64.26	326.4	10	41	2						13	0	PP
LEON	65.01	329.9	10	43	-1	19	22	-3			16	49	
GUADALAJARA	65.28	328.2	10	50	4						17	22	
MAZATLAN	68.80	326.7	11	2K	-6	19	46	-25			13	34	PP
CHIHUAHUA	73.48	329.6	11	33	-3	20	56	-9			13	5	
MIRNY	75.02	174.1	11	46	1								

PALISADES	78.81	359.0	12	0	-6					
GEBBIES PASS	79.39	222.1				22	11	1	12	54
ROXBURGH	79.86	219.1	12	30	18					
WELLINGTON	79.89	224.9	12	30	18					
WESTON	80.18	0.9	12	13	-1					
CHATEAU	80.85	226.9	12	23	6					
COBB RIVER	81.15	224.0				22	36	8		
LUANDA	81.31	94.4	12	27K	8					
KARAPIRO	81.70	227.9	12	16	-6					
AUCKLAND	82.85	228.2	12	38	10	22	46	0		
BOULDER CITY	83.50	326.7	12	31	0					
ONERAHI	83.85	228.8	12	30	-3					
BULAWAYO	86.15	112.5	12	31	-13					
RAPID CITY	86.44	338.4	12	14	-32					
VINEYARD	87.12	322.8	12	50K	1					
BERKELEY	88.44	322.9	13	1A	6	23	44	4	38	59 PKPPKP
BROKEN HILL	89.63	108.0	12	54	-7					
UKIAH	89.89	323.0	12	53	-9					
HUNGRY HORSE	93.70	333.7	13	15	-5					
CANBERRA	97.36	213.2	13	38	2					
MALAGA	97.52	48.8	13	51	14				17	59 PP
COIMBRA	97.60	44.1							17	38 PP
RIVERVIEW	97.65	215.5	13	43A	5	24	53	38	24	37 SKKS
SERRA PILAR	98.16	43.3	13	42K	2					
ALMERIA	98.76	49.7	13	49A	6	24	25	4	17	55 PP
TOLEDO	99.84	46.6	14	32	44	24	49	23	18	48 PP
TANANARIVE	100.14	123.7	14	11K	22	24	36	8	17	59 PP
ALICANTE	100.93	49.6	14	2	10				18	15 PP
ALGIERS UNI.	102.10	52.7	13	49	-9				18	2 PP
RATHFARNHAM	107.58	35.2	14	27K	777	24	58	-4	18	59 PP
CUGLIERI	107.61	52.6							23	36
KEW	109.26	39.1	14	28K	777	25	1	8	19	1 PP
REYKJAVIK	109.50	21.1	19	26	777					
SIDA	110.37	22.7	18	46	14					
DURHAM	110.66	35.8	18	52K	18				19	20 PP
DOURBES	110.98	42.3							19	38 PP
MESSINA	111.01	57.5	18	41	6				19	24 PP
ROME	111.02	52.8	18	32	-3	25	22	6	29	22 PS
REGGIO CALA.	111.03	57.7							29	5 PS
CHARTERS TS.	111.53	219.3	14	44	777	25	33	15		
BOLOGNA	111.71	50.0	18	36	0				20	42
AKUREYRI	111.74	21.3							19	26
STRASBOURG	111.86	44.9				25	32	12	19	36 PP
DE BILT	112.41	40.7	14	46	777				19	26 PP
STUTTGART	112.80	45.3	18	43	4				20	56 PPP
BENSBERG	112.83	42.5				27	10	107	19	34 PP
MUNSTER	113.61	41.7							19	46 PP
TOLMEZZO	113.72	48.9	18	30	-10				19	54 PP
TRIESTE	113.77	49.9	18	53	12				19	38 PP
SCORESBY SD.	114.30	16.6							19	35 PP
LJUBLJANA	114.44	49.8	18	55K	13				19	41 PP
HALLE	115.68	43.7	18	56	12					
PRUHONICE	116.39	46.0							20	11 PP
ATHENS	116.44	61.3							20	3 PP
COPENHAGEN	117.93	39.7	18	45	-4				20	10 PP
COLLEGE	118.09	332.1	15	6	777					
SOFIA	118.39	56.5							19	38 PP
GOTEBORG	118.62	37.5	18	40	-10					
SKALNATE PL.	119.33	48.7							20	24 PP
RABAUL	120.91	234.9	18	46	-8					
WARSAW	121.04	45.8	18	52	-3				20	5 PP
SKALSTUGAN	121.25	31.4	18	45	-10					
JERUSALEM	121.84	72.7	15	28	777				20	14 PP
UPPSALA	122.18	36.6	18	47	-10					
NORD	122.94	8.3	18	53	-5					
KISHINEV	123.74	53.8	18	46	-14					
KIRUNA	125.81	27.9	18	54	-10					
ISFJORD	126.23	14.9	18	51	-14					
PULKOVO	128.30	38.9	19	19	10				22	38 SKP
KHEYS	133.73	9.9	16	30	777					
LEMBANG	135.23	180.3	19	23	1					
SVERDLOVSK	144.16	43.2	19	31	-7					
BOMBAY	144.32	112.8	19	42	4				42	34
STALINABAD	149.83	77.0							20	34
KUSIRO	151.67	291.6	20	5	15				24	0 PP
TORISIMA	151.90	264.1	19	59	9				20	48
ASAHIGAWA	153.17	293.2							20	31
HATIDYOZIMA	153.30	269.0	20	0	8					

ONAHAMA	153.52	277.8	20	12	20	21 28	
WAKKANAI	153.61	296.9	20	1	8	20 35	
TOMAKOMAI	153.73	290.6	19	50	-3		
MIZUSAWA	153.75	282.7	19	55	2	30 0	
MERA	153.84	272.9	19	51	-2	21 48	
SAPPORO	153.91	291.6	20	4	11	28 48	
TUKUBASAN	153.97	275.9	19	56K	3		
TOKYO C.M.O.	154.11	274.5	19	59	6	20 41	
OSIMA	154.15	272.3				20 41	
YAMAGATA	154.21	280.5				37 34	
HAKODATE	154.30	288.7	20	27	34	25 19	
MORI	154.46	289.4	20	4	10	20 52	
KUMAGAYA	154.52	275.4	20	7	13		
MISIMA	154.59	272.8	20	13	19	27 22	
AKITA	154.62	283.8	20	6	12	21 8	
SAKATA	154.71	281.8	20	3	9		
TITIBU	154.72	274.8	19	52	-2		
SUTTSU	154.73	291.0	20	1	7	28 19	
HUNATU	154.84	273.6	19	46	-8	23 51 PP	
SHIZUOKA	154.98	272.2	20	2	8		
OMAESAKI	155.02	271.3	20	0	6	21 49	
KOHU	155.05	273.9	19	51	-3	21 34	
NIIGATA	155.16	279.3	20	14	19	22 18	
MATUSIRO	155.53	275.7	20	8	13	23 52 PP	
IIDA	155.58	273.2	20	7	12	20 58	
MATUMOTO	155.65	274.9	20	25	30		
AIKAWA	155.80	279.3	20	22	27		
NAGOYA	156.16	271.9	19	59	3	21 11	
TAKAYAMA	156.20	274.4	20	24	28		
GIHU	156.38	272.3	20	15	19	27 52	
TU	156.39	270.5	20	5	9		
ALMATA	156.42	67.8	19	56K	0		
KAMEYAMA	156.47	270.8	19	52	-4	20 24	
SIOMISAKI	156.59	267.0				34 10	
WAZIMA	156.73	277.2	19	53	-4	22 1	
HIKONE	156.76	271.7	20	3	6	20 19	
HUKUI	156.97	273.6	20	10	13	23 20	
TSURUGA	157.00	272.6	20	8	11	20 47 PKP2	
KYOTO	157.10	270.8	19	53	-4		
OSAKA	157.15	269.8	20	29	32	22 6	
WAKAYAMA	157.31	268.5	20	6	9		
KOBE	157.44	269.6	20	3	5	26 53	
MUROTO	157.77	265.4	20	15	17	22 43	
TAKAMATU	158.22	268.0	20	7	8	30 56	
OKAYAMA	158.43	268.8				20 46	
SIMIDU	158.55	263.2	20	32	33	31 2	
UWAZIMA	159.04	264.0	20	20	20	23 52	
MATUYAMA	159.07	265.8	20	15	15	27 13	
YONAGO	159.09	270.5	20	24	24	22 24	
SAIGO	159.29	272.5	20	23	23	38 9	
CHITTAGONG	159.31	135.2	20	6	6		
MATSUE	159.31	270.3	20	21	21	31 6	
MIYAZAKI	159.42	259.6	20	8	8	20 56 PKP2	
YAKUSIMA	159.48	254.9	20	27	27		
HIROSIMA	159.51	267.0	19	51	-9	37 19	
KAGOSIMA	159.95	257.8	20	6	5	30 17	
HAMADA	159.95	268.2				21 37	
ASOSAN	160.08	261.9	20	10	9		
HENGCHUN	160.22	219.2	20	24	23		
KUMAMOTO	160.34	261.3	19	52	-9	26 44	
TAWU	160.44	220.1	20	8	7		
TAITUNG	160.64	221.3	20	38	37		
UNZENDAKE	160.65	260.6	20	26	25	29 45	
SAGA	160.81	262.1	20	7	6	21 16	
HSINKONG	160.81	222.4	19	58	-3		
HUKUOKA	160.86	263.1	20	7	5	37 41	
KAOHSIUNG	160.98	219.1	20	31	29		
TAINAN	161.33	219.6	20	17	15		
TOMIE	161.76	258.8	20	25	23	32 17	
TAICHUNG	162.03	222.7	20	19	16		
TAIPEI	162.26	226.5	20	18	15		
HONG KONG	163.15	202.0	20	15	11		

MAY 22 22.H 7.M 39.S EPICENTRE -43.65 -71.56 DEPTH= 0.KM

A= 0.22958 B=-0.68869 C=-0.68775 D=-0.9487 E=-0.3163
G=-0.2175 H= 0.6524 K=-0.7260 HT= -3.0

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
PORT STANLEY	12.24	136.0	3	1	2	5	18	1				
ARGENTINE I.	22.03	171.8	5	1	3							
LA PAZ	27.21	7.2	5	48	0						6	16
HUANCAYO	31.65	353.0	6	31A	4							
BYRD STATION	40.36	191.5	7	38	-3							
BOGOTA	48.09	356.6	8	46	2							
CHINCHINA	48.53	354.6	8	45A	-2							
BALBOA HTS.	52.86	350.1	9	18	-2							
CARACAS	54.05	5.6	9	23A	-6							
TRINIDAD	54.82	12.3	9	33	-1							
GRENADA	56.15	11.6	9	43	-1							
CAPE HALLETT	56.64	198.8	9	44	-4							
ST. VINCENT	57.31	11.9	9	50	-2							
ST. KITTS	61.22	9.6	10	16	-3							
SAN JUAN	61.92	5.9	10	19	-5						16	17
TACUBAYA	67.67	331.7	11	8	7						11	25
GRAHAMSTOWN	73.14	120.0	11	34A	-1							
WINDHOEK	73.85	105.8	11	38	-1							
MBOUR	76.24	54.4	11	55	3							
CHATEAU	77.68	227.1	12	1	1							
COLUMBIA	77.76	352.0	10	43	-78							
KARAPIRO	78.60	228.0	12	3	-2							
PRETORIA	79.26	115.2	12	21	12							
LITTLE ROCK	80.32	342.8	12	13	-2							
MORGANTOWN	83.24	353.5	12	36	6							
TUCSON	83.63	327.3	12	33	1							
ST. LOUIS 1	83.63	345.4	12	30	-2							
PALISADES	84.30	358.2	12	43	8							
WESTON	85.64	0.2	12	40	-2							
BROKEN HILL	87.25	107.2	12	48	-2							
HALIFAX	88.17	5.7	12	53	-1							
PASADENA	88.32	322.9	12	56	1							
BOULDER CITY	88.48	326.2	12	56	0							
OTTAWA	88.74	357.1	12	55	-2							
BREBEUF	88.78	358.6	12	56	-1							
SALT LAKE C.	91.53	330.6	13	19	9							
RAPID CITY	91.79	337.8	13	11	0							
BOZEMAN	95.59	333.4	13	28	-1							
LWIRO	95.95	98.8	13	41	11						17	31
BUTTE	96.40	332.6	13	31	-1							
HUNGRY HORSE	98.92	332.9	13	48	4							
MALAGA	100.55	48.9	14	1	10						18	3 PP
RELIZANE	102.63	52.5									20	12
CHIAVARI	113.35	50.5	18	33	-7	25	28	2			23	33
STUTTGART	116.06	46.6	18	44	-1							
GOTEBORG	122.44	39.2	18	59	1							
COLLEGE	123.25	330.3	18	56	-3							
KSARA	124.21	73.8	19	3	2							
SKALSTUGAN	125.47	33.1	19	3	-1							
UPPSALA	126.05	38.6	19	12	7						22	44
NORD	128.23	8.8	18	52	-17							
SIMFEROPOL	128.58	61.0	19	12	2							
NURMIJARVI	129.54	39.6	19	11	0							
HELSINKI	129.56	40.1	19	11	0							
KIRUNA	130.23	29.8	19	3	-10							
PULKOVO	131.98	41.8	18	46	-30	25	36	-49				
SHIRAZ	133.84	88.3	19	12	-7							
MOSCOW	134.60	48.6	19	32	11	25	40	-50				
APATITY	135.00	31.6	19	17	-5	25	40	-51				
QUETTA	144.58	98.2	19	32	-7							
PETROPAVLOVK	145.97	304.0	19	39	-2							
SVERDLOVSK	147.41	49.1	19	47	3	26	5	-46				
MAGADAN	149.89	316.8	19	47	-1	26	3	-51				
TIKSI	150.22	347.1	19	34	-14	25	57	-57				
ANDIJAN	153.28	84.2	19	49	-3	25	44	-74				
CHITTAGONG	154.70	141.7	19	45	-9							
TUKUBASAN	154.72	263.8	19	45	-9							
MATUSIRO	156.23	262.8	19	57	1						20	27 PKP2
SHILLONG	157.47	137.8	20	0	2							

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MAY 22 23.H 29.M 26.S EPICENTRE -38.60 -74.41 DEPTH= 0.KM

A= 0.21063 B=-0.75473 C=-0.62131 D=-0.9632 E=-0.2688
G=-0.1670 H= 0.5984 K=-0.7836 HT= -1.2

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT STANLEY	17.48	143.9	4	6	0								
LA PAZ	22.70	15.8	5	7	3	9	14	6					
HUANCAYO	26.45	358.0	5	46A	6						6	11	PP
CHINCHINA	43.36	358.2	8	5A	0								
BYRD STATION	44.91	190.1	8	16	-2						10	6	PP
CARACAS	49.34	9.7	8	39	-13								
SOUTH POLE	51.59	180.0	9	10	0								
GRENADA	51.76	15.9	9	15	4								
ANTIGUA	56.68	14.4	9	47	0								
SAN JUAN	57.21	9.4	9	50	-1								
CAPE HALLETT	60.73	198.5	10	16	1								
TERRE ADELIE	71.40	194.1	11	28	5						14	14	
MIRNY	74.73	174.8	11	41	-2								
LITTLE ROCK	74.88	344.8	11	41	-3								
MBOUR	75.20	57.6	11	47	1								
GEORGETOWN	77.16	357.9	11	55	-2	21	47	1					
MORGANTOWN	78.02	355.6	12	0A	-1								
TUCSON TELE.	78.25	329.2	12	3	0								
FLORISSANT	78.41	347.3	12	2	-2	21	59	0					
KIMBERLEY	79.20	118.1									12	7	PCP
CHATEAU	79.50	227.9	12	10	0								
LAWRENCE	79.53	343.6	12	8	-2								
PASADENA	82.98	324.7	12	29	1								
BOULDER CITY	83.08	328.0	12	27	-1								
HALIFAX	83.41	7.7	12	28	-2								
PRETORIA	83.43	117.6	13	1	31						21	49	
OTTAWA	83.63	359.1	12	29	-2								
BREBEUF	83.72	0.6	12	30	-2	22	55	1					
LARAMIE	84.46	336.9	12	36	1								
SEVEN FALLS	85.40	2.4	12	37	-3								
SALT LAKE C.	86.08	332.4	12	43	0								
RAPID CITY	86.32	339.6	12	44	-1								
EUREKA	86.54	329.0	12	47	1								
BULAWAYO	87.32	113.6	12	51	2								
RENO	88.20	326.6	12	56A	2								
BOZEMAN	90.12	335.3	13	2	-1								
BROKEN HILL	90.87	109.2	13	6	0								
BUTTE	90.94	334.5	13	6	-1								
HUNGRY HORSE	93.45	334.8	13	17	-1								
TAMANRASSET	96.47	66.1	13	29	-3						17	11	PP
MALAGA	98.89	49.8	13	39	-4						17	49	PP
GRANADA	99.68	49.9	14	34	47								
STUTTGART	114.13	46.1	18	44	3								
SKALSTUGAN	122.37	31.9	18	58	1								
JERUSALEM	123.35	73.8	19	2	3								
KSARA	124.78	71.9	19	7	5								
KIRUNA	126.86	28.2	19	8	2								
NURMIJARVI	126.94	37.7	19	7	1								
HELSINKI	127.01	38.1	19	6	0								
SODANKYLA	129.12	29.3	19	11	1								
PULKOVO	129.55	39.4	19	9	-2	25	55	-23					
APATITY	131.75	29.3	19	17	2								
MOSCOW	132.74	45.6	19	15	-2								
SHIRAZ	135.69	85.0	19	24	2						22	58	PKS
MAGADAN	144.67	321.3	19	37	-1								
TIKSI	144.83	347.4	19	35	-3								
SVERDLOVSK	145.47	43.3	19	38	-2								
POONA	145.94	117.0	19	44	4								
QUETTA	147.22	93.0	19	45	2								
YAKUTSK	152.27	335.5	19	57	7								
MATUSIRO	154.14	275.7	19	54	1						20	18	
SHILLONG	162.59	134.3	20	6	3						20	52	

MAY 23 0.H 25.M 42.S EPICENTRE -38.50 -74.05 DEPTH= 0.KM

A= 0.21563 B=-0.75441 C=-0.61998 D=-0.9615 E=-0.2748
G=-0.1704 H= 0.5961 K=-0.7846 HT= -1.1

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	5.76	29.7	2	13	44							
LA PLATA	13.42	79.4	3	17	2	5	58	12				
PORT STANLEY	17.40	144.6	4	6	0							
LA PAZ	22.53	15.0	5	6	3	9	13	7				
HUANCAYO	26.37	357.2	5	42A	2						6	40 PP
BOGOTA	42.90	360.0	8	5	3							
CHINCHINA	43.28	357.7	8	7A	2							
BALBOA HTS.	47.49	352.6	8	38	-1							
CARACAS	49.20	9.3	8	48	-4							
TRINIDAD	50.30	16.2	9	0	-1							
GRENADA	51.59	15.4	9	12	1							
SOUTH POLE	51.69	180.0	9	11	0						11	46 PP
ST. VINCENT	52.77	15.7	9	20	1							
FORT FRANCE	54.31	15.4	9	32	1							
ANTIGUA	56.52	14.0	9	44	-3							
ST. KITTS	56.55	13.0	9	45	-2							
COMITAN	57.04	339.2									27	43
SAN JUAN	57.07	9.0	9	45	-6						11	57 PP
CAPE HALLETT	60.91	198.4	10	17	0							
VERA CRUZ	61.02	336.0									19	24
TACUBAYA	62.24	333.0	10	29	3						12	53 PP
TERRE ADELIE	71.56	194.0	11	3	-22							
COLUMBIA	72.43	353.9	11	29	-2							
CHIHUAHUA	73.20	330.9				20	49	-14			36	31
CHAPEL HILL	74.20	355.8	11	40	-1							
MIRNY	74.80	174.7	11	44	0							
LITTLE ROCK	74.86	344.5	11	42	-3							
MBOUR	74.92	57.4	11	47	2						12	14 PCP
GEORGETOWN	77.08	357.6	11	55	-2	21	49	3				
WASHINGTON	77.08	357.6	11	59	2							
MORGANTOWN	77.94	355.3	12	1K	-1							
ST. LOUIS 1	78.19	347.1	12	1	-2	21	59	1				
TUCSON	78.27	328.8	12	4	0							
TUCSON TELE.	78.31	328.9	12	3	-1						14	48 PP
FLORISSANT	78.37	347.0	12	4	0	21	55	-5				
KIMBERLEY	78.99	117.9	12	4K	-4							
PALISADES	79.13	0.1	12	10	1							
LAWRENCE	79.52	343.3	12	7	-4							
WESTON	80.54	2.0	12	13	-3							
LUANDA	82.44	95.3	12	29A	3							
PASADENA	83.07	324.4	12	31	2							
BOULDER CITY	83.15	327.8	12	31	1							
PRETORIA	83.22	117.4	13	0	30							
HALIFAX	83.28	7.5	12	32K	2							
OTTAWA	83.53	358.8	12	31	-1							
BREBEUF	83.62	0.3	12	31A	-1	22	56	2				
SEVEN FALLS	85.29	2.2	12	40	0							
FRESNO	85.98	324.8	12	45	1							
SALT LAKE C.	86.13	332.2	12	45	0							
RAPID CITY	86.33	339.4	12	46	0							
EUREKA	86.60	328.8	12	48	1							
BULAWAYO	87.10	113.4	12	49	0							
LICK	87.29	323.9	12	54A	4						14	28
BERKELEY	88.01	323.8	12	55	1							
RENO	88.27	326.3	12	57	2							
UKIAH	89.47	323.9	13	2	1							
MINERAL	89.72	325.7	13	3K	1						14	39
BOZEMAN	90.15	335.0	13	3	-1							
SHASTA	90.35	325.4	13	5	0							
BROKEN HILL	90.63	109.0	13	7	1							
BUTTE	90.97	334.3	13	7	-1							
TAMANRASSET	96.18	65.9	13	31	-1						17	24 PP
VICTORIA	97.09	329.4	13	38	2							
MALAGA	98.62	49.6	13	40K	-3						17	45 PP
LWIRO	98.64	99.8	13	46	3						21	47
ALMERIA	99.86	50.6	13	50K	2	24	28	1			17	56 PP
TORTOSA	104.19	49.0				24	53	6			18	28 PP
RATHFARNHAM	108.52	35.9	9	32	777							
FOLINIERE	108.55	42.0									22	14 SKP
ISOLA	110.07	49.2									19	14 PP
KEW	110.26	39.8									19	11 PP
BESANCON	111.18	46.0									22	42
CHIAVARI	111.51	50.0									15	58
DURHAM	111.61	36.5									22	2 PP

DOURBES	112.02	42.9								19 16	PP
ROME	112.15	53.6	19 30	52						26 24	SKKS
STRASBOURG	112.92	45.5								19 43	PP
STUTTGART	113.87	45.9	18 41	0						19 44	PP
WITTEVEEN	114.58	41.2								22 9	
TOLMEZZO	114.82	49.6	18 50	7						22 52	
TRIESTE	114.88	50.6			25	36	4			19 51	PP
LJUBLJANA	115.55	50.5								19 50	PP
JENA	116.24	44.7	18 47	1						19 53	PP
ZAGREB	116.32	51.3								19 45	PP
PLAUEN	116.35	45.3	18 48	2							
HALLE	116.72	44.3	18 59	12	25	40	1				
PRUHONICE	117.46	46.7	18 51	3						22 30	
COLLEGE	117.84	332.4	18 49	0							
BELGRADE	118.64	53.9	20 9A	78						27 37	
COPENHAGEN	118.93	40.2								20 10	PP
HELWAN	119.21	73.6	18 55	3						20 27	PP
SOFIA	119.55	57.2	18 54	2						20 17	PP
GOTEBORG	119.59	38.0	18 55	3						22 14	
RACIBORZ	119.60	47.8	18 56	4						22 7	
WARSAW	122.11	46.3								20 32	PP
SKALSTUGAN	122.14	31.8	18 59	2							
LWOW	122.94	49.8	19 0	1						22 3	
JERUSALEM	123.06	73.6	19 3	4							
UPPSALA	123.15	37.1	19 0	1						20 39	PP
NORD	123.44	8.5	18 59	-1							
KSARA	124.48	71.7	19 3	1							
KIRUNA	126.64	28.1	19 8	2						21 2	PP
NURMIJARVI	126.69	37.6	19 17	11						22 24	PKS
HELSINKI	126.76	38.0	19 6	0							
SIMFEROPOL	127.61	58.4	19 9	1						21 11	PP
SODANKYLA	128.90	29.3	19 11	1							
PULKOVO	129.29	39.3	19 10	-1						22 33	
APATITY	131.52	29.3	19 16	1							
MOSCOW	132.47	45.5	19 16	-1						21 43	PP
TIFLIS	133.98	65.7	19 21	1						22 54	SKP
KHEYS	134.26	9.8	19 21	1						21 53	PP
PETROPAVLOVK	141.38	309.7	19 24	-9							
MAGADAN	144.77	321.5	19 37	-2							
TIKSI	144.80	347.6	19 35	-4						35 35	
SVERDLOVSK	145.20	43.2	19 37	-3							
POONA	145.74	116.4	19 42K	1							
QUETTA	146.94	92.6	19 46	3							
TASHKENT	151.86	72.5	20 1	10						23 45	PP
Y.-SAKHLINSK	151.91	299.6	19 51	0							
UGLEGORSK	152.11	304.0	19 53	2							
TUKUBASAN	152.85	275.9	19 54	2						23 47	PP
MATUSIRO	154.41	275.7	19 56	2						23 53	PP
SEMIPALATNSK	158.26	48.5	19 58	-1							
CANTON	163.39	204.5	20 11	6						21 0	PKP2
CHANGCHUN	164.49	296.2	20 7	1						24 51	PP
NANKING	167.71	242.3	20 13	5						21 21	PKP2
ULAN-BATOR	170.56	356.1	20 14	4							
PEKING	171.93	284.1	20 14	3						25 29	PP
CHENGTU	172.01	167.9	20 14	3						25 29	PP
SIAN	175.13	210.3	20 17A	5							
LANCHOW	177.02	144.7	20 12	0						25 52	PP

MAY 23 0.H 51.M 14.S EPICENTRE -37.38 -72.33 DEPTH= 0.KM
A= 0.24173 B=-0.75899 C=-0.60457 D=-0.9528 E=-0.3035
G=-0.1835 H= 0.5761 K=-0.7966 HT= -0.7

SE= 4.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	4.17	19.9	1	55	49								
PORT STANLEY	17.59	149.0	4	8	0								
LA PAZ	21.13	11.2	4	55	7	9	8	28					
HUANCAYO	25.37	353.1	5	34K	4						6	11	PP
CHINCHINA	42.25	355.1	7	58A	2								
BYRD STATION	46.39	190.2	8	26	-4						10	53	PCP
BALBOA HTS.	46.59	350.2	8	31	0								
CARACAS	47.90	7.2	8	39	-3								
TRINIDAD	48.87	14.3	8	52	3						11	51	

GRENADA	50.17	13.6	9	2	3				11	59
ST. VINCENT	51.35	13.8	9	4	-4				12	5
SOUTH POLE	52.80	180.0	8	53	-26				11	44
ANTIGUA	55.12	12.3	9	35	-1				12	30
ST. KITTS	55.18	11.2	9	35	-1				12	32
SAN JUAN	55.77	7.1	10	37	56					
TACUBAYA	61.89	331.1	10	27	4	18	49	3	14	27
CAPE HALLETT	62.40	197.8	10	32	5					
COLUMBIA	71.48	352.4	11	22	-2					
TERRE ADELIE	72.97	193.3	11	40	7					
MBOUR	73.17	56.4	11	36	2				11	53 PCP
CHAPEL HILL	73.20	354.3	11	31	-3					
LITTLE ROCK	74.17	343.0	11	38	-2					
MIRNY	75.78	174.0	11	43	-6					
FAYETTEVILLE	75.86	341.9	10	48	-62				13	38 PP
GEORGETOWN	76.03	356.2	11	49	-2				14	46
WINDHOEK	76.23	107.9	11	53	1					
GRAHAMSTOWN	76.86	121.8	11	53	-2					
MORGANTOWN	76.96	354.0	11	55K	-1					
ST. LOUIS 1	77.43	345.7	11	56	-2	21	42	-7		
FLORISSANT	77.61	345.7	11	57	-2					
PALISADES	78.03	358.8	13	54	112				14	57
TUCSON	78.04	327.4	12	1	-1					
TUCSON TELE.	78.07	327.5	12	1	-1					
KIMBERLEY	78.31	117.2	11	42	-21					
LAWRENCE	78.86	342.0	12	3	-3					
WESTON	79.39	0.8	12	10	1					
HALIFAX	82.01	6.3	12	24K	1					
OTTAWA	82.46	357.6	12	24	-1					
BREBEUF	82.51	359.1	12	24	-2					
BOULDER CITY	82.95	326.5	12	26	-2					
PASADENA	82.97	323.2	12	39	11					
SEVEN FALLS	84.14	1.0	12	34	0					
RAPID CITY	85.78	338.2	12	41	-1					
SALT LAKE C.	85.79	331.0	12	41	-1					
FRESNO	85.87	323.6	12	52	9					
EUREKA	86.37	327.6	12	44	-1					
LICK	87.20	322.8	13	0A	11					
RENO	88.11	325.2	13	4A	11					
MINERAL	89.58	324.6	13	10A	10					
BROKEN HILL	89.70	107.9	13	2	1					
BOZEMAN	89.73	334.0	12	59	-2					
BUTTE	90.57	333.2	13	4	-1					
HUNGRY HORSE	93.07	333.6	13	15	-2					
TAMANRASSET	94.48	64.8	13	24	1				17	26 PP
MALAGA	96.86	48.6	13	34	0				17	47 PP
CANBERRA	98.12	213.1							15	36
RELIZANE	99.26	52.0	13	54	9					
BRISBANE	102.90	220.3							15	37
RATHFARNHAM	106.83	35.0							16	27
KEW	108.53	38.9							19	13 PP
EDINBURGH	109.88	34.0							34	46
DURHAM	109.91	35.6							19	21 PP
ROME	110.39	52.5				25	2	-12	19	28 PP
MUNDARING	110.55	187.7							19	19
STUTTGART	112.12	45.0							21	58 PPP
TOLMEZZO	113.06	48.6							19	33 PP
TRIESTE	113.12	49.5				25	20	-4	19	28 PP
LJUBLJANA	113.79	49.5							19	33 PP
JENA	114.50	43.8							19	56
PLAUEN	114.60	44.4							19	51
BRATISLAVA	116.35	48.3							22	42
WARSAW	120.35	45.4							20	21
LWOW	121.18	48.8	19	17	22					
JERUSALEM	121.43	72.1	18	57	2				20	47 PP
UPPSALA	121.44	36.3	18	54	-1					
KSARA	122.83	70.2	18	59	1					
NURMIJARVI	124.99	36.8	19	1	-1					
KIRUNA	125.02	27.6	19	1	-1					
HELSINKI	125.04	37.3	19	2	0					
SIMFEROPOL	125.87	57.2	19	3	-1					
SODANKYLA	127.26	28.7	19	5	-1					
PULKOVO	127.57	38.5	19	6	-1					
APATITY	129.89	28.8	19	11	0					
MOSCOW	130.72	44.6	19	11	-2					
KHEYS	132.93	9.8	19	23	6					
SHIRAZ	133.93	82.7	19	19	0				25	40
SVERDLOVSK	143.46	42.5	19	32	-4					

POONA	144.97	113.1	19	38A	-1							
QUETTA	145.61	89.8	19	41	1							
TUKUBASAN	154.07	277.4	19	48	-5						22	54
MATUSIRO	155.63	277.4	20	4	9						20	42
SHILLONG	162.13	126.7	20	1	-2							

MAY 23 0.H 53.M 56.S EPICENTRE -39.46 -73.20 DEPTH= 0.KM

A= 0.22380 B=-0.74112 C=-0.63297 D=-0.9573 E=-0.2891
G=-0.1830 H= 0.6059 K=-0.7742 HT= -1.5

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT STANLEY	16.23	144.0	3	54	3							
HUANCAYO	27.36	355.5	5	51K	2						6	39
BOGOTA	43.87	358.7	8	11	1							
CHINCHINA	44.26	356.5	8	13	0							
BALBOA HTS.	48.53	351.6	8	45	-2							
SOUTH POLE	50.73	180.0	9	24	21							
SAN JUAN	57.91	7.9	9	51	-5							
TERRE ADELIE	70.79	193.8	11	18	-2							
COLUMBIA	73.45	353.2	11	33	-3							
MIRNY	73.79	174.3	11	35	-3							
MBOUR	74.88	56.6	11	46	2							
LITTLE ROCK	75.96	343.8	11	48	-2							
WINDHOEK	76.24	107.9	11	52	0							
GRAHAMSTOWN	76.34	121.9	11	51	-1							
MORGANTOWN	78.95	354.7	12	6A	-1							
ST. LOUIS 1	79.28	346.5	12	6	-3							
TUCSON	79.43	328.2	12	12	3							
FLORISSANT	79.46	346.4	12	9	-1							
TUCSON TELE.	79.47	328.4	12	9	-1							
WESTON	81.48	1.4	12	22	2							
HALIFAX	84.14	6.9	12	35A	1							
PASADENA	84.23	323.9	12	34	-1							
BOULDER CITY	84.31	327.2	12	36	1							
OTTAWA	84.51	358.2	12	35A	-1							
FRESNO	87.14	324.3	12	49	0							
SALT LAKE C.	87.28	331.6	12	49	-1							
RAPID CITY	87.46	338.9	12	50	0							
EUREKA	87.77	328.3	12	53	1							
LICK	88.45	323.4	12	54K	-1							
BERKELEY	89.17	323.3	12	58	-1							
SAN FRANCSCO	89.18	323.1	13	3	4							
RENO	89.43	325.8	13	2	2							
MINERAL	90.88	325.1	13	9	2							
BOZEMAN	91.30	334.5	13	10	1							
SHASTA	91.52	324.9	13	12	2							
BUTTE	92.12	333.7	13	12	0						20	52
HUNGRY HORSE	94.64	334.0	13	22	-2							
TAMANRASSET	95.96	65.5	13	32	2						17	23 PP
MALAGA	98.73	49.3	13	42A	0						17	55 PP
CHARTERS TS.	110.22	219.5	14	17A	777							
TIKSI	145.87	347.7	19	37	-4							
MAGADAN	145.93	320.8	19	39	-2							
Y.-SAKHLINSK	152.95	298.1	19	53	1							
MATUSIRO	155.14	273.3	19	58	3						23	59 PP
ALMATA	157.33	70.6	19	59	2							
ULAN-BATOR	171.54	359.6									21	32 PKP2

MAY 23 1.H 34.M 52.S EPICENTRE -39.48 -73.66 DEPTH= 0.KM

A= 0.21778 B=-0.74268 C=-0.63324 D=-0.9596 E=-0.2814
G=-0.1782 H= 0.6077 K=-0.7740 HT= -1.5

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
PORT STANLEY	16.43	143.2	3	56	3	7	5	9				
LA PAZ	23.40	13.5	5	16	5	9	33	12			10	11 SS
HUANCAYO	27.36	356.4	5	50	1							

BYRD STATION	44.15	190.4	8	12	0		
BALBOA HTS.	48.50	352.2	8	46	0		
SOUTH POLE	50.71	180.0	9	2	-1		9 57
TRINIDAD	51.16	15.5	9	8	1		
GRENADA	52.45	14.8	9	16	0		
ST. VINCENT	53.63	15.0	9	24	-1		
ANTIGUA	57.39	13.4	9	50	-2		
ST. KITTS	57.44	12.4	9	50	-3		
SAN JUAN	57.98	8.4	10	52	55		
CAPE HALLETT	60.08	198.5	10	13	1		
TACUBAYA	63.25	332.9	10	40	8		
TERRE ADELIE	70.69	193.9	11	20	1		
COLUMBIA	73.43	353.6	11	35	-1		
MIRNY	73.80	174.5	11	35	-3		
CHIHUAHUA	74.19	330.7					16 21 PPP
MBOUR	75.19	56.9	11	47	1		
CHAPEL HILL	75.19	355.5	11	44	-2		
LITTLE ROCK	75.88	344.2	11	48	-2		
GRAHAMSTOWN	76.64	122.1	11	53	-1		
FAYETTEVILLE	77.54	343.1	10	57K	-62		19 54
GEORGETOWN	78.06	357.3	12	1	-1		
KIMBERLEY	78.27	117.5	11	16A	-47		
ST. LOUIS 1	79.21	346.9	12	7	-1		
TUCSON	79.26	328.6	12	8	-1		
TUCSON TELE.	79.30	328.7	12	8	-1		
CHATEAU	79.34	227.7	12	9	0		
FLORISSANT	79.39	346.8	12	9	0		
PALISADES	80.11	359.8	12	12	-1		
KARAPIRO	80.20	228.6	12	14	0		
WESTON	81.50	1.8	12	20	0		
PASADENA	84.04	324.2	12	34	0		
HALIFAX	84.21	7.2	12	34K	0		
OTTAWA	84.52	358.5	12	35K	-1		
BREBEUF	84.60	0.0	12	35A	-1		
LARAMIE	85.50	336.4	12	40	-1		
SEVEN FALLS	86.25	1.9	12	44	-1		
FRESNO	86.95	324.6	12	48	0		
SALT LAK+ CC	C13	332C0	12		-1		
RAPID CITY	87.35	339.2	12	48	-2		
EUREKA	87.60	328.6	12	51	0		
LICK	88.26	323.7	12	56A	2		
BERKELEY	88.97	323.6	12	59K	1		
RENO	89.25	326.1	13	1	2		
BROKEN HILL	90.03	108.7	13	4K	1		
MINERAL	90.70	325.4	13	12	6		
BOZEMAN	91.16	334.8	13	8	0		
SHASTA	91.33	325.1	13	9K	0		
BUTTE	91.98	334.0	13	11	-1		
HUNGRY HORSE	94.50	334.3	13	22	-1		
RIVERVIEW	96.10	216.2	13	28A	-3	24 44 37	
TAMANRASSET	96.30	65.8	13	31	0		17 26 PP
LWIRO	98.17	99.7	13	42	2		
MALAGA	99.02	49.5	13	43	-1		17 32
STUTTGART	114.32	46.1					27 44
COLLEGE	118.84	332.0	18	49	-1		
JERUSALEM	123.03	74.0	19	0	2		
NORD	124.36	8.6	19	0	-1		
KSARA	124.49	72.2	19	2	1		
NURMIJARVI	127.28	38.0	19	5	-2		
HELSINKI	127.33	38.4	19	6	-1		
KIRUNA	127.36	28.4	19	6	-1		
SODANKYLA	129.60	29.6	19	10	-1		
PULKOVO	129.85	39.8					22 33
APATITY	132.22	29.7	19	12	-4		
MOSCOW	132.93	46.0	19	15	-2		
KHEYS	135.16	10.0	19	24	2		
SHIRAZ	135.18	85.5	19	21	-1		22 54 PKS
Y.-SAKHLINSK	152.64	298.0	19	51	0		
YAKUTSK	153.31	335.4	19	59	7		
HATUSIRO	154.79	273.5	20	1	7		20 19
SHILLONG	161.56	134.5	21	3	61		

MAY 23 2.H 46.M 30.S EPICENTRE -41.48 -73.71 DEPTH= 0.KM

A= 0.21079 B=-0.72117 C=-0.65991 D=-0.9598 E=-0.2806
G=-0.1851 H= 0.6334 K=-0.7513 HT= -2.2

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT STANLEY	14.90	138.7	3 36	3				
ARGENTINE I.	24.41	170.4	5 23	2				
LA PAZ	25.36	12.6	5 34	4	9 56	1		6 59
HUANCAYO	29.36	356.8	6 9A	2				7 12 PP
BYRD STATION	42.17	190.7	7 56	0				
BOGOTA	45.88	359.5	8 29	3				
CHINCHINA	46.26	357.4	8 29K	0	15 23	7		
SOUTH POLE	48.71	180.0	8 47	-1				9 10
BALBOA HTS.	50.48	352.5	9 2	1				
CARACAS	52.10	8.5	9 9A	-5				
TRINIDAD	53.10	15.2	9 22	1				
GRENADA	54.40	14.5	9 31	0				
ST. VINCENT	55.58	14.7	9 39	0				
FORT FRANCE	57.12	14.5						14 5
CAPE HALLETT	58.17	198.9	9 57K	-1				
ANTIGUA	59.35	13.2	10 4	-2				
ST. KITTS	59.40	12.2	10 5	-1				
SAN JUAN	59.97	8.3	10 6	-4				
TACUBAYA	65.02	333.4	10 49	5				15 0 PPP
TERRE ADELIE	68.74	194.1	11 8	1				
MIRNY	71.81	174.4	11 24	-2				
BERMUDA	73.97	7.9	11 55	16				
COLUMBIA	75.42	353.7	11 47	0				
GRAHAMSTOWN	75.61	121.7	11 46A	-2				
MBOUR	76.32	56.5	11 53	1				12 2 PCP
KIMBERLEY	77.39	117.1	11 44K	-14				
LITTLE ROCK	77.80	344.4	12 0	-1				
KARAPIRO	78.85	228.9	12 5	-1				
FAYETTEVILLE	79.45	343.2	11 9A	-61				
GEORGETOWN	80.06	357.3	12 12	-1	22 17	0		
WASHINGTON	80.06	357.3	12 12	-1				
MORGANTOWN	80.93	355.1	12 17A	0				
TUCSON	80.96	328.8	12 18	0				
TUCSON TELE.	80.99	328.9	12 18	0				
ST. LOUIS 1	81.16	347.0	12 18	-1	22 11	-17		
FLORISSANT	81.34	346.9	12 19	-1	22 28	-2		
LUANDA	81.92	94.6	12 25K	2				
PALISADES	82.11	359.8	12 23	-1				
LAWRENCE	82.45	343.2	12 25	0				
CLEVELAND	82.88	354.1	12 17	-11				
PASADENA	85.64	324.4	12 43	1				
BULAWAYO	85.68	113.0	12 42	0				
BOULDER CITY	85.81	327.7	12 43	1				
HALIFAX	86.20	7.2	12 45A	1				
OTTAWA	86.52	358.6	12 46A	0				
BREBEUF	86.60	0.1	12 46A	0	23 22	-1		
LARAMIE	87.32	336.5	12 49	-1				
SEVEN FALLS	88.26	2.0	12 53	-1				
FRESNO	88.56	324.6	12 57A	1				
SALT LAKE C.	88.88	332.0	12 57	0				
RAPID CITY	89.21	339.2	12 58	-1				
EUREKA	89.29	328.6	13 0	1				
BROKEN HILL	89.42	108.7	13 0	0				
LICK	89.85	323.7	13 3A	1				
BERKELEY	90.56	323.6	13 0	-5				
MINERAL	92.32	325.4	13 14	1				
SHASTA	92.95	325.1	13 17	1				
BOZEMAN	92.96	334.8	13 16	0				
BUTTE	93.76	334.0	13 20	0				
RIVERVIEW	94.46	216.1					23 54	-39
AVERROES	96.17	50.5						17 25 PP
HUNGRY HORSE	96.29	334.3	13 31	0				
TAMANRASSET	97.15	66.0	13 36	1				17 29 PP
LWIRO	97.87	100.0	13 40	1				27 22
MALAGA	100.34	49.8	13 49A	-1				17 53 PP
ALMERIA	101.55	50.8	13 54	-1	24 32	-2		18 3 PP
RELIZANE	102.59	53.3						17 58 PP
ALGIERS UNI.	104.78	53.9						18 10 PP
TORTOSA	105.93	49.4			24 54	-1		18 9 PP
RATHFARNHAM	110.78	36.4						27 21
ISOLA	111.81	49.9						19 20 PP
KEW	112.37	40.4						19 22 PP
CHIAVARI	113.20	50.8						20 20
MESSINA	113.50	59.2						19 28 PP

ROME	113.69	54.4					19 32	PP
DOURBES	114.00	43.7					19 36	PP
STRASBOURG	114.80	46.3					19 46	PP
DE BILT	115.47	42.1					19 45	PP
STUTTGART	115.73	46.8					19 47	PP
TRIESTE	116.55	51.6					19 52	PP
LJUBLJANA	117.22	51.5					19 59	PP
ZAGREB	117.96	52.3					20 7	PP
HALLE	118.65	45.3					20 12	PP
PRUHONICE	119.29	47.7					20 10	PP
HELWAN	119.76	75.1					20 15	PP
COLLEGE	120.59	331.5	18	52	-2			
COPENHAGEN	121.02	41.3					20 27	PP
JERUSALEM	123.60	75.3	19	0	0		20 43	PP
WARSAW	123.95	47.6					20 41	
SKALSTUGAN	124.52	32.8	18	59	-2			
LWOW	124.63	51.3					20 51	PP
KSARA	125.12	73.5	19	4	2			
UPPSALA	125.35	38.2	19	3	0			
NORD	126.34	8.8	19	5	0			
NURMIJARVI	128.87	39.0	19	8	-2			
SIMFEROPOL	128.90	60.3	19	10	0			
HELSINKI	128.92	39.4	19	9	-1			
KIRUNA	129.13	29.2	19	9	-1			
SODANKYLA	131.35	30.5	19	13	-1			
PULKOVO	131.40	40.9	19	14	0		22 48	PKS
APATITY	133.97	30.7	19	19	0			
MOSCOW	134.33	47.4	19	20	0		21 47	PP
SHIRAZ	135.34	87.5	19	22A	0		21 56	PP
KHEYS	137.14	10.4	19	26	1		22 8	PP
QUETTA	146.43	96.9	19	43A	2		23 5	
SVERDLOVSK	147.13	46.4	19	44	1			
MAGADAN	147.23	318.7	19	45	2			
TIKSI	147.76	346.8	19	41	-3			
MANILA	150.36	210.0	19	58	10			
TASHKENT	152.37	77.9	19	51	0		23 40	PP
UGLEGORSK	153.90	299.1	19	52	-1			
MATUSIRO	154.80	269.2	20	3K	9		23 58	PP
FRUNSE	156.55	76.1	19	57	1		23 52	PP
CHITTAGONG	157.38	143.0	19	56	-2			
CHATRA	158.53	126.9	20	2	3			
SHILLONG	160.13	138.5	19	59	-2			
CANTON	160.73	200.0	20	2	1		24 34	PP
VLADIVOSTOK	161.01	283.5	20	0	-2			
LHASA	162.89	128.9	20	6A	2		24 37	PP
KUNMING	163.41	168.6	20	5A	1		24 39	PP
ZO-SE	164.17	233.9	20	4	-1		24 51	PP
NANKING	166.28	230.7	20	10	3		21 37	PKP2
WUHAN	167.19	214.0	20	7	0		25 4	PP
CHENGTU	169.04	169.6	20	9	1		25 7	PP
IRKUTSK	169.13	6.4	20	7	-1			
PEKING	172.36	262.3	20	11	1		25 36	PP
ULAN-BATOR	173.55	356.4	20	10	-1		25 33	PP
LANCHOW	174.24	159.7	20	12A	1		21 43	PKP2

MAY 23 2.H 56.M 17.S EPICENTRE -42.94 -75.27 DEPTH= 0.KM

A= 0.18671 B=-0.71027 C=-0.67871 D=-0.9671 E=-0.2542
G=-0.1725 H= 0.6564 K=-0.7344 HT= -2.8

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT STANLEY	14.67	132.7	3	34	3	6	6	-9				
ARGENTINE I.	23.20	168.2	5	8	-1							
LA PAZ	27.05	15.2	5	49	3							
HUANCAYO	30.77	359.9	6	21	2							
BYRD STATION	40.53	190.8	7	42	-1						11	22
SOUTH POLE	47.26	180.0	8	35	-2						12	19
CHINCHINA	47.68	359.5	8	40	0	15	41	5			8	54
BALBOA HTS.	51.79	354.6	9	12	0							
SCOTT BASE	53.82	193.4	9	32	5							
TRINIDAD	54.81	16.8	9	35	1							
GRENADA	56.10	16.0	9	43	0							

CAPE HALLETT	56.42	199.5	9	44	-2						
ST. VINCENT	57.29	16.3	9	51	-1						
ANTIGUA	61.04	14.7	10	16	-2						
SAN JUAN	61.59	9.9	10	18	-4						
VERA CRUZ	64.74	338.2	11	3	21					23	55 SS
TACUBAYA	65.82	335.2	11	6	17					13	24 PP
TERRE ADELIE	67.04	194.9	10	55	-2						
MIRNY	70.48	175.0	11	15	-3						
BERMUDA	75.58	9.2	11	23	-25						
GRAHAMSTOWN	75.83	122.3	11	49	-1						
CHATEAU	76.13	229.1	11	51	-1						
CHIHUAHUA	76.64	332.4								28	44
WINDHOEK	76.65	108.3	11	55	1						
COLUMBIA	76.75	355.1	11	55	0						
KARAPIRO	77.02	230.0	11	55	-2						
KIMBERLEY	77.75	117.8	11	30	-31						
MBOUR	78.09	57.4	12	5	3					12	15 PCP
LITTLE ROCK	78.90	345.7	12	5	-2						
FAYETTEVILLE	80.52	344.6	11	11K	-65						
TUCSON	81.61	330.1	12	22	1						
TUCSON TELE.	81.66	330.3	12	22	0						
PRETORIA	82.00	117.7	12	22	-1						
MORGANTOWN	82.29	356.4	12	24K	-1						
ST. LOUIS 1	82.32	348.2	12	24	-1						
FLORISSANT	82.50	348.2	12	25	-1	22	44	2			
LAWRENCE	83.52	344.5	12	30	-1						
PASADENA	86.16	325.5	12	46	2						
BULAWAYO	86.17	113.9	12	45K	1						
BOULDER CITY	86.43	328.8	12	47	1						
HALIFAX	87.79	8.3	12	52	0						
OTTAWA	87.95	359.7	12	52	-1						
BREBEUF	88.06	1.2	12	52K	-2	23	47	10			
FRESNO	89.09	325.7	12	59K	0						
SALT LAKE C.	89.63	333.1	13	1	0						
SEVEN FALLS	89.76	3.0	13	0	-2						
EUREKA	89.94	329.7	13	4	1						
BROKEN HILL	90.04	109.8	13	4	1						
RAPID CITY	90.16	340.3	13	2	-2						
LICK	90.34	324.8	13	5K	1					16	33
BERKELEY	91.06	324.6	13	8	0						
RENO	91.46	327.1	13	11K	1						
MELBOURNE	91.68	210.8	13	10	-1						
CANBERRA	92.26	214.8	13	22	9						
RIVERVIEW	92.60	217.1								14	3
MINERAL	92.87	326.4	13	19	3						
SHASTA	93.49	326.1	13	19	0						
BUTTE	94.57	334.9	13	24	0						
HUNGRY HORSE	97.10	335.1	13	35	0						
TAMANRASSET	98.79	67.2	13	44	1					17	46 PP
ALGIERS UNI.	106.57	55.1	14	30	777	25	1	3		17	58 PP
ISOLA	113.63	51.1								19	33 PP
KEW	114.22	41.5								19	36 PP
DE BILT	117.33	43.2								20	1 PP
STUTTGART	117.57	48.0	18	48	0					20	2 PP
BENSBERG	117.69	45.1								20	19
HELWAN	121.24	76.8								20	28 PP
COLLEGE	121.31	331.5	18	54	-1						
GOTEBORG	123.62	40.1	19	0	0						
JERUSALEM	125.08	77.1	19	4	1					20	52 PP
SKALSTUGAN	126.37	33.7	19	6	1						
KSARA	126.63	75.4	19	7	1						
UPPSALA	127.20	39.3	19	5	-2						
NORD	127.96	9.2	19	5	-3						
SIMFEROPOL	130.62	61.9	19	13	0					21	27 PP
NURMIJARVI	130.73	40.0	19	11	-3					22	35 PKS
HELSINKI	130.77	40.5	19	13	-1						
KIRUNA	130.97	30.0	19	13	-1						
SODANKYLA	133.19	31.3	19	17	-1						
APATITY	135.82	31.5	19	21	-2						
MOSCOW	136.17	48.8	19	24	0					22	0 PP
SHIRAZ	136.54	90.0	19	16	-8					22	58 PKS
KHEYS	138.78	10.4	19	29	1					22	18 PP
PETROPAVLOVK	143.33	305.1	19	33	-3						
QUETTA	147.36	100.4	19	46	3					23	20 PKS
MAGADAN	147.52	316.9	19	45	1						
MANILA	148.52	211.5	19	51	6						
TIKSI	148.89	345.5	19	41	-5	26	42	-10		23	13 PP
BAGUIO CITY	150.31	212.0	19	53	5						
MATUSIRO	153.59	267.4	20	0	7					23	46 PP

YAKUTSK	155.84	330.9	19 51	-5						
SHILLONG	159.72	144.6							19 52	
VLADIVOSTOK	160.16	279.9	19 54	-7						

MAY 23 5.H 13.M 34.S EPICENTRE -38.14 -72.83 DEPTH= 0.KM

A= 0.23279 B=-0.75338 C=-0.61501 D=-0.9554 E=-0.2952
G=-0.1816 H= 0.5876 K=-0.7885 HT= -1.0

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ANTOFAGASTA	14.54	8.8	3	29	0								
PORT STANLEY	17.16	147.0	4	6	3						16	17	SCS
LA PAZ	21.95	12.1	5	2	5	9	3	7					
HUANCAYO	26.08	354.4	5	41A	4	10	18	11					
ARGENTINE I.	27.61	172.2	5	50	-1								
BOGOTA	42.56	358.2	8	3	3								
CHINCHINA	42.97	355.9	8	4K	1	14	31	2			15	7	
BYRD STATION	45.58	190.2	8	24	0								
BALBOA HTS.	47.27	350.9	8	38	1								
CARACAS	48.70	7.7	8	46	-2								
TRINIDAD	49.70	14.8	8	58	2								
GRENADA	51.00	14.0	9	6	0								
SOUTH POLE	52.05	180.0	9	13	-1	16	55	18			10	39	PCP
ST. VINCENT	52.18	14.3	9	15	0								
FORT FRANCE	53.72	14.1	9	26	0								
SAN SALVADOR	53.78	340.1	9	29	2								
DOMINICA	54.23	13.6	9	28	-2								
ANTIGUA	55.95	12.7	9	40	-3								
ST. KITTS	55.99	11.7	9	42	-1								
SAN JUAN	56.57	7.6	9	43	-4								
COMITAN	57.06	337.8				17	41	-4			27	38	
SCOTT BASE	58.90	192.3	10	8	4								
MERIDA	60.86	342.0				18	32	-2			20	8	
VERA CRUZ	61.09	334.7				18	30	-7			19	6	
CAPE HALLETT	61.56	198.1	10	21K	-1								
TACUBAYA	62.37	331.8	10	27	0	18	55	2			12	41	PP
HERMANUS	71.18	119.2	11	25	2	20	44	4					
TERRE ADELIE	72.14	193.5	11	24	-5	20	49	-2					
COLUMBIA	72.18	352.8	11	30	1								
MBOUR	73.91	56.6	11	42	3						12	7	
CHAPEL HILL	73.91	354.7	11	38	-1								
LITTLE ROCK	74.78	343.4	11	42	-2	21	17	-4					
FAYETTEVILLE	76.46	342.3	10	53	-61	20	31	-68					
WASHINGTON	76.76	356.6	11	54	-1								
GEORGETOWN	76.76	356.6	11	54	-1	21	39	-3					
GRAHAMSTOWN	76.80	122.0	11	55	-1								
MORGANTOWN	77.67	354.4	11	59K	-1								
ST. LOUIS 1	78.06	346.2	12	0	-3	21	52	-4					
FLORISSANT	78.25	346.1	12	2	-2	21	54	-4					
KIMBERLEY	78.31	117.3	11	15	-49								
TUCSON	78.47	327.8	12	4	-1								
TUCSON TELE.	78.50	328.0	12	5	0								
FORDHAM	78.62	359.2	12	2	-4	22	5	3					
PALISADES	78.78	359.2	12	7	0	22	19	15			12	18	PCP
LAWRENCE	79.45	342.4	12	7	-3								
CLEVELAND	79.64	353.4	12	9	-2								
WESTON	80.15	1.1									13	51	
CHATEAU	80.72	227.0	12	17	0						12	29	
LUANDA	81.51	94.6	12	24K	3								
KARAPIRO	81.57	228.0	12	21	0						12	32	
HALIFAX	82.80	6.6	12	27	-1								
OTTAWA	83.20	357.9	12	29	-1								
BREBEUF	83.26	359.4	12	30	0	22	46	-4					
PASADENA	83.34	323.6	12	33	2								
BOULDER CITY	83.36	326.9	12	31	0								
LARAMIE	84.54	335.8	12	36	-1								
SEVEN FALLS	84.90	1.4	12	38	0								
FRESNO	86.24	324.0	12	46K	1								
SALT LAKE C.	86.26	331.4	12	45	0								
RAPID CITY	86.33	338.6	12	44	-2								
BULAWAYO	86.36	112.7	12	46	0								
EUREKA	86.80	328.0	12	48	0								
KERGUELEN I.	86.91	156.7	13	8	20	23	50	24					

LICK	87.57	323.1	12	54A	2						
BERKELEY	88.29	323.0	12	56	1						
SAN FRANCSCO	88.30	322.8	12	57	2						
RENO	88.51	325.6	12	59K	3						
UKIAH	89.74	323.2	13	4	2						
BROKEN HILL	89.84	108.2	13	4	2						
MINERAL	89.97	324.9	13	4K	1						
BOZEMAN	90.23	334.3	13	5	1						
SHASTA	90.61	324.6	13	6	0						
BUTTE	91.07	333.5	13	19	11						
HUNGRY HORSE	93.58	333.9	13	19	-1						
CORVALLIS	94.10	326.5	13	24	2						
TAMANRASSET	95.15	65.2	13	27	0					17	14 PP
RIVERVIEW	97.56	215.7								17	34 PP
MALAGA	97.65	48.9	13	35A	-3					17	37 PP
GRANADA	98.44	49.0				27	52	212		17	44 PP
ALMERIA	98.90	49.9	13	43K	-1	24	18	-4		17	43 PP
TOLEDO	99.97	46.7	13	49	0						
RELIZANE	100.03	52.3	13	47	-2					17	50 PP
TANANARIVE	100.33	123.9								17	58 PP
ALICANTE	101.07	49.8	13	57	3	25	35	62			
ALGIERS UNI.	102.24	52.8				24	51	13		18	5 PP
TORTOSA	103.23	48.3				24	43	0		18	17 PP
RATHFARNHAM	107.67	35.3	14	50	777					18	51
ISOLA	109.11	48.6								19	4 PP
KEW	109.37	39.2								19	19 PP
BESANCON	110.24	45.4								18	38
CHIAVARI	110.54	49.4	15	16	-199					23	20
DURHAM	110.75	35.9				25	37	21		19	7 PP
DOURBES	111.10	42.4	18	59	23						
ROME	111.16	52.9								19	15 PP
MESSINA	111.17	57.6				25	17	0		19	22 PP
STRASBOURG	111.98	45.0				25	14	-7		19	23 PP
DE BILT	112.52	40.8								19	26 PP
STUTTGART	112.93	45.4	18	34	-5					19	39 PP
BENSBERG	112.94	42.6								17	56
TOLMEZZO	113.86	49.0	18	54	13					20	20
TRIESTE	113.91	50.0				25	48	20		19	38 PP
LJUBLJANA	114.58	49.9	18	45	2					19	44 PP
JENA	115.31	44.2	18	44	0					19	46 PP
ZAGREB	115.35	50.7	19	12	28						
PLAUEN	115.42	44.8	18	43	-1					19	42 PP
HALLE	115.80	43.7	18	48	3	25	36	1		19	54 PP
PRAGUE	116.49	46.0								22	25 PKS
PRUHONICE	116.51	46.1	18	48	2					22	23 PKS
VIENNA-H.	116.75	48.5								17	4
POTSDAM	116.83	43.3								19	51 PP
BRATISLAVA	117.14	48.8								12	52
BELGRADE	117.65	53.3								20	1 PP
COLLEGE	117.96	332.2	18	47	-2						
COPENHAGEN	118.04	39.8				26	3	19		20	2 PP
HELWAN	118.18	72.8	18	52	2					20	5 PP
SOFIA	118.55	56.6	18	53	3	25	46	1		20	11 PP
GOTEBORG	118.72	37.6	18	54	3						
WARSAW	121.16	45.8								20	59 PP
SKALSTUGAN	121.33	31.5	18	56	0						
LWOW	121.98	49.3	18	58	1	25	54	-3		30	27 PS
JERUSALEM	122.03	72.8	19	1	4					20	35 PP
UPPSALA	122.28	36.7	18	58	0						
NORD	122.94	8.4	18	59	0						
KSARA	123.45	70.9	18	52	-8					20	43 PP
NURMIJARVI	125.82	37.2	19	5	1					22	40 PKS
KIRUNA	125.87	27.9	19	5	0						
HELSINKI	125.88	37.7	19	5	0						
SIMFEROPOL	126.60	57.8	19	8	2					22	39 SKP
SODANKYLA	128.11	29.0	19	9	0						
PULKOVO	128.41	39.0	19	10	1					22	44 PKS
APATITY	130.74	29.1	19	11	-3					21	29 PP
MOSCOW	131.53	45.1	19	14	-1					22	37 SKP
TIFLIS	132.96	65.0	19	19	1					22	49 PKS
GORIS	133.38	68.4	19	19	0					22	48 PKS
KHEYS	133.74	9.9	19	20	1	26	22	-7		21	48 PP
SHIRAZ	134.41	83.7	19	21	0					22	44 PKS
LEMBANG	135.26	180.6	19	23K	1						
TEHERAN	135.92	75.2	19	25	1					22	4 PP
ASHKABAD	141.91	74.7	19	31	-3					22	33 PP
SVERDLOVSK	144.28	43.1	19	38	0					22	52 PP
BOMBAY	144.52	113.0	19	28	-11					22	46 PP

POONA	145.03	114.6	19	41A	1			
MADRAS	145.32	129.0	19	43	3		36	15
QUETTA	145.99	91.3	19	43A	2		23	17 PKS
DUZHANBE	150.03	77.1	19	48	0			
TASHKENT	150.84	71.7	19	49	0		23	31 PP
WARSAK DAM	151.02	87.2	19	57	8			
YAKUTSK	152.35	337.1	19	49	-2			
MANILA	153.58	211.5	20	8	15			
TUKUBASAN	153.77	276.0	19	49A	-4		23	26 PP
FRUNSE	154.90	68.9	19	56	1		23	57 PP
MATUSIRO	155.32	275.9	19	56	1		24	8 PP
BOKARO	156.86	121.9	19	29	-28		24	18
ABUYAMA	156.98	270.6	19	58A	0			
SEMIPALATNSK	157.30	48.7	19	58	0		24	7 PP
CHITTAGONG	159.47	135.7	20	1	0			
CHATRA	159.75	118.0	20	4	3		24	24 PP
VLADIVOSTOK	160.61	292.7	20	2	0			
SHILLONG	161.98	129.6	20	5A	2			
HONG KONG	163.10	202.8	20	4A	0		24	35 PP
CANTON	164.09	201.2	20	6	1			
LHASA	164.16	117.6	20	8	3		24	47 PP
CHANGCHUN	165.18	298.3	20	5	-1		25	1 PP
IRKUTSK	165.73	7.1	20	6	-1			
KUNMING	166.49	162.6	20	9A	2			
ZO-SE	166.50	242.8	20	8A	1		25	4 PP
NANKING	168.73	240.9	20	10A	1		21	25 PKP2
ULAN-BATOR	170.22	1.1	20	9	-1		25	18 PP
WUHAN	170.26	221.0	20	11A	1		21	35 PKP2
CHENGTU	172.10	159.8	20	12A	1		25	22 PP
PEKING	172.75	287.9	20	12A	1		24	39 PP
SIAN	175.87	200.5	20	14A	2			
LANCHOW	176.61	127.0	20	14A	2		25	45 PP
PAOTOW	176.71	318.6	20	14	2		25	48 PP

MAY 23 7.H 9.M 18.S EPICENTRE -47.92 -75.77 DEPTH= 0.KM
A= 0.16537 B=-0.65200 C=-0.73996 D=-0.9693 E=-0.2458
G=-0.1819 H= 0.7173 K=-0.6726 HT= -4.6

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT STANLEY	12.16	114.8	2	57	0	5	46	31				
LA PAZ	31.96	13.9	6	32	3	11	45	4				
BYRD STATION	35.57	192.0	6	59	-2							
HUANCAYO	35.76	0.7	7	6	4	12	46	6				
SOUTH POLE	42.27	180.0	7	55	-1						8	36
SCOTT BASE	48.90	194.4	8	56	7							
CAPE HALLETT	51.62	200.9	9	9	-1							
BOGOTA	52.34	2.1	9	20	5							
CHINCHINA	52.67	0.2	9	19	1	16	55	10				
BALBOA HTS.	56.73	355.5	9	47	-1							
CARACAS	58.69	10.2	9	56A	-5							
TRINIDAD	59.69	16.4	10	11	3							
MAWSON	60.66	163.1	10	13	-2							
GRENADA	61.00	15.7	10	17	0							
TERRE ADELIE	62.14	195.7	10	23	-2							
ST. VINCENT	62.17	16.0	10	25	0							
FORT FRANCE	63.72	15.8	10	33	-2							
DOMINICA	64.23	15.4	10	39	0							
MIRNY	65.54	175.1									19	29 PS
ANTIGUA	65.95	14.6	10	49	-1							
ST. KITTS	66.00	13.6	10	49	-1							
SAN JUAN	66.56	10.0	10	50	-4						11	12
VERA CRUZ	69.26	339.4									37	2
TACUBAYA	70.23	336.5	11	18	2	20	20	-8				
CHATEAU	72.65	230.5	11	34	3							
KARAPIRO	73.59	231.3	11	39	2							
WINDHOEK	75.45	107.5	11	47	0							
KIMBERLEY	75.76	117.1	11	19	-30							
PRETORIA	80.01	117.3	12	10	-2							
BERMUDA	80.55	9.5									22	32

MBOUR	81.08	57.0	12	19	1				12	27 PCP
COLUMBIA	81.69	355.6	12	20	-1					
CHAPEL HILL	83.52	357.3	12	30	-1					
LITTLE ROCK	83.66	346.3	13	30	59	22	52	-2		
AFIAMALU	83.78	256.3	12	33	1					
BULAWAYO	84.47	113.9	12	35A	-1					
FAYETTEVILLE	85.24	345.1	11	39A	-60				22	1 PPS
TUCSON	85.78	330.8	12	43	1					
TUCSON TELE.	85.83	330.9	12	42	0				16	8 PP
WASHINGTON	86.45	359.0	12	50	5					
GEORGETOWN	86.45	359.0	12	45	0	23	22	1		
ST. LOUIS 1	87.14	348.7	12	47	-2	23	12	-16		
MELBOURNE	87.23	211.2	12	47	-2					
MORGANTOWN	87.25	356.8	12	49	0					
FLORISSANT	87.31	348.6	12	49	-1	23	29	0		
CANBERRA	87.97	215.2	12	50A	-3					
FORDHAM	88.40	1.4				22	43	-56		
RIVERVIEW	88.42	217.5	13	1A	6	23	37	-3	29	45 SS
BROKEN HILL	88.67	110.1	12	57	1					
PASADENA	90.09	326.0	12	54	-9					
BOULDER CITY	90.53	329.3	13	6	1					
ADELAIDE	91.90	207.7	13	9	-2					
LARAMIE	92.69	338.0	13	14	-1					
HALIFAX	92.77	8.7	13	15	0					
OTTAWA	92.94	0.0	13	15	-1					
BRISBANE	93.29	221.9	13	15	-3					
SALT LAKE C.	93.93	333.4	13	19	-1					
EUREKA	94.07	329.9	13	21	0				17	9 PP
LICK	94.22	325.0	13	23K	1					
RAPID CITY	94.74	340.5	13	22	-2					
BERKELEY	94.92	324.8	13	27A	2					
RENO	95.47	327.3	13	31	3					
MINERAL	96.84	326.5	13	34A	0					
SHASTA	97.44	326.1	13	37	1					
LWIRO	98.06	102.4	13	40	1				17	37
BUTTE	98.94	335.0							17	0 PP
TAMANRASSET	101.00	68.3	13	52	-1				17	56 PP
MALAGA	105.54	52.2							27	54 PS
RELIZANE	107.52	56.0	18	44	777					
TOLEDO	108.07	50.2	17	56	777					
ALICANTE	108.84	53.5	18	32	777					
ALGIERS UNI.	109.65	56.8				26	17	67	28	35 PPS
PORT MORESBY	111.47	226.2	18	6	-30	25	10	-8	19	26 PP
RATHFARNHAM	116.77	39.0							20	23
MESSINA	117.90	63.0							29	58 PS
ROME	118.49	58.1							22	49 PPP
PAVIA	118.76	53.5							30	2 PS
DOURBES	119.58	46.9							18	27 PP
STRASBOURG	120.20	49.8							20	16 PP
STUTTGART	121.09	50.3	18	54	-1				20	24 PP
BENSBERG	121.39	47.3							20	28 PP
TRIESTE	121.56	55.4	19	5	10				20	29 PP
TOLMEZZO	121.62	54.3	18	58	2					
LJUBLJANA	122.23	55.4	19	4	7				20	28 PP
MUNSTER	122.24	46.6							20	33 PP
RESOLUTE	122.98	354.0	18	56	-2					
JENA	123.59	49.4	18	57	-2				20	45
PLAUEN	123.63	50.1	18	57	-2					
HALLE	124.11	49.0	18	56	-4					
PRAGUE	124.57	51.5							20	49 PP
PRUHONICE	124.58	51.6	19	1	0				20	52 PP
POTSDAM	125.19	48.6							20	51
COLLEGE	125.49	330.1	19	1	-2					
JERUSALEM	126.37	80.9	19	4	-1				21	0 PP
COPENHAGEN	126.72	44.9							21	2 PP
GOTEBORG	127.59	42.6	19	1	-6					
KSARA	128.06	79.4	19	9	1					
WARSAW	129.22	52.0							22	29 PKS
LWOW	129.64	56.0	19	11	0				22	41 PKS
SKALSTUGAN	130.66	36.1	19	12	-1					
UPPSALA	131.22	42.1	19	20	6					
NORD	132.93	9.9	19	15	-2				22	45 SKP
SIMFEROPOL	133.12	66.2	19	17	-1				24	42 PPP
NURMIJARVI	134.69	43.2	19	19	-2				22	47 PKS
KIRUNA	135.41	32.5	19	21	-1					
SHIRAZ	136.64	95.7	19	24	0				22	56 PKS
PULKOVO	137.10	45.6	19	24	-1				22	56 PKS
SODANKYLA	137.58	34.1	19	24	-2					
TIFLIS	138.30	75.7	19	27	0					

TEHERAN	139.54	87.6	19	28	-1				
MOSCOW	139.58	53.2	19	29	0			22	25 PP
APATITY	140.19	34.5	19	24	-7				
KHEYS	143.74	11.5	19	34	-3				
ASHKABAD	145.42	89.5	19	39	-1			19	46 PKP2
PETROPAVLOVK	145.70	299.3	19	39	-1				
BAGUIO CITY	145.83	208.7	19	40	0				
QUETTA	146.47	108.3	19	42A	1			23	17 PKS
TUKUBASAN	151.18	259.3	19	48K	-1				
WARSAK DAM	151.91	107.7	19	57	7				
LAHORE	152.02	114.9	19	48	-2				
SVERDLOVSK	152.36	54.8	19	50	-1				
MATUSIRO	152.61	258.0	19	57K	6			25	58
DUZHANBE	152.74	96.9	19	52	1				
TASHKENT	154.42	91.9	19	54	1			30	42 SKKS
SHILLONG	155.65	152.0	19	54A	-1				
KUNMING	157.21	176.5	19	54	-3			24	5 PP
FRUNSE	158.66	92.8	19	58	-1			31	4 SKKS
LHASA	159.10	146.2	20	1A	1			24	22 PP
YAKUTSK	159.86	323.9	19	56	-4				
VLADIVOSTOK	160.08	266.3	19	59	-2				
WUHAN	160.91	208.2	20	1	0				
CHENGTU	162.76	179.4	20	3	0			24	40 PP
SEMIPALATNSK	164.13	72.1	20	2	-3			20	58 PKP2
CHANGCHUN	164.77	262.2	20	5	0			24	45 PP
SIAN	165.90	196.1	20	5	-1				
LANCHOW	168.13	178.4	20	8A	0				
PEKING	168.34	231.8	20	7	-1			25	6 PP
IRKUTSK	175.65	359.3	20	9	-2				
ULAN-BATOR	178.21	271.0	20	11	-1				

MAY 23 9.H 52.M 20.S EPICENTRE -37.67 -71.98 DEPTH= 0.KM

A= 0.24552 B=-0.75460 C=-0.60852 D=-0.9509 E=-0.3094
G=-0.1883 H= 0.5787 K=-0.7935 HT= -0.8

SE= 4.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT STANLEY	17.20	149.1	4	9	5							
LA PAZ	21.36	10.2	4	54	2	8	54	9			5	22 PP
HUANCAYO	25.69	352.4	5	33	-1	10	12	11				
BOGOTA	42.12	356.9	8	0	4							
CHINCHINA	42.55	354.6	7	58K	-2	14	21	-2				
BYRD STATION	46.16	190.3	8	20	-9							
CARACAS	48.15	6.7	8	39	-5							
TRINIDAD	49.08	13.8	8	50	-1							
GRENADA	50.38	13.1	9	1	0							
ST. VINCENT	51.56	13.4	9	17	7							
SOUTH POLE	52.52	180.0	9	14	-4						10	10 PCP
FORT FRANCE	53.10	13.1	9	21	-1							
ANTIGUA	55.34	11.8	9	35	-3							
ST. KITTS	55.40	10.7	9	37	-2							
SAN JUAN	56.02	6.7	9	51	8							
CAPE HALLETT	62.21	197.8	10	25	-1						10	31 PCP
TACUBAYA	62.28	330.8	10	32	5							
MAWSON	69.66	163.2	11	13	-1							
COLUMBIA	71.80	352.1	11	20	-7							
TERRE ADELIE	72.75	193.2	11	30	-2							
MBOUR	73.09	56.1	11	37	3							
LITTLE ROCK	74.53	342.7	11	36	-7							
MIRNY	75.47	173.8	11	43	-5							
WINDHOEK	75.88	107.6	11	51	1							
FAYETTEVILLE	76.22	341.6	10	48K	-64							
GEORGETOWN	76.34	355.9	10	59	-54	21	32	-6				
ST. LOUIS 1	77.77	345.5	11	57	-4	21	44	-9				
KIMBERLEY	77.93	116.9	11	17	-45							
FLORISSANT	77.96	345.4	11	57	-5							
TUCSON	78.43	327.1	11	59	-6							
TUCSON TELE.	78.46	327.3	12	1	-4							
LAWRENCE	79.22	341.7	12	4	-5							
WESTON	79.67	0.5	12	8	-3							
LUANDA	80.88	94.1	12	15	-3							
CHATEAU	81.53	226.5	12	25	4							
PRETORIA	82.14	116.3	12	29	5							

HALIFAX	82.26	6.0	12	23	-2					
KARAPIRO	82.38	227.5	12	29	3					
OTTAWA	82.76	357.3	12	25	-3					
BREBEUF	82.80	358.8	12	25A	-3					
BOULDER CITY	83.34	326.3	12	36	5					
PASADENA	83.37	322.9	12	37	6					
LARAMIE	84.39	335.2	12	32	-4					
SEVEN FALLS	84.42	0.8	12	34	-2					
BULAWAYO	85.91	112.2	12	44	0					
RAPID CITY	86.15	338.0	12	40	-5					
SALT LAKE C.	86.17	330.8	12	50	5					
FRESNO	86.26	323.4	12	50K	5					
EUREKA	86.76	327.4	12	43	-5					
LICK	87.60	322.6	12	58K	6					
BERKELEY	88.32	322.5	12	59A	4					
RENO	88.50	325.0	13	3A	7					
BROKEN HILL	89.34	107.7	13	2A	2					
MINERAL	89.98	324.4	13	8	5					
BOZEMAN	90.11	333.8	13	9	5					
SHASTA	90.62	324.1	13	11	5					
BUTTE	90.95	333.0	13	13	5					
HUNGRY HORSE	93.46	333.4	13	15	-4					
TAMANRASSET	94.34	64.6	13	24	1				17	26 PP
MALAGA	96.84	48.4	13	36	1				17	32 PP
LWIRO	97.15	98.4	13	39A	3				17	37
GRANADA	97.62	48.5							17	57 PP
ALMERIA	98.08	49.4	13	39K	-1	24	14	-4	17	40 PP
TOLEDO	99.16	46.2	13	44	-1					
RELIZANE	99.21	51.8	13	44	-1				17	49 PP
ALICANTE	100.25	49.3	13	54	4					
ALGIERS UNI.	101.42	52.3	13	56	1	24	31	-3	18	5 PP
RATHFARNHAM	106.90	34.9	14	40	777					
DURHAM	109.98	35.5	14	39	777				19	12 PP
ROME	110.34	52.4	18	31	-3				19	27 PP
MESSINA	110.35	57.1							19	18 PP
STUTTGART	112.12	44.9	19	0	22				19	28 PP
TRIESTE	113.09	49.5				25	25	0	19	34 PP
HALLE	114.99	43.3				25	47	15		
COPENHAGEN	117.25	39.4				25	46	5	29	52 PS
SOFIA	117.73	56.0	18	32	-17	25	42	-1	19	56 PP
COLLEGE	117.86	332.1	18	44	-5					
LWOW	121.16	48.8							20	27 PP
JERUSALEM	121.25	72.1	18	52	-4				20	28 PP
KSARA	122.66	70.3	18	59	1				20	41 PP
NURMIJARVI	125.04	36.9	19	1	-2					
KIRUNA	125.14	27.6	19	6	3					
SODANKYLA	127.38	28.8	19	4	-3					
PULKOVO	127.62	38.6	19	4	-4					
APATITY	130.00	28.9	19	20	8					
MOSCOW	130.73	44.7	19	32	18					
TIFLIS	132.15	64.4	19	18	1					
KHEYS	133.16	9.9	19	16	-2					
SHIRAZ	133.69	82.8	19	17	-2				22	50 PKS
TEHERAN	135.15	74.4	19	22	0					
PETROPAVLOVK	142.10	310.5	19	35	0					
SVERDLOVSK	143.48	42.8	19	35	-2					
POONA	144.60	113.1	19	39A	0					
MAGADAN	145.12	322.8	19	44	4					
QUETTA	145.32	90.0	19	42A	2				23	13 PKS
WARSAK DAM	150.32	85.9	19	54	6					
LAHORE	151.71	92.3	19	53	3				23	42 PP
YAKUTSK	152.17	338.1	19	53	2					
UGLEGORSK	152.97	305.9	19	57	5					
FRUNSE	154.10	68.0	19	54K	0					
TUKUBASAN	154.38	276.6	19	49	-5	27	6	6	23	55 PP
ALMATA	155.79	66.8	19	56	0					
MATUSIRO	155.94	276.6	20	2	6				23	55 PP
CHATRA	159.36	115.5							19	59
SHILLONG	161.74	126.7							20	3
LHASA	163.76	114.6	20	6A	1	27	14	6	24	47 PP
CHANGCHUN	165.53	300.6	20	3	-4					
KUNMING	166.71	158.7	20	7	-1				24	54 PP
ZO-SE	167.32	242.8	20	7	-1				25	7 PP
NANKING	169.54	240.8	20	11	2					
ULAN-BATOR	169.72	4.2	20	2	-8				25	12
WUHAN	171.05	219.2	20	8	-2				25	24 PP
CHENGTU	172.26	153.4	20	10	-1					
PEKING	173.22	292.8	20	9	-2				25	35 PP
LANCHOW	176.27	114.4	20	12A	0				25	45 PP

MAY 23 10.H 37.M 59.S EPICENTRE -43.50 -73.71 DEPTH= 0.KM

A= 0.20412 B=-0.69850 C=-0.68588 D=-0.9599 E=-0.2805
G=-0.1924 H= 0.6583 K=-0.7277 HT= -3.0

SE= 3.49

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT STANLEY	13.45	133.1	3 22	7	5 56	9		
ARGENTINE I.	22.43	169.6	5 3	1				
LA PAZ	27.33	11.7	5 51	2	10 34	6		7 20
HUANCAYO	31.36	357.0	6 26	1	11 15	-17		
BYRD STATION	40.20	191.2	7 38	-2				
SOUTH POLE	46.70	180.0	8 32	-1	15 31	8		13 59
BOGOTA	47.89	359.5	8 45A	3				
CHINCHINA	48.27	357.5	8 46	1	15 58	13		
SCOTT BASE	53.54	193.2	9 37	12				
CARACAS	54.09	8.2	8 27K	-62				
TRI*IDAD	55.04	14.8	9 26	-10				
CAPE HALLETT	56.27	199.3	9 43	-2				
GRENADA	56.35	14.1	9 44	-2				
ST. VINCENT	57.53	14.4	9 55	1				
ANTIGUA	61.31	13.0	10 19	-1				
ST. KITTS	61.37	12.0	10 21	1				
SAN JUAN	61.96	8.2	10 21	-3				
MAWSON	64.48	163.0	10 41	0				
TERRE ADELIE	66.78	194.3	10 56	0				
TACUBAYA	66.82	333.8	10 55	-1				
MIRNY	69.81	174.4	11 13	-2				
WINDHOEK	75.39	107.2	11 46	-2				
KIMBERLEY	76.48	116.7	11 8	-46				
CHATEAU	76.62	228.3	11 53	-2				
COLUMBIA	77.42	353.8	11 58	-1				
MBOUR	77.44	56.1	12 2	3	21 56	6		
KARAPIRO	77.53	229.2	11 58	-2				
CHAPEL HILL	79.19	355.6	12 8	-1				
LITTLE ROCK	79.74	344.5	12 10	-2	22 13	-1		
PRETORIA	80.73	116.6	12 10	-7				
FAYETTEVILLE	81.38	343.3	11 18	-62				
LUANDA	81.77	94.3	12 26K	4				
GEORGETOWN	82.07	357.4	12 24	0	22 38	0		
WASHINGTON	82.07	357.4	12 25	1				
TUCSON	82.68	329.0	12 28	1				
TUCSON TELE.	82.72	329.1	12 28	1				15 24 PP
MORGANTOWN	82.94	355.1	12 28A	0				
ST. LOUIS 1	83.12	347.0	12 27	-2	22 48	-1		
FLORISSANT	83.30	347.0	12 29	-1	22 50	-1		
FORDHAM	83.96	359.9			22 59	2		
PALISADES	84.12	359.8			23 4	5		
LAWRENCE	84.37	343.3	12 35	-1				
BULAWAYO	84.90	112.8	12 38	0				
PASADENA	87.28	324.4	12 52	2				
BOULDER CITY	87.51	327.7	12 52	1				
HALIFAX	88.19	7.2	12 54	-1				
OTTAWA	88.53	358.6	12 55	-1				
BREBEUF	88.61	0.1	12 56	-1	23 45	3		
BROKEN HILL	88.78	108.7	12 58A	1				
LARAMIE	89.17	336.6	12 59	0				
FRESNO	90.20	324.7	13 4	0				
SALT LAKE C.	90.66	332.0	13 6	0				
EUREKA	91.00	328.6	13 7	-1				
RAPID CITY	91.09	339.2	13 6	-2				
LICK	91.47	323.7	13 11A	1				
MELBOURNE	91.77	209.7	13 10	-1				
RENO	92.56	326.1	13 25	10				
RIVERVIEW	92.83	216.0	13 23A	7	24 23	3		22 23
SHASTA	94.60	325.1	13 33	9				
BOZEMAN	94.78	334.7	13 25	0				
BUTTE	95.57	333.9	13 29	0				
LWIRO	97.51	100.3	13 37	-1				26 31
TAMANRASSET	97.96	66.3	13 41	1				17 38 PP
HUNGRY HORSE	98.10	334.2	13 40	0				
MALAGA	101.64	50.1	13 57A	1				18 11 PP

GRANADA	102.41	50.3	18	36	777						
ALMERIA	102.82	51.2	14	1	0	24	40	-1	18	16	PP
TOLEDO	104.09	48.1	13	55	-12				18	11	PP
ALGIERS UNI.	105.96	54.4				24	56	1	18	38	PP
ISOLA	113.10	50.5							19	40	PP
PARIS	113.57	44.5							19	32	PP
KEW	113.89	41.0							19	42	PP
MESSINA	114.52	60.0							19	51	PP
ROME	114.85	55.2							19	48	PP
PAVIA	114.90	50.7							29	21	PS
DURHAM	115.44	37.6							19	20	PP
DOURBES	115.45	44.3							19	50	PP
STRASBOURG	116.18	47.0							19	34	PP
STUTTGART	117.10	47.5	18	42	-6	25	43	3	19	59	PP
BENSBERG	117.28	44.6							19	59	PP
TRIESTE	117.79	52.4							20	7	PP
TOLMEZZO	117.80	51.4	18	53	4				20	18	
LJUBLJANA	118.46	52.4							20	7	PP
JENA	119.55	46.5							20	16	PP
PLAUEN	119.62	47.1							20	16	PP
HALLE	120.06	46.1							20	19	PP
PRUHONICE	120.63	48.6							20	24	PP
SOFIA	121.95	59.6	19	0	3				20	32	PP
COLLEGE	122.35	330.9	18	54	-4						
JERUSALEM	124.09	76.6	19	3	2				20	47	PP
LWOW	125.88	52.4	19	6	2				23	38	PPP
SKALSTUGAN	126.20	33.6	19	6	1						
UPPSALA	126.92	39.1	19	7	1						
NORD	128.33	9.0	19	6	-3						
SIMFEROPOL	129.88	61.7	19	13	1	26	22	2	21	39	PP
NURMIJARVI	130.42	40.0	19	12	-1				22	35	PKS
KIRUNA	130.88	30.0	19	14	0						
SODANKYLA	133.08	31.4	19	13	-5						
SHIRAZ	135.40	89.6	19	27	4				22	56	PKS
TIFLIS	135.62	70.2	19	15	-8				21	54	PP
MOSCOW	135.68	48.9							23	2	PKS
APATITY	135.70	31.7	19	21	-2				21	58	PP
GORIS	135.76	73.7	19	28	5				21	57	PP
KHEYS	139.12	10.8	19	29	0				22	27	PP
ASHKABAD	143.65	82.0	19	36	-1				19	57	
PETROPAVLOVK	144.59	304.3	19	38	-1						
QUETTA	146.14	99.9	19	43	1				19	52	PKP2
SVERDLOVSK	148.49	48.8	19	50	5						
MANILA	148.60	208.3	19	49	3						
MAGADAN	148.71	316.6	19	49	3						
TIKSI	149.72	346.0	19	48	1						
BAGUIO CITY	150.40	208.7	19	55	7						
DUZHANBE	151.44	87.0	19	50	0						
WARSAK DAM	151.47	97.6							20	1	PKP2
LAHORE	152.16	104.6	19	50	-1						
TASHKENT	152.73	81.7	19	57	5				20	8	PKP2
TUKUBASAN	153.18	265.8	20	0	8				23	40	PP
DEHRA DUN	154.01	111.0	20	5	11						
MATUSIRO	154.69	265.0	20	3	8				23	51	PP
YAKUTSK	156.88	331.5	20	9	12						
FRUNSE	156.96	80.7	19	59	1				24	1	PP
CHATRA	157.27	130.8	19	58	0						
SHILLONG	158.59	142.0	20	1	1				20	35	
SEMIPALATNSK	160.99	59.6	20	3	1				20	47	PKP2
VLADIVOSTOK	161.37	277.7	20	13	10						
KUNMING	161.44	169.8	20	4	1				24	35	PP
LHASA	161.57	133.6	20	7	4				24	34	PP
NANKING	164.92	224.9	20	6	0				24	46	PP
WUHAN	165.48	209.7	20	16	9						
CHANGCHUN	166.22	277.9	20	7	0				24	53	PP
CHENGTU	167.06	171.2	20	9	1				25	5	PP
IRKUTSK	171.12	7.9	20	17	7						
PEKING	171.84	248.2	20	12	1				25	26	PP
ULAN-BATOR	175.56	354.7	20	18	6						

MAY 24 14.H 46.M 35.S EPICENTRE -44.34 167.75 DEPTH= 0.KM

A=-0.70122 B= 0.15219 C=-0.69651 D= 0.2121 E= 0.9772
G= 0.6807 H=-0.1477 K=-0.7176 HT= -3.3

SE= 3.83

	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	
ROXBURGH	1.59	136.2									0	32	P*
KAIMATA	3.23	57.0	0	51	-2						0	57	P*
GEBBIES PASS	3.59	81.4	0	56	-2	1	39	-3			1	6	P*
WELLINGTON	6.00	61.8	1	30	-2						1	47	P*
KARAPIRO	8.69	45.2	2	5	-5								
TUAI	8.95	55.0	2	11	-2						2	39	P*
MACQUARIE I.	11.66	206.2	3	11	21								
FORT NELSON	14.84	268.3	3	34	1	6	20	1					
RIVERVIEW	16.59	303.6	3	52K	-3	6	58	-2			4	6	PP
CANBERRA	16.96	295.7	3	55	-5	7	9	1			7	27	SS
MELBOURNE	18.34	282.9	4	14K	-3	7	41	1					
BRISBANE	20.76	319.6	4	40	-5	8	24	-8					
ADELAIDE	24.13	282.8	5	15	-3	9	41	7					
TERRE ADELIE	26.60	203.1	5	41	0	10	47	32					
CAPE HALLETT	28.08	178.4	5	59	4	10	55	16			7	30	PP
CHARTERS TS.	30.08	316.6	6	10	-3								
SCOTT BASE	33.63	180.4	6	40	-4	12	7	0					
AFIAMALU	35.00	36.3	6	55K	-1	12	30	2			8	53	PPP
WILKES	37.44	213.9	7	21K	5	12	57	-8			13	20	SCP
PORT MORESBY	39.13	326.6	7	30	-1						13	41	
MUNDARING	41.73	269.1	7	47	-5						14	20	
PERTH	42.01	268.9	7	52	-2						9	34	PP
RABAUL	42.27	336.5	7	53	-3								
BYRD STATION	43.70	166.0	8	7	-1								
MIRNY	44.45	213.5	8	10	-4						14	57	PS
SOUTH POLE	45.85	180.0	8	23	-2						9	32	PP
GUAM	61.22	334.3	10	26	7								
KERGUELEN I.	62.34	227.0	10	36	10	19	2	10					
ARGENTINE I.	63.52	158.2	10	20	-14								
LEMBANG	64.08	286.8	10	35K	-3	19	9	-5					
DJAKARTA	65.09	286.6	10	46	2	19	29	3					
HONOLULU	72.41	33.3	11	33	3								
MANILA	72.47	312.4	11	37	7						15	7	
KIPAPA	72.55	33.3	11	28	-2								
BAGUIO CITY	74.19	313.0	11	40	0	20	14	-59					
PORT STANLEY	76.53	152.8	11	49	-4	22	37	58					
TAITUNG	79.21	316.9	12	9	1								
ILAN	80.63	318.5	12	28	12								
TAIPEI	80.96	318.4	12	30	13								
HONG KONG	82.43	311.3	12	30	5	22	47	6			15	33	PP
CANTON	83.52	311.1	12	35	4	23	12	20			15	44	PP
TUKUBASAN	84.02	337.8	12	32	-1	22	58	1			15	50	PP
ABUYAMA	84.09	333.9	12	34A	0								
MATUSIRO	84.84	336.5	12	34	-3	23	1	-4			16	8	PP
ZO-SE	86.27	321.4	12	48	3	23	35	16			16	22	PP
PORT BLAIR	87.62	288.7	13	5	14						23	18	
NANKING	88.17	320.1	12	58K	4	23	55	18			16	25	PP
WUHAN	88.92	316.3	13	3	6	24	7	23			16	46	PP
KUNMING	91.11	304.7	13	12K	4								
VLADIVOSTOK	92.78	334.6	13	20	5						24	0	SKKS
Y.-SAKHLINSK	93.62	343.1	13	22	3						17	10	PP
CHENGTU	94.58	309.2	13	28	4	24	53	19			17	30	PP
SIAN	94.74	314.7	13	28K	4								
CHANGCHUN	95.59	330.6	13	32	4								
CHITTAGONG	95.85	295.5	13	37	8								
PEKING	95.96	322.8	13	34	4								
TANANARIVE	96.73	235.5	13	41	8						14	31	
MADRAS	97.24	281.0				24	31	18			25	37	PS
KODAIKANAL	97.26	277.1									17	17	
PETROPAVLOVK	97.30	354.5									17	39	PP
SHILLONG	98.10	297.8	13	36	-3	24	25	8					
CALCUTTA	98.23	293.3	13	45	5	24	37	19			21	0	
LANCHOW	98.77	312.6	13	48	5								
PAOTOW	99.18	319.3	13	50	6								
HUANCAYO	99.98	117.7	14	4	16								
BOKARO	100.83	292.6				24	35	4			17	57	
LA PAZ	100.92	126.0	14	3	11	24	33	2			18	4	PP
LHASA	101.49	300.2	14	2	7								
CHATRA	101.99	295.7	13	56	-1	24	40	4			18	6	PP
PASADENA	103.06	55.0				24	45	4			18	23	PP
LICK	103.34	50.6									18	29	PP
BERKELEY	103.38	49.8				24	53	10			18	26	PP
MAGADAN	104.47	351.2									18	32	PP
SHASTA	105.34	47.7	18	21	777								
RENO	105.91	50.1									18	50	PP
ULAN-BATOR	106.28	322.3	14	20	777								

BOULDER CITY	106.30	55.6								17 42	PP
TUCSON TELE.	106.34	60.8	17	29	777					30 0	PKKP
BOMBAY	106.42	280.5				25	2	5		18 49	
CHIHUAHUA	106.85	66.4	14	19	777					19 5	PP
VERA CRUZ	107.45	80.1								28 51	PPS
CORVALLIS	107.64	44.4								19 41	PP
EUREKA	108.02	52.2	13	46	777					18 20	PP
AGRA	108.24	290.2	14	25	777					18 52	
COMITAN	108.35	85.0								19 5	PP
ALBERNI	110.23	40.1	18	34	1						
VICTORIA	110.36	41.4	18	50	16						
IRKUTSK	110.63	324.0	14	35	777						
BROKEN HILL	110.74	222.5								18 45	
SALT LAKE C.	111.23	53.5	18	25	-10					19 31	PP
CHINCHINA	112.35	105.6								19 25	PP
BOGOTA	113.17	107.1								19 49	PP
MERIDA	113.21	83.0								19 37	PP
FUQUENE	114.01	106.7	19	52	71						
COLLEGE	114.27	19.1	18	55	14	28	0	151		19 39	PP
BOZEMAN	114.81	49.8	18	38	-4					29 27	PKKP
HUNGRY HORSE	114.91	46.1	18	45	2					20 0	PP
QUETTA	117.70	286.1	18	42	-6	25	47	5		19 28	PP
RAPID CITY	118.31	54.9	19	4	15					29 57	PKKP
TIKSI	118.91	346.9	18	54	4						
LITTLE ROCK	119.80	69.1	18	57	5						
FRUNSE	120.04	301.9	18	56	3					30 12	PS
LWIRO	120.90	229.9	18	58A	4					30 35	
SEMIPALATNSK	121.01	311.8	18	55	1					20 25	PP
CARACAS	122.28	108.3	19	15	18	26	40	43			
TASHKENT	122.53	297.9	19	2	5						
FLORISSANT	123.37	66.3	19	14	15						
ST. LOUIS 1	123.37	66.5								20 47	PP
ADDIS ABABA	123.68	247.3	19	11	11						
TERRE HAUTE	125.64	67.2				25	55	-13		20 15	
TRINIDAD	126.10	113.0	19	6	2						
COLUMBIA	127.11	76.2	19	10	4						
SHIRAZ	127.52	276.9	19	3	-4					21 8	PP
ASHKABAD	127.95	289.0	19	5	-3					21 16	PP
SAN JUAN	128.32	102.1	19	7	-2						
FORT FRANCE	129.22	109.7	19	15	5						
CHAPEL HILL	129.51	75.3	19	13	2						
MORGANTOWN	130.75	70.6	19	18	5					22 43	
PITTSBURGH	131.13	69.6								22 49	
TEHERAN	131.63	282.8	19	13	-2					22 49	
WASHINGTON	132.36	72.9	19	23	7					21 53	PP
GEORGETOWN	132.36	72.9	19	30	14					28 34	
PENNSYLVANIA	132.70	70.2	19	17	0					21 49	PP
SVERDLOVSK	134.26	312.8	19	24	4					22 52	SKP
FORDHAM	135.43	72.0								22 37	
PALISADES	135.48	71.8	19	26	4	26	34	3	19 38	22 6	PP
OTTAWA	136.06	65.3	19	21	-2						
KHEYS	136.62	347.0	19	29	5	26	24	-9		25 1	PPP
GORIS	136.95	284.7	19	29	4						
BREBEUF	137.47	66.0	19	28	2						
WESTON	137.82	71.2	19	37	11					22 27	PP
SHAWINIGAN	138.39	64.8	19	36	9						
TIFLIS	138.94	287.0	19	24	-4					19 45	
JERUSALEM	141.09	267.7	19	27	-5					22 52	PP
KSARA	141.68	271.0	19	32	-1					21 29	PP
NORD	142.57	1.1	19	45	10					23 20	PKS
HALIFAX	143.86	71.0	19	38	1						
ISFJORD	144.65	351.0	19	38	0						
APATITY	146.68	330.0	19	40	-2	26	27	-22		23 36	PP
MOSCOW	146.71	308.0	19	40	-2						
SIMFEROPOL	147.35	287.7	19	41	-2					22 59	
SODANKYLA	149.14	331.7	19	46	0					23 29	PP
ISTANBUL UN.	149.74	278.3	19	49	2						
MBOUR	149.87	170.9	19	57	10					23 28	PP
PULKOVO	150.25	316.4	19	49	1					23 33	PP
KIRUNA	150.88	335.1	19	50	2						
ATHENS	152.34	269.3	19	54A	3					20 11	PKP2
HELSINKI	152.74	318.7	19	56	5						
BUCHAREST	152.76	283.8	19	41	-10					20 49	
NURMIJARVI	152.77	319.5	19	55	4					23 47	PP
SCORESBY SD.	153.35	7.3	20	9	17					23 59	PKS
TAMANRASSET	154.00	220.0	19	58	5					24 24	PP
SOFIA	154.27	278.9	19	57	4	26	51	-8		24 7	PP
LWOW	154.87	295.5	20	1	7					23 58	PP
SKALSTUGAN	156.20	332.6								20 21	PKP2

UPPSALA	156.25	321.4	20	10	14				20	37	
WARSAW	156.66	301.6	20	1	5				24	9	PP
BELGRADE	156.79	282.7	20	3K	6				24	22	
SKALNATE PL.	157.33	293.9	20	33	36						
KRAKOW	157.52	296.1	20	15	17				20	40	PKP2
REGGIO CALA.	158.17	263.1							20	45	
MESSINA	158.29	263.2	19	50	-9				24	20	PP
RACIBORZ	158.63	296.4	20	14	15				20	40	PKP2
HURBANOVO	158.67	290.3	20	9	10						
BRATISLAVA	159.41	291.1	19	57	-3						
ZAGREB	160.05	284.2	20	19	18				24	41	PP
COPENHAGEN	160.61	314.5	20	7	6				20	54	PKP2
PRUHONICE	160.98	296.7	20	0	-2				24	33	PP
PRAGUE	161.05	297.0	19	59	-3				24	29	PP
LJUBLJANA	161.09	284.6	19	59	-3				24	41	PP
POTSDAM	161.43	304.6	20	5	3				20	51	PKP2
TRIESTE	161.59	283.2	20	5	3				24	43	PP
COLLMBERG	161.73	301.3	20	4	2				24	54	PP
ROME	161.80	270.9	20	2	0	26	28	-38	24	28	PP
TOLMEZZO	162.15	285.5	20	5	2				24	48	PP
HALLE	162.32	302.5	20	3	0				24	35	PP
CHEB	162.35	297.7							25	40	
PLAUEN	162.42	299.1	20	7	4				20	55	PKP2
JENA	162.69	300.8	20	8	5				24	38	PP
SONNEBERG	163.04	299.2							21	10	
BOLOGNA	163.16	278.8							21	35	
PRATO	163.23	276.6							24	59	PP
SETIF	164.29	244.9	20	9	4				24	49	PP
RAVENSBURG	164.45	290.5	20	12	7				21	10	PKP2
CHUR	164.56	287.0	20	16	11						
STUTTGART	164.56	294.3	20	7	2				24	53	PP
CHIAVARI	164.57	277.5				29	21	133	28	24	PPP
TUBINGEN	164.73	293.4	20	18	13				21	5	PKP2
MUNSTER	164.74	307.0	20	9	4				21	6	
PAVIA	164.76	280.7	20	21	16				28	30	PPP
HEIDELBERG	164.81	296.9	20	8	3				25	0	PP
EBINGEN	164.84	292.1	20	8	3				21	13	PKP2
WITTEVEEN	164.91	310.9							21	25	
BENSBERG	165.36	303.7	20	1	-5				21	15	PKP2
STRASBOURG	165.58	294.1	20	9	3	27	7	-2	24	49	PP
ABERDEEN	165.66	337.2							23	31	SKP
MONACO	165.83	274.4							21	16	PKP2
BASLE	165.84	290.0	20	11	5						
DE BILT	166.05	310.0	20	13	7				25	2	PP
ALGIERS UNI.	166.14	242.2	20	8	1				25	5	PP
ISOLA	166.17	276.1	20	14	7				21	19	PKP2
NEUCHATEL	166.32	288.0	21	8	61						
BESANCON	166.95	289.3	20	9	2				21	14	PKP2
UCCLE	167.08	305.9	20	4	-3	27	9	-1			
DOURBES	167.19	302.7	20	15	8	27	9	-1			
DURHAM	167.49	330.3							21	40	
GARCHY	168.91	290.7	20	16	8				21	16	PP
PARIS	168.92	299.0	20	14	6						
CLERMONT-FD.	169.03	282.9	19	46	-22	25	44	-87			
KEW	169.29	315.9	20	14	5				25	13	PP
ALICANTE	169.33	239.9	20	7	-2	27	9	-2	25	9	PP
ALMERIA	169.46	228.1	20	24A	15	26	56	-15	25	23	PP
TORTOSA	169.96	253.9							25	21	PP
RATHFARNHAM	170.21	338.5	20	18K	9				25	26	PP
GRANADA	170.30	225.4	20	39K	30	27	9	-2	25	24	PP
MALAGA	170.33	220.8	20	11	2	27	11	0	25	12	PP
FOLINIERE	170.76	302.8	20	25	16				21	36	PKP2
JERSEY	171.52	308.4							23	9	
TOLEDO	172.45	236.6	20	2	-8				25	34	PP
LISBON	173.92	203.5	20	16K	5				26	0	PP
COIMBRA	174.99	215.7	20	19A	8	27	42	29	25	56	PP
SERRA PILAR	175.82	221.2	20	45A	34	27	1	-12	23	37	PKS

MAY 24 20.H 32.M 43.S EPICENTRE -50.83 -73.15 DEPTH= 0.KM

A= 0.18383 B=-0.60701 C=-0.77314 D=-0.9571 E=-0.2898
G=-0.2241 H= 0.7400 K=-0.6342 HT= -5.7

SE= 2.07

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

	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S	
PORT STANLEY	9.62	101.1	2	20	-3								
ARGENTINE I.	15.18	165.6	3	37	-1								
SANTA LUCIA	17.47	7.0	3	49	-18	7	21	1			8	17	SSS
BYRD STATION	33.11	193.4	6	40	0								
LA PAZ	34.48	8.5	6	53K	1	12	25	5			14	45	SS
HUANCAYO	38.71	356.6	7	29	1						9	6	PP
SOUTH POLE	39.36	180.0	7	32	-1	13	35	0			8	26	PP
SCOTT BASE	46.51	194.6	8	34	3								
CAPE HALLETT	49.52	201.1	8	54	0	16	7	5			20	3	SS
BOGOTA	55.23	358.9	9	39K	2	17	25	5					
CHINCHINA	55.61	357.0	9	40K	0	17	27	2					
FUQUENE	56.07	359.3	9	44A	1								
TERRE ADELIE	59.79	195.1	10	8	-1								
CARACAS	61.31	7.0	10	15	-5	18	37	-3					
GALERAZAMBA	61.37	357.6	10	35K	15								
WILKES	63.13	181.7									19	7	
SAN JUAN	69.18	7.1	11	8	-3								
GRAHAMSTOWN	70.55	118.9	11	19	0								
KIMBERLEY	72.96	114.5	11	32	-1								
WINDHOEK	72.99	104.9	11	31	-3								
PIETERMZBURG	75.48	119.0	11	48	0								
PRETORIA	77.19	114.9	12	28	30								
MBOUR	81.30	54.5	12	21A	1	22	36	6					
BULAWAYO	81.77	111.7	12	22	0								
COLUMBIA	84.74	353.4	12	35	-2								
BROKEN HILL	86.10	108.0	12	46	2								
RIVERVIEW	87.10	215.6	12	47A	-2	23	18	-10					
TUCSON	89.15	328.8	12	59	0								
TUCSON TELE.	89.20	328.9	12	58	-1						16	32	PP
WASHINGTON	89.41	356.9	13	0	0								
GEORGETOWN	89.41	356.9	13	1	1								
ADELAIDE	90.07	205.7	13	5	2								
MORGANTOWN	90.27	354.8	13	10	6								
PENNSYLVANIA	91.34	356.4	13	9	0						16	45	PP
PALISADES	91.46	359.4	13	8	-2	24	6	-2			16	50	PP
LAWRENCE	91.50	342.9	12	46	-24								
BRISBANE	92.20	219.7	13	12	-1						22	33	
TANANARIVE	93.29	125.4	13	21	3								
LWIRO	95.80	100.7	13	32	2	24	13	7					
LARAMIE	96.04	336.0	13	29	-2								
EUREKA	97.44	328.0	13	36	-1								
TAMANRASSET	100.52	67.0	13	53	2						17	51	PP
CHARTERS TS.	101.34	217.5	14	0	5								
HUNGRY HORSE	104.84	333.2	18	20	777								
ALGIERS UNI.	109.84	56.0	14	17	777								
SETIF	110.66	57.9									18	18	PP
ROME	118.58	58.0				25	44	-1			29	54	PS
DURHAM	120.93	39.9									19	51	PP
STUTTGART	121.63	50.4	18	57	1								
TOLMEZZO	121.92	54.4	18	58	1						19	50	
LJUBLJANA	122.47	55.6	18	59	1								
JENA	124.18	49.6	19	2	1								
HALLE	124.72	49.3	19	4	2						20	44	PP
PRUHONICE	125.03	52.0	19	1A	-2						20	58	PP
COLLMBERG	125.10	50.0	19	4	1						21	7	PP
JERUSALEM	125.13	81.2	19	5	2						20	50	PP
POTSDAM	125.82	49.0	19	5	1								
KSARA	126.91	79.8	19	9	3								
COLLEGE	128.87	328.1	19	7	-3								
LWOW	129.82	56.8	19	9	-3						22	37	SKP
SKALSTUGAN	131.98	36.9	19	23	7								
SIMFEROPOL	132.69	67.3	19	18	1						22	54	SKP
SHIRAZ	134.63	96.5	19	13	-8								
NORD	135.50	10.1	19	18	-5								
HELSINKI	135.59	45.0	19	21	-2								
NURMIJARVI	135.60	44.5	19	21	-2						22	51	PKS
KIRUNA	136.91	33.7	19	19	-6								
TIFLIS	137.32	77.3	19	18	-8						22	56	PKS
PULKOVO	137.87	47.2	19	27	0								
SODANKYLA	138.99	35.5	19	19	-10								
MOSCOW	139.89	55.2	19	28	-3						22	32	PP
APATITY	141.57	36.3	19	26	-7								
ASHKABAD	143.68	91.6	19	35	-2						22	47	PP
QUETTA	143.91	109.5	19	36	-1						22	54	PP
BAGUIO CITY	143.95	202.8	19	38	0								
KHEYS	146.22	12.8	19	44	3								
AGRA	147.76	126.3	19	47A	3								

PETROPAVLOVK	148.54	294.5	19 47	2				
CHITTAGONG	149.26	152.0	19 54	8				
WARSAK DAM	149.36	109.6					19 52	PKP2
DUZHANBE	150.62	99.8	19 55	6				
HONG KONG	150.96	194.1	19 55	6				
TUKUBASAN	152.10	251.3	19 55	4				
SHILLONG	152.28	149.9	19 48K	-3				
SVERDLOVSK	152.51	59.3	19 52	1				
TASHKENT	152.52	95.5	19 52	1			23 42	PP
MATUSIRO	153.44	249.6	19 58A	5			30 31	SKKS
FRUNSE	156.69	97.5	19 56	-1			24 7	PP
TIKSI	156.88	342.4	20 25	28				
SEMIPALATNSK	163.14	81.1	19 53	-11				
ULAN-BATOR	177.09	180.7	20 10	-2				

MAY 25 8.H 34.M 36.S EPICENTRE -44.90 -75.63 DEPTH= 0.KM
A= 0.17634 B=-0.68847 C=-0.70350 D=-0.9687 E=-0.2481
G=-0.1746 H= 0.6815 K=-0.7107 HT= -3.5

SE= 3.66

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SANTA LUCIA	12.08	20.4	2 56	0	5 0	-13		
PORT STANLEY	13.62	126.3	3 16	-1	4 53	-57		
LA PLATA	16.83	59.7	3 56A	-2	7 14	9		
TALA POZO	19.32	31.9	4 29A	0	8 14	12		
ARGENTINE I.	21.34	166.8	4 49	-2				
LA PAZ	29.01	15.0	6 7	4	10 35	-19		
HUANCAYO	32.74	0.5	6 36	0	12 9	16		
BYRD STATION	38.55	191.2	7 24	-2				
SOUTH POLE	45.29	180.0	8 18	-3				10 13 PP
BOGOTA	49.32	2.1	8 55A	3	15 59	0		
CHINCHINA	49.65	0.0	8 57	2	15 58	-5		
FUQUENE	50.17	2.5	9 1K	2				
SCOTT BASE	51.85	193.8	9 13	1				
BALBOA HTS.	53.73	355.2	9 27K	1				
CAPE HALLETT	54.48	200.0	9 30A	-1	17 24	14		9 37 PCP
CARACAS	55.70	10.4	9 36K	-4	17 24	-2		
TRINIDAD	56.77	16.8	9 52	4				
GRENADA	58.07	16.1	9 56	-1				
ST. VINCENT	59.25	16.3	10 2	-3				
SANTIAGO MA.	59.27	345.4	10 7	2				
SAN SALVADOR	59.59	344.7	10 11	3	18 19	2		
FORT FRANCE	60.79	16.1	10 16	0				
DOMINICA	61.29	15.7	10 20	1				
COMITAN	62.68	342.1	10 30	1	18 48	-8		14 44
ANTIGUA	63.01	14.8	10 29	-2				
ST. KITTS	63.05	13.8	10 29	-2				
SAN JUAN	63.57	10.1	10 28A	-6				
OAXACA	64.56	337.5	10 42	1	19 27	7		
TERRE ADELIE	65.07	195.2	10 42	-2	19 36	10		
VERA CRUZ	66.47	338.8	10 52	-1	19 34	-9		24 10 SS
MERIDA	66.76	345.8	10 57	2	19 45	-2		17 3
TACUBAYA	67.50	335.9	11 0	0	19 56	0		13 30 PP
MIRNY	68.54	175.1	10 59	-7				
HERMANUS	69.76	118.6						20 31
GEBBIES PASS	72.93	224.8	11 44	11				
ROXBURGH	73.25	221.7			21 24	21		26 14 SS
WELLINGTON	73.58	227.8	11 38	2	21 47	41		
KAIMATA	74.40	225.0	11 59	18				
CHATEAU	74.66	229.7	11 39	-4				
COBB RIVER	74.79	226.7	11 54	11				
GRAHAMSTOWN	75.00	122.1	11 31	-14			11 45	
KARAPIRO	75.57	230.6	11 48	0				
WINDHOEK	76.28	108.1	11 58	6				
KIMBERLEY	77.07	117.6	12 0K	4				
CHIHUAHUA	78.27	332.9	11 59	-4	21 54	-4		26 57 SS
COLUMBIA	78.68	355.4	12 2A	-3	21 43	-19		14 48 PP
MBOUR	79.36	57.4	12 9	0	22 22	12		
PIETERMZBURG	79.92	121.8	12 10	-2			12 25	
PRETORIA	81.32	117.6	12 27	8				
LUANDA	83.02	95.5	12 34A	6	23 1	14	12 42	
TUCSON	83.19	330.5	12 29K	0	22 49	0		15 49 PP
TUCSON TELE.	83.24	330.7	12 28K	-1				15 34 PP

WASHINGTON	83.43	358.9	12	30A	0							
GEORGETOWN	83.43	358.9	12	28	-2	22	43	-8				
ST. LOUIS 1	84.20	348.6	12	30	-4	22	59	0				
MORGANTOWN	84.24	356.7	12	32A	-2	22	53	-6				
FLORISSANT	84.37	348.5	12	32	-3	23	3	2				
FORT NELSON	84.52	210.2	12	40	4	23	6	4				
TERRE HAUTE	84.54	350.9	11	49	-47							
AFIAMALU	84.60	255.9	12	44	8	23	12	9			28	26 SS
PITTSBURGH	85.05	356.7	12	40A	2							
LOME	85.05	76.4	12	31	-7	23	12	4				
LAWRENCE	85.34	344.8	12	37	-3							
PENNSYLVANIA	85.34	358.3	12	37	-3	23	11	1			16	4 PP
PALISADES	85.54	1.3	12	44K	3	23	17	5	12	53	16	9 PP
BULAWAYO	85.61	114.0	12	40	-1							
WESTON	86.98	3.2	12	46	-2	23	30	4				
PASADENA	87.64	325.9	12	50	-1	23	34	2			16	14 PP
BOULDER CITY	87.98	329.1	12	52A	-1						30	28 PKKP
SUVA	88.15	246.2	13	7	13						24	57 PS
BROKEN HILL	89.62	110.0	13	1	0							
HALIFAX	89.77	8.6	13	4	3							
MELBOURNE	89.86	211.0	12	58	-4	24	12	19			25	55 PS
OTTAWA	89.92	359.9	12	59	-3							
LARAMIE	89.93	337.9	13	0	-2							
BREBEUF	90.03	1.4	13	5A	2						15	49 PP
CANBERRA	90.50	215.1	13	8	3	24	2	3	13	18	19	0 PPP
FRESNO	90.57	326.0	13	8	3							
RIVERVIEW	90.87	217.4	13	4A	-2						16	46 PP
RUTH	90.93	330.5	13	10	3						15	55
SHAWINIGAN	91.10	2.0	13	15	8							
VINEYARD	91.19	324.9	13	7	-1							
SALT LAKE C.	91.27	333.3	13	2A	-6						16	44 PP
EUREKA	91.50	329.9	13	7K	-2						30	33 PKKP
SEVEN FALLS	91.73	3.3	13	13	3							
LICK	91.80	325.0	13	10A	-1							
RAPID CITY	91.93	340.5	13	8K	-3	24	31	20			16	26 PP
BERKELEY	92.51	324.8	13	15	1	24	29	13			17	10 PP
RENO	92.98	327.3	13	21	5							
UKIAH	93.98	324.9	13	29K	8							
MINERAL	94.37	326.6	13	23A	0							
ADELAIDE	94.62	207.7	13	26	2						17	16 PP
SHASTA	94.98	326.2	13	23	-2							
BOZEMAN	95.48	335.9	13	26K	-2							
BRISBANE	95.60	221.9	13	45	17						21	50
BUTTE	96.24	335.1	13	29A	-2							
TANANARIVE	98.13	126.8	13	26	-14						17	51 PP
LWIRO	98.60	101.8	13	48K	6	24	18	-2				
HUNGRY HORSE	98.77	335.2	13	40	-2						17	47 PP
TAMANRASSET	99.79	67.7	13	47	0	24	34	8			16	46 PP
VICTORIA	102.01	329.8	13	53	-4							
PERTH	102.81	190.0									28	59
MALAGA	103.60	51.5	14	9K	5	24	44	0			18	25 PP
COIMBRA	103.97	46.7				25	46	60			18	24 PP
GRANADA	104.37	51.7	14	24A	16	25	12	25			18	37 PP
SERRA PILAR	104.57	45.9	14	1A	-7						18	23 PP
ALMERIA	104.77	52.6				24	41	-8			18	38 PP
CHARTERS TS.	104.89	220.5									18	31 PP
TOLEDO	106.05	49.4	14	19	777	25	7	12			18	32 PP
ALICANTE	106.95	52.6	14	18	777	26	19	80			18	49 PP
ALGIERS UNI.	107.90	55.8	14	27K	777						18	44 PP
SETIF	108.91	57.6	14	35	777						19	14 PP
TORTOSA	109.20	51.3	18	14	777	25	11	2				
CUGLIERI	113.40	56.2									37	14 SS
JERSEY	113.49	43.3	18	51	11						20	10 PP
PORT MORESBY	113.61	227.0									19	35 PP
CLERMONT-FD.	113.92	48.7									19	54 PP
FOLINIERE	114.02	44.4	18	37	-4							
RATHFARNHAM	114.35	38.1									19	45 PP
GARCHY	114.86	47.4	18	46	4						19	37 PP
MONACO	114.98	52.6									19	49 PP
ISOLA	115.05	52.0									19	53 PP
RABAUL	115.15	234.7	18	45	2						19	36
KEW	115.86	42.3									19	48 PP
BESANCON	116.38	48.8	18	52	7						19	54
MESSINA	116.41	61.6				25	33	-4			19	56 PP
REGGIO CALA.	116.41	61.7									19	56 PP
OROPA	116.46	51.2									20	1 PP
NEUCHATEL	116.75	49.5									20	0 PP
ROME	116.78	56.7				26	44	66			20	0 PP

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

PAVIA	116.86	52.1						20	3	PP
PRATO	117.17	54.2						20	5	PP
DURHAM	117.40	38.9						20	0	PP
BASLE	117.41	49.3						19	37	
DOURBES	117.42	45.6	18	47	0	25 43	2			
BOLOGNA	117.67	53.8						20	4	PP
UCCLE	117.73	44.9	18	44	-4			20	3	PP
CHUR	118.07	50.8						20	0	PP
STRASBOURG	118.15	48.4	18	54	5			20	8	PP
EBINGEN	118.55	49.3						20	14	PP
RAVENSBURG	118.67	50.0	18	55	5			20	14	PP
TUBINGEN	118.81	49.1						20	13	PP
TARANTO	118.82	60.4						25	11	
DE BILT	118.93	44.1	18	56	6			20	17	PP
STUTTGART	119.07	48.9	18	50	-1	28 17	151	20	18	PP
HEIDELBERG	119.14	48.1	18	50	-1			20	19	PP
BENSBERG	119.25	46.0						20	17	PP
TRIESTE	119.74	53.9	18	56	4	25 48	-1	20	9	PP
TOLMEZZO	119.75	52.8	18	57	5			20	27	
RESOLUTE	119.99	354.2	18	55	3			20	15	
MUNSTER	120.07	45.2	18	55	2					
LJUBLJANA	120.41	53.9	18	55	2			20	13	PP
SONNEBERG	121.02	48.2						20	30	PP
ZAGREB	121.12	54.7						19	45	PP
THULE	121.13	2.0	18	59	4			20	24	PP
SCORESBY SD.	121.40	18.5	19	0	5			20	33	PP
CHEB	121.48	49.0						37	18	SS
ATHENS	121.49	66.1	18	52	-3			20	25	PP
JENA	121.52	47.9	18	56	1			20	32	PP
PLAUEN	121.59	48.5	18	56	0			20	18	PP
HELWAN	121.92	78.2	18	59	3			30	38	PS
HALLE	122.03	47.5	19	2	6	26 0	4	20	37	PP
COLLMBERG	122.48	48.1	18	55	-2	25 57	-1	20	40	PP
PRAGUE	122.58	49.9						20	43	PP
PRUHONICE	122.60	50.0	19	2	5			30	40	PS
VIENNA-H.	122.68	52.5	18	55	-3			20	47	PP
COLLEGE	122.91	331.0	18	55A	-3			20	38	PP
BRATISLAVA	123.05	52.9	19	2	4			20	33	PP
POTSDAM	123.09	47.0	19	4	6			20	41	PP
BELGRADE	123.22	57.8	19	6A	7			20	47	
HURBANOVO	123.51	53.7						20	48	PP
BERGEN	123.72	36.1						37	22	SS
SOFIA	123.85	61.3	19	4	4	25 53	-9	20	41	PP
TIMISOARA	124.17	57.2	18	54	-7			26	25	
RACIBORZ	124.66	51.4	19	7	6			21	26	
SKALNATE PL.	125.36	53.2	19	12	9					
KRAKOW	125.61	52.1	19	11	8			20	59	PP
JERUSALEM	125.74	78.7	19	3	-1			21	1	PP
BUCHAREST	126.46	60.7	19	6	1	25 51	-19	21	14	PP
ISTANBUL UN.	126.57	65.7	19	10	5					
WARSAW	127.25	50.1	19	6A	0	26 0	-12	21	7	PP
KSARA	127.35	77.0	19	6	-1			21	8	PP
LWOW	127.82	53.9	19	11	3			22	33	PKS
UPPSALA	128.88	40.3	19	13	3			21	23	
DJAKARTA	129.10	183.2	19	21K	11			20	24	
NORD	129.94	9.5	19	6	-6			22	35	PKS
SIMFEROPOL	131.75	63.6	19	17	2			28	59	SKKS
NURMIJARVI	132.39	41.2	19	6	-10			22	44	PKS
HELSINKI	132.43	41.7	19	14	-2			22	48	PKS
KIRUNA	132.79	31.0	19	12	-5			21	52	PP
ISFJORD	133.33	16.6	19	23	5					
GUAM	133.59	240.5	19	28	10					
PULKOVO	134.88	43.4	19	17	-4					
SODANKYLA	135.00	32.3	19	16	-5			21	54	PP
COLOMBO	136.56	143.2						24	13	
SHIRAZ	136.76	92.4	19	13	-11			23	9	PKS
TIFLIS	137.38	72.4	19	30	5			28	28	SKKS
GORIS	137.46	76.1	19	29	3	26 25	-10	22	20	PP
APATITY	137.62	32.6	19	13	-13	25 59	-36	23	4	PKS
MOSCOW	137.64	50.5	19	17	-9					
TEHERAN	139.22	84.0	19	25	-4			22	27	PP
KHEYS	140.76	10.8	19	29	-3			22	55	PKS
MADRAS	142.11	139.4	19	50	16			22	58	
BOMBAY	143.12	124.4	19	48	12			42	39	SS
POONA	143.43	126.0	19	38	2			24	21	
KARACHI	143.83	111.0	19	42	5					
PETROPAVLOVK	144.22	303.0	19	33	-5	26 25	-20	22	57	SKP
ASHKABAD	145.18	85.1	19	37	-2			22	59	PP
MANILA	146.70	210.5						20	33	

QUETTA	147.21	103.7	19	43	0	26	49	-1	19 52	PKP2
BAGUIO CITY	148.49	210.8	19	47	2					
MAGADAN	148.75	314.7	19	46	1					
SVERDLOVSK	150.45	50.4	19	50	2				23 33	PP
TIKSI	150.72	344.4	19	42	-6					
HONGO	151.67	263.5	20	10	20				44 25	SS
TUKUBASAN	151.69	264.7	19	47K	-3	27	0	4	23 48	PP
AGRA	152.46	121.2	19	52A	1					
WARSAK DAM	152.59	102.0	20	2	11					
DUZHANBE	152.85	90.9	19	55	4				30 26	SKKS
LAHORE	153.07	109.3	19	54	2					
MATUSIRO	153.18	263.7	19	54K	2				20 29	PKP2
Y.-SAKHLINSK	153.43	288.4	19	55	3					
BOKARO	154.10	138.1	20	20	27				27 26	PPP
CALCUTTA	154.11	144.3	20	16	23				24 22	PP
ABUYAMA	154.19	258.0	19	56K	3					
TASHKENT	154.26	85.5	19	57	4				20 9	PKP2
DEHRA DUN	154.72	116.2	20	10	16				24 56	
HONG KONG	156.06	202.9	20	2	6				32 1	SKKS
CANTON	157.04	201.6	20	0	3				24 24	PP
CHATRA	157.29	136.8	19	57	0					
YAKUTSK	157.41	328.3	19	53	-4					
SHILLONG	158.23	148.2	20	3	5					
VLADIVOSTOK	160.15	274.6	19	59	-2				20 44	PKP2
KUNMING	160.22	175.6	20	3	2				24 28	PP
ZO-SE	160.94	229.4	20	2	1				24 41	PP
LHASA	161.48	140.8	20	5	3				20 56	PKP2
SEMIPALATNSK	162.88	62.7	20	5	2				24 44	
NANKING	162.95	226.1	20	6	3				24 56	PP
WUHAN	163.56	212.7	20	5	1					
CHANGCHUN	164.98	273.3	20	4	-1				24 51	PP
CHENGTU	165.78	178.7	20	8	2				24 56	PP
SIAN	168.80	199.8	20	10	2					
PEKING	170.01	244.9	20	10	1				25 34	PP
LANCHOW	171.15	177.2	20	9	-1				25 24	PP
IRKUTSK	172.63	0.2	20	7	-3				25 28	PP
PAOTOW	174.00	226.0	20	13	2				25 39	PP
ULAN-BATOR	176.51	330.8	20	12	0					

MAY 25 13.H 38.M 27.S EPICENTRE 1.13 129.13 DEPTH= 0.KM

A=-0.63093 B= 0.77559 C= 0.01966 D= 0.7757 E= 0.6311
G=-0.0124 H= 0.0153 K=-0.9998 HT= 7.2

SE= 2.43

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	15.62	329.8	4	31	48						13	41	
BAGUIO CITY	17.37	331.5	4	7	1	7	30	12					
GUAM	19.72	50.9	4	32	-2						4	57	
PORT MORESBY	20.78	120.6	4	48	3	8	44	11	5	17	9	41	*SS
NHATRANG	22.61	300.0	5	3	-1	9	17	9					
LEMBANG	22.88	249.5	5	6	-1	9	18	5					
DJAKARTA	23.42	251.7	5	15	3	9	30	8					
RABAUL	23.63	103.1	4	37	-37				5	15	17	36	
HONG KONG	25.58	326.4	5	33	0	10	1	2					
CANTON	26.67	326.1	5	43A	0	10	18	1					
CHARTERS TS.	26.96	142.4	5	43	-2	10	29	7					
ZO-SE	30.74	346.6	6	18	-1								
NANKING	32.27	343.4	6	32	-1	11	49	3					
WUHAN	32.34	336.1	6	33	0	11	47	0					
ABUYAMA	34.10	9.5	6	48K	-1								
KUNMING	34.89	315.2	6	56A	0	12	28	1					
MUNDARING	35.13	199.3	6	55K	-3								
MATUSIRO	36.22	12.4	7	5	-2	12	53	6			8	28	PP
BRISBANE	36.36	143.0	7	7	-1	12	48	-2					
ADELAIDE	37.02	166.9	7	11K	-3	12	57	-3			8	37	
CHENGTU	37.81	323.4	7	19A	-1								
SIAN	37.98	332.3	7	20A	-2								
PEKING	40.47	344.6	7	42A	0	13	50	-2					
RIVERVIEW	40.48	151.3	7	45	3	13	56	4			9	20	PP
CANBERRA	40.75	154.8	7	43	-2								
MELBOURNE	41.44	160.9	7	50K	0	14	7	1					
VLADIVOSTOK	41.87	3.0	7	57	3								
LANCHOW	41.92	328.8	7	54A	0	14	13	0					

CHANGCHUN	42.65	355.9	7	59	-1	14	22	-2			
PAOTOW	42.92	338.5	8	2	0						
SHILLONG	43.35	307.2	8	14A	8						
LHASA	45.99	311.7	8	27A	0	15	12	0			
BOKARO	47.63	301.7	9	9	29	15	33	-3			
CHATRA	47.69	306.1	8	41	1	15	36	-1			
UGLEGORSK	49.04	11.2	8	52	1						
DEHRA DUN	56.42	306.2	9	49	3	17	31	-5			
PETROPAVLOVK	57.23	20.7	9	57	5						
KARAPIRO	57.79	137.4	9	58	2						
LAHORE	59.85	306.2	10	6	-4						
MAGADAN	60.65	12.5	10	18	3						
YAKUTSK	60.73	0.3	10	16	0						
NAMANGAN	65.16	315.3	10	44	-1						
QUETTA	65.55	302.7	10	46A	-2						
TIKSI	70.39	359.9	10	14	-64						
SVERDLOVSK	77.42	328.4	11	56	-3						
CAPE HALLETT	77.78	168.1	12	0	-1	21	45	-8	15	9	PP
SHIRAZ	77.80	300.0	11	58	-3	21	48	-6			
SCOTT BASE	81.46	172.5	12	24	3						
TANANARIVE	82.40	250.9	12	27A	1				12	47	
TIFLIS	85.01	311.6	12	39	0						
COLLEGE	86.02	25.1	12	44	0						
SOUTH POLE	91.13	180.0	13	5	-3				14	25	
APATITY	91.14	337.5	13	6	-2						
JERUSALEM	92.74	301.7	13	22	6				16	55	PP
SODANKYLA	93.76	337.8	13	18	-2						
BYRD STATION	94.75	170.6	13	27	1						
KIRUNA	95.94	338.8	13	27	-3						
RESOLUTE	99.91	10.8	13	48	0						
LWIRO	100.36	267.9							17	55	PP
HUNGRY HORSE	106.65	38.4	17	43	777				18	43	
EUREKA	108.26	47.7	13	10	777						
BESANCON	110.98	322.3							19	48	PP
FOLINIERE	114.01	326.1							19	49	PP
SETIF	115.94	311.6							19	58	PP
TAMANRASSET	120.21	297.2	18	56	3				20	22	PP
HUANCAYO	153.43	115.1							20	8	PKP2

MAY 25 14.H 59.M 17.S EPICENTRE -22.23-179.43 DEPTH= 567.KM

A=-0.92651 B=-0.00918 C=-0.37616 D=-0.0099 E= 1.0000
G= 0.3761 H= 0.0037 K=-0.9266 HT= 4.1

DEPTH OF FOCUS= 0.084R

SE= 2.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	4.53	333.3				2	45	8					
AFIAMALU	11.02	42.6	2	27A	-2	4	23	-5					
NOUMEA	13.07	267.0	2	59	10	5	9	3					
ONERAHI	14.53	200.5	3	7	3								
KARAPIRO	16.23	194.4	3	21A	1								
TUAI	16.77	189.3				6	8	-4					
CHATEAU	17.45	193.1	3	29	-3	6	25	2					
WELLINGTON	19.61	193.1	3	52	0	6	49	-11					
COBB RIVER	19.92	197.6				6	58	-7					
BRISBANE	25.71	252.8	4	46	-1	8	32	-6					
RIVERVIEW	28.32	239.5	5	11	1								
CANBERRA	30.45	237.6	5	29A	1	9	51	0	7	3	7	7	PP
CHARTERS TS.	32.03	267.4	5	41	-1	10	11	-4					
RABAUL	32.83	299.0	5	44	-5						8	16	
MELBOURNE	34.28	234.9	6	0K	-1	10	47	-3	7	44			
PORT MORESBY	34.50	286.4	6	3	1						13	57	
ADELAIDE	38.61	241.4	6	35	-1						15	41	
KIPAPA	48.15	27.2	7	48	-3								
GUAM	49.92	311.9	8	2	-2						8	30	
CAPE HALLETT	50.45	184.1	8	9	1								
MUNDARING	57.39	245.5	8	55K	-1								
BYRD STATION	63.17	170.3	9	34	0								
SOUTH POLE	67.90	180.0	10	2	-2				12	3			
MIRNY	68.87	205.4	10	7	-3								
BAGUIO CITY	70.18	297.9	10	16	-1								
MATUSIRO	70.83	324.9	10	20	-1						13	0	PP

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

LEMBANG	71.69	270.0	10 26K	0					12 29	
ZO-SE	77.80	310.9	11 0	0						
HONG KONG	78.37	300.0	11 4	1	20 15	2				
CANTON	79.42	300.3	11 10K	1						
NANKING	80.03	310.6	11 13K	1	20 35	5				
BERKELEY	80.35	42.4	11 14A	0						
LICK	80.42	43.1	11 15A	1					14 28	
UKIAH	80.54	40.9	11 14	0						
PASADENA	80.84	47.4	11 17	1						
FRESNO	81.26	44.5	11 18A	0						
SHASTA	82.02	40.1	11 22	0						
WUHAN	82.24	307.3	11 24K	1						
MINERAL	82.28	40.8	11 24A	1					13 31	
RENO	82.89	42.2	11 27A	1						
CHANGCHUN	82.96	323.2	11 27K	0	21 3	4			20 49	SKS
BOULDER CITY	84.13	47.4	11 34	2			13 41			
TUCSON	85.03	52.4	11 40	3			13 46			
TUCSON TELE.	85.15	52.3	11 39	2			13 46			
EUREKA	85.29	44.0	11 37	-1			13 45			
PEKING	86.19	316.1	11 43K	1	21 35	6			21 12	SKS
SIAN	88.23	308.1	11 53K	1						
SALT LAKE C.	88.64	44.6	11 55	1			14 2			
KUNMING	88.95	297.6	11 57K	2						
COLLEGE	90.18	12.9	12 0	-1			14 9			
CHENGTU	90.30	303.1	12 2	0	22 11	5			21 36	SKS
HUNGRY HORSE	91.32	37.4	12 5	-1	21 43	-32	14 7		15 52	PP
BOZEMAN	91.65	40.7					14 17			
LANCHOW	92.76	307.8	12 14	1						
YAKUTSK	93.20	338.5	12 14	-1						
RAPID CITY	95.85	44.7					14 36		16 27	PP
HUANCAYO	98.21	106.5							19 10	PPP
QUETTA	120.64	292.8	17 48	0						
SODANKYLA	131.99	346.8							20 41	SKP
KIRUNA	132.75	349.9							20 44	SKP
NURMIJARVI	138.19	342.4	18 13	-8					21 1	SKP
TIFLIS	138.28	308.3	18 32	11						
UPPSALA	140.52	346.5	18 18	-8						
LWIRO	143.23	232.2	18 20K	-10					21 18	
SIMFEROPOL	144.41	317.6	18 32	0						
LWOW	146.84	331.9	18 39	3						
KSARA	146.91	298.2	18 41	5						
JERUSALEM	147.81	294.6	18 42	5					22 15	
WITTEVEEN	149.10	352.8	18 45	6						
COLLMBERG	149.41	344.6	18 45K	5			21 3		22 20	PP
HALLE	149.47	345.9	18 45	5					18 53	PKP2
JENA	150.09	346.0	18 46	5			21 3			
PRAGUE	150.15	341.9	18 49	8						
PRUHONICE	150.20	341.7	18 47K	6			21 5			
PLAUEN	150.37	345.0	18 45	4			20 59			
HELWAN	151.40	291.9	18 50K	7			21 6			
DOURBES	152.01	354.5	18 53	9						
STUTTGART	152.62	347.4	18 45	1						
STRASBOURG	153.09	349.4	18 54	9					19 8	PKP2
BESANCON	154.66	351.4							19 15	PKP2
ISOLA	157.46	347.8							19 27	PKP2
SETIF	165.46	344.3	18 58	-1					20 1	PKP2
TAMANRASSET	175.39	277.7	20 47A	103	26 46	93			22 53	PKP2

MAY 26 5.H 10.M 11.S EPICENTRE 40.51 20.56 DEPTH= 0.KM
A= 0.71385 B= 0.26772 C= 0.64710 D= 0.3512 E=-0.9363
G= 0.6059 H= 0.2272 K=-0.7624 HT= -1.9

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TARANTO	2.52	270.1									0	39	PG
SOFIA	3.01	42.7	0	51	1	1	29	2			1	3	PG
ATHENS	3.53	135.0	0	59A	2	1	43	3					
BELGRADE	4.30	359.0	1	8A	0	2	1	1			1	21	PG
REGGIO CALA.	4.51	239.2	1	4	-7	2	22	17			1	31	
MESSINA	4.52	240.8	1	13K	2	2	5	0			1	29	PG
TIMISOARA	5.26	5.1	1	24	3	2	32	8			1	50	PG
BUCHAREST	5.66	44.6	1	27	0						2	40	
ROME	6.25	285.4	1	36A	1	2	52	3			1	53	P*
ZAGREB	6.27	329.3	1	36A	0						3	24	SG

KECSKEMET	6.43	354.7	1	36	-2				3	44	SG
ISTANBUL KA.	6.48	82.3	1	38	-1						
BUDAPEST	7.05	351.5	1	51	4				3	55	SG
LJUBLJANA	7.07	323.5	1	47A	0				2	21	PG
TRIESTE	7.15	318.1	1	47A	-1	3	8	-3	3	55	SGSG
HURBANOVO	7.55	347.8	2	6	12						
PRATO	7.79	298.7	1	56	-1	3	49	22			
BOLOGNA	7.89	303.3	2	1	2	3	50	20	2	53	
TOLMEZZO	8.04	319.5	1	57	-4	3	30	-3	2	3	P*
BRATISLAVA	8.04	343.2	2	0	-1	3	32	-1	2	25	PG
VIENNA-H.	8.29	340.2	2	6	2	3	47	7	2	47	PGPG
SKALNATE PL.	8.67	358.7	2	12	3	3	53	4			
KISHINEV	8.83	39.9	2	11	-1	3	50	-3			
CHIAVARI	9.14	298.3	2	19	3	3	50	-2	4	21	SGSG
CUGLIERI	9.16	271.8	1	59	-17	3	34	-27	2	39	
KRAKOW	9.55	357.6	2	23	2	4	16	5	2	44	PPP
PAVIA	9.57	302.9	2	30K	8				4	13	
LWOW	9.62	13.6	2	28	5	4	17	4			
RACIBORZ	9.71	351.0	2	26	2	4	5	-10	2	29	PP
CHORZOW	9.84	354.1	2	27	2						
CHUR	10.19	312.1	2	31	1	4	23	-4			
MONACO	10.27	292.5	2	31	0	4	36	7			
PRUHONICE	10.37	337.9	2	32	-1	4	29	-2			
PRAGUE	10.48	337.8	2	35A	1	4	45	11	2	59	
OROPA	10.53	303.1	2	32	-3				4	10	
ISOLA	10.65	294.6	2	38	1	4	37	-1	4	15	
RAVENSBURG	10.69	316.4	2	35	-2						
SIMFEROPOL	10.91	61.6	2	41	1	4	45	1	4	55	
CHEB	11.16	331.7	2	42	-2						
EBINGEN	11.29	316.6	2	43	-2						
TUBINGEN	11.46	318.2	2	44	-4						
STUTTGART	11.51	319.6	2	45	-3				5	4	
PLAUEN	11.58	332.3	2	44	-5				5	36	
WARSAW	11.72	1.4	2	54A	3	5	2	-2	3	0	PP
NEUCHATEL	11.78	307.9	2	50	-2				5	14	SS
SONNEBERG	11.84	329.5	2	50	-3				6	33	SG
COLLMBERG	11.99	336.6	2	55	0	5	11	0	3	9	PP
JENA	12.15	332.0	2	55	-2	5	9	-5	6	45	SG
STRASBOURG	12.16	315.8	2	54	-3	5	11	-4	3	5	PP
HEIDELBERG	12.20	320.7	2	55	-3				5	11	
BESANCON	12.48	307.5	2	59	-2				3	27	
HALLE	12.50	334.4	3	1	-1	5	27	4	3	7	PP
POTSDAM	12.93	339.1	3	6	-2	5	38	5	5	58	
CLERMONT-FD.	13.77	298.2	3	23	4				7	51	SG
HELWAN	13.78	137.0	3	14	-5	5	21	-33			
KSARA	13.92	113.8	3	19	-2	5	52	-5	3	29	PP
BENSBERG	13.99	322.7	3	22	0	5	49	-10			
ALGIERS UNI.	14.18	260.3	3	25	1	6	12	9	3	36	PP
MUNSTER	14.51	326.4	3	31	3						
SOTCHI	14.56	71.6	3	30	1						
JERUSALEM	14.69	121.8	3	31	0	6	18	3			
DOURBES	14.73	315.9	3	31	0	6	18	2			
HAMBURG	14.82	334.4	3	34A	2						
TORTOSA	15.23	277.7	3	31	-7	6	34	6			
UCCLE	15.27	317.7	3	41	3	6	33	4			
WITTEVEEN	15.53	327.0	3	50	8						
DE BILT	15.68	322.8	3	49K	5	6	48	9			
COPENHAGEN	16.09	343.3	3	51A	2	6	46	-2			
ALICANTE	16.40	269.2	3	54	1	7	10	15			
RELIZANE	16.44	259.6	3	55	2	7	13	17	4	19	PPP
FOLINIERE	17.06	305.9	3	59	-2						
KEW	18.11	314.2	4	16A	2	7	34	-1			
JERSEY	18.20	306.0	4	13	-2				12	26	
TIFLIS	18.30	78.3	4	20	3	7	48	9			
ALMERIA	18.34	265.9	4	18	1	7	19	-21	4	29	PP
TOLEDO	18.80	276.1	4	20A	-3	7	52	2	8	30	SS
MOSCOW	18.93	30.8	4	24	0	7	49	-4			
GRANADA	19.09	267.8	4	28	2	7	55	-2			
UPPSALA	19.45	355.6	4	29	-1						
MALAGA	19.85	267.0	4	32K	-3	8	8	-5	5	4	PPP
HELSINKI	19.87	6.5	4	32	-3	8	13	-1			
NURMIJARVI	20.18	5.9	4	37	-2	8	19	-2			
MAKHACH-KALA	20.22	74.2	4	41A	2	8	26	5			
PULKOVO	20.23	14.4	4	36	-3	8	15	-6			
DURHAM	20.51	321.5	4	41K	-1	8	37	10	5	11	PP
TAMANRASSET	21.77	220.2	4	56K	1	9	0	8	5	24	PP
EDINBURGH	21.92	322.6				8	55	0			
BERGEN	22.05	339.6	4	57	-1	8	57	0	5	34	PPP

COIMBRA	22.05	278.7	4	58A	0	9	0	3	5	22 PP
ABERDEEN	22.19	326.3	5	1	2	8	59	0	5	41 PPP
RATHFARNHAM	22.20	314.2	4	59	0	9	5	5		
LISBON	22.91	275.2	5	12A	6	9	18	6		
SKALSTUGAN	23.62	350.7	5	12	-1					
TEHERAN	24.65	91.2	5	25	2	9	47	4		
SODANKYLA	27.12	5.2	5	44	-2	10	17	-7	9	8 PCP
KIRUNA	27.37	359.9	5	47	-2				6	8
APATITY	28.00	10.5	5	53K	-1	10	36	-2	6	54 PP
SHIRAZ	28.17	102.6	5	57	1	10	39	-2		
SVERDLOVSK	30.54	44.1	6	16	-1	11	18	0		
SIDA	32.40	328.8	6	34	1					
REYKJAVIK	34.08	328.1	6	51	3					
PONTA DELGDA	35.67	280.8	7	4K	3				8	12 PP
SCORESBY SD.	37.03	337.8	7	14	1	13	7	8	8	41 PP
ISFJORD	37.77	357.7	7	19	0					
NAMANGAN	38.27	72.1	7	24	1					
QUETTA	38.83	90.5	7	28	0	13	28	1	8	59 PP
ANDIJAN	38.84	72.2	7	30	2					
FRUNSE	39.87	68.3	7	36K	-1	13	39	-3		
WARSAK DAM	40.64	82.4	7	45	2					
ALMATA	41.39	66.9	7	51	2					
KARACHI	41.65	97.5	7	51	0					
MBOUR	41.79	242.4	7	57A	5	14	13	2		
KHEYS	42.48	8.5	7	58A	0	14	16	-5		
NORD	43.17	352.5	8	2	-2	14	27	-4	17	37 SS
LWIRO	43.22	167.9	8	4	0	14	34	2		
DEHRA DUN	47.21	83.6	8	45	9	15	27	-2	19	4 SS
AGRA	48.78	87.3	8	46K	-2	15	45	-6	10	45 PP
BOMBAY	49.45	99.8	8	54	1	15	59	-2	10	57 PP
POONA	50.45	99.4	8	53A	-8					
THULE	50.78	342.2	9	2	-2				10	22 PCP
BROKEN HILL	55.17	170.7	9	29	-7					
IRKUTSK	55.85	47.6	9	39K	-2					
CHATRA	55.88	82.2	9	38A	-3	17	22	-6		
BOKARO	56.47	86.0	9	45	-1	17	29	-7		
LHASA	57.31	77.2	9	50	-2	17	44	-3		
TIKSI	57.47	20.9	9	51K	-2					
RESOLUTE	57.54	343.5	9	52A	-1					
KODAIKANAL	58.41	104.5							11	27
ULAN-BATOR	59.23	51.4	10	3	-2					
HALIFAX	59.44	304.4	10	6	-1					
SHILLONG	60.11	80.7	10	7K	-4					
BULAWAYO	60.80	171.3	10	16	0					
SEVEN FALLS	62.61	309.7	10	28K	0					
WINDHOEK	62.84	183.6	10	31	1					
YAKUTSK	63.09	30.0	10	29	-2					
LANCHOW	63.16	64.4	10	30K	-2	19	1	-1		
SHAWINIGAN	64.04	310.0	10	31K	-6					
TANANARIVE	64.24	151.5	10	41	2				10	56
PAOTOW	64.87	57.3	10	43	0	19	26	2		
BREBEUF	65.11	309.3	10	46K	2					
WESTON	65.41	305.5	10	47	1				23	49 SS
CHENGTU	66.22	69.3	10	50	-2	19	37	-3		
PRETORIA	66.30	172.5	10	53	1					
SIAN	67.63	63.6	10	59K	-2					
PALISADES	67.79	305.4	11	3	2	20	2	3	13	30 PP
FORDHAM	67.86	305.3	11	2	0	19	55	-5		
KUNMING	68.46	74.9	11	3	-3	20	3	-4		
PEKING	69.06	54.9	11	8	-1	20	14	0		
PENNSYLVANIA	70.34	307.1	11	19	2	20	31	2		
PIETERMZBURG	70.37	170.9	11	18	1					
WASHINGTON	70.99	305.1	11	22	1				21	18
GEORGETOWN	70.99	305.1	11	22	1					
CHANGCHUN	72.18	47.3	11	27	-1	21	39	48		
MAGADAN	72.18	24.1	11	28	0					
MORGANTOWN	72.32	307.2	11	31K	2					
WUHAN	73.67	63.8	11	36	-1	21	6	-1		
GRAHAMSTOWN	73.68	174.8	11	40	3					
CHAPEL HILL	74.06	303.7	11	41	2					
COLLEGE	74.56	354.9	11	41	-1	21	20	3		
ST. VINCENT	75.40	274.9	11	51	4					
NANKING	75.57	60.2	11	47K	-1	21	27	-2		
VLADIVOSTOK	76.26	44.6	11	51	-1	21	33	-3		
COLUMBIA	76.53	303.2	11	52	-1					
UGLEGORSK	76.97	35.1	11	56	0	21	47	3		
TRINIDAD	77.08	273.0	11	58	2					
CANTON	77.39	70.5	11	57	-1	21	46	-2		

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
ZO-SE	77.76	59.6	11 58	-2	21 48	-4		
HONG KONG	78.48	70.6	12 4	0	21 59	-1		14 35
Y.-SAKHLINSK	78.80	36.2	12 6K	0	22 4	0		
FLORISSANT	78.99	312.0	12 8	1	22 6	0		
ST. LOUIS 1	79.02	311.8	12 9	2	22 7	1		
PETROPAVLOVK	80.04	24.2	12 11	-2	22 18	1		
SITKA	80.70	346.9	12 17	1				
CARACAS	81.37	276.4	12 19A	-1				15 9 PP
LAWRENCE	81.57	314.8	12 22	1				
RAPID CITY	81.76	322.7	12 21	-1				
KURILSK	82.46	34.5	11 25	-60	22 36	-6		
HUNGRY HORSE	82.82	331.4	12 28	1				
BOZEMAN	83.89	328.2	12 35	2				
BUTTE	84.21	329.3	12 36	2				
MATUSIRO	84.34	45.8	12 34	-1	22 55	-5		16 6 PP
LARAMIE	85.02	322.4	12 40	2				
TUKUBASAN	85.60	44.9	12 36K	-5	23 9	-4		15 58 PP
VICTORIA	85.79	336.9	12 42	0				
BAGUIO CITY	86.88	71.2	13 49	61				
SALT LAKE C.	88.26	325.9	12 55	1				
CORVALLIS	89.27	335.1	13 4A	5				
BOGOTA	90.55	276.5	13 5	0				23 55 SKKS
EUREKA	91.06	327.8	13 8	1				
CHINCHINA	91.49	277.8	13 11	2	24 13	5		
SHASTA	92.42	332.7	13 14	0				
MINERAL	92.45	332.0	13 15K	1				
RENO	92.51	330.4	13 16A	2				
BOULDER CITY	93.54	325.2	13 21	2				16 57 PP
TUCSON TELE.	94.66	320.3	13 25	1				
TUCSON	94.79	320.4	13 26	2				17 11 PP
BERKELEY	94.88	331.3	13 29A	4	24 54	17		17 21 PP
FRESNO	94.92	329.1	13 27	2				
LICK	95.12	330.6	13 28A	2				16 58 PP
PASADENA	96.52	326.6	13 35	3	24 47	38		17 28 PP
LA PAZ	99.55	256.5						32 19 SS
SANTA LUCIA	111.61	244.0						30 43 PS
PORT MORESBY	123.60	72.0	19 1	2				
CHARTERS TS.	129.73	82.9	19 12	1				
SOUTH POLE	130.32	180.0	19 12	0				21 28 PP
ADELAIDE	131.66	104.3	19 19	4				22 41 SKP
MELBOURNE	137.42	105.1	19 24	-2				23 1 PKS
BYRD STATION	137.66	189.6	19 28	2				40 42 PKPPKP
TERRE ADELIE	138.50	149.1	19 24	-4				
CANBERRA	139.47	99.7	19 25	-4				
SCOTT BASE	140.05	169.4	19 31	1				
CAPE HALLETT	144.81	164.5	19 38	-1				23 8 PKS
AFIAMALU	151.38	25.7	19 54	5				
KARAPIRO	160.46	90.5	20 19	18				20 58

MAY 26 20.H 5.M 7.S EPICENTRE 26.82 92.68 DEPTH= 0.KM

A=-0.04173 B= 0.89268 C= 0.44875 D= 0.9989 E= 0.0467
G=-0.0210 H= 0.4483 K=-0.8937 HT= 2.8

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHILLONG	1.44	210.4						0 29 PG
TOCKLAI	1.87	91.6						0 28 PG
LHASA	3.16	333.2	1 2A	10	1 27	-4		
CHITTAGONG	4.51	190.1	1 9	-2				1 18 P*
CHATRA	4.92	271.4	1 22	5	2 19	3		1 40 PG
CALCUTTA	5.79	223.5	1 34A	4	2 28	-10		
BOKARO	6.90	245.9	1 46	1	2 59	-6		2 3 PPP
KUNMING	9.21	98.4	2 17	0	3 56	-7		
CHENGTU	10.66	66.3	2 36	-1	4 32	-7		
VIZIANAGRAM	12.15	226.4	3 1	3				
AGRA	13.08	274.7	3 9A	-1	5 41	4		
LANCHOW	13.23	43.2	3 12	0				
DEHRA DUN	13.32	288.6	3 11	-2	5 41	-2		3 25 PP
SEHORE	14.60	259.0	3 31	1	5 16	-58		3 42 PP
SIAN	15.82	58.2	3 45K	-1				
LAHORE	16.70	290.7	3 52	-5	6 51	-12		
MADRAS	18.06	222.9	4 12K	-2	7 36	2		4 28 PP
CANTON	19.10	96.7	4 30	3	7 58	1		
POONA	19.22	248.5	4 30K	2	8 2	2		

WARSAK DAM	19.56	296.6	4	34	2						
PAOTOW	19.87	41.9	4	36	0						
BOMBAY	19.91	250.8	4	39	3	8	19	4			
HONG KONG	20.05	98.3	4	43	5	8	21	3			
ALMATA	20.80	326.1	4	49A	3	8	43	9			
NHATRANG	21.26	129.9	4	48	-2				5	8	PP
FRUNSE	21.72	322.0	4	59A	4						
ANDIJAN	21.79	314.7	4	59A	3						
NAMANGAN	22.36	314.5	5	6A	5	8	53	-10			
QUETTA	22.84	284.5	5	8A	2	9	15	3	5	36	PP
KARACHI	23.15	270.8	5	10	1						
NANKING	23.30	70.8	5	19	8						
PEKING	23.54	50.0	5	18	5	9	27	3			
ULAN-BATOR	23.83	24.1	5	18	2	9	32	3			
ZO-SE	25.27	73.5	5	29	-1						
IRKUTSK	26.89	15.9	5	47A	2						
CHANGCHUN	31.31	48.7	6	23	-1	11	26	-5			
SHIRAZ	35.37	284.1	6	59K	-1	12	31	-3			
VLADIVOSTOK	35.65	52.6	7	1	-1						
LEMBANG	36.45	154.5	7	10	1				10	14	
SVERDLOVSK	37.70	331.5	7	20	1						
MATUSIRO	39.63	64.3	7	33	-2	13	34	-5	9	40	PCP
MAKHACH-KALA	39.90	305.7							19	19	
TIFLIS	41.73	303.5	7	55	2						
YAKUTSK	42.94	24.7	8	3	1						
UGLEGORSK	43.90	46.0	8	28	18						
MOSCOW	48.73	321.9	8	44	-4						
KSARA	49.00	292.6	8	51	0				10	51	PP
TIKSI	49.14	14.3	8	51A	-1						
SIMFEROPOL	49.68	307.4	8	56	0						
JERUSALEM	49.86	290.1	8	58	1						
PULKOVO	53.35	326.0	9	22	-2						
HELWAN	53.52	288.6	9	24	-1				10	30	
APATITY	53.85	335.9	9	27A	0						
PETROPAVLOVK	54.73	42.5	9	45	11						
KHEYS	55.72	353.5	9	42	1	17	26	-1			
HELSINKI	56.07	326.1	9	43	0						
NURMIJARVI	56.26	326.5	9	46	1	17	29	-5			
SODANKYLA	56.34	334.9	9	45	0				10	6	
LWOW	56.45	313.6							10	51	
SOFIA	57.62	305.2	9	54	0				11	52	PP
ATHENS	58.09	299.7	9	57K	-1						
KIRUNA	58.76	335.0	10	2	0				10	21	
KRAKOW	59.07	314.1	10	3	-2						
BELGRADE	59.38	308.0	10	6A	-1						
UPPSALA	59.75	325.6	10	8	-1						
RACIBORZ	60.18	314.3	10	14	2				10	55	PCP
BRATISLAVA	61.16	312.3	10	19	0						
VIENNA-H.	61.63	312.4	10	23	1				11	8	PCP
SKALSTUGAN	62.09	330.1	10	24	-1				10	44	
ZAGREB	62.32	309.8	10	27	0						
PRUHONICE	62.52	314.6	10	28A	0				10	49	
MUNDARING	62.62	157.5	10	24	-5				10	46	
COPENHAGEN	62.89	321.2	10	30	0				10	50	
COLLMBERG	63.27	316.2	10	33	0				12	56	PP
LJUBLJANA	63.27	310.3	10	33A	0						
HALLE	63.88	316.6	10	37	0				12	54	PP
TRIESTE	63.88	309.9	10	36	-1						
PLAUEN	63.94	315.5	10	36	-1				10	56	PCP
JENA	64.22	316.0	10	38	-1				13	9	PP
TOLMEZZO	64.22	310.9	10	37	-2				12	59	PP
MESSINA	64.33	301.5	10	37	-3				13	37	
SONNEBERG	64.56	315.5	10	41	0						
RABAUL	65.18	108.8	10	45	0	10	58				
ROME	65.66	306.2	10	47	-1						
STUTTGART	66.14	314.1	10	52A	0				13	37	PP
RAVENSBURG	66.16	312.9	10	51	-1						
TUBINGEN	66.33	313.8	10	53	0						
HEIDELBERG	66.35	314.8	10	52	-1						
NORD	66.40	351.3	10	51A	-2						
MUNSTER	66.41	317.7	10	53	0				11	13	
EBINGEN	66.49	313.5	10	51	-3						
WITTEVEEN	66.77	318.8	10	56	0				11	16	
BENSBERG	66.93	316.7	10	57	0				12	15	PCP
STRASBOURG	67.16	314.1	10	58A	0				11	18	
LWIRO	67.93	255.5	11	2A	-1						
NEUCHATEL	68.12	312.6	11	3	-1						
BESANCON	68.68	313.1	11	7	-1				11	27	

UCCLE	68.69	317.1	11	8	0	20	13	3				
MONACO	68.73	309.2	11	6A	-2							
DOURBES	68.74	316.3	11	7	-1						13	43 PP
ISOLA	68.86	309.7	11	8K	-1						11	28 PCP
CHARTERS TS.	69.79	126.3	11	12	-2						11	26
GARCHY	70.56	313.8	11	18	-1						13	55 PP
DURHAM	70.90	322.3	11	20A	-1						11	41
CLERMONT-FD.	71.01	312.3	11	23	1							
KEW	71.28	318.7	11	23A	0				11	43		
FOLINIERE	72.31	316.1	11	29	-1							
RATHFARNHAM	74.01	321.9	11	59	19							
ALGIERS UNI.	74.21	303.4	11	39	-2							
BROKEN HILL	74.61	244.8	11	43	0							
ADELAIDE	75.32	142.3	11	59	12							
RELIZANE	76.46	303.3	11	52	-2						12	7 PCP
COLLEGE	77.42	22.4	11	58	-1							
TAMANRASSET	77.66	289.3	11	59A	-1	21	57	5			14	57 PP
BULAWAYO	77.67	239.9	11	59K	-1							
TOLEDO	78.11	308.7									14	58
RESOLUTE	78.63	2.0	12	4	-2							
SERRA PILAR	80.68	311.3	12	12A	-5							
MELBOURNE	80.87	140.6	12	31A	13							
CANBERRA	81.55	136.5	12	17	-4						12	33 PCP
RIVERVIEW	81.93	134.2	12	27A	4							
KIMBERLEY	85.38	234.7	12	53K	12							
HUNGRY HORSE	101.43	17.8									17	48 PP
EUREKA	108.83	23.1									18	32 PP
EUREKA	108.83	23.1	18	32	777							
BYRD STATION	125.01	173.5	19	2	-1							
PORT STANLEY	146.67	213.8	19	44	2							
LA PAZ	159.44	296.1	20	3	3						20	41 PKP2
HUANCAYO	161.48	320.2									20	50 PKP2

MAY 27 0.H 25.M 5.S EPICENTRE -22.24 171.64 DEPTH= 0.KM

A=-0.91668 B= 0.13469 C=-0.37624 D= 0.1454 E= 0.9894
G= 0.3722 H=-0.0547 K=-0.9265 HT= 4.1

SE= 3.01

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
NOUMEA	4.81	268.3	1	16	0	2	6	-7					
BRISBANE	17.87	249.5	4	22K	10	7	27	-3					
RIVERVIEW	21.42	232.9	4	56A	4	8	49	3					
ROXBURGH	23.26	184.1				9	44	25					
CANBERRA	23.68	231.6	5	17A	3						6	6	PPP
CHARTERS TS.	23.76	270.4	5	16A	1	9	25	-3					
MELBOURNE	27.70	229.9	5	52	0								
ADELAIDE	31.42	238.9	6	24	-1								
TERRE ADELIE	48.52	195.4	8	47	0						9	9	
CAPE HALLETT	50.10	180.6	8	58	-1								
SCOTT BASE	55.72	181.3	10	40A	59								
LEMBANG	63.42	273.5	10	33	-1	18	37	-29					
BYRD STATION	64.61	169.6	10	40	-2								
MATUSIRO	66.44	331.1	10	51K	-3	20	2	19			11	11	
SOUTH POLE	67.90	180.0	11	1	-2						11	36	PCP
NHATRANG	70.12	292.8	11	16	0						11	28	
LICK	86.29	47.2	12	48K	3								
FRESNO	87.27	48.4	13	7	17								
SHASTA	87.57	44.0	13	12	21								
MINERAL	87.89	44.6	13	24K	31								
RENO	88.66	46.0	13	16	19								
SHILLONG	90.74	297.3	13	4A	-2								
EUREKA	91.22	47.5	13	11	2						13	42	
TUCSON	91.73	55.9	13	37	26								
TUCSON TELE.	91.86	55.8	13	36	24								
COLLEGE	92.27	16.1	13	13	0				13	35			
HUANCAYO	106.05	110.5	17	47	777						18	24	PP
LA PAZ	109.96	118.1	17	10	777								
CHINCHINA	112.90	94.1									20	4	
BOGOTA	114.20	95.0									20	5	
KIMBERLEY	120.08	213.7									23	25	
SHIRAZ	125.29	291.3	19	3A	0								
BROKEN HILL	128.69	228.1									24	2	
HELWAN	143.68	290.5	19	35	-2						20	0	
COLLMBERG	146.57	335.5	19	44	2						21	9	

SOFIA	146.66	315.2	19 44	2	20 8
HALLE	146.81	336.7	19 45	2	26 14
PRUHONICE	146.96	332.6	19 45A	2	20 9
BRATISLAVA	147.09	328.0	19 46	3	
DURHAM	147.12	352.8	19 53	10	
JENA	147.41	336.4	20 4	20	20 16
PLAUEN	147.54	335.3	19 44	0	
MUNSTER	147.85	341.3			20 11
ATHENS	148.32	306.9			19 48 PKP2
HEIDELBERG	149.71	337.6	19 52	5	
UCCLE	149.81	343.9	19 53	6	
LJUBLJANA	149.83	327.4	19 53	6	20 44
STUTTGART	150.03	336.3	19 53	5	20 43
TOLMEZZO	150.30	329.4			19 57 PKP2
DOURBES	150.38	343.0	19 55	7	
STRASBOURG	150.74	337.8	19 54	5	20 28
BESANCON	152.49	338.6	19 58	7	
GARCY	153.37	342.5			20 35 PKP2
ISOLA	154.68	333.4			20 32
TAMANRASSET	167.16	275.1	20 8	0	25 0 PP

MAY 27 3.H 17.M 21.S EPICENTRE -41.19 -75.37 DEPTH= 0.KM

A= 0.19068 B=-0.73024 C=-0.65604 D=-0.9676 E=-0.2527
G=-0.1657 H= 0.6348 K=-0.7547 HT= -2.1

SE= 2.25

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT STANLEY	15.95	137.1	3 48	1				
LA PAZ	25.39	16.4	5 34	4	10 1	6		11 8 SS
HUANCAYO	29.03	0.1	6 5K	2	11 6	12		
BYRD STATION	42.23	190.4	7 57	1				
BOGOTA	45.60	1.8	8 25A	2	15 12	6		
CHINCHINA	45.94	359.6	8 26A	0	15 14	3		
FUQUENE	46.46	2.2	8 31	1				
SOUTH POLE	49.00	180.0	8 50	0				10 17 PCP
CARACAS	52.02	10.5	9 6	-7	16 32	-4		
SCOTT BASE	55.50	193.1	9 43	4				
CAPE HALLETT	58.04	199.2	9 55	-2	18 11	14		10 4 PCP
TERRE ADELIE	68.71	194.7	11 8	1				
MIRNY	72.22	175.1	11 25	-3				
COLUMBIA	75.00	355.1	11 43	-2				
MBOUR	77.21	57.8	11 58	1	21 51	5		
CHATEAU	77.23	228.8	11 57	0				
KARAPIRO	78.09	229.8	12 2	0				
KIMBERLEY	78.63	118.2	12 39A	34				
WASHINGTON	79.73	358.6	12 10	-1				
TUCSON	80.07	330.1	12 14	1				
TUCSON TELE.	80.11	330.2	12 13	0				
MORGANTOWN	80.55	356.4	12 15	0				
ST. LOUIS 1	80.60	348.3	12 13	-3	22 20	-2		
FLORISSANT	80.78	348.2	12 15	-1	22 22	-2		
PENNSYLVANIA	81.64	358.1	12 21	0	22 38	5		
LAWRENCE	81.82	344.5	12 20	-2				
PALISADES	81.83	1.1	12 19	-3	23 17	42		22 39 SKS
PRETORIA	82.87	117.9	12 22	-5				
PASADENA	84.68	325.5	12 38	1				
BOULDER CITY	84.90	328.8	12 39	1				
HALIFAX	86.08	8.4	12 44K	0				
OTTAWA	86.21	359.7	12 43	-1				
BREBEUF	86.32	1.2	12 44A	-1				
BULAWAYO	86.95	114.1	12 48K	0				
SHAWINIGAN	87.39	1.8	12 56	6				
FRESNO	87.61	325.8	12 51	0				
SALT LAKE C.	88.04	333.1	12 52	-1				
EUREKA	88.39	329.7	12 55	0				
LICK	88.88	324.8	12 58K	1				
BERKELEY	89.59	324.7	13 1	1				
RENO	89.96	327.2	13 4	2				
BROKEN HILL	90.70	109.8	13 8K	2				
MINERAL	91.38	326.5	13 8K	-1				
SHASTA	92.00	326.2	13 11K	-1				
HUNGRY HORSE	95.49	335.2	13 27	-1				

TAMANRASSET	98.18	67.0	13 39	-1				17 39	PP
LWIRO	99.15	101.1	13 49	5					
ALGIERS UNI.	105.62	54.8			24 48	-5		18 37	PP
RATHFARNHAM	111.29	37.0	14 54	777					
COLLEGE	119.74	332.0	18 51	-1					
COLLMBERG	119.81	46.3	18 53	1					
SKALSTUGAN	124.95	33.0	19 2	0					
UPPSALA	125.89	38.5	19 11	7					
KSARA	126.24	74.2						21 16	PP
NURMIJARVI	129.43	39.1	19 11	0					
HELSINKI	129.48	39.6	19 9	-2					
KIRUNA	129.49	29.3	19 10	-1					
SIMFEROPOL	129.84	60.7						21 22	
SODANKYLA	131.73	30.5	19 14	-1					
PULKOVO	132.00	41.0						22 41	
APATITY	134.36	30.6	19 20	0					
MOSCOW	135.05	47.5	19 23	2					
SHIRAZ	136.58	88.3	19 24	0				23 7	
KHEYS	137.08	10.1	19 27	2				23 23	PKS
MAKHACH-KALA	138.26	67.8	19 32	5				23 23	PKS
MAGADAN	146.18	318.7	19 43	2					
TIKSI	147.18	346.1	19 42	-1					
QUETTA	147.71	97.8	19 46	3				19 56	PKP2
SVERDLOVSK	147.83	45.8	19 47	3					
KURILSK	148.51	292.1	19 46	1					
Y.-SAKHLINSK	152.24	295.0	19 51	1					
MATUSIRO	153.55	270.9	19 59K	7				23 48	PP
FRUNSE	157.69	75.8	20 0	2					
CANTON	160.53	204.7	20 4	3				24 26	PP
SHILLONG	161.16	141.8	20 3	1				20 47	
ZO-SE	163.29	238.2	20 5	1				24 45	PP
KUNMING	163.90	173.8	20 7	3				24 43	PP
LHASA	164.04	131.9	20 8	4				24 48	PP
NANKING	165.45	235.7	20 7	1				24 50	PP
CHENGTU	169.48	177.1	20 11	2				25 12	PP
PEKING	171.15	266.3	20 11	1				25 20	PP
ULAN-BATOR	173.08	347.2	20 9	-2				25 30	PP
LANCHOW	174.83	172.7	20 13	2					

MAY 27 23.H 6.M 54.S EPICENTRE -45.06 -76.18 DEPTH= 0.KM

A= 0.16933 B=-0.68817 C=-0.70552 D=-0.9710 E=-0.2389
G=-0.1686 H= 0.6851 K=-0.7087 HT= -3.6

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	
PORT STANLEY	13.84	125.2	3 19	-1					
ARGENTINE I.	21.27	166.1	4 51	1					
LA PAZ	29.27	15.9	6 8	2	10 50	-9		12 33	SS
HUANCAYO	32.91	1.5	6 39	1	12 11	15			
BYRD STATION	38.32	191.1	7 25	1					
SOUTH POLE	45.13	180.0	8 37	17				13 33	
BOGOTA	49.50	2.8	8 55K	1	16 4	2			
CHINCHINA	49.81	0.7	8 56K	0	16 7	1			
FUQUENE	50.35	3.2	9 0A	-1					
SCOTT BASE	51.60	193.9	9 10	0					
BALBOA HTS.	53.86	355.9	9 25	-2					
CAPE HALLETT	54.20	200.2	9 28	-1	17 17	11			
GALERAZAMBA	55.59	1.1	9 55	15	17 25	0			
CARACAS	55.93	11.0	9 43	1	17 46	17			
TRINIDAD	57.04	17.4	9 53	3					
GRENADA	58.33	16.7	9 57	-2					
SAN JUAN	63.80	10.7	10 34	-2					
TERRE ADELIE	64.82	195.5	10 43	0				19 5	
WILKES	68.81	182.9						20 20	SCS
ROXBURGH	72.87	222.1			21 36	37			
CHATEAU	74.26	230.0	11 40	-1					
KARAPIRO	75.16	231.0	11 47	1					
GRAHAMSTOWN	75.24	122.4	11 45	-1					
WINDHOEK	76.60	108.4	11 56	2					
KIMBERLEY	77.33	117.9	12 37	39					
COLUMBIA	78.82	355.9	12 4	-2					
MBOUR	79.78	57.8	12 13	2	22 18	4			
CHAPEL HILL	80.65	357.6	12 16	0					
PRETORIA	81.58	118.0	12 20	-1					

FAYETTEVILLE	82.41	345.4	11	23K	-62				18	35 PKP
TUCSON	83.15	331.0	12	30	1					
TUCSON TELE.	83.19	331.1	12	30	1				15	48 PP
WASHINGTON	83.59	359.3	12	30	-1				15	42 PP
ST. LOUIS 1	84.28	349.0	12	32	-3					
MORGANTOWN	84.38	357.1	12	34A	-1					
FLORISSANT	84.46	348.9	12	34	-2	23	1	-1		
LAWRENCE	85.40	345.2	12	48	8					
PENNSYLVANIA	85.49	358.7	12	41	0	23	13	1	16	5 PP
PALISADES	85.71	1.7	12	40	-2	23	18	4	23	2 SKS
BULAWAYO	85.90	114.4	12	41K	-2				26	32
WESTON	87.17	3.6	12	49	0					
PASADENA	87.56	326.3	12	54	3					
BOULDER CITY	87.92	329.5	12	55	2					
BROKEN HILL	89.92	110.4	13	2	0				20	19
HALIFAX	89.99	8.9	13	3	0					
OTTAWA	90.08	0.3	13	1K	-2					
BREBEUF	90.21	1.8	13	2A	-2					
EUREKA	91.45	330.3	13	9	0					
HUNGRY HORSE	98.76	335.5							17	49 PP
LWIRO	98.95	102.3	13	55	12	25	16	54		
TAMANRASSET	100.20	68.1	13	49	0	24	29	1	17	51 PP
TOLEDO	106.45	49.8							24	23
ALGIERS UNI.	108.31	56.2							28	18 PP
MESSINA	116.83	61.9							19	56 PP
ROME	117.19	57.0							19	51 PP
BENSBERG	119.64	46.3							20	18
RESOLUTE	120.11	354.3	18	52	-1					
TRIESTE	120.15	54.2							20	21 PP
JENA	121.92	48.2	18	55	-1				20	29 PP
PLAUEN	121.98	48.8	18	57	1					
HELWAN	122.33	78.6							20	33
COLLEGE	122.86	331.1	18	57	-1					
COLLMBERG	122.87	48.4	18	59	1				20	41 PP
PRUHONICE	123.00	50.3	19	1	3				37	59 SS
GOTEBORG	125.66	41.3	19	3	-1					
JERUSALEM	126.15	79.1	19	9	4					
KSARA	127.76	77.4	19	17	9				21	13 PP
LWOW	128.23	54.2	19	12	3				23	2
SKALSTUGAN	128.49	34.8	19	11	2					
UPPSALA	129.26	40.6	19	13	2					
SIMFEROPOL	132.17	64.0	19	16	0				22	42 PKS
NURMIJARVI	132.77	41.5	19	17	0				22	43 PKS
HELSINKI	132.81	42.0	19	15	-2					
KIRUNA	133.13	31.1	19	17	-1					
PULKOVO	135.26	43.6	19	25	3				22	58 PKS
SODANKYLA	135.34	32.5	19	24	2					
SHIRAZ	137.13	93.0	19	22	-3				22	59 PKS
TIFLIS	137.80	72.9	19	25	-1					
APATITY	137.97	32.7	19	21	-6				22	59 PKS
MOSCOW	138.04	50.7	19	25	-2					
MAKHACH-KALA	140.14	72.4	19	33	2					
KHEYS	140.99	10.8	19	33	1				23	4 PKS
PETROPAVLOVK	143.98	302.9	19	36	-1					
NHATRANG	146.95	189.7	19	46	4					
QUETTA	147.54	104.5	19	45K	2				23	17 PKS
MAGADAN	148.59	314.4	19	49	4					
TIKSI	150.77	344.0	19	43	-5					
SVERDLOVSK	150.85	50.6	19	47	-2					
TUKUBASAN	151.29	264.9	19	48A	-1				23	47 PP
AGRA	152.70	122.2	19	52	1					
MATUSIRO	152.78	263.9	19	54	3				23	44 PP
Y.-SAKHLINSK	153.11	288.2	19	51	-1					
LAHORE	153.38	110.3	19	49	-3					
NAMANGAN	156.23	88.5	19	59	3					
ANDIJAN	156.64	89.5	19	58	1					
CANTON	156.74	202.7	19	59	2					
YAKUTSK	157.34	327.7	19	55	-3					
SHILLONG	158.29	149.6	20	4	5					
FRUNSE	158.90	85.7	20	0	0					
KUNMING	160.08	177.1	20	2	1				24	23 PP
ZO-SE	160.54	230.2	20	3	2				24	24 PP
ALMATA	160.67	85.8	20	3	2					
LHASA	161.59	142.4	20	4	2				24	32 PP
NANKING	162.56	227.0	20	4	1				24	37 PP
CHANGCHUN	164.61	273.0	20	4	-1				24	48 PP
CHENGTU	165.62	180.6	20	8	2				24	52 PP
PEKING	169.60	245.4	20	8	-1				25	17 PP

ULAN-BATOR 176.44 324.4 20 11 -1

MAY 28 3.H 5.M 54.S EPICENTRE -39.39 -73.49 DEPTH= 0.KM

A= 0.22029 B=-0.74299 C=-0.63201 D=-0.9587 E=-0.2843
G=-0.1797 H= 0.6059 K=-0.7750 HT= -1.5

SE= 3.07

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SANTA LUCIA	6.36	22.0	0 32	-65	1 46	-66		2 18
PORT STANLEY	16.42	143.7	3 56	3				
LA PAZ	23.28	13.1	5 14	4	9 12	-7		9 41
HUANCAYO	27.28	356.1	5 49K	1				6 19
BOGOTA	43.79	359.2	8 9K	0	14 47	7		
CHINCHINA	44.18	356.9	8 12K	0	14 49	3		
BYRD STATION	44.26	190.4	8 12	-1				
FUQUENE	44.63	359.7	8 15	-1	14 59	6		
BALBOA HTS.	48.45	351.9	8 45	-1				
CARACAS	50.00	8.4	8 53K	-5	16 6	-3		
SOUTH POLE	50.80	180.0	9 2	-2				9 48
TRINIDAD	51.03	15.3	9 6	0				
GRENADA	52.33	14.6	9 14	-2				
ST. VINCENT	53.51	14.9	9 23	-1				
ANTIGUA	57.27	13.3	9 48	-4				
ST. KITTS	57.32	12.2	9 48	-4				
SCOTT BASE	57.58	192.6	9 53K	-1				
SAN JUAN	57.89	8.2	9 52	-4				
CAPE HALLETT	60.21	198.4	10 9A	-3				
TERRE ADELIE	70.81	193.9	11 19	-1				
COLUMBIA	73.33	353.5	11 33	-2				
MBOUR	75.03	56.8	11 45	0	21 26	3		
FAYETTEVILLE	77.50	342.9	10 56A	-63				
WASHINGTON	77.98	357.1	12 1	-1				
KIMBERLEY	78.19	117.4						12 49 PCP
MORGANTOWN	78.86	354.9	12 5K	-1				
ST. LOUIS 1	79.16	346.7	12 6	-2				
TUCSON	79.29	328.6	12 9	0				
TUCSON TELE.	79.29	328.6	12 9	0				
FLORISSANT	79.34	346.6	12 7	-2	22 6	-3		
CHATEAU	79.50	227.6	12 7	-3				
PALISADES	80.02	359.7	12 14	1	22 16	-1		15 30 PP
KARAPIRO	80.36	228.5	12 13	-2				
LAWRENCE	80.49	343.0	12 14	-1				
WESTON	81.41	1.6	12 19	-1				
PASADENA	84.04	324.1	12 41	7				
HALIFAX	84.10	7.1	12 33A	-1				
OTTAWA	84.43	358.4	12 36	0				
BREBEUF	84.51	359.9	12 35	-1				
SEVEN FALLS	86.16	1.8	12 44	0				
SALT LAKE C.	87.19	331.8	12 49	0				
EUREKA	87.59	328.5	12 51	0			13 1	
LICK	88.26	323.6	13 2A	8				
RENO	89.25	326.0	13 7	8				
BROKEN HILL	89.93	108.6	13 5	3				
MINERAL	90.70	325.3	13 10K	4				
SHASTA	91.33	325.0	13 9	0				
BUTTE	91.93	333.9	13 13	2				
HUNGRY HORSE	94.47	334.2	13 22	0				
TAMANRASSET	96.14	65.7	13 30	-1				17 15 PP
ALGIERS UNI.	103.40	53.4						18 9 PP
ISOLA	110.32	49.2						19 13 PP
ROME	112.32	53.6						19 30 PP
COLLMBERG	117.52	45.0						20 9 PP
NURMIJARVI	127.12	37.9	19 6	0				
KIRUNA	127.21	28.4	19 11	4				
SODANKYLA	129.45	29.6	19 15	4				
PULKOVO	129.69	39.7						22 34
MOSCOW	132.77	46.0	19 19	2				
TIFLIS	133.94	66.3	19 20	1				
POONA	144.95	116.9	19 39	0				
SVERDLOVSK	145.54	44.2	19 40	0				
MAGADAN	145.74	320.8	19 40	0				
TIKSI	145.76	347.6	19 39	-1				
QUETTA	146.45	93.6	19 41	-1				23 6 PP

YAKUTSK	153.28	335.6											19	1
MATUSIRO	154.92	273.6	20	8	14									
IRKUTSK	167.03	6.0											31	34
ULAN-BATOR	171.47	358.3											21	33

MAY 28 11.H 5.M 41.S EPICENTRE -37.79 -72.71 DEPTH= 0.KM

A= 0.23544 B=-0.75649 C=-0.61015 D=-0.9548 E=-0.2972
G=-0.1813 H= 0.5826 K=-0.7923 HT= -0.9

SE= 4.32

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	4.65	21.9	1	10K	-3	2	8	0				
PORT STANLEY	17.40	147.8	4	10	5							
LA PAZ	21.59	12.0	4	56	3	8	59	11				
HUANCAYO	25.74	354.1	5	34	1	10	16	15				
BOGOTA	42.21	358.0	8	1	5	14	15	-2				
CHINCHINA	42.62	355.7	7	59	0	14	18	-5				
FUQUENE	43.04	358.5	8	8	5	14	29	0				
BYRD STATION	45.94	190.2	8	25	-1							
CARACAS	48.34	7.6	8	50	5							
TRINIDAD	49.33	14.7	8	51	-2							
GRENADA	50.63	13.9	9	2	0							
ST. VINCENT	51.81	14.2	9	11	0							
SOUTH POLE	52.40	180.0	9	14	-2						9	47
ST. KITTS	55.63	11.6	9	36	-4							
SAN JUAN	56.21	7.5	9	41	-3							
SCOTT BASE	59.27	192.3	10	0	-5							
VERA CRUZ	60.82	334.5									12	47
CAPE HALLETT	61.92	198.0	10	20	-3	18	46	-1			23	8 SS
TACUBAYA	62.10	331.6	10	35	10							
MAWSON	69.72	163.4	11	14	1							
HERMANUS	71.27	119.3				20	47	7			22	13
COLUMBIA	71.84	352.7	11	32	6							
TERRE ADELIE	72.50	193.5	11	30	0							
CHAPEL HILL	73.57	354.6	11	38	2							
MBOUR	73.64	56.6	11	37	0	21	17	10				
WINDHOEK	76.39	108.0	11	53	0							
WASHINGTON	76.42	356.5	11	51	-2							
GRAHAMSTOWN	76.90	122.0	11	54	-1							
MORGANTOWN	77.33	354.3	11	56	-2							
ST. LOUIS 1	77.74	346.0	11	56	-4	21	45	-7				
FLORISSANT	77.93	346.0	11	58	-3	21	48	-6				
TUCSON	78.22	327.7	12	1	-2							
TUCSON TELE.	78.25	327.8	12	1	-2							
PENNSYLVANIA	78.35	356.0				21	59	0				
KIMBERLEY	78.39	117.3	11	56K	-8							
PALISADES	78.43	359.1	11	59	-5	21	55	-5			14	47 PP
LAWRENCE	79.15	342.3	12	4	-4							
WESTON	79.80	1.0	12	9	-2							
CHATEAU	81.03	226.9	12	25	7							
KARAPIRO	81.87	227.9	12	22	0							
HALIFAX	82.44	6.6	12	25A	0							
PRETORIA	82.61	116.7	12	34	8							
OTTAWA	82.85	357.9	12	26	-1							
BREBEUF	82.91	359.4	12	26	-2							
PASADENA	83.11	323.5	12	28	-1	22	49	1			28	19 SS
BOULDER CITY	83.12	326.8	12	37	8							
SEVEN FALLS	84.54	1.3	12	35	-1							
RUTH	85.93	328.4	12	42	-1	23	12	-4				
SALT LAKE C.	86.00	331.3	12	40	-3							
RAPID CITY	86.04	338.5	12	40	-3						13	19
BULAWAYO	86.41	112.6	12	46	1							
EUREKA	86.55	327.9	12	45	-1				12	55	14	6
LICK	87.34	323.0	12	59A	9							
BERKELEY	88.06	322.9	13	2	9	23	37	1				
RENO	88.27	325.5	13	3A	9							
BROKEN HILL	89.86	108.1	13	4K	2							
BUTTE	90.79	333.5	13	4	-2							
HUNGRY HORSE	93.30	333.8	13	15	-3						16	40 PP
CORVALLIS	93.86	326.4	13	31	11							
TAMANRASSET	94.92	65.1	13	24A	-1	24	1	-36			17	11 PP
MALAGA	97.35	48.8	13	37K	1						17	51
LWIRO	97.71	98.9	13	39	1							
TOLEDO	99.66	46.6				24	21	-4			36	16

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ALGIERS UNI.	101.96	52.7			24	38	2	18	8	PP
RATHFARNHAM	107.33	35.2						18	18	PP
ROME	110.88	52.8						19	14	PP
STRASBOURG	111.67	44.8			25	19	0	28	59	PS
DE BILT	112.19	40.6						40	7	
STUTTGART	112.61	45.2	18	36	-2			19	34	PP
RESOLUTE	113.15	353.7	18	40	1	26	59	94		
TRIESTE	113.61	49.8						19	49	PP
COLLEGE	117.70	332.2	18	45	-3			20	14	PP
SKALSTUGAN	120.98	31.3	19	3	9					
ISTANBUL UN.	121.37	60.2						20	23	PP
NORD	122.58	8.3	18	52	-5					
KSARA	123.25	70.7						20	47	PP
NURMIJARVI	125.49	37.1	19	1	-2					
KIRUNA	125.52	27.8	19	2	-1					
HELSINKI	125.55	37.5	19	3	0					
SIMFEROPOL	126.34	57.5	19	15	10					
SODANKYLA	127.76	28.9	19	3	-4					
PULKOVO	128.07	38.8	19	17	9					
APATITY	130.39	29.0	19	10	-2					
MOSCOW	131.22	44.8	19	13	-1					
TIFLIS	132.73	64.7	19	16	-1					
KHEYS	133.37	9.8	19	18	0					
SHIRAZ	134.28	83.3	19	35	15			22	58	PKS
MAKHACH-KALA	134.99	63.8	19	23	2					
PETROPAVLOVK	141.73	310.4	19	26K	-7					
SVERDLOVSK	143.96	42.8	19	50	13					
TIKSI	144.32	348.5	19	34A	-4					
MAGADAN	144.86	322.5	19	46	7					
POONA	145.09	114.0	19	41	2					
QUETTA	145.91	90.7	19	42A	2			23	15	PP
WARSAK DAM	150.91	86.5	20	6	18					
NAMANGAN	152.40	72.1	19	58	7					
ANDIJAN	152.91	72.7	19	50	-1					
TUKUBASAN	153.82	276.7	20	25K	32			23	54	PP
FRUNSE	154.68	68.2	19	57	3					
MATUSIRO	155.38	276.6	20	7	12			24	9	PP
ALMATA	156.38	67.0	19	57	1					
CHATRA	159.83	117.0	20	1	1					
SHILLONG	162.13	128.5	19	56	-7					
LHASA	164.24	116.3	20	12	7			25	46	PP
CHANGCHUN	165.09	299.5	20	10	4					
KUNMING	166.79	161.7	20	15	8					
NANKING	168.97	242.2	20	15	7					
ULAN-BATOR	169.87	1.5	20	16	7					
WUHAN	170.58	221.9	20	14	5					
CHENGTU	172.39	158.2	20	11	1			25	43	PP
PEKING	172.72	290.7	20	11	1			25	35	PP
PAOTOW	176.49	323.5	20	11	-1					
LANCHOW	176.73	121.0	20	12	0			25	46	PP

MAY 29 7.H 39.M 29.S EPICENTRE -37.65 -72.53 DEPTH= 0.KM

A= 0.23830 B=-0.75715 C=-0.60823 D=-0.9539 E=-0.3002
G=-0.1826 H= 0.5802 K=-0.7938 HT= -0.8

SE= 3.20

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	4.47	20.7	1	7	-3	2	33	29				
LA PAZ	21.42	11.6	4	55A	4	8	54	9				
HUANCAYO	25.61	353.7	5	35A	3	10	7	8				
ARGENTINE I.	28.07	172.6	5	54	-1							
BOGOTA	42.07	357.7	7	57K	2	14	17	2				
CHINCHINA	42.50	355.4	8	1K	3	14	21	0				
FUQUENE	42.91	358.2	8	1A	-1	14	22	-5				
BYRD STATION	46.10	190.2	8	27	0							
BALBOA HTS.	46.83	350.5	8	31	-2	15	21	-3				
CARACAS	48.18	7.4				16	17	34			9	19
GALERAZAMBA	48.24	356.4	9	1	17	15	45	1				
TRINIDAD	49.16	14.5	8	55	4							
GRENADA	50.46	13.7	9	1	0							
ST. VINCENT	51.64	14.0	9	10	0							
SOUTH POLE	52.54	180.0	9	15	-2	17	10	27			11	8 PP
DOMINICA	53.69	13.4	9	28	3							

ANTIGUA	55.41	12.4	9	35	-3							
ST. KITTS	55.46	11.4	9	37	-1							
SAN JUAN	56.05	7.3	9	40	-3	17	27	-4			10	14
COMITAN	56.69	337.3									27	47
SCOTT BASE	59.43	192.2	10	5	-1	18	13	-2				
MERIDA	60.46	341.6				18	10	-18			20	46
VERA CRUZ	60.75	334.3	10	27	11						19	51
TACUBAYA	62.05	331.3	10	26	2	18	56	8			13	29
CAPE HALLETT	62.10	197.9	10	22K	-3	18	47	-2			22	53 SS
MAWSON	69.81	163.3	11	13	-1							
HERMANUS	71.21	119.2				20	53	14			14	2 PP
COLUMBIA	71.72	352.6	11	22	-4	20	39	-6			14	1 PP
TERRE ADELIE	72.67	193.4	11	1	-30	20	26	-30				
CHIHUAHUA	73.05	329.5									18	58
MBOUR	73.45	56.5	11	38A	2	21	20	15				
MIRNY	75.53	174.1	11	43	-5							
FAYETTEVILLE	76.06	342.1	10	44A	-67	20	22	-72	10	54	20	54 SCS
GEORGETOWN	76.29	356.4	11	47	-5	21	35	-1				
WASHINGTON	76.29	356.4	11	52K	0						14	46 PP
WINDHOEK	76.30	107.9	11	45	-7							
WILKES	76.31	181.3				21	32	-5				
GRAHAMSTOWN	76.85	121.9	11	56	1							
ST. LOUIS 1	77.64	345.9	11	57	-3	21	46	-5				
FLORISSANT	77.83	345.8	11	59	-2	21	48	-5				
TUCSON	78.18	327.6	12	2	0	21	56	-1				
TUCSON TELE.	78.21	327.7	12	2	-1						39	7 PKPPKP
PENNSYLVANIA	78.22	355.9	12	1	-2	21	55	-2			15	4 PP
PALISADES	78.29	358.9	12	2A	-1	21	59	1			14	49 PP
KIMBERLEY	78.33	117.2	12	1K	-2							
LAWRENCE	79.06	342.1	12	5	-2							
WESTON	79.66	0.9	12	11	0	22	11	-2				
WELLINGTON	80.28	224.9	12	22	8	22	26	7				
ROXBURGH	80.28	219.0	12	21	7	22	13	-6			23	37 PS
LOME	81.00	75.1	12	23	5							
CHATEAU	81.23	226.8	12	18	-1							
LUANDA	81.32	94.5	12	21A	2	22	54	24			15	39 PP
COBB RIVER	81.55	224.0	12	25	4							
KARAPIRO	82.07	227.8	12	21	-2							
HALIFAX	82.29	6.4	12	26A	2							
PRETORIA	82.54	116.7	12	27	1							
OTTAWA	82.72	357.7	12	26	-1							
BREBEUF	82.77	359.2	12	26A	-1	22	40	-5				
BOULDER CITY	83.08	326.6	12	29	0	22	51	3				
PASADENA	83.09	323.3	12	30A	1	22	51	3			15	53 PP
SEVEN FALLS	84.40	1.2	12	36A	1							
RUTH	85.88	328.3	12	43	0						23	10
SALT LAKE C.	85.94	331.2	12	42	-1							
RAPID CITY	85.96	338.4	12	41	-2						14	9
FRESNO	85.99	323.8	12	40	-3							
BULAWAYO	86.33	112.5	12	45A	0							
EUREKA	86.51	327.8	12	46A	0				12	56	30	43 PKKP
PONTA DELGDA	86.57	35.4	12	49K	3				13	0	13	0 PCP
VINEYARD	86.72	322.7	12	48	1							
LICK	87.32	322.9	12	50A	0						16	32
BERKELEY	88.04	322.8	12	53A	0	23	36	0			29	19 SS
RENO	88.24	325.4	12	54A	0							
UKIAH	89.49	323.0	13	10	10							
MINERAL	89.70	324.7	13	6A	5							
BROKEN HILL	89.77	108.0	13	4A	3							
BOZEMAN	89.90	334.1	13	0	-2							
SHASTA	90.35	324.5	13	2	-2							
BUTTE	90.73	333.4	13	6A	0	23	30	-31				
HUNGRY HORSE	93.24	333.7	13	16	-1						16	42 PP
CORVALLIS	93.83	326.3	13	22	2							
TAMANRASSET	94.73	65.0	13	25A	1	24	23	-13			17	8 PP
VICTORIA	96.97	328.7	13	32	-2							
MALAGA	97.15	48.7	13	35A	0	24	13	1			17	33 PP
COIMBRA	97.21	44.0	13	33	-2						17	34 PP
LWIRO	97.59	98.7	13	36A	-1	25	34	79				
SERRA PILAR	97.76	43.2	13	35A	-3						15	36 PP
GRANADA	97.94	48.8	13	43A	4	24	34	18			17	42 PP
RIVERVIEW	98.10	215.5	13	43A	4	24	15	-?			26	35 PS
ALMERIA	98.40	49.7	13	53	12	24	19	0			17	52 PP
TOLEDO	99.46	46.5	13	46	0	24	25	1			17	50 PP
RELIZANE	99.55	52.1	13	34	-12						17	38 PP
ALICANTE	100.57	49.5	13	55	4	25	33	64			18	8 PP
ALGIERS UNI.	101.76	52.6	13	57	1	24	32	-3			18	8 PP
BRISBANE	102.59	220.4	14	16	16	24	35	-4				
TORTOSA	102.72	48.1	14	28	28	24	42	2				

CLERMONT-FD.	107.26	45.2	18	49	777					
MONACO	108.58	48.9	18	58	777					
ISOLA	108.61	48.3							19 1	PP
PARIS	108.71	42.4							20 3	PP
KEW	108.84	39.0							18 59	PP
BESANCON	109.73	45.2							19 25	PP
CHIAVARI	110.04	49.1	18	58	25	26	12	60	20 19	PP
DURHAM	110.22	35.7							19 21	PP
PAVIA	110.42	48.3							19 6	PP
DOURBES	110.58	42.1							19 9	PP
ROME	110.68	52.6	18	29	-5				19 12	PP
MESSINA	110.71	57.3							19 4	PP
UCCLE	110.84	41.4				25	14	-1	19 14	PP
PRATO	110.88	50.3	19	14	39				31 31	PS
ABERDEEN	111.42	33.5							28 51	PS
STRASBOURG	111.46	44.7				25	21	3	19 31	PP
CHARTERS TS.	111.95	219.4	18	39	2					
DE BILT	111.99	40.5							19 25	PP
STUTTGART	112.41	45.1	18	31	-7				19 26	PP
RESOLUTE	113.03	353.7	18	37	-2	27	6	102		
TRIESTE	113.41	49.7				25	26	0	19 34	PP
SCORESBY SD.	113.79	16.5							29 11	PS
LJUBLJANA	114.08	49.6	18	39	-2				19 40	PP
JENA	114.80	43.9	18	43	1				19 43	PP
ZAGREB	114.86	50.4							19 27	PP
PLAUEN	114.90	44.5	18	41	-2				19 37	PP
HALLE	115.28	43.5	18	43	0	25	33	0	19 50	PP
PRAGUE	115.97	45.7				25	35	0	20 1	PP
PRUHONICE	116.00	45.8	18	47K	2	25	38	3	20 5	PP
POTSDAM	116.31	43.0				25	37	0	19 47	PP
BELGRADE	117.17	53.0	18	8K	-39				30 7	
COPENHAGEN	117.51	39.5				25	49	8	19 47	PP
COLLEGE	117.64	332.2	18	47	-1	27	44	123	19 43	PP
SOFIA	118.08	56.2							20 7	PP
GOTEBORG	118.19	37.3	18	43	-6					
BUCHAREST	120.64	55.4							20 22	PP
WARSAW	120.65	45.5				26	7	15	20 21	PP
SKALSTUGAN	120.79	31.2	18	54	0					
ISTANBUL KA.	121.25	60.0	18	54	-1				20 21	
LWOW	121.47	49.0	18	56	1	25	52	-3	20 22	PP
JERUSALEM	121.66	72.3	18	58	2	25	54	-1		
UPPSALA	121.75	36.4	19	6	10				20 29	PP
NORD	122.42	8.3	18	57	0					
KSARA	123.07	70.5	19	0	2				20 41	PP
NURMIJARVI	125.29	37.0	19	3	0					
KIRUNA	125.33	27.7	19	3	0				20 55	PP
HELSINKI	125.35	37.4	19	2	-1					
SIMFEROPOL	126.14	57.4	19	5	1	25	56	-13	21 0	PP
SODANKYLA	127.57	28.8	19	7	0				21 8	PP
PULKOVO	127.87	38.7	19	7	-1				21 10	PP
APATITY	130.20	28.9	19	11A	-1	26	22	2	21 24	PP
MOSCOW	131.02	44.7	19	15	1				21 35	PP
TIFLIS	132.54	64.5	19	17	0				21 41	PP
GORIS	132.98	67.9	19	12	-5				21 38	PP
KHEYS	133.21	9.8							21 43	PP
SHIRAZ	134.12	83.1	19	21	2				22 51	PKS
TEHERAN	135.56	74.6	19	24	2				22 9	PP
LEMBANG	135.75	180.2	19	24	2				21 58	
ASHKABAD	141.55	74.0	19	29	-4				22 26	PP
KODAIKANAL	141.62	127.6							26 33	
PETROPAVLOVK	141.75	310.5	19	26	-7				22 46	SKP
KARACHI	143.42	98.6	19	34	-2					
BOMBAY	144.49	112.1	19	38	0				23 25	PP
MAGADAN	144.84	322.6	19	36	-3					
POONA	145.01	113.6	19	46	7				23 3	PP
MADRAS	145.44	128.0	19	41	1				33 17	
QUETTA	145.76	90.3	19	43A	3				19 53	PKP2
DUZHANBE	149.68	76.2	19	49	2					
TASHKENT	150.46	70.8	19	49	1				23 33	PP
WARSAK DAM	150.76	86.2							19 55	PKP2
YAKUTSK	151.98	337.7	19	47	-3				23 34	PP
LAHORE	152.15	92.6	19	51A	1					
Y.-SAKHLINSK	152.51	301.2	19	50	-1					
AGRA	153.11	104.3	19	49A	-3				23 43	PP
TUKUBASAN	153.95	276.9	19	54K	1				23 54	PP
FRUNSE	154.49	67.9	19	55	1				27 30	
DEHRA DUN	154.60	98.0	20	16	22				24 33	
MATUSIRO	155.50	276.9	19	54	-1				24 5	PP

BAGUIO CITY	155.90	212.2	20	11	16						
SEMIPALATNSK	156.79	48.0	19	58	1					24	1 PP
BOKARO	156.91	120.4	19	59	2					28	1 PPP
CHITTAGONG	159.65	134.1	19	55	-5						
CHATRA	159.76	116.3	20	1	1					24	19 PP
VLADIVOSTOK	160.63	294.0	20	0	-1						
SHILLONG	162.10	127.8	20	4	1						
HONG KONG	163.65	202.6	20	5	1					24	46 PP
LHASA	164.17	115.5	20	7A	2					24	47 PP
CANTON	164.64	200.8	20	6A	1						
CHANGCHUN	165.14	300.1	20	4A	-2					24	49 PP
IRKUTSK	165.21	7.6	20	4	-2						
KUNMING	166.88	160.8	20	10A	3					24	57 PP
ZO-SE	166.93	244.1	20	7A	0					25	6 PP
NANKING	169.17	242.4	20	9A	1					25	15 PP
ULAN-BATOR	169.70	3.5	20	8	-1						
CHENGTU	172.46	156.6	20	11A	1					26	25 PP
PEKING	172.81	292.0	20	11A	1					25	27 PP
SIAN	176.41	199.6	20	13	1						
PAOTOW	176.46	326.6	20	13	1					25	47 PP
LANCHOW	176.70	116.7	20	13	1						

MAY 29 8.H 34.M 20.S EPICENTRE -37.94 -73.14 DEPTH= 0.KM

A= 0.22936 B=-0.75663 C=-0.61230 D=-0.9570 E=-0.2901
G=-0.1776 H= 0.5860 K=-0.7906 HT= -0.9

SE= 2.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	4.93	25.1	1	9	-8	2	23	8				
LA PAZ	21.81	13.0	4	57	2							
HUANCAYO	25.86	355.1	5	36	1						6	4 PP
CHINCHINA	42.76	356.4	8	2	2							
BYRD STATION	45.73	190.2	8	26	2							
CARACAS	48.54	8.2	9	21K	35							
TRINIDAD	49.57	15.2	8	57	3							
GRENADA	50.86	14.4	9	2	-2							
ST. VINCENT	52.05	14.7	9	13	0							
SOUTH POLE	52.24	180.0	9	15	0						10	15 PCP
SAN JUAN	56.41	8.0	9	42	-3							
SCOTT BASE	59.04	192.3	9	54	-10							
CAPE HALLETT	61.67	198.1	10	22	0							
TACUBAYA	62.08	332.0	10	26	1							
HAWSON	69.67	163.5	11	13	0							
TERRE ADELIE	72.27	193.6	11	2	-27							
MBOUR	74.01	56.9	11	40	1							
FAYETTEVILLE	76.20	342.6	10	50K	-62							
WINDHOEK	76.66	108.2	11	55K	1							
GRAHAMSTOWN	77.11	122.1	11	57A	0							
ST. LOUIS 1	77.82	346.4	11	58	-2	21	48	-5				
FLORISSANT	78.00	346.3	11	59	-2							
TUCSON	78.17	328.0	12	4	2							
TUCSON TELE.	78.21	328.2	12	4	1							
PALISADES	78.58	359.4	12	4	-1				12	13		
KIMBERLEY	78.62	117.5	12	6K	1							
LAWRENCE	79.19	342.6	12	7	-1							
WESTON	79.96	1.4	12	12	0							
HALIFAX	82.63	6.9	12	27A	1							
PRETORIA	82.84	117.0									13	12
OTTAWA	83.00	358.2	12	27	-1							
BREBEUF	83.06	359.7	12	28	0							
BOULDER CITY	83.07	327.1	12	30	2							
SEVEN FALLS	84.71	1.6	12	38	1							
SALT LAKE C.	85.97	331.6	12	44	1							
RAPID CITY	86.06	338.8	12	42	-2	23	10	-7				
EUREKA	86.50	328.2	12	46	0						30	44 PKKP
BULAWAYO	86.66	112.9	12	47	1							
RENO	88.21	325.7	12	57	3							
BOZEMAN	89.95	334.5	13	2	0							
BROKEN HILL	90.13	108.4	13	5K	2							
BUTTE	90.78	333.7	13	7	1							
HUNGRY HORSE	93.29	334.1	13	17	-1							
TAMANRASSET	95.29	65.3	13	26	-1						17	23 PP
LWIRO	98.02	99.1	13	42A	3						17	43

DURHAM	110.74	36.0						19	20	PP
TRIESTE	113.97	50.0						19	7	PP
COLLEGE	117.68	332.3	18	48	0					
GOTEBORG	118.71	37.6	18	44	-6					
SKALSTUGAN	121.29	31.5	18	54	-1					
UPPSALA	122.27	36.7	19	8	1					
NORD	122.78	8.4	18	56	-2					
KIRUNA	125.81	27.8	19	4	0					
NURMIJARVI	125.81	37.2	19	3	-1					
HELSINKI	125.88	37.7	19	4	0					
SODANKYLA	128.06	29.0	19	8	0					
APATITY	130.69	29.0	19	12	-1					
MOSCOW	131.57	45.0	19	16	1					
KHEYS	133.58	9.8	19	18	0					
SHIRAZ	134.63	83.7				20	31	22	52	PKS
TIKSI	144.40	348.2	19	33	-5					
MAGADAN	144.78	322.2	19	38	-1					
POONA	145.33	114.7	19	45A	6					
QUETTA	146.24	91.2	19	44A	3			23	16	PKS
WARSAK DAM	151.26	87.0						20	5	PKP2
YAKUTSK	152.07	337.0	19	55	5					
LAHORE	152.61	93.6	19	54	3					
NAMANGAN	152.77	72.5	20	1K	10					
FRUNSE	155.05	68.5	20	5	11					
MATUSIRO	155.06	276.5	20	16	22					
ALMATA	156.74	67.3	19	59	2					
ULAN-BATOR	170.03	359.9	20	9	0					

MAY 29 21.H 23.M 55.S EPICENTRE -43.01 -75.80 DEPTH= 0.KM

A= 0.17994 B=-0.71116 C=-0.67961 D=-0.9695 E=-0.2453
G=-0.1667 H= 0.6588 K=-0.7336 HT= -2.8

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	10.37	24.7	2	28	-5	4	33	2			5	15
PORT STANLEY	14.91	131.9	3	36	3							
ARGENTINE I.	23.21	167.7	5	10	1							
LA PAZ	27.22	16.3	5	50	3	11	25	60				
HUANCAYO	30.84	0.9	6	22A	2	11	36	13				
BYRD STATION	40.39	190.7	7	41	0							
SOUTH POLE	47.19	180.0	8	34	-2						9	1
BOGOTA	47.43	2.3	8	38	0	15	6	-26				
CHINCHINA	47.75	0.2	8	41	1							
FUQUENE	48.28	2.8	8	42	-2							
GALERAZAMBA	53.52	0.6	9	18	-6							
SCOTT BASE	53.66	193.5	9	24	-1							
CARACAS	53.86	10.8	10	2	35	17	36	35				
CAPE HALLETT	56.23	199.6	9	43	-1	17	35	2			21	25 SS
SAN JUAN	61.73	10.4	10	18	-4							
MAWSON	65.38	163.8	10	44	-2							
TERRE ADELIE	66.87	195.1	10	29	-27							
MIRNY	70.44	175.3	11	15	-3							
KARAPIRO	76.68	230.3	11	53	-1							
COLUMBIA	76.78	355.5	11	52	-3							
WINDHOEK	77.00	108.7	11	57	1							
KIMBERLEY	78.06	118.1	12	0	-2							
MBOUR	78.45	57.8	12	6	2	22	4	4				
FAYETTEVILLE	80.49	345.0	11	15A	-60						26	47 SKKS
TUCSON	81.48	330.5	12	22	2							
TUCSON TELE.	81.52	330.7	12	22	2							
WASHINGTON	81.53	359.0	12	20	0						15	30 PP
PRETORIA	82.31	118.0	12	56	32							
ST. LOUIS 1	82.31	348.6	12	22	-2	22	40	0				
FLORISSANT	82.49	348.6	12	24	-1	22	44	2				
PENNSYLVANIA	83.44	358.4	12	29	-1	22	50	-1				
LAWRENCE	83.48	344.9	12	40	10							
PALISADES	83.65	1.4	12	31	0	23	1	8			15	47 PP
WESTON	85.10	3.3	12	39	0							
PASADENA	86.00	325.9	12	46	3	23	31	14			24	25 PS
BOULDER CITY	86.29	329.2	12	47	3							
BULAWAYO	86.50	114.3	12	44	-2							
HALIFAX	87.92	8.7	12	54A	2							
OTTAWA	88.02	0.1	12	53	0							
BREBEUF	88.14	1.5	12	53A	0							

FRESNO	88.93	326.1	12	58	1					
SALT LAKE C.	89.52	333.5	13	0	0					
EUREKA	89.80	330.1	13	1	0				13	18
SEVEN FALLS	89.85	3.4	13	2	0					
RAPID CITY	90.10	340.6	13	2	-1					
LICK	90.18	325.1	13	0	-3					
BROKEN HILL	90.38	110.1	13	5	1					
BERKELEY	90.89	325.0	13	8K	2				25	23
RENO	91.31	327.5	13	10A	2					
MINERAL	92.72	326.7	13	20	5					
SHASTA	93.33	326.4	13	18	0					
HUNGRY HORSE	97.00	335.4	13	33	-1					
LWIRO	99.11	101.7	13	46	2				17	28
TAMANRASSET	99.18	67.5	13	43	-1	24	25	2	17	46 PP
RELIZANE	104.74	54.8	13	33	-36				18	15
ALGIERS UNI.	106.93	55.4				24	59	0	18	13 PP
RATHFARNHAM	112.93	37.6							15	16
MESSINA	115.60	60.9							19	48 PP
PAVIA	115.78	51.5							29	40
ROME	115.83	56.0							19	43 PP
STUTTGART	117.90	48.2	18	50	2				20	7 PP
HEIDELBERG	117.95	47.4							20	8 PP
RESOLUTE	118.09	354.3	18	47	-2					
COLLEGE	121.19	331.7	18	54	-1					
PRUHONICE	121.46	49.2	18	57	2				30	31
HELWAN	121.63	77.1	18	56	1				20	32
GOTEBORG	123.92	40.3	18	59	-1					
JERUSALEM	125.47	77.5	15	53	777				21	6 PP
SKALSTUGAN	126.64	33.9	19	5	0					
LWOW	126.79	52.8							20	7
KSARA	127.02	75.7							21	6 PP
UPPSALA	127.50	39.4	19	7	0					
NORD	128.09	9.2	19	5	-3					
LEMBANG	130.30	184.5	19	12	0				21	22
SIMFEROPOL	131.00	62.2	19	15	2				22	39 PKS
NURMIJARVI	131.03	40.2	19	13	-1				22	36 PKS
HELSINKI	131.08	40.7	19	13	-1					
KIRUNA	131.22	30.1	19	14	0					
SODANKYLA	133.45	31.4	19	17	-1					
PULKOVO	133.57	42.1	19	18	0				22	46 PKS
APATITY	136.08	31.5	19	21	-2					
MOSCOW	136.50	48.9	19	26	2					
TIFLIS	136.90	70.6	19	25	1					
KHEYS	138.92	10.4	19	21	-7				23	7 PKS
MAKHACH-KALA	139.22	69.9	19	31	2				23	7 PKS
PETROPAVLOVK	143.06	305.1	19	29	-6					
KARACHI	144.59	108.7	19	37	-1					
POONA	144.62	124.1	19	38K	0					
QUETTA	147.73	101.0	19	46A	3				19	57 PKP2
TIKSI	148.86	345.2	19	41	-4					
TUKUBASAN	151.68	268.4	19	55	6				23	33 PP
WARSAK DAM	153.05	98.5							20	1 PKP2
MATUSIRO	153.20	267.6	19	59	7				23	47 PP
UGLEGORSK	153.23	296.4	19	58	6					
LAHORE	153.76	105.9	19	57	5					
YAKUTSK	155.71	330.4	19	53	-2					
ANDIJAN	156.27	84.5	19	58	2					
HONG KONG	157.74	205.0							24	1
FRUNSE	158.38	80.3	19	59	0					
CHATRA	158.73	133.8	20	1A	2					
CANTON	158.74	203.8	20	1	2				24	14 PP
SHILLONG	159.88	145.9	20	2A	2					
ALMATA	160.14	79.9	20	1	0					
ZO-SE	162.01	234.2	20	4	2				24	36 PP
KUNMING	162.12	175.7	20	4	2				24	34 PP
LHASA	162.99	137.4	20	5	2				24	40 PP
NANKING	164.11	231.3	20	5	1				24	45 PP
CHANGCHUN	164.64	280.3	20	4	-1				24	44 PP
WUHAN	165.05	217.0	20	6	1				24	48 PP
CHENGTU	167.68	179.2	20	8	1				25	1 PP
SIAN	170.51	204.4	20	10	1					
PEKING	170.54	255.7	20	8	-1				25	18 PP
LANCHOW	173.05	175.2	20	12	1					
ULAN-BATOR	174.73	339.8	20	10A	-1					
PAOTOW	175.01	242.9	20	12	1				25	43 PP

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MAY 31 0.H 24.M 3.S EPICENTRE 14.74 54.84 DEPTH= 127.KM

A= 0.55712 B= 0.79100 C= 0.25285 D= 0.8176 E=-0.5758
G= 0.1456 H= 0.2067 K=-0.9675 HT= 5.8

DEPTH OF FOCUS= 0.015R

SE= 3.47

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SHIRAZ	14.99	352.2	3 26K	0				
QUETTA	18.98	33.9	4 13A	-1	7 49	12		4 30 PP
TEHERAN	21.14	352.2	4 25	-11	8 17	-1		
LAHORE	24.45	43.5	4 37A	-31				
JERUSALEM	24.68	316.8	5 11	1				12 55
KSARA	25.60	321.2	5 20	1	10 4	29	5 32	6 4
DEHRA DUN	26.37	50.1	5 42	16				10 32
TIFLIS	28.26	344.0	5 44	1	10 40	22		
MAKHACH-KALA	28.83	348.8	5 31	-17				
LWIRO	30.82	238.9	5 6A	-60				
SIMFEROPOL	34.85	333.9	6 38	-2				
CHITTAGONG	35.79	72.2	5 22	-86				
MESSINA	41.78	311.5						10 40
SVERDLOVSK	42.24	4.7	7 43	1				
MOSCOW	43.00	345.8	7 49	1	14 15	12		
LWOW	43.04	330.9	7 50	2				17 42
ROME	45.42	315.1						9 9
LJUBLJANA	45.96	321.2	8 11	0				
VIENNA-H.	46.02	324.7	8 7	-5				
WARSAW	46.07	331.6	8 14	2	15 3	16		15 16 PS
TRIESTE	46.24	320.3	8 16	2	15 19	29		14 28
TOLMEZZO	47.04	320.9	8 9	-11				
TAMANRASSET	47.21	287.5	8 18	-3				10 12
PRUHONICE	47.97	325.8	8 27	0				
PULKOVO	48.43	343.7	8 2	-29	15 24	4		
SETIF	48.89	305.4	8 35	1				
COLLMBERG	49.51	326.6	8 40	1				10 11 PP
PLAUEN	49.54	325.3	8 38	-1				
MONACO	49.55	315.5	8 40	1				
ISOLA	49.96	315.9	8 44	2				
POTSDAM	50.05	327.8	8 44	1				
JENA	50.09	325.6	8 43	0			9 2	
HALLE	50.18	326.4	8 43	-1				10 43 PP
HELSINKI	50.33	341.1	8 45	0				
NURMIJARVI	50.69	341.2	8 48	0				
KIMBERLEY	52.10	213.9	8 59	0				
COPENHAGEN	52.19	331.1	8 59	0	16 29	17		
UPPSALA	52.61	337.4	9 1	-1				
RELIZANE	52.67	303.8	8 45	-18				
GARCHY	53.64	318.4	9 9	-1				10 16
DOURBES	53.71	322.1	9 12	2				
APATITY	54.59	350.1	9 16	-1				
SODANKYLA	55.73	347.2	9 24	-1				
FOLINIERE	56.37	319.2	9 30	0				
MALAGA	56.76	304.4	9 34K	1				10 28 PP
SKALSTUGAN	56.98	338.8						10 31 PP
KIRUNA	57.53	345.3	9 37	-1				
KHEYS	65.93	0.6						10 46
NORD	72.83	351.6	11 18	2				
EUREKA	125.39	351.3	18 50	4				

MAY 31 2.H 40.M 1.S EPICENTRE -39.66 -75.53 DEPTH= 0.KM

A= 0.19284 B=-0.74748 C=-0.63568 D=-0.9683 E=-0.2498
G=-0.1588 H= 0.6155 K=-0.7720 HT= -1.6

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SANTA LUCIA	7.35	33.9	1 50K	-1	3 14	-2		3 42
LA PAZ	23.96	17.7	5 20K	4	9 47	16		
HUANCAYO	27.50	0.4	5 50K	1	10 15	-15		
BYRD STATION	43.71	190.1	8 9	1				8 49
BOGOTA	44.08	2.1	8 13	2	14 48	4		18 10 SS

CHINCHINA	44.41	359.9	8	14K	0	14	51	2				18	12	SS
FUQUENE	44.93	2.5	8	16K	-2	14	58	2						
BALBOA HTS.	48.51	354.7	8	46K	0	15	52	5						
SOUTH POLE	50.53	180.0	9	2	0							9	41	
CARACAS	50.54	11.0	9	36A	34	16	53	37						
TRINIDAD	51.75	17.8	9	13	2							10	25	
GRENADA	53.02	17.0	9	20	0									
ST. VINCENT	54.21	17.2	9	28	-1									
DOMINICA	56.24	16.5	9	42	-2									
SCOTT BASE	56.96	192.9	9	49K	0									
ANTIGUA	57.93	15.5	9	54	-2									
ST. KITTS	57.95	14.5	9	41	-15									
SAN JUAN	58.40	10.5	9	56	-3									
CAPE HALLETT	59.45	198.9	10	5A	-1	18	21	6				39	18	PKPPKP
VERA CRUZ	61.63	337.8	10	27	6	18	55	12				10	43	
TACUBAYA	62.77	334.8	10	31	2	18	42	-15						
HAWSON	68.54	164.1	11	6	0									
TERRE ADELIE	70.16	194.6	10	59	-17									
HERMANUS	72.26	120.1				20	56	5						
COLUMBIA	73.47	355.2	11	34	-2									
CHIHUAHUA	73.65	332.3	11	35	-2	21	14	7						
MIRNY	73.75	175.2	11	35	-2									
WILKES	74.23	182.5	11	40K	0	21	19	6				22	0	PS
CHAPEL HILL	75.28	357.0	11	45	-1									
MBOUR	76.51	58.2	11	54K	1	21	42	3						
FAYETTEVILLE	77.31	344.6	10	56K	-62	20	55	-52	11	9				
GRAHAMSTOWN	77.76	123.1	12	0K	0									
CHATEAU	78.14	228.7	12	2	0									
GEORGETOWN	78.19	358.8										15	1	PP
WASHINGTON	78.19	358.8	12	2	0							15	5	PP
TUCSON	78.68	330.0	12	5	0									
TUCSON TELE.	78.72	330.2	12	5	0									
KARAPIRO	78.98	229.6	12	6	-1									
ST. LOUIS 1	79.08	348.3	12	4	-3	22	3	-3						
FLORISSANT	79.26	348.2	12	7	-1	22	5	-3						
PENNSYLVANIA	80.11	358.2	12	11	-2	22	17	0				15	12	PP
PALISADES	80.30	1.2	12	14	0	22	19	0	12	18		27	27	SS
LAWRENCE	80.31	344.5	12	11	-3									
CLEVELAND	80.94	355.4	12	16	-1									
WESTON	81.75	3.2	12	21	0									
PIETERMZBURG	82.64	122.4	12	27K	1									
PASADENA	83.35	325.6	12	31K	1	22	52	2				15	47	PP
BOULDER CITY	83.53	328.9	12	32K	1	22	57	5						
PRETORIA	83.71	118.2										13	0	PCP
HALIFAX	84.58	8.5	12	37K	1									
OTTAWA	84.68	359.9	12	35K	-1									
BREBEUF	84.79	1.4	12	36A	-1	23	7	2						
FRESNO	86.27	325.8	12	44	0									
RUTH	86.41	330.4	12	46	1							23	22	
SEVEN FALLS	86.50	3.2	12	47	2									
SALT LAKE C.	86.62	333.2	12	46	0									
EUREKA	87.01	329.8	12	47K	-1							30	41	PKKP
RAPID CITY	87.02	340.4	12	47	-1							13	22	
LICK	87.56	324.9	12	52K	1							13	14	
BULAWAYO	87.69	114.2	12	52K	1									
BERKELEY	88.27	324.8	12	54K	0	23	45	7				24	43	PS
SAN FRANCSCO	88.27	324.6	12	55	1									
RENO	88.61	327.3	12	59	3									
UKIAH	89.73	324.9	13	2	1									
MINERAL	90.04	326.6	13	1K	-1									
SHASTA	90.66	326.3	13	5K	0									
BOZEMAN	90.72	336.0	13	5	-1									
BROKEN HILL	91.34	109.9	13	11K	3									
BUTTE	91.52	335.2	13	9K	0	23	17	-51						
HUNGRY HORSE	94.05	335.4	13	20	-1							30	25	PKKP
RIVERVIEW	95.08	217.4	13	1K	-25									
TAMANRASSET	97.70	66.9	13	37K	0	24	15	0				17	21	PP
BRISBANE	99.53	222.3	13	45	-1							32	6	SS
MALAGA	100.24	50.6	13	50K	1							18	4	PP
GRANADA	101.03	50.7										18	17	PP
TOLEDO	102.55	48.4										25	1	
RELIZANE	102.63	54.0	13	51	-9							17	59	PP
ALGIERS UNI.	104.84	54.5	14	4	-5	24	50	1				18	49	PP
SETIF	105.99	56.2	14	16	777							18	32	PP
RATHFARNHAM	110.14	36.7										19	5	PP
CLERMONT-FD.	110.35	47.0										19	18	PP
GARCHY	111.20	45.7	18	34	-1							19	14	PP
MONACO	111.67	50.7										19	20	PP

ISOLA	111.70	50.2						19 19	PP
PARIS	111.78	44.1						19 46	PP
KEW	111.88	40.7						28 59	
BESANCON	112.81	47.0						19 38	PP
DOURBES	113.65	43.8						19 33	PP
ROME	113.76	54.6						19 41	PP
MESSINA	113.76	59.4						19 42	
STRASBOURG	114.55	46.5				27 35 125		19 43	PP
RESOLUTE	114.78	354.4	18 40	-2		27 19 108			
DE BILT	115.05	42.2						19 29	PP
STUTTGART	115.50	46.9	18 45	1		27 36 123		19 44	PP
TOLMEZZO	116.45	50.6	18 49	4				21 25	
TRIESTE	116.51	51.6						19 56	PP
LJUBLJANA	117.17	51.5	18 47	0				20 7	PP
PORT MORESBY	117.18	228.8						19 30	
JENA	117.88	45.6	18 48	0				20 0	PP
PLAUEN	117.99	46.3	18 48	0					
COLLEGE	118.33	332.5	18 48	-1		25 47 3			
COLLMBERG	118.84	45.8	18 52	2				23 28	
PRAGUE	119.06	47.5						30 19	PS
PRUHONICE	119.09	47.6	18 52	2				20 21	PP
POTSDAM	119.39	44.7	18 50	-1					
COPENHAGEN	120.56	41.1	18 54	1				23 8	PPP
GOTEBORG	121.22	38.8	18 59	4					
SKALSTUGAN	123.73	32.5	18 59	0					
WARSAW	123.74	47.3						23 43	
JERUSALEM	124.48	75.0	19 3	2				20 54	PP
LWOW	124.57	50.9						20 45	PP
NORD	124.76	8.8	19 0	-1					
UPPSALA	124.77	37.8	19 0	-1					
KSARA	125.93	73.2	19 6	2				21 0	PP
KIRUNA	128.21	28.7	19 8	0					
NURMIJARVI	128.32	38.4	19 7	-1				22 28	PKS
HELSINKI	128.38	38.8	19 8	0					
SIMFEROPOL	129.19	59.6	19 10	0				21 18	PP
SODANKYLA	130.47	29.8	19 12	0				21 27	PP
PULKOVO	130.92	40.1	19 13	0				21 28	PP
APATITY	133.10	29.8	19 16	-1				21 43	PP
MOSCOW	134.10	46.4	19 18	-1				21 47	PP
TIFLIS	135.50	67.2	19 24	2				21 59	PP
KHEYS	135.59	9.8	19 23	1				21 59	PP
GORIS	135.89	70.8	19 22	-1					
SHIRAZ	136.64	86.8	19 19	-5					
PETROPAVLOVK	141.21	308.6	19 32	0					
ASHKABAD	144.32	77.7	19 37	0					
MAGADAN	144.94	320.1	19 32	-7					
TIKSI	145.67	346.6	19 39	-1					
POONA	146.21	119.7	19 44K	3					
SVERDLOVSK	146.84	44.1	19 42	0					
QUETTA	148.01	95.5	19 45K	1				19 57	PKP2
Y.-SAKHLINSK	151.44	297.6	19 48	-1					
TUKUBASAN	151.80	274.4	19 56A	6					
YAKUTSK	152.85	333.8	19 49	-2				23 42	PP
TASHKENT	153.30	75.0	19 53	1				23 46	PP
MATUSIRO	153.35	274.1	19 51A	-1				30 24	SKKS
AGRA	154.73	111.6	19 56K	2				23 57	
DEHRA DUN	156.51	105.2	20 31	35				24 20	
FRUNSE	157.39	72.2	19 59	2				24 10	
CHATRA	160.73	126.4	20 3	2				24 26	PP
CANTON	161.84	207.1	20 4	2				24 31	PP
SHILLONG	162.42	139.3	20 4K	1					
CHANGCHUN	163.90	291.8	20 3	-1				24 41	PP
ZO-SE	163.93	243.0	20 5	1				24 53	PP
LHASA	165.12	128.1	20 8	3				25 0	PP
KUNMING	165.43	173.8	20 7K	1				21 5	PKP2
NANKING	166.15	241.2	20 7	1				25 3	PP
IRKUTSK	167.39	0.4	20 5	-2					
WUHAN	167.71	225.3	20 7K	0				25 3	PP
PEKING	170.99	276.1	20 10	1				25 18	PP
CHENGTU	171.01	177.5	20 11K	2				25 17	PP
ULAN-BATOR	171.56	348.8	20 9	-1					
SIAN	173.53	214.8	20 11K	0					
PAOTOW	175.64	283.9	20 12	1				25 41	PP
LANCHOW	176.36	171.8	20 13K	2				25 45	PP

MAY 31 11.H 2.M 16.S EPICENTRE 17.79 -61.65 DEPTH= 0.KM

A= 0.45249 B=-0.83845 C= 0.30372 D=-0.8800 E=-0.4749
G= 0.1442 H=-0.2673 K=-0.9528 HT= 5.2

SE= 2.68

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ST. KITTS	1.13	246.6	0 26	3				
DOMINICA	2.49	174.5	0 45	2				
SAN JUAN	4.30	278.5	1 9	0	1 57	-3		1 24
ST. VINCENT	4.61	175.4	1 14	1				
BARBADOS	5.05	156.7	1 19	0				
GRENADA	5.71	180.8	1 29A	0				5 54
TRINIDAD	7.11	178.0	1 47	-1				
CIUD. TRUJL.	7.90	276.0	2 7	8	3 26	-4		
CARACAS	8.88	215.9	2 45A	32	4 21	26		
FUQUENE	17.02	225.4	4 0A	-1	7 20	10		
BOGOTA	17.87	224.3	4 12K	0	7 38	8		
CHINCHINA	18.69	228.7	4 20K	-2	7 48	0		4 34 PP
BALBOA HTS.	19.50	245.6	4 30A	-2	8 22	16		
COLUMBIA	23.69	316.7	5 15A	0	9 30	3		
CHAPEL HILL	23.74	322.9	5 17	2				
WASHINGTON	24.96	330.5	5 29K	2	9 57	8		
GEORGETOWN	24.96	330.5	5 28	1	9 54	5		
FORDHAM	25.28	337.9	5 22	-8	9 56	2		
PALISADES	25.43	338.0	5 32A	1	10 0	4		9 3 PCP
WESTON	25.86	343.4	5 36	1	10 4	0		
SANTIAGO MA.	26.17	264.4	5 40	2				
MERIDA	26.56	281.3	5 44	2	10 29	14		11 20
HALIFAX	26.80	356.9	5 47A	3				
SAN SALVADOR	26.82	265.2	5 45	1	9 48	-32		
PENNSYLVANIA	26.85	332.0	5 45	1	10 22	2		
PITTSBURGH	27.55	328.8	5 45A	-6	10 48	17		
CLEVELAND	29.12	328.3	6 6	1	10 58	1		
COMITAN	29.18	271.6	6 0	-5				11 20
OTTAWA	29.93	339.9	6 13A	1				
SEVEN FALLS	30.21	347.5	6 17	2				
TERRE HAUTE	30.99	319.2	6 14	-8	10 54	-32		
ST. LOUIS 1	32.43	315.7	6 31	-3	11 43	-6		
HUANCAYO	32.59	205.4	6 34A	-2	11 49	-2		
FLORISSANT	32.61	315.8	6 35	-1	11 45	-6		
VERA CRUZ	32.70	278.0	6 40	3	12 6	13		
OAXACA	33.50	274.1	6 46	2				
FAYETTEVILLE	34.04	308.9	5 48A	-60	10 27	-107		6 8 PP
LA PAZ	34.67	191.0	6 52A	-2	12 13	-10		14 26 SS
TACUBAYA	35.59	278.6	6 59	-2	12 24	-14		8 16 PP
GUADALAJARA	39.38	281.1	7 37	4				
CHIHUAHUA	42.03	293.2	7 53	-2				
MBOUR	42.99	87.8	8 3	0	14 29	0		
RAPID CITY	43.58	316.1	8 8	0				9 54 PCP
TUCSON TELE.	46.37	297.9	8 31	1	15 19	1		
TUCSON	46.45	297.8	8 32	1	15 7	-12		9 55 PP
SALT LAKE C.	48.64	309.0	8 48A	0	15 52	2		9 37
BOZEMAN	49.36	315.4	8 54A	1	16 0	0		18 44 SCS
LISBON	49.99	54.1	8 58K	0	16 7	-2		10 54 PP
BOULDER CITY	50.15	302.2	9 1A	1	16 16	5		
BUTTE	50.48	315.5	9 2A	0	16 18	2		18 48 SCS
COIMBRA	50.78	52.4	9 2	-2	16 11	-9		
SERRA PILAR	50.82	51.1	9 5A	0				11 2 PP
EUREKA	51.51	306.6	9 10A	0	16 14	-16		10 25 PCP
SANTA LUCIA	51.66	189.6	9 9A	-2	16 24	-8	9 22	10 54 PP
HUNGRY HORSE	52.11	318.0	9 14	0				10 26 PCP
PASADENA	52.73	299.6	9 20A	1	16 48	1	9 28	11 22 PP
MALAGA	53.49	57.2	9 24K	-1	17 0	3		11 36 PP
TOLEDO	54.07	53.4	9 27	-2	17 12	7		11 20 PP
GRANADA	54.16	56.7	9 30K	0	17 13	7		11 43 PP
FRESNO	54.22	302.8	9 29A	-1				
RENO	54.47	306.2	9 31A	-1				
SIDA	54.64	22.1	9 34	1				
ALMERIA	55.04	57.2	9 34K	-2	17 17	-1		11 35 PP
RATHFARNHAM	55.39	36.9	9 38A	-1	17 38	16		11 43 PP
VINEYARD	55.49	302.7	9 40	1				
LICK	55.72	303.4	9 42A	1				10 1
MINERAL	55.91	307.0	9 41A	-1				
PENTICTON	55.92	318.0	9 41K	-1				
BRANNER	56.16	303.4	9 44A	0				
BERKELEY	56.24	304.0	9 45A	0	17 37	3		11 53 PP

SAN FRANCSCO	56.39	303.8	9	46A	0				
SHASTA	56.54	307.3	9	45	-2				
ALICANTE	56.70	55.5	9	51	3	17	42	2	11 59 PP
JERSEY	56.90	42.5	9	58	9				
UKIAH	57.07	305.4	9	51	0				
RELIZANE	57.44	58.6	9	51	-2	17	55	5	39 40 PKPPKP
CORVALLIS	57.61	311.9	9	53A	-1				
TORTOSA	57.61	52.6	9	58	3	17	51	-1	
SCORESBY SD.	57.83	14.7	10	2	6	17	54	-1	19 42 SCS
ARCATA	57.84	307.4	9	56K	0				
FOLINIERE	57.88	43.2	9	55	-1				
VICTORIA	58.23	316.4	9	56	-3				
DURHAM	58.46	36.1	10	0K	0	17	43	-20	11 27
KEW	58.47	40.1	9	59	-2	18	1	-2	18 26 PS
THULE	58.75	358.2	10	2	0				
ABERDEEN	58.82	33.3				18	3	-5	14 39
ALBERNI	59.26	317.2	10	3	-3				
ALGIERS UNI.	59.47	57.4	10	6	-1	18	18	2	12 19 PP
RESOLUTE	59.69	350.3	10	6	-3	18	10	-9	19 56
PARIS	59.82	43.5	10	11	1				13 42 PP
GARCHY	60.03	45.3	10	20	9				10 42 PKP
UCCLE	61.27	41.4	10	16	-4	18	37	-2	
DOURBES	61.35	42.2	10	21	1	18	39	-1	
DE BILT	61.94	40.0	10	32A	8	18	48	0	22 44 SS
BESANCON	62.00	45.5	10	23A	-2				
ISOLA	62.61	49.0	10	28	-1	18	57	1	
NEUCHATEL	62.65	45.8	10	29	0				
TAMANRASSET	62.73	73.1	10	29K	-1	18	59	1	12 54 PP
MONACO	62.88	49.5	10	28	-3	18	59	-1	
WITTEVEEN	62.93	39.3	10	31A	0				
BENSBERG	63.06	41.4	10	32	0	19	2	0	
BASLE	63.11	45.3	10	20	-12	18	49	-13	
STRASBOURG	63.29	44.1	10	32A	-1	19	2	-3	12 56 PP
BERGEN	63.33	30.7	10	35	2				33 17
MUNSTER	63.43	40.3	10	34	0				10 44
CUGLIERI	63.75	53.5							11 54
HEIDELBERG	63.95	43.2	10	36	-2				
EBINGEN	64.07	44.6	10	37	-1				
PAVIA	64.14	47.9	10	47K	8	19	14	-1	19 30
TUBINGEN	64.15	44.2	10	37	-2				
STUTTGART	64.29	43.9	10	38	-2	19	13	-4	11 24 PCP
RAVENSBURG	64.49	45.0	10	40	-1				
SONNEBERG	65.59	42.2	10	47	-1	19	30	-3	
JENA	65.85	41.6	10	49	-1	19	32	-4	13 15 PP
HALLE	66.09	41.0	10	51	0	19	37	-2	13 10 PP
PLAUEN	66.21	42.1	10	49	-3				
SITKA	66.38	325.1	10	56	3				
GOTEBORG	66.39	34.2	10	53	0				39 22 PKPPKP
NORD	66.45	6.5	10	52	-2	19	37	-7	
COPENHAGEN	66.54	36.4	10	55	1	19	43	-2	19 59 PS
ROME	66.63	51.5	10	54K	-1	19	45	-1	13 42 PP
COLLMBERG	66.75	41.2	10	56	0	19	44	-3	20 50 PPS
POTSDAM	66.80	40.0	10	56	0	19	44	-4	20 10
TOLMEZZO	66.82	46.6	10	54	-2				20 50 SCS
SKALSTUGAN	67.07	27.8	10	57	-1				39 33 PKPPKP
TRIESTE	67.36	47.3	10	59	0	19	54	-1	20 56 SCS
PRAGUE	67.67	42.5	11	1	0	19	57	-1	13 27 PP
PRUHONICE	67.75	42.6	11	2K	0	20	0	1	23 56 SS
VIENNA-H.	69.01	44.4	11	9	-1				11 34
MESSINA	69.30	55.2	11	7	-5	20	6	-12	13 49 PP
UPPSALA	69.41	32.0	11	11	-1				39 15 PKPPKP
BRATISLAVA	69.51	44.5	11	11K	-2	20	14	-6	
RACIBORZ	70.09	42.4	11	16	0				11 33
KIRUNA	70.68	23.5	11	20	0				39 12 PKPPKP
KRAKOW	71.21	42.3	11	24	1	20	38	-2	21 26 SKS
WARSAW	71.68	40.0	11	32	6	20	44	-2	11 53 PCP
BELGRADE	72.14	47.8	11	28K	-1	20	48	-3	12 9 PCP
COLLEGE	72.44	333.5	11	29	-1	20	49	-5	24 19
TIMISOARA	72.56	46.7	11	38	7	20	56	0	
NURMIJARVI	72.88	31.1	11	33	0	20	55	-4	
HELSINKI	73.07	31.4	11	33	-1				
SODANKYLA	73.07	23.8	11	34	0	21	1	0	
LWOW	73.86	42.3				21	9	-1	12 5 PCP
SOFIA	74.53	49.6	11	44	1	21	17	-1	14 38 PP
APATITY	75.64	23.3	11	48A	-1	21	27	-3	14 38 PP
ATHENS	75.70	54.4	11	50A	1				
PULKOVO	75.79	31.4	11	50	0				22 0 PS
BUCHAREST	76.19	47.5	11	52	0	21	32	-4	22 2 PS
KHEYS	77.16	8.4	11	57	-1				14 50 PP

MOSCOW	80.59	34.5	12	17	1	22	20	-3	12	24 PCP
SIMFEROPOL	81.61	45.6	12	23	1	22	32	-2	15	37 PP
ARGENTINE I.	82.81	181.1	12	27	-1					
KSARA	86.31	55.8	12	48	3	23	29	9	16	12 PP
JERUSALEM	86.43	57.9	12	48	2	23	24	2		
KIPAPA	89.33	292.2	13	1	1					
HONOLULU	89.44	292.1	13	1K	1					
TIFLIS	90.03	45.9	13	5	2				16	39 PP
TIKSI	90.51	356.7	13	6	1				23	30 SKKS
SVERDLOVSK	91.49	27.7	13	11	1				23	38 SKKS
GORIS	92.01	47.4	13	13	1				23	42 SKKS
HERMANUS	92.64	125.2							23	46 SKKS
BROKEN HILL	94.43	103.7	13	25K	2					
BULAWAYO	96.20	109.1	13	32	0					
MAGADAN	98.52	344.0				24	17	-3		
YAKUTSK	99.95	354.6	13	49	0				17	48 PP
SHIRAZ	100.95	54.0				24	27	-5	18	0 PP
ASHKABAD	100.99	44.2				24	30	-2	18	8 PP
PETROPAVLOVK	101.36	336.5				24	33	-1	20	11 PPP
BYRD STATION	102.16	188.7	13	58	-1				30	14 PKKP
TASHKENT	105.68	36.2	18	35	777	24	56	2	27	48 PS
DUZHANBE	107.20	38.7				25	1	0	18	41 PP
FRUNSE	107.50	32.2	18	31	777	25	5	3		
SOUTH POLE	107.68	180.0	18	0	777				18	34 PP
QUETTA	111.27	46.6	18	38	2	25	14	-4	19	18 PP
Y.-SAKHLINSK	111.86	342.3							19	19 PP
ULAN-BATOR	113.79	8.4							19	21 PP
SCOTT BASE	115.52	190.1	18	46	2					
CAPE HALLETT	117.97	195.8							19	56 PP
VLADIVOSTOK	118.12	348.8							20	3 PP
CHANGCHUN	118.35	354.3	18	50	0				20	5 PP
DEHRA DUN	118.41	39.5							20	18 PP
MAWSON	119.18	158.8	18	52	0				20	15 PP
PEKING	122.44	2.0	18	58	0	25	58	0	20	38 PP
TUKUBASAN	122.48	339.2							20	32 PP
MATUSIRO	122.80	341.0	18	58A	-1				30	41 PS
LANCHOW	124.71	14.3	19	3	1					
LHASA	125.98	29.6	19	7	2				21	12 PP
CHATRA	126.30	35.0	19	9	4					
CHATEAU	126.33	234.2	19	5	0					
KARAPIRO	126.46	235.7	19	5	-1					
TERRE ADELIE	128.75	191.5	18	55	-15					
SHILLONG	129.78	31.6	19	8K	-4				22	33
CHENGTU	129.89	16.2	19	13	1				21	32 PP
NANKING	130.43	359.5	19	14	1				21	38 PP
ZO-SE	131.31	356.8	19	19	4				21	43 PP
WUHAN	131.82	4.4	19	5	-11				22	39 PKS
KUNMING	134.72	20.1	19	22	1				22	3 PP
HONG KONG	139.94	6.0	19	32	1				23	7 PP
BAGUIO CITY	145.93	356.2	19	43	2					
RIVERVIEW	146.62	235.0	19	45A	3				29	4
BRISBANE	146.91	247.0	19	45A	2					
CANBERRA	147.69	231.2	19	47A	3					
NHATRANG	148.84	17.5	19	48	2				19	55 PKP2
MELBOURNE	149.31	224.0	19	49K	2					
PORT MORESBY	150.83	282.8	19	51	2					
CHARTERS TS.	153.52	260.6	19	54A	1				23	49 SKP
ADELAIDE	155.07	222.7	19	57	2				20	22 PKP2
LEMBANG	164.89	45.2	20	6	0				26	18 PP
MUNDARING	165.75	172.6	20	7	0				21	7

MAY 31 21.H 0.M 41.S EPICENTRE -5.58 110.00 DEPTH= 561.KM

A=-0.34041 B= 0.93531 C=-0.09651 D= 0.9397 E= 0.3420
G= 0.0330 H=-0.0907 K=-0.9953 HT= 7.0

DEPTH OF FOCUS= 0.083R

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
LEMBANG	2.67	242.1	1	15K	0	2	15	1				
DJAKARTA	3.21	259.1	1	17K	-1	2	21	1				
NHATRANG	17.70	357.5	3	37	2	6	33	5				
BAGUIO CITY	24.23	25.4	4	35	0	7	19	-56				
MUNDARING	26.89	168.3	4	58	0						8	1

HONG KONG	28.00	8.2	4	58	-10		9	13	-1					
KUNMING	31.32	347.3	5	40K	4		10	10	5			8	18	*SP
TOCKLAI	35.36	336.1	5	56	-14									
SHILLONG	35.62	331.1	6	14K	2									
WUHAN	36.16	6.7	6	18	1		11	16	-3					
CHENGTU	36.48	351.3	6	20	1		11	23	-1			9	2	*SP
PORT MORESBY	37.02	98.2	6	24	0		11	30	-1					
ZO-SE	38.00	15.7					11	47	1					
CHARTERS TS.	38.07	115.6	6	32	0							15	37	
NANKING	38.35	12.1	6	37	2		11	54	3			9	19	*SP
CHATRA	39.07	326.6	6	42	1		11	32	-29			8	38	
LHASA	39.46	333.6	6	46K	2		12	8	1					
ADELAIDE	39.47	141.6	6	33A	-11							8	37	
SIAN	39.62	358.6					12	10	1					
LANCHOW	41.81	352.5	7	4K	2		12	42	1					
POONA	42.94	304.8	7	9	-2									
PEKING	45.73	6.6	7	33	0		13	35	-1					
PAOTOW	45.93	0.0	7	35	0		13	40	1					
BRISBANE	46.07	123.0	7	36	0							9	37	
CANBERRA	46.52	134.8	7	39A	0							9	1	
DEHRA DUN	47.01	321.3	7	42	-1		13	47	-7					
RIVERVIEW	47.36	131.9	7	46	1							13	15	
MATUSIRO	49.52	30.0	7	59K	-3		14	25	-3	9	47	9	12	PCP
LAHORE	50.20	319.6	8	3K	-4									
CHANGCHUN	51.08	14.2	8	13	0		14	46	-3					
ULAN-BATOR	53.34	357.4	8	28	-1									
WARSAK DAM	53.57	320.1	8	31	0		15	20	-2					
QUETTA	54.44	313.4	8	36K	-1		15	29	-4	10	24	10	48	PP
ALMATA	57.08	331.7	8	55	0									
FRUNSE	57.88	329.8	9	1K	0		16	18	0					
UGLEGORSK	61.19	23.5	9	2K	-21									
SHIRAZ	65.27	306.1	9	47A	-2		16	45	-64					
GEBBIES PASS	66.54	135.4	9	56	0									
KARAPIRO	67.36	128.7	10	2	1									
CHATEAU	67.61	130.1	10	3	0									
TEHERAN	68.55	311.7	9	59	-10									
YAKUTSK	69.10	9.8	10	10	-2									
MAWSON	69.59	197.4	10	15	0							12	11	
SVERDLOVSK	74.00	334.3	10	40	0									
TIFLIS	75.61	315.4	10	51	2		19	45	0					
AFIAMALU	77.27	103.0	10	59K	1									
SCOTT BASE	77.88	169.6	11	1	0									
TIKSI	78.05	6.0	11	2K	0									
PIETERMZBURG	78.23	241.0	11	5	2									
KSARA	80.02	305.6	11	14	1									
BULAWAYO	80.03	250.6	11	13K	0									
JERUSALEM	80.10	303.5	11	14	1					13	32			
PRETORIA	80.25	244.9	11	13	-1									
BROKEN HILL	80.45	256.3	11	16	1									
KIMBERLEY	83.16	241.8										20	4	
SIMFEROPOL	84.00	316.2	11	34K	1		21	10	0					
SOUTH POLE	84.46	180.0	11	35	0		20	57	-17	13	39			
MOSCOW	84.78	327.2	11	35	-2									
PULKOVO	89.60	330.1	11	29	-30									
KHEYS	89.69	352.6	12	14	14									
APATITY	90.02	338.1	12	0	-1									
BYRD STATION	91.01	172.4	12	7	1					14	12			
LWOW	91.62	319.7	12	9	1							15	58	
HELSINKI	92.32	330.1	12	13	1									
NURMIJARVI	92.51	330.4	12	13	0					14	14	15	36	PP
SODANKYLA	92.55	337.4	12	11	-2					14	14			
KIRUNA	94.96	337.6	12	23	-1							16	24	PP
UPPSALA	95.97	329.5	12	28	0									
PRUHONICE	97.74	319.6	12	35	-1							16	43	PP
LJUBLJANA	97.78	315.6	12	37A	0									
SKALSTUGAN	98.40	333.4	12	39	0									
COLLMBERG	98.70	320.9	12	40	-1									
NORD	100.54	353.1	12	47K	-2									
STUTTGART	101.24	318.5	12	50	-2							17	7	PP
TAMANRASSET	105.48	292.0	17	1	777									
GARCHY	105.55	317.5	17	21	777							17	40	
FOLINIERE	107.62	319.4	17	24	777									
RESOLUTE	109.46	6.8	17	27	777									
HUNGRY HORSE	123.32	33.7	17	57	3							20	0	PP
BOZEMAN	126.52	35.0	18	3	3							20	11	PP
EUREKA	126.62	43.9	18	2	2					20	26	20	12	PP
BOULDER CITY	128.98	47.4	18	8	3									
RAPID CITY	131.85	32.0								20	45			

TUCSON TELE.	133.63	49.7						20	53		
BREBEUF	140.11	4.0	18	26	1						
FAYETTEVILLE	142.37	32.9	17	28A	-62						
WESTON	143.33	1.6	18	30	-2						
PENNSYLVANIA	144.23	10.2	18	35	2						
WASHINGTON	146.21	9.9	18	38	2			20	50		
LA PAZ	157.99	184.8	18	57	4	24	33 -31			19	35 PKP2
HUANCAYO	161.71	163.2	19	2A	6					19	51 PKP2

JUNE 1 5.H 2.M 56.S EPICENTRE -37.81 -72.90 DEPTH= 0.KM

A= 0.23287 B=-0.75707 C=-0.61042 D=-0.9558 E=-0.2940
G=-0.1795 H= 0.5834 K=-0.7921 HT= -0.9

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SANTA LUCIA	4.73	23.6	1	11	-4	2	22	11					
PORT STANLEY	17.47	147.5	4	8	1								
LA PAZ	21.64	12.5	4	58	4	8	57	7					
HUANCAYO	25.74	354.5	5	36A	2	10	18	16					
BOGOTA	42.22	358.3	7	59K	2	14	18	0					
CHINCHINA	42.63	356.0	8	OK	0	14	23	-1					
FUQUENE	43.06	358.8	8	4A	1	14	28	-2					
BYRD STATION	45.90	190.2	8	25	-1								
GRENADA	50.69	14.2	9	2	-1								
ST. VINCENT	51.87	14.5	9	57	45								
SOUTH POLE	52.38	180.0	9	14	-2	16	41	-1			10	14	PCP
FORT FRANCE	53.41	14.2	9	28	4								
ST. KITTS	55.68	11.8	9	38	-3								
SAN JUAN	56.25	7.8	9	41	-4								
SCOTT BASE	59.22	192.3	10	6	0								
CAPE HALLETT	61.85	198.0	10	22	-2								
TACUBAYA	62.05	331.7	10	43	18						12	38	PP
MAWSON	69.74	163.4	11	12	-2								
HERMANUS	71.39	119.3	11	29	5	20	47	5					
COLUMBIA	71.84	352.9	11	25	-2								
CHAPEL HILL	73.58	354.8	11	37	0								
MBOUR	73.78	56.7	11	38A	0	21	32	23					
FAYETTEVILLE	76.13	342.4	10	50A	-62								
WILKES	76.15	181.4				21	34	-1					
WASHINGTON	76.43	356.7	11	53	0								
ST. LOUIS 1	77.73	346.2	11	58A	-3	21	47	-6					
FLORISSANT	77.91	346.1	12	0A	-2								
TUCSON	78.16	327.8	12	2	-1								
TUCSON TELE.	78.19	328.0	12	3	0								
PENNSYLVANIA	78.36	356.2	12	3K	-1	21	55	-4			15	6	PP
PALISADES	78.44	359.2	12	4	0	22	0	0			14	50	PP
LAWRENCE	79.12	342.4	12	6	-2								
WESTON	79.82	1.2	12	11A	-1								
PIETERMZBURG	81.87	121.1	12	23	0								
HALIFAX	82.48	6.7	12	27A	1								
OTTAWA	82.87	358.0	12	27	-1								
BREBEUF	82.93	359.5	12	27	-1								
PASADENA	83.04	323.6	12	32	3	22	50	2			28	4	SS
BOULDER CITY	83.05	326.9	12	30	1								
SEVEN FALLS	84.57	1.4	12	36	-1								
RUTH	85.86	328.5	12	44	1	23	19	3					
SALT LAKE C.	85.94	331.4	12	42	-1								
FRESNO	85.94	324.0	12	45	2								
RAPID CITY	86.00	338.6	12	43	-1						13	29	
EUREKA	86.49	328.0	12	47A	1						*30	41	PKKP
BULAWAYO	86.54	112.7	12	46A	0								
LICK	87.27	323.1	12	58	8								
BERKELEY	87.99	323.1	12	54	1	23	40	4			23	22	SKS
RENO	88.20	325.6	12	57	3								
BROKEN HILL	90.00	108.2	13	4	1								
SHASTA	90.30	324.7	13	2	-2								
BUTTE	90.74	333.6	13	6	0								
HUNGRY HORSE	93.25	333.9	13	18	0						30	27	PKKP
TAMANRASSET	95.06	65.2	13	26A	0	24	3	1			17	11	PP
MALAGA	97.48	48.9	13	36K	-1						17	38	PP
TOLEDO	99.78	46.7				24	23	-3					
ALGIERS UNI.	102.09	52.8	13	47	-11	24	25	-12			18	1	PP

SETIF	103.24	54.5								18	4 PP
BAGNERES	104.25	46.3								18	26 PP
RATHFARNHAM	107.43	35.3						25	18	16	
ISOLA	108.94	48.5	18	55	777						
DURHAM	110.52	35.9	14	25	777						
MESSINA	111.04	57.6								19	5
DE BILT	112.31	40.7								28	16 PS
STUTTGART	112.73	45.3								19	37 PP
TRIESTE	113.74	49.9								19	36 PP
COLLMBERG	116.08	44.2	18	46	1						
PRUHONICE	116.32	46.0	18	44	-2					19	56 PP
COLLEGE	117.64	332.3	18	47	-1						
LWOW	121.80	49.2								20	38
JERUSALEM	121.99	72.6	18	59	2					20	33 PP
UPPSALA	122.05	36.6	18	55	-2						
NORD	122.62	8.3	18	56	-2					30	26 PS
KSARA	123.40	70.8								20	43 PP
NURMIJARVI	125.59	37.1	19	3	-1						
KIRUNA	125.61	27.8	19	6	2					36	55
SODANKYLA	127.85	28.9	19	7	-1						
PULKOVO	128.18	38.8								22	27
APATITY	130.48	29.0	19	12	-1					21	28 PP
MOSCOW	131.34	44.9								20	38 SKP
TIFLIS	132.87	64.7	19	19	1					28	39 SKKS
KHEYS	133.42	9.8	19	20	1						
SHIRAZ	134.43	83.4	19	19	-2					21	52 PP
MAKHACH-KALA	135.14	63.8	19	24	2						
SVERDLOVSK	144.08	42.8	19	36	-2						
TIKSI	144.31	348.4	19	27	-11						
MAGADAN	144.78	322.4	19	37	-2						
POONA	145.22	114.2	19	40	0						
QUETTA	146.06	90.8	19	43A	2	26	45	-4		42	10 SS
WARSAK DAM	151.06	86.7	19	57	8						
YAKUTSK	152.02	337.3	19	56	5						
NAMANGAN	152.55	72.2	19	56	5						
ANDIJAN	153.06	72.8	19	54	2						
TUKUBASAN	153.67	276.7	20	12	19						
FRUNSE	154.83	68.2	19	56	1						
MATUSIRO	155.23	276.7	20	4	9					30	40 SKKS
ALMATA	156.52	67.0	19	58A	1						
LHASA	164.37	116.7	20	8	3						
CHANGCHUN	164.97	299.3	20	3	-3						
IRKUTSK	165.41	6.8	19	58A	-8						
ZO-SE	166.60	244.2	20	6	-1						
KUNMING	166.82	162.4	20	7	-1						
ULAN-BATOR	169.89	0.8	20	7	-2					25	15 PP
CHENGTU	172.43	159.4	20	11	0					25	27 PP
PEKING	172.59	290.2	20	11	0					21	37 PKP
SIAN	176.16	203.1	20	12	0						
PAOTOW	176.41	321.5	20	13	1					25	47 PP
LANCHOW	176.85	122.8	20	13	1					25	53 PP

JUNE 2 5.H 58.M 3.S EPICENTRE -46.22 -74.22 DEPTH= 0.KM

A= 0.18883 B=-0.66814 C=-0.71967 D=-0.9623 E=-0.2720
G=-0.1957 H= 0.6925 K=-0.6943 HT= -4.0

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
PORT STANLEY	12.05	123.0	2	55	-1							
SANTA LUCIA	13.06	13.4	3	0	-9	5	50	13				
ARGENTINE I.	19.83	167.6	4	33	-2							
LA PAZ	30.06	11.7	6	14	1	11	13	2				
HUANCAYO	34.07	358.1	6	50K	2	12	11	-3				
BYRD STATION	37.46	191.8	7	18	1	13	10	4			8	49 PP
SOUTH POLE	43.97	180.0	8	10	-1						10	1 PP
BOGOTA	50.62	0.2	9	5	2	16	19	2				
SCOTT BASE	50.80	193.8	9	4K	0							
CHINCHINA	50.98	358.2	9	5A	-1	16	25	3			20	3 SS
FUQUENE	51.46	0.6	9	6K	-3	16	26	-3				
CAPE HALLETT	53.59	200.0	9	24	-1	17	2	4			20	50 SS
BALBOA HTS.	55.14	353.6	9	37K	1	17	21	2				
CARACAS	56.84	8.6	10	21A	32	18	11	30				
GRENADA	59.08	14.3	10	11	7							

ST. VINCENT	60.25	14.6	10	14	2						
FORT FRANCE	61.80	14.4	10	21	-2						
DOMINICA	62.32	14.0	10	30	4						
ANTIGUA	64.05	13.2	10	34	-4						
TERRE ADELIE	64.06	194.9	10	38	0	19	19	5			
ST. KITTS	64.11	12.2	10	36	-2						
SAN JUAN	64.71	8.5	10	37K	-5						
MIRNY	67.14	174.5	10	55	-3	19	45	-7			
WILKES	67.72	182.1	11	1K	0	20	3	4			24 29 SS
VERA CRUZ	68.07	337.7	11	7	3	20	17	14			
HERMANUS	68.26	117.3	11	8	3	20	5	0			
MERIDA	68.29	344.5	11	6	1						
TACUBAYA	69.12	334.7	11	10	0						
GEBBIES PASS	72.69	224.3	11	33	1						
ROXBURGH	72.92	221.2				21	1	2			
CHATEAU	74.55	229.1	11	42K	0						
COBB RIVER	74.60	226.2	11	54	11						
KARAPIRO	75.49	230.0	11	47	-1						12 2
KIMBERLEY	75.58	116.4	11	47A	-1						
MBOUR	79.26	56.1	12	10A	1	22	12	3			
PRETORIA	79.83	116.5	12	15	3						
COLUMBIA	80.09	354.3	12	11K	-2	22	6	-11			15 17 PP
CHAPEL HILL	81.88	356.0	12	22	-1						
LUANDA	81.92	94.3	12	29A	6						
FAYETTEVILLE	83.89	343.8	11	32K	-61						21 57 SCS
BULAWAYO	84.18	112.9	12	33	-1						
TUCSON	84.83	329.5	12	39K	1	23	11	5			24 5 PS
TUCSON TELE.	84.88	329.6	12	38K	0						15 54 PP
MORGANTOWN	85.62	355.6	12	41K	-1						16 7 PP
ST. LOUIS 1	85.69	347.5	12	40K	-2	23	14	0			
FLORISSANT	85.87	347.4	12	41K	-2	23	19	3			
FORDHAM	86.69	0.3	12	46	-1	23	10	-14			
PENNSYLVANIA	86.70	357.2	12	46	-1	23	26	2			16 7 PP
PALISADES	86.85	0.2	12	47K	-1	23	28	3	12	53	16 14 PP
LAWRENCE	86.88	343.7	12	46	-2						
CLEVELAND	87.56	354.5	12	50K	-1	23	26	-6			
BROKEN HILL	88.24	109.0	12	55K	1						
WESTON	88.25	2.1	12	54K	0	23	37	-1			
SUVA	88.51	245.2	12	54	-2						
MELBOURNE	89.23	210.0	12	58	-1						
PASADENA	89.29	324.9	13	0K	1	23	38	-10			16 41 PP
BOULDER CITY	89.62	328.1	13	2K	1						
CANBERRA	89.98	214.1	13	2	-1						
RIVERVIEW	90.42	216.3	13	4K	-1	23	56	-2			
OTTAWA	91.24	358.9	13	7K	-1						
BREBEUF	91.34	0.4	13	10	1						
FRESNO	92.22	325.0	13	13	0						
RUTH	92.57	329.5	13	16	1						25 36
VINEYARD	92.84	323.9	13	19	3						
SEVEN FALLS	93.00	2.3	13	17	0						
LICK	93.45	324.0	13	19K	0						
BERKELEY	94.16	323.8	13	23A	1						23 21
RENO	94.62	326.3	13	28	4						
BRISBANE	95.26	220.8	13	25	-2						40 19
SHASTA	96.63	325.2	13	33	0						
LWIRO	97.37	101.0	13	39	2						
BUTTE	97.86	334.1	13	38A	-1						17 0
TAMANRASSET	99.38	67.0	13	44	-2	24	28	4			17 30 PP
HUNGRY HORSE	100.39	334.3	13	49A	-1						18 0 PP
MALAGA	103.65	50.9									27 32 PS
ALGIERS UNI.	107.82	55.4									18 47 PP
BAGNERES	110.65	49.0									19 22 PP
PORT MORESBY	113.42	225.3									19 12
RATHFARNHAM	114.78	37.8									19 57 PP
MONACO	115.00	52.3	18	43	0						
ISOLA	115.09	51.7									19 38
PARIS	115.75	45.6									19 53 PP
MESSINA	116.17	61.4									19 54 PP
KEW	116.17	42.0									19 53 PP
BESANCON	116.51	48.6	18	45	-1						
ROME	116.68	56.5									25 31
PAVIA	116.89	52.0									29 43 PS
DOURBES	117.64	45.5	18	48	0	25	53	11			
UCCLE	117.96	44.8	18	47	-2	25	53	10			
STRASBOURG	118.28	48.3									27 7 SKKS
DE BILT	119.19	44.0									27 3 SKKS
STUTTGART	119.19	48.8	18	51	0						20 12 PP
TRIESTE	119.71	53.8									20 12 PP
TOLMEZZO	119.76	52.8	18	55	3						20 48

MUNSTER	120.29	45.2	18	44	-9					
WITTEVEEN	120.35	44.0	18	55	2					
LJUBLJANA	120.38	53.8	18	53	-1				20 17	PP
RESOLUTE	121.40	353.7	18	53K	-3				30 15	
JENA	121.67	47.9	18	57	1				24 57	
PLAUEN	121.72	48.5	18	53	-3					
SCORESBY SD.	122.34	18.3							27 22	PS
COLLMBERG	122.62	48.1							20 42	PP
PRUHONICE	122.68	50.1	18	58	0				28 53	
POTSDAM	123.26	47.1	19	2	3					
SOFIA	123.61	61.3	18	59	-1					
COLLEGE	124.54	330.2	19	0A	-2					
COPENHAGEN	124.77	43.5	19	7	5					
JERUSALEM	125.03	78.7	19	10	7					
GOTEBORG	125.62	41.2	19	9	5					
KSARA	126.68	77.1	19	11	5				21 2	PP
LEMBANG	127.16	182.3	19	8	1				21 8	
WARSAW	127.33	50.4	19	7	0					
LWOW	127.79	54.2	19	8	0				31 15	
SKALSTUGAN	128.66	34.9	19	8	-2					
UPPSALA	129.24	40.6	19	9	-2					
NORD	131.08	9.5	19	11	-3					
SIMFEROPOL	131.44	64.0							21 42	PP
NURMIJARVI	132.72	41.7	19	16	-1				22 44	PKS
HELSINKI	132.74	42.2	19	18	1					
KIRUNA	133.41	31.4	19	16	-2				21 40	PP
SOTCHI	134.35	68.3	19	20	0					
PULKOVO	135.15	44.0	19	25	3					
SODANKYLA	135.58	32.9	19	13	-9				21 53	PP
SHIRAZ	135.70	92.7	19	21	-2				21 58	PP
TIFLIS	136.83	73.1	19	26	1				28 47	SKKS
TEHERAN	138.36	84.6							23 4	PKS
MAKHACH-KALA	139.17	72.8	19	35	6					
POONA	141.85	125.7	19	33	-1					
KHEYS	141.86	11.3	19	27	-7					
PETROPAVLOVK	145.76	301.1	19	41K	0					
QUETTA	145.93	104.3	19	42K	1				23 16	PKS
NHATRANG	145.99	186.0	19	42	1				19 56	PKP2
BAGUIO CITY	147.83	207.4	19	44	0					
SVERDLOVSK	150.50	52.3	19	47	-1					
WARSAK DAM	151.34	103.0	19	56	7					
LAHORE	151.69	110.1	19	49	-1				19 57	PKP2
TUKUBASAN	152.51	261.0	19	51K	0				23 40	PP
DEHRA DUN	153.24	116.7	20	2	10					
CHITTAGONG	153.63	149.8	19	55	2	27	1	3	23 59	PP
MATUSIRO	153.97	259.8	19	51	-2				23 49	PP
Y.-SAKHLINSK	154.76	285.3	19	52	-2					
NAMANGAN	154.87	89.7	19	54	0					
ANDIJAN	155.27	90.7	19	55K	0					
CHATRA	155.65	136.2	19	55	0					
CANTON	156.12	197.4	19	53	-3					
SHILLONG	156.58	146.9	20	1K	4					
FRUNSE	157.60	87.4	19	58	0					
KUNMING	158.80	172.4	20	0	0				24 10	PP
YAKUTSK	159.05	327.6	19	56	-4					
ALMATA	159.36	87.8	20	1	1					
LHASA	159.83	140.0	20	2	1				24 21	PP
ZO-SE	160.75	223.7	20	1	-1				24 10	PP
NANKING	162.67	219.9	20	4	0				24 36	PP
WUHAN	162.91	206.6	20	4	0				24 36	PP
CHENGTU	164.40	174.3	20	5	0				24 44	PP
CHANGCHUN	165.98	267.2	20	4	-3				24 54	PP
SIAN	167.81	192.4	20	8	0					
LANCHOW	169.73	171.1	20	10K	1				25 12	PP
PEKING	170.21	234.5	20	9K	0				25 15	PP
PAOTOW	173.57	210.3	20	11	0					
IRKUTSK	173.87	8.4	20	9	-2					
ULAN-BATOR	178.14	336.2	20	11	-1					

JUNE 2 7.H 22.M 27.S EPICENTRE 33.17 60.34 DEPTH= 0.KM

A= 0.41507 B= 0.72879 C= 0.54459 D= 0.8690 E=-0.4949
G= 0.2695 H= 0.4732 K=-0.8387 HT= 0.8

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	
QUETTA	6.38	116.1	1	37	0	2	49	-3			2	2	PG
SHIRAZ	7.55	244.3	1	54	0	3	11	-10			2	23	PG
TEHERAN	7.82	291.6	1	57	0						4	25	SG
NAMANGAN	11.93	46.0	2	51	-3						4	38	
ANDIJAN	12.23	48.4	2	57K	-1								
FRUNSE	14.80	45.3	3	30A	-2								
TIFLIS	14.99	309.1	3	38	4								
DEHRA DUN	15.34	95.9									7	1	
ALMATA	16.47	47.5	4	0	6								
SOTCHI	19.17	308.8	4	27	0								
SIMFEROPOL	23.40	307.8	5	11	0								
SVERDLOVSK	23.66	0.4	5	16	3								
CHATRA	24.05	98.1	5	18K	1								
HELWAN	24.91	270.3	5	28	2						17	33	
PULKOVO	33.15	332.4									7	37	
HELSINKI	35.55	330.2	7	1	1								
NURMIJARVI	35.87	330.5	7	2	-1								
LJUBLJANA	37.07	304.1	7	13	0								
PRUHONICE	37.49	310.5	7	15	-2						8	17	
TRIESTE	37.58	303.3	7	18	0								
ULAN-BATOR	37.73	52.9	7	22	3								
APATITY	37.81	343.5	7	17	-2						15	24	
UPPSALA	38.63	326.7									8	54	
COLLMBERG	38.67	312.4	7	27	0						9	12	
SODANKYLA	39.45	340.2	7	32	-1								
STUTTGART	40.79	308.0	7	42	-2								
HEIDELBERG	41.19	309.0	7	47	0								
KIRUNA	41.58	338.5	7	50	-1								
STRASBOURG	41.78	307.7	7	53	1								
MONACO	42.11	300.4	7	56	1								
ISOLA	42.36	301.1	7	56	-1								
SKALSTUGAN	42.45	330.5	7	56	-2						9	35	
BESANCON	42.98	305.7	8	4	2								
DOURBES	43.89	309.8	8	11	1								
SETIF	44.77	289.9	8	17	0								
FOLINIERE	47.24	308.1	8	35	-1								
KHEYS	47.57	359.5	8	46	7								
TAMANRASSET	49.03	272.5	8	49	-1								
YAKUTSK	51.72	34.2	9	9	-2								
NORD	55.50	350.0	9	35	-4								
MATUSIRO	62.31	62.8	10	24	-2								
KIMBERLEY	70.21	212.9	11	16A	0								
COLLEGE	79.82	11.8	12	10	-1								

JUNE 2 7.H 47.M 13.S EPICENTRE -5.66 151.24 DEPTH= 0.KM

A=-0.87246 B= 0.47877 C=-0.09795 D= 0.4811 E= 0.8767
G= 0.0859 H=-0.0471 K=-0.9952 HT= 7.0

SE= 2.52

	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	
RABAUL	1.72	32.5	0	35	4								
PORT MORESBY	5.50	227.3	1	26	1	2	28	-2					
CHARTERS TS.	15.14	198.2	3	36	-1	6	38	12					
KOUMAC	19.48	140.7	4	45	14	8	15	10					
GUAM	20.06	341.3	4	41	4	8	29	11	5	16			
BRISBANE	21.66	176.3	4	54K	0						8	54	
NOUMEA	22.13	139.8	4	57	-1	9	2	4					
RIVERVIEW	28.03	180.2	5	52	-2	10	37	-1	6	0	6	49	PP
SUVA	29.30	117.4	6	5	-1	10	52	-7			16	52	SCS
CANBERRA	29.59	183.7	6	9	1	11	1	-2			11	21	*SS
ADELAIDE	31.38	200.0	6	25	1	11	31	-1			13	0	SCP
MELBOURNE	32.53	189.3	6	33	-1	11	35	-15			7	45	PP
MANILA	36.09	304.4	7	7	2	12	47	2					
FORT NELSON	37.28	184.7				13	5	5			16	3	SS
AFIAMALU	37.30	105.5	7	15	0	12	59	-4			8	57	PP
BAGUIO CITY	37.43	306.4	7	16	0	13	6	1					
KARAPIRO	38.99	148.9	7	29	0						9	38	PCP
TONGARIRO	39.96	150.2	7	39	2								
CHATEAU	39.96	150.1	7	37	0						8	30	
TAWU	40.70	314.2	7	46	2								
WELLINGTON	41.23	152.8				14	1	-1			9	53	

HWALIEN	41.25	316.7	7	28	-20					
MUNDARING	41.91	226.9	7	52	-1				13	57
TAIPEI	42.03	317.8	7	24	-30					
PERTH	42.18	227.2	8	5	9	14	17	1	13	39
GEBBIES PASS	42.32	156.8	8	3	6					
ROXBURGH	42.67	161.2	8	17	17	14	2	-22	17	47 SSS
TUKUBASAN	42.95	346.7	7	55	-7	14	38	10	9	47 PCP
LEMBANG	43.37	266.1	8	5K	0	14	37	3		
MATUSIRO	43.72	344.8	8	6	-2	14	49	10	13	45
DJAKARTA	44.17	267.0							8	56
HONG KONG	45.70	308.7	8	25	1	15	7	-1	10	15 PP
ZO-SE	46.49	323.7	8	31	1	15	20	1	10	22 PP
CANTON	46.77	309.1	8	34A	1	15	23	0		
NANKING	48.61	322.6	8	48A	1	15	48	-1	10	39 PP
WUHAN	50.27	317.9	9	1	1	16	7	-5	11	1 PP
VLADIVOSTOK	51.62	342.0	9	9	-1	16	30	-1	11	10 PP
Y.-SAKHLINSK	52.99	352.7	9	18	-2				12	20 PP
CHANGCHUN	54.54	337.1	9	31A	-1	17	11	1	12	48 PPP
PEKING	55.76	327.7	9	39A	-2	17	26	-1	11	41 PP
KUNMING	56.19	305.2	9	44A	0	17	36	4	11	52 PP
SIAN	56.32	317.9	9	44A	-1					
HONOLULU	56.43	59.9	9	45	0	17	37	1	22	7
KIPAPA	56.54	59.8	9	45	-1					
CHENGTU	57.82	311.6	9	54A	-1	17	53	-1	18	7 PS
HAWAII V.OB.	58.23	63.1	9	59	1	17	44	-15		
PETROPAVLOVK	58.79	5.2	10	3	1				13	38 PPP
LANCHOW	60.77	316.9	10	16A	0	18	33	1		
TERRE ADELIE	61.44	184.4	10	17	-3	18	41	0		
MAGADAN	65.00	359.8	10	40	-4				19	34 PS
SHILLONG	65.43	301.3	10	46A	0	19	47	17	12	5 PP
ULAN-BATOR	66.03	329.0	11	0	10	19	37	-1		
WILKES	66.80	196.6	11	0	5	19	43	-4	20	45 SCS
LHASA	67.52	305.2	11	0	0	19	55	-1	20	18 PS
CAPE HALLETT	67.61	173.8	10	59	-1	19	56	-1	24	9 SS
YAKUTSK	69.50	349.4	11	10	-2	20	13	-6		
CHATRA	69.83	301.1	11	14	0					
IRKUTSK	70.10	331.5	11	15A	-1				24	47 SS
MIRNY	72.58	200.9	11	30	-1	20	51	-4		
SCOTT BASE	72.61	176.6	11	30	-1					
DEHRA DUN	78.49	302.4	12	9	5					
POONA	79.91	289.9	12	10	-2					
BOMBAY	80.94	290.1	12	16	-1	22	43	17		
LAHORE	81.87	302.9	12	21	-1					
SEMIPALATESK	82.41	322.4	12	22	-3	22	37	-4	15	28 PP
COLLEGE	83.23	22.1	12	26	-3	22	40	-9		
FRUNSE	84.09	314.0	12	33	-1	22	53	-5	12	38 PCP
MAWSON	84.18	202.6	12	32	-2					
BYRD STATION	84.33	169.9	12	34	-1					
SOUTH POLE	84.38	180.0	12	34	-1				30	33 PKKP
WARSAK DAM	84.64	304.8	12	36	0					
DUZHANBE	87.63	308.9	12	54	3	23	15	-17		
TASHKENT	87.69	311.7	12	50	-1				23	12 SKKS
QUETTA	87.90	300.4	12	51A	-1	23	34	-1	16	19 PP
UKIAH	90.08	50.8	13	7	4					
BERKELEY	90.67	52.2	13	6	1	23	52	-8	25	5
CORVALLIS	90.70	45.4	13	6A	0					
SHASTA	90.90	49.4	13	7	0					
LICK	91.10	52.8	13	6	-1					
VICTORIA	91.11	41.5	13	9	2					
VINEYARD	91.25	53.4	13	10	2					
MINERAL	91.46	49.8	13	9A	0				13	25
FRESNO	92.51	53.5	13	14A	0					
RENO	92.75	50.7	13	15A	0					
PASADENA	93.62	56.2	13	20A	1	24	13	-13	13 39	17 3 PP
PENTICTON	93.68	41.0	13	19	0					
SVERDLOVSK	95.03	326.5	13	21	-5					
EUREKA	95.71	51.0	13	29	0	24	8	3	17	7 PP
KHEYS	96.07	350.5	13	27	-3				19	13 PPP
BOULDER CITY	96.46	54.5	13	34	2				17	25 PP
RUTH	96.46	51.3	13	34	2	24	29	20	26	15 PS
HUNGRY HORSE	97.33	42.1	13	36	0				17	16 PP
BUTTE	98.34	44.4	13	39	-1					
SALT LAKE C.	98.89	49.7	13	43	0					
TUCSON	99.69	58.4	13	49	2				17	50 PP
TUCSON TELE.	99.78	58.3	13	50	3				17	51 PP
SHIRAZ	100.35	299.0	13	47	-3	24	18	-10	24	45 PS
RESOLUTE	101.62	14.4	13	51	-4				24	45
GORIS	105.08	309.3							18	34 PP
RAPID CITY	105.08	46.0	14	11	777				18	54 PP

APATITY	105.59	339.3	18	31	777					
TIFLIS	106.01	311.7	18	24	777				18	42 PP
MOSCOW	107.84	327.0	18	34	777					
SODANKYLA	108.00	340.4	14	15	777					
KIRUNA	109.72	342.2	18	33	777					
PULKOVO	110.08	332.5	18	37	4				19	7 PP
NURMIJARVI	112.25	334.6	18	39	2	25	38	17		
SIMFEROPOL	113.03	316.6				25	24	0	19	31 PP
VERA CRUZ	113.19	71.6							29	11 PS
SKALSTUGAN	115.05	341.1	18	42	-1					
SCORESBY SD.	115.11	357.5							29	32 PS
FLORISSANT	115.52	49.6							19	42 PS
UPPSALA	115.54	336.1	18	43	-1					
ST. LOUIS 1	115.66	49.8							19	44 PS
LWOW	117.68	324.4	18	49	1				20	5 PP
BULAWAYO	118.08	243.7	18	50K	1					
KIMBERLEY	118.20	233.3	18	49	0					
WARSAW	118.20	327.8	18	49	0	25	55	12	19	57 PP
HELWAN	118.66	300.9	18	51	1				20	11 PP
GOTEBORG	119.18	336.3	18	41	-10					
BERGEN	119.63	341.3							29	55 PS
HERMANUS	119.71	225.0				25	52	3	29	57 SCSP
BROKEN HILL	119.84	249.9	18	57	5					
KRAKOW	119.90	326.0							29	20 PKKP
COPENHAGEN	120.32	334.4							20	16 PP
SOFIA	121.13	317.2	18	55	0				20	36 PP
LWIRO	121.98	263.8	18	57	1					
POTSDAM	122.14	331.1	18	57	0				20	34
BRATISLAVA	122.46	325.3	18	57	0				20	39 PP
ATHENS	122.62	311.9	18	48	-9					
VIENNA-H.	122.83	325.7	18	59	1				20	45 PP
COLLMBERG	122.84	330.2	18	59	1				20	50 PP
PRUHONICE	122.84	328.2	18	57A	-1				20	43 PP
PRAGUE	122.85	328.3	18	56	-2				20	37 PP
MORGANTOWN	122.95	45.8							19	54
OTTAWA	123.23	38.0	18	59K	0					
HALLE	123.23	330.8	18	59	0				20	22 PP
ROCHESTER	123.43	41.0	18	59	0					
PLAUEN	123.76	329.8	18	58	-2					
JENA	123.77	330.5	18	58	-2				38	13 SS
COLUMBIA	124.08	52.5	19	1	1					
BREBEUF	124.45	37.0	19	5K	4					
ABERDEEN	124.52	342.7							23	39 PPP
WITTEVEEN	124.75	334.6	19	3	1					
MUNSTER	124.94	333.4	19	12	10					
CHAPEL HILL	124.98	49.7							20	46
LJUBLJANA	125.09	324.3	19	2A	0					
SEVEN FALLS	125.17	34.0	19	4K	2					
GEORGETOWN	125.29	45.6	19	4	1					
WASHINGTON	125.29	45.6	19	3	0				20	42 PP
TRIESTE	125.76	324.3	19	4	0				20	56 PP
DE BILT	125.90	334.8							20	55 PP
HEIDELBERG	126.17	330.5	19	3	-1					
STUTTGART	126.30	329.6	19	3	-2				21	3 PP
DURHAM	126.36	340.8	19	6A	1	26	19	9		
PALISADES	126.52	41.9	19	1	-4				21	0
TUBINGEN	126.56	329.5	19	5	0					
FORDHAM	126.62	42.0	18	56	-9					
RAVENSBURG	126.76	328.5	19	5	0					
EBINGEN	126.84	329.2	19	5	-1					
STRASBOURG	127.18	330.3	19	7	1				21	4 PP
UCCLE	127.21	334.2	19	6	0				21	9 PP
WESTON	127.51	39.2	19	8K	1					
DOURBES	127.61	333.5	19	8	1	26	8	-5		
MESSINA	128.42	315.4	19	8	-1	26	10	-5	21	13 PP
KEW	128.59	337.6	19	9	0				22	29 PKS
ROME	128.60	321.0	19	9	0				22	31
PAVIA	128.64	326.2							21	19 PP
BESANCON	128.97	330.0	19	10	0					
RATHFARNHAM	129.07	342.8							25	27
PARIS	129.49	333.6	19	16	5				21	22 PP
BALBOA HTS.	129.53	83.1	19	13	2					
ISOLA	130.45	326.4	19	12	-1				21	39 PP
HUANCAYO	130.46	111.0	19	17K	4				22	38 PP
MONACO	130.52	325.7	19	13	0					
JERSEY	131.11	337.0							21	34 PP
CLERMONT-FD.	131.41	330.5	19	16	2				22	48 PKS
CHINCHINA	133.34	88.5	19	20	2				22	50 SKP

BAGNERES	134.84	330.0	19	21	0				23 7	PKS
BOGOTA	134.86	89.1	19	28	7				22 56	SKP
FUQUENE	135.25	87.9	19	21	-1				21 58	
LA PAZ	135.27	120.2	19	25	3				22 20	PP
SETIF	136.36	318.8	19	23	-1				22 4	PP
ALGIERS UNI.	137.52	321.2	19	25	-1				22 58	PKS
TOLEDO	139.31	330.4	19	26	-3				22 57	PP
ALMERIA	140.74	325.9	19	29	-2				22 35	PP
SAN JUAN	141.43	67.6	19	28	-5				22 36	PP
MALAGA	141.88	327.5	19	36K	3	27 46	64		22 42	PP
CARACAS	141.92	80.2	20	3A	29	27 45	63			
TAMANRASSET	142.81	300.7	19	32	-3				22 46	PP
ST. KITTS	144.81	67.9	19	38	-1					
ANTIGUA	145.69	67.8	19	41	1					
DOMINICA	146.55	70.8	19	46	4					
GRENADA	146.83	76.7	19	46	4					
FORT FRANCE	146.91	71.7	19	41	-1					
ST. VINCENT	147.10	74.5	19	45	3					
MBOUR	165.52	307.6	20	11A	5				24 53	PP

JUNE 2 8.H 36.M 9.S EPICENTRE -40.10 -73.57 DEPTH= 0.KM

A= 0.21693 B=-0.73574 C=-0.64158 D=-0.9592 E=-0.2828
G=-0.1814 H= 0.6154 K=-0.7671 HT= -1.7

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
SANTA LUCIA	7.05	20.4	1	42	-5	3	16	7				
PORT STANLEY	15.90	142.1	3	51	4	6	52	8				
LA PAZ	23.99	12.9	5	20	3	9	38	6				
HUANCAYO	27.98	356.3	5	56	1						12	3
BYRD STATION	43.55	190.5	8	8	1							
BOGOTA	44.50	359.3	8	16	1							
CHINCHINA	44.89	357.1	8	18A	0	14	58	1				
FUQUENE	45.34	359.8	8	20K	-2							
BALBOA HTS.	49.12	352.2	8	53	1							
SOUTH POLE	50.09	180.0	8	58	-1						9	55
CARACAS	50.72	8.5	9	6A	2	16	9	-10				
GRENADA	53.04	14.6	9	28	7							
SCOTT BASE	56.87	192.7	9	48A	-1							
SAN JUAN	58.59	8.3	9	57	-4						10	13
CAPE HALLETT	59.52	198.6	10	6	-2						10	16 PCP
MAWSON	67.70	163.4	11	1	0							
TERRE ADELIE	70.10	194.0	11	15	-1							
MIRNY	73.18	174.4	11	33	-2							
COLUMBIA	74.05	353.6	11	37	-3							
MBOUR	75.47	56.7	11	47	-1						11	55 PCP
CHAPEL HILL	75.81	355.4	11	48	-2							
KIMBERLEY	77.93	117.3	11	59K	-3							
FAYETTEVILLE	78.16	343.1	12	1	-2							
WASHINGTON	78.69	357.2	12	5	-1							
GEORGETOWN	78.69	357.2	12	10	4							
MORGANTOWN	79.56	355.0	12	10A	-1							
TUCSON	79.83	328.6	12	13	1							
ST. LOUIS 1	79.83	346.8	12	10K	-2							
TUCSON TELE.	79.86	328.7	12	12	0						15	12 PP
FORDHAM	80.57	359.8	12	14	-2							
LAWRENCE	81.15	343.1	12	17	-2							
CLEVELAND	81.52	354.0	12	21K	0							
WESTON	82.12	1.7	12	24	0							
ROCHESTER	82.88	357.4	12	28	0							
PASADENA	84.58	324.2	12	38	1							
BOULDER CITY	84.70	327.5	12	37	0							
OTTAWA	85.14	358.5	12	38K	-1							
BREBEUF	85.22	360.0	12	42	2							
BULAWAYO	86.13	113.0									12	44 PCP
SEVEN FALLS	86.87	1.9	12	48	0							
FRESNO	87.50	324.5	12	51	0							
SALT LAKE C.	87.71	331.9	12	52	0							
EUREKA	88.16	328.5	12	55	1							
VINEYARD	88.19	323.5	12	56K	2							
LICK	88.79	323.6	12	58K	1							
BRANNER	89.11	323.3	13	1A	2							
BERKELEY	89.51	323.5	13	1K	0							

SAN FRANCSCO	89.52	323.3	13	2	1						
BROKEN HILL	89.77	108.7	13	3	1						
RENO	89.80	326.0	13	4A	2						
MINERAL	91.24	325.4	13	8A	-1						
BOZEMAN	91.75	334.7	13	11	0						
SHASTA	91.88	325.1	13	12	0						
BUTTE	92.57	334.0	13	15	0						
HUNGRY HORSE	95.09	334.2	13	26	0						
TAMANRASSET	96.49	65.8	13	32	-1						
ALGIERS UNI.	103.88	53.6				25	43	57			
DURHAM	112.67	36.7	14	36K	777						
COLLEGE	119.42	331.8	18	51	-1						
SKALSTUGAN	123.30	32.3	18	58	-1						
NURMIJARVI	127.73	38.3	19	8	0						
KIRUNA	127.87	28.7	19	7	-1						
SODANKYLA	130.10	29.9	19	10	-2						
SHIRAZ	135.16	86.1	19	23	1					22	3 PP
POONA	144.68	117.9	19	38	-1						
SVERDLOVSK	146.09	44.9								22	42
MAGADAN	146.24	320.1	19	42	0						
QUETTA	146.47	94.7	19	44	2						
MATUSIRO	154.88	272.1	20	4	9						

JUNE 2 12.H 42.M 38.S EPICENTRE 33.05 48.78 DEPTH= 0.KM

A= 0.55343 B= 0.63180 C= 0.54272 D= 0.7522 E=-0.6589
G= 0.3576 H= 0.4082 K=-0.8399 HT= 0.8

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	
TEHERAN	3.45	38.0	0	59	3	1	52	14					
SHIRAZ	4.66	135.6	1	13K	0	2	10	1			2	48	SG
TIFLIS	9.22	341.1	2	22	5	4	12	9					
MAKHACH-KALA	9.96	354.5	2	32	5								
KSARA	10.81	277.6	2	45	6	4	52	10			5	6	SS
JERUSALEM	11.53	267.4	2	48	-1	5	13	13					
HELWAN	15.23	262.7	3	39K	1						8	30	
QUETTA	15.74	95.6	3	47	2	6	47	7			4	0	PP
SIMFEROPOL	16.44	320.6	3	57A	3								
WARSAK DAM	19.00	80.9	4	25	-1								
NAMANGAN	19.88	60.0	4	35	-1								
ANDIJAN	20.33	61.0	4	35	-5								
BUCHAREST	20.95	309.4	4	46	-1						25	22	
ATHENS	20.96	290.6	4	47A	0								
LAHORE	21.63	87.0	4	53	-1								
SOFIA	22.21	303.1	5	1	1	9	14	14			5	16	PP
FRUNSE	22.52	56.8	5	6	3								
MOSCOW	23.98	344.4	5	19	2	9	37	5					
ALMATA	24.28	57.0	5	22	2								
LWOW	24.83	319.8	5	27	2						9	54	
DEHRA DUN	25.02	88.3	5	30	3						14	8	
SVERDLOVSK	25.14	15.4	5	28	0								
SKALNATE PL.	26.65	315.7	5	42	0						6	11	PP
POONA	26.71	116.6	5	43	0								
KRAKOW	27.24	317.2	5	47	-1						6	49	PPP
MESSINA	27.41	290.3	5	50	1	10	42	13			12	9	SS
WARSAW	27.74	322.0	5	52	0								
BRATISLAVA	28.16	311.8	5	55K	-1	10	38	-3			7	8	PP
RACIBORZ	28.25	316.2	5	57	0								
LJUBLJANA	29.20	306.5	6	5	0								
PULKOVO	29.40	340.9	6	6	-1								
TRIESTE	29.63	305.5	6	7	-2								
PRUHONICE	30.37	314.1	6	15	-1						9	15	PCP
HELSINKI	31.33	337.2	6	24	0								
NURMIJARVI	31.69	337.4	6	26	-1								
COLLMBERG	31.77	315.8	6	28	0						8	42	
STUTTGART	33.31	310.0	6	39	-2						8	12	PPP
CHATRA	33.70	90.3	6	44A	-1								
UPPSALA	33.76	332.0	6	44A	-1								
MONACO	33.81	300.6	6	48	2								
ISOLA	34.12	301.4	6	47	-1						13	12	PCS
BASLE	34.17	307.4	6	24	-25						9	53	
STRASBOURG	34.24	309.2	6	47	-3								
GOTEBORG	35.02	325.9	6	57	1								
MUNSTER	35.16	315.0	6	58	1								

BESANCON	35.20	306.6	6	55	-3						
SETIF	35.62	287.5	7	OK	-1				8	19	PP
APATITY	35.69	350.0	7	1A	-1	12	34	-5	15	5	SS
WITTEVEEN	35.95	316.1	7	5	1						
DOURBES	36.57	311.1	7	9	0						
SODANKYLA	36.73	345.9	7	10	-1				8	34	PP
UCCLE	36.87	312.2	6	58	-14						
SKALSTUGAN	38.06	334.4	7	20	-2						
SHILLONG	38.10	89.8	7	21A	-1						
KIRUNA	38.50	343.2	7	24	-2						
BERGEN	39.32	327.4	7	33	1						
TAMANRASSET	39.34	266.3	7	33A	0						
RELIZANE	39.58	287.8	7	36	1				9	11	PP
FOLINIERE	39.68	308.3	7	35	0						
LWIRO	39.86	212.2	7	41	4						
MALAGA	43.32	290.4	8	5A	0						
RATHFARNHAM	43.71	314.6	8	9A	1				8	36	
ULAN-BATOR	45.57	53.1	8	24	1						
SERRA PILAR	45.76	297.4	8	20K	-5						
LISBON	46.61	294.2	8	28A	-4						
KHEYS	47.83	2.0	8	41	0	15	33	-5			
BROKEN HILL	51.06	205.6							9	7	PCP
TANANARIVE	51.68	181.5	9	13A	2				9	36	
NORD	53.98	350.5	9	26	-2				10	30	PCP
TIKSI	55.91	22.2	9	41K	-1						
BULAWAYO	56.29	202.9							9	44	PCP
YAKUTSK	57.25	33.6							10	15	
KIMBERLEY	65.54	203.1	10	46K	-1						
RESOLUTE	69.92	350.3	11	12	-3						
MATUSIRO	70.82	58.5	11	19	-1						
COLLEGE	81.54	7.1	12	20	-1						
RAPID CITY	99.10	339.9	13	44	0						
SOUTH POLE	122.87	180.0	18	57	-1						
BYRD STATION	132.68	182.8	19	17	0						

JUNE 2 18.H 59.M 8.S EPICENTRE -20.54-178.32 DEPTH= 531.KM

A=-0.93680 B=-0.02742 C=-0.34878 D=-0.0293 E= 0.9996
G= 0.3486 H= 0.0102 K=-0.9372 HT= 4.5

DEPTH OF FOCUS= 0.079R

SE= 1.95

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	3.88	307.2	1	22	2	2	31	7					
AFIAMALU	9.08	44.5	2	6A	-3	3	45	-7					
NOUMEA	14.29	260.2	3	5	3	5	40	11					
KOUMAC	16.30	266.9	2	23	-59	5	13	-53					
KARAPIRO	18.13	195.8	3	41	1				5	39	13	5	
TUAI	18.61	191.1				6	40	-6					
CHATEAU	19.33	194.5	3	51	0	7	0	2			6	38	
WELLINGTON	21.49	194.3	4	9	-2								
COBB RIVER	21.84	198.4	4	14	-1	7	41	2					
GEBBIES PASS	24.29	196.1	4	35	-2	8	29	10					
BRISBANE	27.23	249.9	4	52K	-11	9	1	-4					
RIVERVIEW	30.08	237.5	5	29A	2	9	46	-3			8	10	*SP
CANBERRA	32.24	235.9	5	46A	0				7	29			
CHARTERS TS.	33.18	264.5	5	54K	0	10	34	-3					
PORT MORESBY	35.07	283.2	6	8	-1	11	2	-3			14	20	
MELBOURNE	36.10	233.4	6	19A	1				8	3			
ADELAIDE	40.33	239.8	6	54	2						11	42	SCP
CAPE HALLETT	52.20	184.4	8	23K	0				9	50	9	57	PCP
SCOTT BASE	57.81	183.7	9	3A	1						10	51	PCP
MUNDARING	59.03	244.4	9	9	-1								
BYRD STATION	64.65	170.5	9	46	-1								
SOUTH POLE	69.59	180.0	10	17	0				12	10	10	35	PCP
MATUSIRO	70.06	323.9	10	17	-3								
LEMBANG	72.73	269.1	10	34K	-1	19	20	2					
ZO-SE	77.49	310.1	11	2	0								
BRANNER	78.19	42.5	11	6A	1								
SAN FRANCSCO	78.23	42.1	11	6K	0								
BERKELEY	78.41	42.1	11	7K	1								
LICK	78.48	42.8	11	8K	1								
UKIAH	78.59	40.6	11	8	1								

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PASADENA	78.93	47.1	11 10	1							
FRESNO	79.34	44.2	11 12K	1							
NANKING	79.73	309.8	11 14	1	20	39	7	13	17		
SHASTA	80.06	39.7	11 16	1							
MINERAL	80.32	40.4	11 17A	0							
RENO	80.95	41.9	11 20K	0							
ARGENTINE I.	81.05	157.1	11 20	0							
MAWSON	81.42	199.9	11 24	2				13	27		
CORVALLIS	81.95	36.3	11 26K	1							
WUHAN	82.06	306.6	11 25	0							
BOULDER CITY	82.23	47.1	11 27	1							
CHANGCHUN	82.24	322.5	11 25K	-1	21	1	4	13	26		
TUCSON	83.18	52.0	11 32	1							
TUCSON TELE.	83.30	52.0	11 33	1				13	39		
EUREKA	83.36	43.6	11 31	-1							
VICTORIA	84.39	33.1	11 37	0							
PEKING	85.70	315.5	11 42	-1	21	32	1			21	14 SKS
PENTICTON	86.86	34.1	11 48	-1							
COLLEGE	88.31	12.5	11 53	-3				13	55		
KUNMING	89.10	297.2	12 0	1							
HUNGRY HORSE	89.35	36.9	12 0	0						15	38 PP
CHENGTU	90.26	302.7	12 6	1	22	18	6			21	41 SKS
PORT STANLEY	91.30	147.5								14	56 PP
YAKUTSK	92.01	338.2	12 12	-1							
LANCHOW	92.55	307.5	12 15	0							
ULAN-BATOR	95.31	319.3								22	8
HUANCAYO	97.69	105.9								16	8
LHASA	100.41	297.7								22	36
RESOLUTE	107.92	16.1	17 24	777							
QUETTA	120.92	293.5	17 53	1							
KIMBERLEY	126.16	205.3	18 2K	0							
APATITY	128.91	344.9	18 5	-2							
SODANKYLA	130.57	347.6	18 8	-2						20	42 SKP
KIRUNA	131.26	350.7	18 10	-2						20	45 SKP
BULAWAYO	131.74	214.8	18 13	1							
SHIRAZ	133.38	291.8	18 16	0							
MOSCOW	135.79	331.6								21	0
BROKEN HILL	136.38	219.3	18 22	1							
SKALSTUGAN	136.39	353.1								20	59 SKP
NURMIJARVI	136.89	343.6	18 22	0							
HELSINKI	137.09	343.1	18 19	-3						21	4 SKP
TIFLIS	138.02	310.1	18 26	2							
UPPSALA	139.11	347.8	18 16	-10						21	9 SKP
GOTEBORG	142.12	351.0	18 31	-1						21	19 SKP
SIMFEROPOL	143.82	319.8	18 33	-2							
COPENHAGEN	143.99	349.6	18 33K	-2							
LWIRO	145.07	232.7	18 40K	3						20	51
DURHAM	145.74	3.4	18 38A	0							
LWOW	145.81	334.0	18 40	2							
RATHFARNHAM	146.73	8.7	18 42K	3							
POTSDAM	147.01	347.2	18 40	0							
KRAKOW	147.18	338.1	18 43	3						18	46 PKP2
WITTEVEEN	147.55	354.3	18 45	5							
RACIBORZ	147.74	339.9	18 45	4						18	50 PKP2
SKALNATE PL.	147.80	336.9	18 45	4						19	2 PKP2
JERUSALEM	148.00	297.4	18 46	5	20	58					
COLLMBERG	148.04	346.5	18 43	2	20	56		22	18		
HALLE	148.07	347.8	18 42	1							
MUNSTER	148.29	353.0	18 42	1							
JENA	148.68	347.9	18 49	7				19	33		
PRAGUE	148.84	344.0	18 48	6							
PRUHONICE	148.89	343.8	18 43	1						19	10 PKP2
PLAUEN	148.98	347.0	18 41	-1							
KEW	149.09	2.4	18 48	5							
BENSBERG	149.33	353.2	18 49	6						18	56 PKP2
UCCLE	149.73	356.6	18 49	5							
BRATISLAVA	149.76	339.3	18 44K	0	20	52		19	14	PKP2	
VIENNA-H.	149.92	340.2	18 46	2							
DOURBES	150.41	356.2	18 52	7							
HEIDELBERG	150.66	350.6	18 46	1							
STUTTGART	151.18	349.5	18 47A	1	21	6					
TUBINGEN	151.45	349.7	18 53	7							
STRASBOURG	151.60	351.5	18 54	7				19	5	PKP2	
HELWAN	151.67	295.1	18 55	8	21	8					
FOLINIERE	151.78	3.0	18 48	1				19	4	PKP2	
EBINGEN	151.80	349.6	18 58	11							
RAVENSBURG	152.07	348.5	18 47	0							
LJUBLJANA	152.46	340.4	18 48	0				18	55	PKP2	
TOLMEZZO	152.58	342.8	18 52	4							

TRIESTE	153.05	341.1	18	49	0			21	12	19 11 PKP2
BESANCON	153.13	353.5	18	57	8					19 11 PKP2
BAGNERES	157.50	2.9								19 30 PKP2
SETIF	164.06	349.0	19	2	1					
TAMANRASSET	175.79	302.6	19	9K	1			20	53	24 46 PP

JUNE 3 13.H 14.M 44.S EPICENTRE -17.97-179.39 DEPTH= 615.KM

A=-0.95178 B=-0.01016 C=-0.30662 D=-0.0107 E= 0.9999
G= 0.3066 H= 0.0033 K=-0.9518 HT= 5.1

DEPTH OF FOCUS= 0.092R

SE= 1.50

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SUVA	2.08	264.7	1	17	1	2	21	4					
AFIAMALU	8.36	62.2	1	30K	-34	3	40	-2					
NOUMEA	13.98	249.7	3	1	3	5	24	3					
KOUMAC	15.63	257.9	3	16	2	5	51	1					
KARAPIRO	20.38	191.6	3	58	0						4	33	
CHATEAU	21.61	190.7	4	6	-3						6	41	*SP
WELLINGTON	23.77	191.0	4	26	-2						6	50	*SP
COBB RIVER	24.01	194.8	4	31	1								
KAIMATA	25.69	195.8	4	45	0								
GEBBIES PASS	26.52	193.0	4	50	-2						5	2	
BRISBANE	27.28	244.9	4	57K	-2	8	54	-4					
RIVERVIEW	30.71	233.3	5	29K	1	9	52	1			12	45	*SS
RABAUL	31.01	292.8	5	29	-2	9	50	-6			10	53	
CHARTERS TS.	32.51	260.7	5	43K	0	10	12	-6					
CANBERRA	32.93	232.1	5	48K	1								
PORT MORESBY	33.56	280.2	5	52	0	10	34	0			7	46	
MELBOURNE	36.89	230.2	6	20K	0	11	22	-2					
ADELAIDE	40.81	237.0	6	52	1	12	19	-2					
HAWAII V.OB.	44.07	33.7	7	15	-2								
KIPGPA	44.39	29.0	7	18	-1								
GUAM	47.20	309.0	7	41	0						11	56	SCP
CAPE HALLETT	54.68	183.9	8	35A	0								
TERRE ADELIE	55.00	197.8	8	37	0								
BYRD STATION	67.34	170.6	9	57	0								
MATUSIRO	67.40	324.0	9	56	-1	17	57	-9			11	56	
LEMBANG	71.78	268.6	10	20K	-3						12	25	
HONG KONG	76.31	299.1	10	49	1						20	38	
VINEYARD	77.15	44.3	10	54A	1								
BERKELEY	77.21	43.0	10	53A	0								
LICK	77.31	43.7	10	54A	0						13	3	
UKIAH	77.32	41.5	10	54	0								
PASADENA	77.95	48.0	10	58A	1	20	0	-2	13	8	14	34	PP
FRESNO	78.22	45.0	10	59	0								
SHASTA	78.76	40.6	11	2A	1								
MINERAL	79.05	41.2	11	2A	-1				13	11			
RENO	79.73	42.7	11	7A	0								
CORVALLIS	80.50	37.0	11	11A	1								
EUREKA	82.21	44.3	11	20	1								
TUCSON	82.41	52.7	11	22	2				13	35			
TUCSON TELE.	82.54	52.7	11	22	1				13	32			
VICTORIA	82.81	33.7	11	21A	-1								
MAWSON	83.49	200.0	11	31	6				14	13			
ARGENTINE I.	83.80	157.5	11	27	0								
PENTICTON	85.31	34.6	11	34K	0								
SALT LAKE C.	85.60	44.7	11	36	0						15	4	PP
COLLEGE	86.04	12.9	11	36	-2				13	47			
TACUBAYA	87.03	68.6	11	43	0								
HUNGRY HORSE	87.92	37.4	11	46	-1						15	16	PP
BOZEMAN	88.41	40.7	11	49	0				14	1			
RAPID CITY	92.80	44.5	12	10	1						16	1	PP
QUETTA	118.96	295.0	17	41	1								
SODANKYLA	127.86	347.6	17	57	0						20	21	SKP
KIRUNA	128.58	350.5									20	23	SKP
SHIRAZ	131.46	293.9									20	34	
TEHERAN	131.91	302.1									20	36	PP
BULAWAYO	133.21	217.2									20	42	PP
SKALSTUGAN	133.73	352.8									20	41	SKP
NURMIJARVI	134.15	343.7	18	10	1						20	43	SKP
UPPSALA	136.40	347.6									20	49	SKP
BROKEN HILL	137.66	222.2	18	7	-8						20	57	PP

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GOTEBORG	139.44	350.6							20	28	SKP
DURHAM	143.23	2.1							19	38	
RATHFARNHAM	144.33	7.1	18	27A	-1				19	0	
COLLMBERG	145.32	346.3	18	31	2	20	55		18	35	PKP2
LWIRO	145.73	236.9	18	35	5						
JERUSALEM	145.88	300.4	18	33	3	20	53				
PRUHONICE	146.16	343.8	18	34	3				19	30	
STUTTGART	148.48	349.0	18	39	5						
STRASBOURG	148.92	350.8	18	40	5						
FOLINIERE	149.26	1.4	18	40	5						
HELWAN	149.62	298.7	18	42	6	21	7				
TRIESTE	150.31	341.2							21	25	SKP
GARCHY	150.70	356.6	18	48	11						
SERRA PILAR	155.60	17.0							19	10	PKP2
TAMANRASSET	173.36	316.9	19	1	2				20	33	PKP2

JUNE 3 13.H 23.M 43.S EPICENTRE -17.85-179.31 DEPTH= 608.KM

A=-0.95237 B=-0.01146 C=-0.30472 D=-0.0120 E= 0.9999
G= 0.3047 H= 0.0037 K=-0.9524 HT= 5.2

DEPTH OF FOCUS= 0.091R

SE= 1.37

	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	
SUVA	2.17	261.8	1	19	3	2	23	7					
AFIAMALU	8.24	62.6	2	OK	-2	3	37	-3					
NOUMEA	14.09	249.4	2	59	0	5	9	-14					
KOUMAC	15.73	257.5	3	17	2	6	0	9					
KARAPIRO	20.50	191.7	3	58	-1						10	22	PCS
CHATEAU	21.74	190.9	4	8	-2						5	34	
WELLINGTON	23.89	191.1	4	28	-1								
COBB RIVER	24.14	194.8	4	32	0	8	6	-3					
KAIMATA	25.82	195.9	4	46	0						4	58	
GEBBIES PASS	26.65	193.1	4	51	-3	8	43	-5			5	17	
BRISBANE	27.40	244.7	4	58K	-2	8	55	-5					
RIVERVIEW	30.84	233.2	5	30K	0	9	54	1	7	9	13	4	*SS
RABAUL	31.04	292.6	5	29	-2	9	51	-5			10	53	
CHARTERS TS.	32.60	260.5	5	44K	0	10	15	-5					
CANBERRA	33.06	232.0	5	49K	1	10	25	-2			7	28	PP
PORT MORESBY	33.61	280.0	5	53	0						9	17	
MELBOURNE	37.02	230.2	6	21K	0	11	23	-3					
ADELAIDE	40.94	236.9	6	53	1	12	21	-2			8	27	
HAWAII V.OB.	43.93	33.7	7	16	0	13	2	-3					
HONOLULU	44.11	29.0	7	16	-1								
KIPAPA	44.25	29.0	7	20	2						11	47	SCP
GUAM	47.18	308.9	7	39	-2	13	51	1	9	29	8	56	PCP
CAPE HALLETT	54.80	183.9	8	36	0	15	37	5	10	33	19	23	*SS
TERRE ADELIE	55.14	197.8	8	38	0								
MUNDARING	59.38	243.0	9	5	-2								
TUKUBASAN	66.07	324.9									9	48	PCP
MATUSIRO	67.35	323.9	9	56	-1						17	59	
BYRD STATION	67.44	170.6	9	58	0								
LEMBANG	71.86	268.5	10	23	-1	18	58	1					
Y.-SAKHLINSK	73.05	333.9	10	30	-1								
PETROPAVLOVK	73.11	346.3	10	29	-2								
UGLEGORSK	74.95	334.9	10	41	0								
ZO-SE	75.05	310.1	10	42	0	19	34	2					
HONG KONG	76.32	299.0	10	49	0	19	46	1			20	4	SP
VINEYARD	77.02	44.3	10	54	1								
BERKELEY	77.07	43.0	10	53A	0				13	0			
LICK	77.18	43.7	10	54A	1				13	2	13	59	
UKIAH	77.19	41.5	10	53	0								
NANKING	77.30	309.8	10	54A	0	19	58	2	13	3	14	10	*SP
CANTON	77.35	299.4	10	54	0	19	58	2					
PASADENA	77.82	48.0	10	57A	0	20	6	5	13	6	14	36	PP
FRESNO	78.09	45.0	10	58	0								
SHASTA	78.62	40.5	11	1K	0								
MINERAL	78.91	41.2	11	2A	-1								
CHANGCHUN	79.55	322.7	11	6A	0	20	23	4	13	15	14	21	*SP
RENO	79.60	42.6	11	7A	1								
WUHAN	79.71	306.7	11	7A	0	20	21	0	13	17			
CORVALLIS	80.37	36.9	11	10A	0								
MAGADAN	80.89	345.1	11	11	-2								

EUREKA	82.08	44.3	11	19	0			13	30	14 39 PP
TUCSON	82.29	52.7	11	21	1			13	31	
TUCSON TELE.	82.41	52.7	11	22	1			13	32	
VICTORIA	82.68	33.7	11	21	-1					
PEKING	83.14	315.7	11	24A	0	20	58 4	13	35	20 49 SKS
SITKA	83.15	22.5	11	24	0					
HAWSON	83.62	199.9	11	32	6			14	13	
ARGENTINE I.	83.88	157.4	11	28	0					
CHIHUAHUA	84.47	57.7	11	33	2					18 12
PENTICTON	85.18	34.5	11	34K	0					
SALT LAKE C.	85.46	44.7	11	36	1	21	5 -11			15 5 PP
SIAN	85.64	307.9	11	37A	1	21	26 8			
COLLEGE	85.91	12.9	11	35	-3	21	2 -18	13	47	
TACUBAYA	86.92	68.6	11	42	0					
KUNMING	87.04	297.4	11	45A	2	21	37 6	13	56	21 14 SKS
PAOTOW	87.55	314.0	11	46	1	21	42 7			
HUNGRY HORSE	87.78	37.3	11	46	0	21	18 -20			15 17 PP
CHENGTU	88.02	303.0	11	50	2	21	45 5	14	3	
BOZEMAN	88.27	40.7	11	49	0			14	1	15 26 PP
YAKUTSK	89.19	338.5	11	52	-1					
LANCHOW	90.18	307.9	11	59A	1					
RAPID CITY	92.66	44.5	12	9	0					20 18
LAWRENCE	96.55	51.3	12	26	0					
RESOLUTE	105.61	15.9	13	5	777					17 34
SEVEN FALLS	115.39	45.8	17	34	1					
QUETTA	118.98	295.0	17	41	1					19 9 PP
SVERDLOVSK	121.12	326.2	17	45	0					
APATITY	126.09	345.1	17	52A	-2					
SODANKYLA	127.77	347.6	17	56	-1					20 20 SKP
KIMBERLEY	128.15	207.1								21 6 PP
KIRUNA	128.47	350.6	17	58	-1					20 23 SKP
SHIRAZ	131.48	294.0	18	4A	0					
TEHERAN	131.91	302.2	18	6	1					20 31 PP
PULKOVO	132.98	340.0	18	6	-1					
BULAWAYO	133.35	217.2	18	8	0					20 43 PP
SKALSTUGAN	133.62	352.9	18	7	-1					20 41 SKP
NURMIJARVI	134.06	343.8	18	9	0					20 43 SKP
UPPSALA	136.30	347.7	18	1	-12					20 49 SKP
BROKEN HILL	137.80	222.2	18	7	-9					20 51 PP
GOTEBORG	139.34	350.7	18	9	-10					
WARSAW	142.15	339.6	18	21	-4					21 39 PP
LWOW	143.00	334.8	18	24	-2					
DURHAM	143.11	2.2	18	23K	-3					
POTSDAM	144.20	347.0	18	29	1					21 47 *SPKP
RATHFARNHAM	144.21	7.2	18	27A	-1					21 55 PP
KRAKOW	144.36	338.6	18	27	-1					
RACIBORZ	144.91	340.3	18	30	1			20	46	
SKALNATE PL.	144.97	337.5	18	28	-1			20	50	19 49 PKP2
COLLMBERG	145.22	346.4	18	29	-1			20	56	21 52 PP
HALLE	145.26	347.6	18	30	0			20	56	21 54 PP
MUNSTER	145.52	352.4	18	31	1			20	56	
LWIRO	145.85	237.0	18	35	4			20	54	
JENA	145.88	347.7	18	32	1			20	53	21 52 PP
JERUSALEM	145.89	300.6	18	32	1			20	53	
BUCHAREST	146.00	326.6	18	30	-1					21 55
PRAGUE	146.02	344.1	18	31	0					
PRUHONICE	146.07	343.9	18	31A	0			20	56	
PLAUEN	146.17	346.8	18	29	-2					
KEW	146.45	1.1	18	34A	3					
BENSBERG	146.57	352.6	18	32	0			21	0	
UCCLE	147.00	355.7	18	34	2					
VIENNA-H.	147.09	340.6	18	32	0			20	57	
DOURBES	147.68	355.3	18	38	5			21	2	
HEIDELBERG	147.87	350.1	18	34A	0					
STUTTGART	148.38	349.1	18	34A	0			20	58	
SOFIA	148.64	327.0	18	36	1					22 11 PP
TUBINGEN	148.65	349.3	18	35	0					
STRASBOURG	148.82	350.9	18	36	1			21	4	22 5 *SPKP
EBINGEN	149.01	349.2	18	35	0					
BRATISLAVA	149.08	338.4	18	37	2			21	6	19 2 PKP2
PARIS	149.09	357.7	18	37	2			21	7	
FOLINIERE	149.15	1.5	18	35	0					
RAVENSBURG	149.27	348.2	18	35	-1					
LJUBLJANA	149.63	340.8	18	36	0					19 43
HELWAN	149.63	298.9	18	37	1			21	5	
TRIESTE	150.23	341.4	18	39	2	24	42 -5			22 17 PP
BESANCON	150.36	352.7	18	44A	7					18 52 PKP2
NEUCHATEL	150.48	351.3	18	44	7					

GARCHY	150.59	356.7	18 39	2				
ATHENS	151.58	319.5	18 45A	6				
CLERMONT-FD.	152.09	356.4	18 41	1			22 43	
MONACO	153.58	349.0	18 42	0			19 5	
BAGNERES	154.86	0.9	18 44	0			19 11	PKP2
SERRA PILAR	155.47	17.1	18 38A	-6			19 9	PKP2
TOLEDO	157.67	9.6	18 48	1			23 4	
MALAGA	160.68	12.4	18 54K	3			19 37	PKP2
ALGIERS UNI.	161.04	354.2	18 52	1			23 26	PP
SETIF	161.26	348.1	18 52	1		21 15	23 22	PP
TAMANRASSET	173.33	318.0	19 1A	1		21 19	24 28	PP

JUNE 3 16.H 18.M 6.S EPICENTRE 41.64 141.97 DEPTH= 70.KM

A=-0.59043 B= 0.46177 C= 0.66194 D= 0.6161 E= 0.7877
G=-0.5214 H= 0.4078 K=-0.7496 HT= -2.3

DEPTH OF FOCUS= 0.006R

SE= 3.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
URAKAWA	0.79	49.5	0	16A	-1	0	30	0				
HAKODATE	0.92	281.0	0	17K	-1	0	30	-2				
MURORAN	1.00	312.9	0	17K	-2	0	34	1				
TOMAKOMAI	1.03	343.7	0	20K	1	0	39	5				
MORI	1.14	294.2	0	21K	0	0	37	0				
HATINOHE	1.16	196.9	0	17	-4	0	32	-5				
HIROO	1.19	57.1	0	20	-1	0	38	0				
AOMORI	1.22	228.0	0	18	-4	0	33	-5				
SAPPORO	1.50	342.3	0	25K	-1	0	50	5				
OBIHIRO	1.57	35.1	0	28	2	0	49	3				
SUTTSU	1.74	312.4	0	28	-1	0	53	3				
MIYAKO	1.99	180.0	0	28K	-4	0	48	-8				
MORIOKA	2.03	197.7	0	30	-3	0	53	-4				
ASAHIGAWA	2.16	7.7	0	33	-1	1	4	4				
KUSIRO	2.24	52.6	0	34K	-2	1	0	-2				
AKITA	2.39	217.2	0	37A	-1	1	6	0				
MIZUSAWA	2.59	194.7	0	39	-1	1	6	-5				
ABASHIRI	2.92	34.7	0	48	3	1	22	3				
NEMURO	3.16	56.5	0	46	-2	1	19	-6			3	4
SAKATA	3.19	211.6	0	56	7	1	38	12				
ISINOMAKI	3.24	189.1	0	47A	-3	1	20	-7				
SENDAI	3.46	194.1	0	51A	-2	1	27	-6				
YAMAGATA	3.61	200.7	0	54	-1	1	34	-2				
WAKKANAI	3.78	356.9	1	6	9							
HUKUSIMA	4.05	197.1	0	59	-2	1	47	-1				
NIIGATA	4.34	212.2	1	5	0	1	55	0				
AIKAWA	4.61	219.6	1	9	0	2	12	11				
SHIRAKAWA	4.71	197.3	1	11	1	2	5	1				
ONAHAMA	4.76	190.4	1	11	0	2	7	2			1	43
UTUNOMIYA	5.34	198.5	1	16	-3	2	17	-3			1	42
TAKADA	5.37	213.7	1	17	-2	2	19	-1				
MITO	5.38	193.0	1	17A	-2	2	35	14			2	17 PP
Y.-SAKHLINSK	5.41	5.4	1	20	0	2	23	2			1	36
KAKIOKA	5.58	195.1	1	16	-6	2	22	-3				
KURILSK	5.60	48.1	1	20	-2	2	24	-2				
TUKUBASAN	5.61	195.7	1	15A	-7							
MAEBASI	5.70	204.3	1	20	-4	2	31	3				
NAGANO	5.76	211.8	1	27	3	2	27	-3			5	4
WAZIMA	5.79	224.3	1	26	1							
KUMAGAYA	5.84	201.1	1	28	2	2	38	6				
MATUSIRO	5.87	211.1	1	24	-2	2	28	-5				
OIWAKE	5.93	207.8	1	30	3	2	37	3				
TYOSI	5.98	188.8	1	23	-4	2	35	0				
TITIBU	6.09	202.7	1	34	5	2	51	13				
HONGO	6.17	196.9	1	47	17							
TOYAMA	6.17	218.5	1	32	2						3	7
TOKYO C.M.O.	6.20	197.0	1	32	1	2	40	-1			3	38
MATUMOTO	6.22	211.4	1	30	-1							
YOKOHAMA	6.46	197.1	1	35	1	3	1	14				
KOHU	6.53	205.2	1	36	1	3	3	14				
HUNATU	6.62	203.3	1	40	4	2	59	8			1	55
MERA	6.92	194.8	1	40	-1	3	20	21				
IIDA	6.92	209.3	1	50	9	2	59	0				
MISIMA	6.93	201.0	1	47	6	2	48	-11			3	6

AJIRO	6.95	199.8			3	7	8			2	9
OSIMA	7.16	197.4	1	40	-4					3	57
HUKUI	7.16	220.6	1	45	1	3	3	-1		2	29
SHIZUOKA	7.23	204.0	1	51	6	3	16	10			
UGLEGORSK	7.44	0.5	1	48	0	3	15	4			
NAGOYA	7.56	212.9	1	52	3	3	32	18		4	10
VLADIVOSTOK	7.60	284.6	1	51	1	3	21	6			
OMAESAKI	7.62	204.0	1	59	9	3	38	22			
HUMAMATU	7.68	207.2								2	14
HIKONE	7.78	217.0	1	51	-1						
KAMEYAMA	8.04	214.3	2	1	5	3	30	4			
KYOTO	8.23	218.6	1	54	-5	3	40	9			
TOYOOKA	8.28	224.9	1	56	-3	3	36	4			
ABUYAMA	8.43	218.7	1	58A	-3						
NARA	8.46	216.8	2	3	1						
OSAKA	8.63	218.1	2	10	6	4	5	24			
KOBE	8.77	219.8	2	6	0	3	49	5			
OWASE	8.83	213.0	2	18	11	4	5	19			
SUMOTO	9.17	219.7	2	31	20	4	21	27		5	14
SIOMISAKI	9.54	213.0	2	40	24					4	32
TOKUSIMA	9.55	220.1	2	17	0						
TAKAMATU	9.61	223.1	2	18	1					4	18
HAMADA	10.28	232.3	2	32	5					3	3
KOTI	10.49	222.4	2	38	9	4	39	13			
MATUYAMA	10.65	226.0	2	30	-2	4	54	24			
OOITA	11.75	227.7	2	49	3					3	30
OKHA	11.93	2.8	2	48	-1					5	37
HUKUOKA	12.21	232.5	2	55	3	5	14	7			
CHANGCHUN	12.45	285.7	2	57	1						
KUMAMOTO	12.57	229.2								3	8
SEVERO-KUR.	13.30	42.5	3	4	-3						
PETROPAVLOVK	16.00	39.0	3	40	-2					4	13
MAGADAN	18.76	14.1	4	14	-1	7	42	3			
KLYUCHI	19.13	33.4	4	20	0						
ZO-SE	19.72	244.4	4	25	-1	7	51	-8			
NANKING	20.82	250.2	4	36	-1	8	18	-3			
YAKUTSK	21.70	344.3								4	41
PAOTOW	24.02	278.2	5	10	1	9	21	3			
WUHAN	24.67	252.1	5	16	1	9	29	0			
ULAN-BATOR	25.52	296.2	5	22	-1						
SIAN	26.97	265.0	5	34	-3						
IRKUTSK	27.51	305.7	5	41A	-1	10	17	1			
CANTON	30.24	241.2	6	7	1	10	58	-1			
HONG KONG	30.26	239.0	6	7	1	11	4	5		6	16
TIKSI	30.77	351.9	6	9	-1						
KUNMING	36.31	255.5	7	0	2	12	34	1			
TOCKLAI	41.26	264.2	7	48K	9						
LHASA	42.53	270.5	7	52	2	14	9	2			
SEMIPALATNSK	42.62	303.7	7	50	0	14	9	1			
SHILLONG	44.08	264.9	8	54A	52						
COLLEGE	45.01	34.6	8	10	0	14	45	2	8 26	18	6 SCS
CHITTAGONG	45.97	261.3	8	18	1	14	56	0		10	1 PP
RABAUL	46.56	165.9	8	20	-2				8 39	14	58
CHATRA	46.90	269.7	8	25A	0	15	11	1			
KHEYS	48.24	347.4	8	34	-1	15	29	1		10	2 PCP
FRUNSE	48.65	295.2	8	37	-1				9 3		
DEHRA DUN	51.87	279.1	9	9	6	16	21	2			
SVERDLOVSK	52.05	316.4	9	4	0	16	22	1			
SITKA	52.67	43.0	9	28	19						
TASHKENT	52.89	295.6	9	11	0				9 35		
AGRA	53.59	275.8	9	11A	-5						
LAHORE	53.98	282.5	9	18	-1						
DUZHANBE	54.49	292.8	9	23	1						
NORD	56.49	356.3	9	34	-3						
LEMBANG	57.57	221.6	9	40K	-4						
RESOLUTE	58.05	15.2	9	45	-3	17	38	-3		18	16
APATITY	58.69	334.8	9	50	-2	17	49	-1			
QUETTA	60.08	285.2	10	1	-1	18	11	3	10 27	12	24 PP
SODANKYLA	60.91	336.4	10	6	-1				10 28	10	49 PCP
POONA	61.70	270.2	10	13	0						
ASHKABAD	61.89	297.0	10	14	0						
KIRUNA	62.38	338.6	10	15	-2						
VICTORIA	62.97	48.1	10	20	-1						
MOSCOW	63.84	322.4	10	26	-1	18	54	-1	10 56		
PULKOVO	64.47	328.6	10	31	0	19	3	0	10 54		
CORVALLIS	65.24	51.7	10	37	1						
NURMIJARVI	66.10	331.3	10	40	-1	19	30	7		13	8 PP
HELSINKI	66.23	330.9	10	41	-1						

SCORESBY SD.	67.58	354.2				19	40	-1															
TEHERAN	67.74	298.5	10	50	-2	19	48	5															
SKALSTUGAN	67.80	338.2	10	52	0																		
SHASTA	68.04	54.7	10	55	1							11	13										
HUNGRY HORSE	68.15	44.2	10	55	1							11	13										
TIFLIS	68.36	307.0	10	56	0							11	20			13	29	PP					
UKIAH	68.46	56.4	11	6	10							11	17										
MINERAL	68.73	54.6	10	57K	-1							11	13										
GORIS	68.76	304.3	10	58	0											20	0						
UPPSALA	69.03	333.5	10	57	-3											11	22						
BERKELEY	69.82	57.0	11	5	0							11	19										
RENO	70.31	54.4	11	10	2																		
LICK	70.53	57.2	11	9K	0							11	27										
SHIRAZ	70.61	292.7	11	7	-2																		
BOZEMAN	71.43	45.0	11	15	1							11	34										
FRESNO	72.04	56.7	11	18	0							11	37										
BERGEN	72.31	339.0	11	18	-1																		
SIMFEROPOL	72.37	314.8				21	11	35															
GOTEBORG	72.56	334.5	11	18	-3																		
EUREKA	72.66	52.5	11	22	0							11	42										
WARSAW	73.45	326.6	11	26A	0							11	44										
SIDA	73.73	350.9	11	31	3											12	26						
LWOW	73.93	323.5														14	15	PP					
COPENHAGEN	74.02	333.0	11	30	1	20	57	2								14	17	PP					
SALT LAKE C.	74.22	49.3	11	20	-11																		
PASADENA	74.73	57.9	11	35	1							11	53										
KRAKOW	75.54	325.6	11	37	-1											11	39	PCP					
ADELAIDE	76.30	182.7	11	42	0																		
POTSDAM	76.44	330.6	11	43	0																		
RAPID CITY	76.58	42.3	11	45	1																		
CANBERRA	76.86	174.1	11	46	0							12	14										
COLLMBERG	77.33	330.0	11	47	-1							12	13			14	57	PP					
HALLE	77.56	330.6	11	50	0							12	25										
PRUHONICE	77.79	328.4	11	44A	-7	21	39	3															
JENA	78.16	330.5	11	55	2							12	14			14	54	PP					
BRATISLAVA	78.18	325.9	11	56	3							12	9										
PLAUEN	78.30	329.9	11	52	-2							12	16			12	57						
WITTEVEEN	78.30	334.2	11	55	1																		
VIENNA-H.	78.42	326.3	11	56	2																		
MUNSTER	78.70	333.2	11	56	0																		
KSARA	78.83	305.4	11	58	1											15	2	PP					
DURHAM	79.04	339.5	11	54K	-4																		
MELBOURNE	79.14	177.6	11	58	0																		
SOFIA	79.49	318.9	12	2	2											22	20						
BENSBERG	79.70	332.9	12	3	2							12	22										
HEIDELBERG	80.47	331.2	12	4	-1																		
ZAGREB	80.50	325.0	12	24A	19																		
TUCSON	80.58	55.1	12	22	16																		
TUCSON TELE.	80.58	55.0	12	7	1																		
JERUSALEM	80.62	304.3	12	6	0											14	15	PP					
UCCLE	80.78	334.3	12	7	0							12	28										
STUTTGART	80.79	330.5	12	6	-1							12	36			13	34						
LJUBLJANA	80.93	326.0	12	7	-1																		
TUBINGEN	81.06	330.5	12	10	2																		
TOLMEZZO	81.27	327.0	12	10	0	22	32	19								14	0						
DOURBES	81.30	333.8	12	9	-1											15	20	PP					
EBINGEN	81.39	330.3	12	10	0																		
RAVENSBURG	81.48	329.7	12	12	1																		
STRASBOURG	81.50	331.2	12	12K	1							12	35			12	56	*SP					
RATHFARNHAM	81.55	341.4	12	14A	3																		
TRIESTE	81.58	326.1	12	13	2							12	37										
KEW	81.63	337.3	12	13	2																		
BASLE	82.45	330.8	11	47	-29																		
PARIS	83.11	334.4	12	21	2							12	48										
BESANCON	83.26	331.5	12	19	-1																		
FOLINIERE	84.08	336.1	12	23	-1																		
GARCHY	84.25	333.3	12	27	2							12	53										
HELWAN	84.35	305.2	12	25	0							12	45										
LAWRENCE	84.36	41.2	12	25	0																		
KARAPIRO	84.91	154.0	12	28	0											16	57						
ROME	85.15	324.7	12	28	-1																		
ISOLA	85.48	329.3	12	32	1											12	35	PCP					
CLERMONT-FD.	85.54	332.5	12	33	2																		
MONACO	85.71	328.8	12	30	-2																		
CHATEAU	86.07	154.5														16	52						
FLORISSANT	86.83	38.3	12	39	2	23	0	-8				12	53										
ST. LOUIS 1	87.03	38.3	12	40	2	23	0	-10															
OTTAWA	87.03	25.6	12	39	1																		

FAYETTEVILLE	87.13	42.3	11	40A	-59									
BREBEUF	87.60	24.2	12	42	1									
PENNSYLVANIA	90.35	29.1				23	45	5	13	18	24	17	*PS	
PALISADES	91.54	26.3	13	9	9	23	51	0			23	31	SKS	
SETIF	92.93	326.2	13	7	1									
TOLEDO	93.19	334.5	13	8	1				13	34	24	6		
MALAGA	96.17	333.4	13	27K	6						17	18	PP	
TAMANRASSET	104.27	319.0	13	58	1						18	7	PP	
BYRD STATION	132.15	166.5	19	6	0									
HUANCAYO	136.10	58.8	19	43	30									

JUNE 4 2.H 27.M 3.S EPICENTRE 19.64-104.67 DEPTH= 0.KM

A=-0.23869 B=-0.91178 C= 0.33418 D=-0.9674 E= 0.2533
G=-0.0846 H=-0.3233 K=-0.9425 HT= 4.8

SE= 2.33

	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
MANZANILLO	0.67	151.5	0	12	-4							
GUADALAJARA	1.63	50.7	0	28A	-2							
LEON	3.17	61.9	0	51	-1							
MAZATLAN	3.87	335.7	0	49	-13							
TACUBAYA	5.16	91.8	1	26	6	2	38	17				
PUEBLA	6.14	94.6									1	54
OAXACA	7.94	107.9	2	3	4	3	47	16			3	57
VERA CRUZ	8.07	91.7	2	3A	2						4	1
CHIHUAHUA	9.04	352.1	2	7	-7						4	17
COMITAN	12.40	103.8	3	1	1						6	9
TUCSON	13.72	337.5	3	22	4	6	20	28				
TUCSON TELE.	13.76	338.0	3	22	4	6	20	27				
MERIDA	14.18	82.2	3	24A	0						7	6
SAN SALVADOR	15.96	109.5	3	51	4						8	16
SANTIAGO MA.	16.69	109.0	2	58	-58						8	57
BOULDER CITY	18.57	333.3	4	22	2						10	0
PASADENA	18.78	323.0	4	24K	2							
FAYETTEVILLE	18.80	27.2	3	24A	-59	6	51	-59				
LAWRENCE	20.91	20.9	4	47	1							
FRESNO	21.60	325.3	4	53	0							
SALT LAKE C.	21.93	345.3	5	0	4							
EUREKA	22.04	336.2	4	59	2						11	55
VINEYARD	22.46	322.8	5	3K	1							
ST. LOUIS 1	22.69	30.4	5	5A	1	9	15	7				
FLORISSANT	22.75	29.9	5	6A	1	9	22	13				
LICK	23.03	323.5	5	8K	1							
BRANNER	23.39	322.9	5	12K	1							
RENO	23.73	329.9	5	17K	3						5	42
BERKELEY	23.75	323.6	5	15K	1	9	35	8				
SAN FRANCSCO	23.79	323.1	5	16	1							
RAPID CITY	24.40	2.6	5	22	1						13	2
UKIAH	25.17	324.4	5	28	0							
MINERAL	25.23	328.5	5	29K	0						6	6
COLUMBIA	25.40	50.9	5	30A	0	10	23	28				
SHASTA	25.89	328.0	5	33	-2							
BOZEMAN	26.48	349.9	5	41	1				6	0		
BALBOA HTS.	26.51	110.1	5	41	1							
BUTTE	27.10	347.9	5	46	0	10	25	2			14	45
CHAPEL HILL	27.75	48.9	5	53	1						7	15
MORGANTOWN	29.13	41.6	6	4A	0							
CORVALLIS	29.31	332.2	6	6A	0							
CLEVELAND	29.34	37.1	6	5	-1	11	0	1				
HUNGRY HORSE	29.62	347.3	6	9	0						15	42
WASHINGTON	30.60	45.3	6	17	0						9	5 PCP
PENNSYLVANIA	31.11	41.5	6	21	-1	11	24	-3			7	15 PP
CHINCHINA	31.83	113.5	6	30K	2							
VICTORIA	32.54	336.6	6	33	-1							
ROCHESTER	32.90	38.6	6	33	-5							
FUQUENE	33.24	111.0	6	41A	1							
BOGOTA	33.34	112.6	6	44	3	11	18	-44			7	16 PP
PALISADES	33.76	44.1	6	44A	-1	12	8	-1			7	48 PP
OTTAWA	35.09	36.4	6	56	0							
WESTON	36.12	43.7	7	5A	0							
BREBEUF	36.35	37.7	7	6	-1						8	44 PP
SAN JUAN	36.42	85.4	7	7	-1							
CARACAS	37.48	98.4	7	19A	2						10	57

SEVEN FALLS	38.85	37.3	7	29	1					
ST. KITTS	39.77	86.3	7	34	-2					
ANTIGUA	40.64	86.3	7	42	-1					
GRENADA	41.90	93.8	7	53	0					
ST. VINCENT	42.04	92.0	7	53	-1					
TRINIDAD	42.61	95.6	7	57	-2					
HUANCAYO	42.74	135.1	8	1A	1				8	43 PP
LA PAZ	50.79	132.5	9	3	-1				12	22
COLLEGE	53.43	338.7	9	22	-1	16	54	-1	23	9
RESOLUTE	55.31	3.1	9	34	-3	17	17	-4	10	35
THULE	59.73	9.3	10	6	-2					
NORD	70.40	9.0	11	15A	-2					
PETROPAVLOVK	78.46	322.2	12	4	0					
RATHFARNHAM	79.35	37.2	12	8A	-1					
KHEYS	79.51	2.8	12	10	0					
DURHAM	81.45	34.8	12	20A	0				12	56 PCP
SERRA PILAR	81.74	49.4	12	21K	0				12	25 PCP
PORT STANLEY	81.95	152.7	12	21	-2					
TIKSI	81.99	345.1	12	22	-1					
BERGEN	82.51	28.1	12	25	0					
MBOUR	83.16	77.2	12	28	-1					
KEW	83.42	37.6	12	30A	0				22	52
SKALSTUGAN	83.81	23.6	12	32	0					
KIRUNA	84.06	18.2	12	31	-2					
FOLINIERE	84.39	40.1	12	35	0					
TOLEDO	85.43	49.4	12	39A	-1	23	13	2		
SODANKYLA	86.13	16.9	12	42	-2				16	2 PP
PARIS	86.16	39.3	12	43	-1					
MALAGA	86.33	52.4	12	47A	2					
UCCLE	86.37	37.0							23	23
GRANADA	86.76	51.7	12	58A	11					
GOTEBORG	86.85	28.7	12	46	-1					
BAGNERES	87.09	45.2	12	46	-2					
GARCHY	87.18	40.5	12	55	6					
MUNSTER	87.63	35.0	12	50	-1					
BENSBERG	87.87	36.0	12	51	-1					
UPPSALA	88.04	25.3	12	50	-3					
STUTTGART	90.15	37.2	13	2	-1					
NURMIJARVI	90.30	22.5	13	2	-2				16	36 PP
HELSINKI	90.64	22.6	13	4	-1					
COLLMBERG	90.84	33.8	13	6	0					
PRUHONICE	92.40	34.3	13	12	-1				13	40
TRIESTE	94.39	38.2	13	23	1	23	57	-36	13	50
LJUBLJANA	94.61	37.6	13	23A	0					
MATUSIRO	98.51	313.5	13	10	-31					
BYRD STATION	99.80	182.6	13	45	-2					
TAMANRASSET	99.88	61.6	13	48	1					
CAPE HALLETT	107.07	198.6	13	27	777					
SHIRAZ	126.29	24.7	19	3A	-1					
QUETTA	129.81	9.5	19	11A	0				22	34
LWIRO	131.37	75.1	19	16K	2				22	41
MAWSON	131.41	173.7	19	11	-3					
BROKEN HILL	135.01	91.0	19	8	-13					
BULAWAYO	136.18	98.9	19	10	-13					
LEMBANG	146.17	287.7	19	42K	1				20	14
TANANARIVE	153.78	93.1	19	43	-9				20	17

JUNE 4 8.H 9.M 51.S EPICENTRE 40.55 -29.35 DEPTH= 0.KM

A= 0.66419 B=-0.37348 C= 0.64759 D=-0.4901 E=-0.8716
G= 0.5645 H=-0.3174 K=-0.7620 HT= -1.9

SE= 3.44

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ANGRA DO HO.	2.51	138.5	0	42	0	1	15	1				
PONTA DELGDA	4.01	133.5	1	2K	-2	1	48	-4			1	25
LISBON	15.67	90.2	3	40A	-3							
SERRA PILAR	15.72	81.1	3	33K	-11							
TOLEDO	19.32	83.7	4	27	-2	8	25	23			5	58
MALAGA	19.84	93.1	4	37K	2	8	27	14			4	54 PP
RATHFARNHAM	20.16	43.0	4	45A	7							
GRANADA	20.31	91.2									5	58
ALMERIA	21.27	91.3	4	33K	-17	8	50	8			5	9 PP
FOLINIERE	22.02	58.4	4	58	1							

BAGNERES	22.08	73.7	4	58	0				5	23
TORTOSA	22.59	79.5	5	3	0	9	22	15		
KEW	22.78	51.6	5	5A	0				9	12
DURHAM	23.30	43.1	5	15	5	9	23	4		
PARIS	23.96	59.2	5	17	1					
CLERMONT-FD.	24.15	66.7	5	15A	-3					
UCCLE	25.47	54.9	5	30	-1	9	45	-11		
ALGIERS UNI.	25.50	88.0	5	33	2					
DOURBES	25.51	56.6	5	33	2					
BESANCON	26.16	63.3	5	37	0					
NEUCHATEL	26.82	63.9	5	45	2					
BASLE	27.25	62.8	5	29	-18					
BENSBERG	27.26	55.2	5	48	1				7	20
STRASBOURG	27.42	60.5	5	47	-2	10	29	1	6	16
HEIDELBERG	28.09	58.8	5	55	0					
EBINGEN	28.20	61.4	5	55	-1					
STUTTGART	28.43	60.2	5	56	-2					
RAVENSBURG	28.63	62.3	5	58	-2					
JENA	30.03	55.9	6	12	0				7	20
HALLE	30.31	54.8	6	15	0				7	18 PP
PLAUEN	30.37	56.8	6	5	-10					
COLLMBERG	30.95	55.3	6	20	0	11	30	5	7	29 PP
POTSDAM	31.08	53.2	6	22	0					
TRIESTE	31.59	66.2	6	37	11					
PRUHONICE	31.89	57.9	6	29	0					
LJUBLJANA	32.08	65.3	6	28	-2					
PALISADES	33.47	285.7				11	48	-12	14	36
TAMANRASSET	34.28	110.5	6	49	-1				8	13
KRAKOW	35.36	57.6	6	53	-6					
NURMIJARVI	38.34	40.2	7	25	1					
THULE	39.71	346.6	7	35	0					
NORD	41.42	2.8	7	43	-6					
RESOLUTE	44.92	340.0	8	16	-2					
MOSCOW	45.37	47.0	7	21	-60					
FAYETTEVILLE	50.05	287.0	7	57	-61					
RAPID CITY	53.01	299.9	9	22	2				10	30 PCP
TIFLIS	54.19	62.6	9	29	0					
SVERDLOVSK	57.24	40.8	9	50	-1					
HUNGRY HORSE	58.02	308.5	9	55	-2					
SALT LAKE C.	60.21	299.8	10	9	-3					
EUREKA	63.59	300.4	10	35	1					
TUCSON TELE.	63.80	291.1	10	37	1					
TUCSON	63.92	291.1	10	42	5					
BOULDER CITY	64.69	296.6	10	42	0					
SHIRAZ	65.64	71.1	10	47	-1				14	59 PKS
LWIRO	67.88	113.6	11	3	1					
NAMANGAN	71.77	51.5							11	27
QUETTA	75.43	62.8	11	47	0					
SOUTH POLE	130.36	180.0	19	15	3					
CAPE HALLETT	146.73	190.8	19	44	2					

JUNE 4 11.H 5.M 15.S EPICENTRE 39.97 -29.65 DEPTH= 0.KM

A= 0.66792 B=-0.38019 C= 0.63979 D=-0.4947 E=-0.8691
G= 0.5560 H=-0.3165 K=-0.7686 HT= -1.7

SE= 4.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ANGRA DO HO.	2.29	124.2	0	36	-3	1	6	-3				
SERRA PILAR	16.04	79.0	3	47A	-1	6	54	7	4	3 PP		
TOLEDO	19.62	82.0	4	32	0	8	26	18				
MALAGA	20.05	91.2	4	43K	6				4	59 PP		
GRANADA	20.53	89.4	4	46K	4	8	24	-4	5	27 PP		
RATHFARNHAM	20.74	42.2	4	50	6							
ALMERIA	21.49	89.6	4	47	-5	8	59	13	5	13 PP		
BAGNERES	22.47	72.3	5	0	-2							
FOLINIERE	22.52	57.3	4	56	-6							
TORTOSA	22.93	78.1	5	10	4							
KEW	23.32	50.7	5	16	6				9	16		
DURHAM	23.88	42.3	5	21	5	9	31	1				
RELIZANE	24.15	90.4	5	13	-5				5	54 PP		
PARIS	24.46	58.1	5	23	2	9	46	7				
CLERMONT-FD.	24.60	65.5	5	25	2	9	53	11				
GARCHY	24.65	61.9	5	22	-1	9	55	12				

ALGIERS UNI.	25.76	86.6	5 29	-5	10 5	4	6 1		
UCCLE	26.00	54.0	5 38	2	10 17	12			
DOURBES	26.03	55.7	5 36	0					
BESANCON	26.63	62.3	5 40	-2					
DE BILT	26.78	51.4	5 51	8	10 15	-3			
BENSBERG	27.79	54.4	5 57	5					
STRASBOURG	27.91	59.6	5 52	-1	10 39	3	6 30		
STUTTGART	28.92	59.3	6 2	-1					
COLLMBERG	31.47	54.6	6 28	3			8 21		
ROME	31.66	72.6					14 1		
GOTEBORG	31.98	42.3	6 27	-3					
PRAGUE	32.33	57.0					11 45		
PRUHONICE	32.40	57.1	6 29	-4					
SKALSTUGAN	34.11	32.2	6 49	1					
TAMANRASSET	34.30	109.4	6 51	1			8 20	PPP	
UPPSALA	35.36	39.9	6 53	-6					
KRAKOW	35.87	56.9			12 41	0	8 25	PP	
WARSAW	36.48	53.1			12 50	-1			
MORGANTOWN	38.23	286.2	7 28	5					
KIRUNA	38.82	27.7	7 30	2					
THULE	40.23	346.8	7 31	-9					
SODANKYLA	40.97	29.4	7 47	1					
NORD	42.02	2.8	7 45	-9					
APATITY	43.58	29.8	8 7	0					
RESOLUTE	45.39	340.2	8 17	-5					
ST. LOUIS 1	46.09	288.8	8 32	5	15 24	11			
LAWRENCE	49.59	291.2	8 51	-4					
FAYETTEVILLE	50.00	287.3	7 53	-65					
KHEYS	50.49	12.3	9 2	0					
RAPID CITY	53.10	300.2	9 23	2					
TIFLIS	54.66	62.1	9 32	-1					
BOZEMAN	57.54	304.7	9 52	-1					
SVERDLOVSK	57.83	40.5	9 54	-1					
HUNGRY HORSE	58.21	308.6	9 49	-9					
BUTTE	58.34	305.7	9 57	-2					
SALT LAKE C.	60.30	300.0	10 13	0					
EUREKA	63.68	300.5	10 35	0					
TUCSON TELE.	63.80	291.2	10 41	5					
TUCSON	63.92	291.2	10 41	4					
COLLEGE	64.94	335.4	10 35	-8					
SHIRAZ	66.04	70.7	10 51	1					
LA PAZ	66.64	220.6	10 47	-7					
MINERAL	66.88	303.9	10 59A	3					
HUANCAYO	66.89	229.6	11 5A	9					
QUETTA	75.90	62.5	11 49	-1					
SOUTH POLE	129.78	180.0	19 14	3					
CAPE HALLETT	146.11	190.7	19 51	10					

JUNE 6 1.H 17.M 49.S EPICENTRE 40.86-124.60 DEPTH= 0.KM

A=-0.43074 B=-0.62436 C= 0.65164 D=-0.8231 E= 0.5679
G=-0.3700 H=-0.5364 K=-0.7585 HT= -2.0

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	
ARCATA	0.40	86.4	0 11	-1					
SHASTA	1.69	94.6	0 31	0					
UKIAH	2.02	147.9	0 33	-2	0 52	-10			
MINERAL	2.34	101.5	0 39A	-1	1 6	-4			
BERKELEY	3.49	147.9	0 54A	-2	1 34	-5			
SAN FRANCSCO	3.50	150.9	0 53K	-4	1 36	-3			
CORVALLIS	3.84	14.0	0 59K	-2					
RENO	3.90	108.2	1 2A	0					
BRANNER	3.91	150.5	1 0	-2			1 41		
LICK	4.20	145.8	1 5A	-1	1 52	-5			
VINEYARD	4.81	147.4	1 13A	-2	2 13	1			
FRESNO	5.54	135.9	1 24	-1			1 46		
TINEMAHA	6.25	125.3	1 36	1	2 49	1			
EUREKA	6.75	98.9	1 41	-1			39 22	PKPPKP	
CHINA LAKE	7.45	130.2	1 51	-1			4 2		
STA. BARBARA	7.49	147.3	1 50	-3					

FORT TEJON	7.49	141.1	1	51	-2					3	17
VICTORIA	7.71	5.9	1	52	-4						
ALBERNI	8.42	359.0	1	59	-7						
MOUNT WILSON	8.42	139.8	2	3	-3					3	41
PASADENA	8.42	140.6	2	4A	-2					2	41
RIVERSIDE	8.94	137.8	2	11	-2						
BOULDER CITY	9.08	119.3	2	15	0	3	58	-1			
PENTICTON	9.16	20.9	2	13	-3						
SALT LAKE C.	9.67	86.3	2	23	0	4	58	44		3	4
SAN DIEGO	10.06	141.7				5	23	60			
BUTTE	10.16	55.5	2	28	-2	4	30	4			
BARRETT	10.34	139.6	2	29	-3					3	25
HUNGRY HORSE	10.62	41.6	2	33	-3	4	47	10			
BOZEMAN	10.99	59.5	2	40	-1	4	56	10			
BANFF	12.07	28.3	2	59	3					7	1
TUCSON	14.00	123.5	3	23	1						
RAPID CITY	16.11	71.4	3	47	-2	6	57	8			
SITKA	17.63	340.4	4	12	4					4	39
CHIHUAHUA	19.46	123.0	4	32	2					8	18
LUBBOCK	19.49	104.6	4	32	1						
LAWRENCE	22.55	85.2	4	59	-4						
FAYETTEVILLE	24.21	91.4	4	18K	-61	8	43	-52	4 37		
FLORISSANT	26.27	83.2	5	41A	3	10	22	12			
ST. LOUIS 1	26.42	83.5	5	38	-2	10	25	13			
GUADALAJARA	27.05	131.6								11	19 SS
COLLEGE	27.51	338.6	5	50	0	10	40	10		9	8 PCP
TERRE HAUTE	28.38	80.7								4	41 PCP
TACUBAYA	30.47	127.0	6	17	1	11	7	-10		10	49
CLEVELAND	32.18	74.4	6	33	2	11	46	2			
VERA CRUZ	32.52	123.1	6	35	1					18	23
PITTSBURGH	33.60	75.7	6	46	2	12	10	4			
OAXACA	33.76	126.5								7	57
MORGANTOWN	33.83	77.1	6	48	2						
HONOLULU	34.39	245.7	6	51	0	12	15	-3			
COLUMBIA	34.99	87.0	6	54	-2					8	22 PP
ROCHESTER	35.00	70.2	6	50	-6						
PENNSYLVANIA	35.03	74.4	6	59	3	12	24	-4			
OTTAWA	35.52	66.0	6	58	-2						
MERIDA	35.66	113.2	7	2A	1	12	44	6			
CHAPEL HILL	35.73	82.9	7	5	3						
WASHINGTON	36.18	77.2	7	8	2					8	33 PP
GEORGETOWN	36.18	77.2	7	8	2						
RESOLUTE	36.55	12.8	7	6	-3	12	51	-1			
BREBEUF	36.96	65.4	7	14A	2	13	1	3			
COMITAN	37.26	121.6								17	47
PALISADES	37.85	72.6	7	17	-3	13	20	8	7 28	8	22 PP
FORDHAM	37.92	72.8	7	26	6	13	23	10			
SEVEN FALLS	38.54	62.1	7	24	-2						
WESTON	39.32	69.6	6	36	-56	13	37	3			
THULE	42.89	16.8	8	2	1	13	53	-34		9	38 PP
PETROPAVLOVK	51.37	311.2	9	5	-3						
NORD	52.40	10.2	9	16K	0	16	44	3			
MAGADAN	53.33	320.8	8	47	-36						
SAN JUAN	54.49	96.0	9	31	0					10	42 PCP
SCORESBY SD.	56.09	23.3	9	43K	0	17	37	6		21	29 SS
CHINCHINA	56.49	115.6	9	49	3	17	41	5			
TIKSI	56.66	338.7	9	47	0	17	40	1			
ST. KITTS	57.68	94.7	9	53	-1						
BOGOTA	57.81	114.6	9	58	3						
ANTIGUA	58.48	94.2	10	0	0						
KHEYS	58.77	359.5	10	3	1	18	10	4			
CARACAS	58.87	103.9	10	8	5	18	19	11			
DOMINICA	59.94	95.6	10	15	5						
FORT FRANCE	60.48	95.9	10	14	0						
SIDA	60.80	29.2	10	14	-2						
ST. VINCENT	61.37	97.4	10	22	2						
YAKUTSK	61.45	328.9	10	21	1	18	41	0			
GRENADA	61.74	98.7	10	23	1						
UGLEGORSK	62.48	312.3	10	28	1	19	0	6			
TRINIDAD	62.88	99.7	10	30	0						
Y.-SAKHLINSK	63.19	310.0	10	31	-1	19	8	5			
KIRUNA	68.47	13.5	11	2	-4					13	36 PP
HUANCAYO	69.57	127.7								13	57 PP
AFIAMALU	69.82	229.4	11	15	1					11	22 PCP
SODANKYLA	69.91	11.4	11	14	0						
SKALSTUGAN	70.42	18.9	11	15	-3						
APATITY	70.64	8.8	11	18	-1	20	33	0		15	38 PPP
TUKUBASAN	70.93	301.6	11	19	-2	20	31	-5		21	2 SS
ABERDEEN	71.07	29.1				20	41	3		21	16 PS

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.

BERGEN	71.09	23.7	11	18	-4	20	41	3				
MATUSIRO	71.95	302.8	11	23	-4	20	49	1			12	56
RATHFARNHAM	72.23	33.7	11	29K	0							
DURHAM	73.05	30.5	11	34A	1	21	3	3			11	53 PCP
UPPSALA	74.94	18.7	11	41	-3							
GOTEBORG	75.29	22.4	11	44	-2							
NURMIJARVI	75.90	15.1	11	48	-2	21	31	-1			22	5 PS
KEW	76.04	32.2	11	52	1	21	38	4			26	23 SS
HELSINKI	76.27	15.1	11	50	-2							
COPENHAGEN	77.14	23.3	11	58K	1	21	51	5				
LA PAZ	77.41	125.0	12	2	4	22	12	23				
PULKOVO	77.62	12.7	12	0	1	21	53	2				
WITTEVEEN	77.63	27.8	12	4	5						14	53 PP
DE BILT	77.67	29.0	11	43K	-17	22	1	10			14	51 PP
IRKUTSK	78.01	331.7	11	51	-11							
UCCLE	78.40	30.3	12	4	0	22	4	5				
MUNSTER	78.66	27.9	12	6	1						12	27
DOURBES	79.06	30.5	12	10	3	22	9	3				
PARIS	79.25	32.5	12	11	3	22	13	5				
BENSBERG	79.33	28.7	12	11K	2						22	29 SCS
SERRA PILAR	79.88	43.6	12	7A	-5				12	16	15	10 PP
POTSDAM	80.15	24.8	12	15	2	22	23	5			22	52
ULAN-BATOR	80.53	327.7	12	16	1							
HALLE	80.54	25.8	12	16	1	22	25	3			12	55
GARCHY	80.70	33.1	12	14	-2							
JENA	80.90	26.3	12	17	0	22	32	7			15	23 PP
COLLMBERG	81.05	25.4	12	16	-2	22	31	4			15	25 PP
HEIDELBERG	81.18	28.7	12	17	-2							
SONNEBERG	81.23	26.8	12	20	1							
LISBON	81.32	45.6	12	17A	-2							
PLAUEN	81.47	26.3	12	20	0							
STRASBOURG	81.50	29.7	12	22K	2	22	42	10			28	0 SS
CHEB	81.89	26.4	12	23	1	22	40	4			15	27 PP
BESANCON	81.90	31.5	12	30	8							
STUTTGART	81.91	28.8	12	20	-2	22	42	6			15	27 PP
CLERMONT-FD.	81.92	34.0	12	24	2	22	49	13				
EBINGEN	82.28	29.3	12	26	2							
BASLE	82.30	30.4	12	11	-13							
NEUCHATEL	82.49	31.1	12	27	2							
PRAGUE	82.57	25.2	12	27	1	22	49	6			15	38 PP
SVERDLOVSK	82.58	357.1	12	26	0							
WARSAW	82.60	20.5	12	27K	1	22	41	-2			22	48 SKS
MOSCOW	82.60	10.0	12	25	-1	22	40	-3				
PRUHONICE	82.69	25.2	12	25	-1	22	51	7			12	29 PCP
BAGNERES	82.73	37.4	12	27	0						12	37 PCP
RAVENSBURG	82.86	29.2	12	31	4						12	53
TOLEDO	83.14	41.9	12	26	-3	22	47	-1			15	35 PP
RACIBORZ	83.74	23.1	12	34	2							
KRAKOW	84.27	22.1	12	33	-2						12	36 PCP
TORTOSA	84.65	38.6	12	27	-9	23	7	4				
ISOLA	84.85	32.7	12	41	4						23	51 PS
BRATISLAVA	85.09	24.6	12	41A	2	23	9	1			15	57 PP
SKALNATE PL.	85.14	22.3	12	38	-1						12	41 PCP
MALAGA	85.33	44.2	12	38K	-2	23	24	14			15	56 PP
MONACO	85.37	32.7	12	42A	2							
GRANADA	85.41	43.4	12	45K	5	23	21	10			15	56 PP
CHIAVARI	85.64	31.2				23	21	8				
LJUBLJANA	86.09	27.2	12	41	-3						16	4 PP
ALICANTE	86.10	40.7	12	40	-4	23	11	-7			16	1 PP
TRIESTE	86.17	27.9	12	42	-2	23	21	3			16	4 PP
ALMERIA	86.24	42.9	12	44	0						16	5 PP
PRATO	86.70	30.4	12	51	4	23	29	6				
ZAGREB	86.79	26.4	12	49K	2							
RELIZANE	88.64	41.7	12	57	1							
ROME	88.92	30.6	12	58	1	23	52	8				
ALGIERS UNI.	89.06	39.5	12	59	1	23	51	5			16	32 PP
BELGRADE	89.12	24.1	13	0K	2	23	54	8			14	2
NOUMEA	89.63	239.8	13	2	1							
SETIF	90.64	38.3	13	6K	1						16	13 PP
SIMFEROPOL	92.47	14.9	13	15	1	24	22	6				
MESSINA	93.30	30.4	13	19	1	24	23	0			17	1 PP
MBOUR	93.55	67.7				24	35	10			17	15 PP
ALMATA	94.03	344.4	13	23	2							
FRUNSE	94.91	345.9	13	26	1							
MAKHACH-KALA	96.25	5.8									16	56 PP
ATHENS	96.37	24.7	13	22A	-10							
NAMANGAN	97.22	347.7	13	37	2							
TIFLIS	97.25	8.0	13	37	1							

ANDIJAN	97.32	347.1	13	38	2						
TAMANRASSET	101.55	46.1	13	52	-3					18	1 PP
BRISBANE	102.21	244.4								24	45
KSARA	103.54	16.6	14	0	-4					27	26 PS
JERUSALEM	105.36	17.7	14	22	777	25	11	19			
RIVERVIEW	107.33	240.2								25	45 SKKS
QUETTA	108.52	349.5	17	37	777	25	11	5		28	20 PS
SHIRAZ	109.80	2.7	18	53	777						
CAPE HALLETT	121.54	199.0	19	6	11					31	1 PS
SOUTH POLE	130.67	180.0	19	15	2					21	41 PP
WILKES	140.47	211.3								42	2 SS
BROKEN HILL	144.76	49.5	19	36A	-2						
MIRNY	146.90	206.6	19	45	3						
BULAWAYO	149.23	55.9	19	50	4						
KIMBERLEY	152.25	73.9	19	49	-1						
PRETORIA	152.86	64.7								20	9 PKP2

JUNE 6 5.H 55.M 45.S EPICENTRE -45.71 -73.08 DEPTH= 0.KM

A= 0.20397 B=-0.67040 C=-0.71341 D=-0.9567 E=-0.2911
G=-0.2077 H= 0.6825 K=-0.7007 HT= -3.8

SE= 3.30

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT STANLEY	11.69	126.3	2	54	3								
SANTA LUCIA	12.39	9.5	2	54K	-7						5	59	
BUENOS AIRES	15.71	50.2	3	49	4								
LA PLATA	15.78	52.1	3	50K	4	6	50	8					
ANTOFAGASTA	22.06	6.5	5	2	4	9	12	14					
LA PAZ	29.41	9.7											
HUANCAYO	33.60	356.0	6	44	0						11	20	
BYRD STATION	38.12	191.8	7	21	-2						7	41	
SOUTH POLE	44.49	180.0	8	12	-3								
BOGOTA	50.11	358.7	8	58	-1								
CHINCHINA	50.50	356.7	9	1A	-1	15	53	-23					
SCOTT BASE	51.49	193.5	9	8A	-2	15	59	-31			19	29	SS
CAPE HALLETT	54.34	199.6	9	27	-4						9	31	PCP
CARACAS	56.22	7.3	9	46K	1	17	40	7					
TRINIDAD	57.07	13.7	9	50	-1								
GRENADA	58.39	13.1	9	55	-5						13	26	
ST. VINCENT	59.56	13.4	10	8	0								
BARBADOS	59.80	15.2	10	28	18								
SANTIAGO MA	60.54	342.7	10	18	3	18	50	20					
SAN SALVADOR	60.88	342.0	10	19	2	18	20	-14					
FORT FRANCE	61.11	13.2	10	19	0								
DOMINICA	61.63	12.8	10	27	5								
MAWSON	62.23	162.5	10	21	-5	18	35	-16			17	23	
ST. KITTS	63.44	11.1	10	27	-7								
COMITAN	64.03	339.6	10	39	1	19	13	-1			24	53	
SAN JUAN	64.09	7.3	10	32K	-6						13	57	PPP
TERRE ADELIE	64.76	194.3	10	41	-2	19	30	7					
OAXACA	66.02	335.1	10	55	4	19	51	13			21	15	
MIRNY	67.57	174.0	11	1	0	20	1	4					
HERMANUS	67.78	116.8				20	4	4			11	27	PCP
VERA CRUZ	67.90	336.5	11	7A	4	19	59	-2			21	11	
MERIDA	68.02	343.3	11	6	2	20	6	4			21	15	SCS
WILKES	68.25	181.6	11	6A	1	20	11	6			11	50	
TACUBAYA	69.00	333.6	11	11A	1	19	50	-24			13	47	PP
MANZANILLO	70.42	328.6	11	24	6	20	38	7			22	30	
GUADALAJARA	71.56	330.2	11	28	3	20	55	11			26	47	
GRAHAMSTOWN	73.04	120.3	11	35K	1								
GEBBIES PASS	73.61	223.6	11	40	3	21	40	33	11	55	22	11	
ROXBURGH	73.83	220.5	11	38A	-1	21	7	-3			15	19	PPP
WELLINGTON	74.35	226.5	11	41	-1	21	41	25			12	28	
TUAI	74.93	229.6	12	0	15						12	30	
MAZATLAN	74.95	328.4									28	31	SSS
KAIMATA	75.09	223.7	12	3	17	21	52	28			12	33	
KIMBERLEY	75.09	115.8	11	42	-4								
CHATEAU	75.49	228.4	11	45K	-3						12	23	
COBB RIVER	75.53	225.4	11	50	2	21	31	2			12	31	
KARAPIRO	76.43	229.2	11	51	-2						12	18	
MBOUR	78.31	55.2	12	2	-2						14	38	PP
OMERAHI	78.66	230.0									23	15	
COLUMBIA	79.66	353.3	12	8K	-3	22	15	2			15	15	PP

CHIHUAHUA	79.83	330.9	12	8	-4	22	3	-12			23	21 SCS
KERGUELEN I.	80.04	156.5	12	23	10	22	26	9				
LUANDA	81.16	93.6	12	19A	0	22	35	6			15	25 PP
CHAPEL HILL	81.43	355.1	12	18	-3							
LUBBOCK	83.11	336.1	12	30	1							
FAYETTEVILLE	83.62	342.9	11	29K	-63	20	46	-128			14	7 PP
BULAWAYO	83.64	112.2	12	55K	23							
WASHINGTON	84.30	356.9	12	33A	-2							
GEORGETOWN	84.30	356.9	12	33	-2	22	47	-14				
FORT NELSON	84.70	208.6	12	46	9						15	17
TUCSON	84.80	328.6	12	36	-2	23	16	10			14	58
MORGANTOWN	85.18	354.7	12	37	-3							
ST. LOUIS 1	85.37	346.6	12	38K	-3	23	1	-10				
FLORISSANT	85.55	346.5	12	39K	-3	23	7	-6				
TERRE HAUTE	85.65	348.9	12	45	3	23	15	1				
AFIAMALU	86.13	254.2	12	45A	0	23	50	31			16	43 PP
FORDHAM	86.18	359.4	12	47	2	23	25	6				
PENNSYLVANIA	86.23	356.4	12	43	-2	23	14	-6				
PALISADES	86.34	359.4	12	47K	1	23	6	-15	12	58	29	42 SS
LAWRENCE	86.62	342.9	12	43	-4							
CLEVELAND	87.13	353.7	12	47	-2	23	25	-3				
BROKEN HILL	87.65	108.2									12	49 PCP
WESTON	87.71	1.3	12	50K	-2	23	36	2				
ROCHESTER	88.49	357.0	12	51	-5							
PASADENA	89.33	324.0	13	2A	2	23	25	-24			24	2 PS
SUVA	89.45	244.4	13	2	2	24	25	35			29	32 SS
MELBOURNE	90.07	209.2	13	5	2	24	0	4			23	38 SKS
HALIFAX	90.33	6.8	13	3	-2							
OTTAWA	90.75	358.1	13	3	-4							
BREBEUF	90.82	359.6	13	4	-3	23	53	-9				
CANBERRA	90.84	213.2	13	9A	2						22	3
RIVERVIEW	91.30	215.5	13	9A	0	24	5	-1			16	57 PP
FRESNO	92.26	324.2	13	17	4							
SEVEN FALLS	92.46	1.5	13	14	0							
RUTH	92.54	328.7	12	51	-24	24	1	-16			24	31
SALT LAKE C.	92.82	331.6	13	19	3	24	22	2				
VINEYARD	92.90	323.1	13	22	6							
EUREKA	93.12	328.2	13	15K	-2						17	7 PP
RAPID CITY	93.31	338.8	13	19A	1						19	51 SS
PONTA DELGDA	93.36	35.8	13	24	5				13	35	17	6 PP
NOUMEA	93.44	233.1	13	20	1						15	40
LICK	93.51	323.2	13	22A	3						17	7 PP
ANGRA DO HO.	93.53	34.3				24	33	7			17	30 PP
BERKELEY	94.22	323.1	13	23K	1	24	32	0			17	8 PP
BANGUI	94.29	88.2	13	35	12						25	45
RENO	94.64	325.6	13	28A	4						17	19 PP
ADELAIDE	94.71	205.7	13	29	4	24	7	-29			15	6
UKIAH	95.69	323.1	13	37A	8						17	45 PP
KOUMAC	96.03	232.5	13	43	12						18	35
MINERAL	96.05	324.8	13	32K	1						17	24 PP
TANANARIVE	96.20	125.0	13	41	9						17	37 PP
SHASTA	96.67	324.5	13	35	1							
LWIRO	96.68	100.1	13	33	-1						17	42 PP
BOZEMAN	96.97	334.2	13	35A	0						17	30 PP
BUTTE	97.75	333.4	13	39A	0	24	18	2			16	50
HAWAII V.OB.	98.40	289.1	13	54	13							
TAMANRASSET	98.44	66.2	13	41K	-1	24	28	8			18	3 PP
HUNGRY HORSE	100.28	333.6	13	50A	0						18	1 PP
CORVALLIS	100.29	326.1									17	58 PP
LISBON	101.74	45.9				24	36	0			18	47 PP
MUNDARING	102.23	188.1	13	46	-13						16	8
PERTH	102.29	187.7	14	37	38	26	37	119			18	54 PP
MALAGA	102.71	50.1	14	3	2	24	47	7			18	19 PP
GRANADA	103.48	50.3	14	46A	42	24	37	-7			19	4 PP
VICTORIA	103.62	328.2	14	4	-1							
ALMERIA	103.85	51.2	14	10K	4	24	43	-3			25	40 S
SERRA PILAR	103.85	44.6				24	36	-10			18	20 PP
RELIZANE	104.73	53.8	14	14	4	25	18	28			18	31 PP
TOLEDO	105.22	48.1	14	15	777	24	59	7			18	27 PP
CHARTERS TS.	105.41	218.2	14	15	777	24	55	2				
ALICANTE	106.02	51.3	14	14	777	24	54	-1			18	41 PP
ALGIERS UNI.	106.88	54.6	14	24	777	24	58	-1			19	8 PP
SETIF	107.83	56.4	14	15	777						18	56 PP
TORTOSA	108.31	50.1	14	47	777	25	20	15				
BARCELONA	109.61	50.5				25	15	4			19	56 PP
BAGNERES	109.71	48.2	14	33	777						19	14 PP
CLERMONT-FD.	113.11	47.7	18	26	-14							
RATHFARNHAM	113.89	37.1				27	19	111			19	15 PP
MONACO	114.06	51.5	18	45	3							

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ISOLA	114.14	51.0							19 7	
PORT MORESBY	114.34	224.4	15	27	777	25	19	-10	20 21	PPP
PARIS	114.82	44.9	14	54	777				19 37	PP
REGGIO CALA.	115.22	60.7							19 34	
MESSINA	115.22	60.5				25	35	2	20 48	PP
KEW	115.26	41.3	18	49	5				19 44	PP
CHIAVARI	115.48	52.0	18	5	-39	27	30	116	19 5	PP
BESANCON	115.57	47.9	18	48	3					
OROPA	115.57	50.2							19 36	
ROME	115.73	55.7	18	42	-3	25	32	-3	19 46	PP
NEUCHATEL	115.92	48.5							20 32	
PAVIA	115.94	51.2							19 49	PP
PRATO	116.19	53.3							19 54	PP
REYKJAVIK	116.64	22.5	19	47	60				24 53	
DOURBES	116.71	44.8				25	55	16	15 1	
DURHAM	116.91	38.0	19	7	20	25	49	10	19 54	PP
EDINBURGH	117.00	36.4							37 15	SS
UCCLE	117.04	44.1							26 51	SKKS
CHUR	117.19	49.9	19	1	13				19 47	
STRASBOURG	117.35	47.6				25	35	-6	19 55	PP
SIDA	117.43	24.2							20 35	
TARANTO	117.66	59.5							20 3	
EBINGEN	117.72	48.5	18	52	3				20 25	
RAVENSBURG	117.82	49.1	18	51	2				19 27	
STUTTGART	118.25	48.1	15	8	777	27	41	117	19 50	PP
DE BILT	118.26	43.3	15	15	777				20 11	PP
ABERDEEN	118.28	35.8				25	52	8	20 8	PP
HEIDELBERG	118.35	47.3	18	52	2				20 10	
BENSBERG	118.53	45.2	18	57	7				20 11	PP
TRIESTE	118.77	53.0	18	56	5	25	46	0	19 56	PP
MUNSTER	119.37	44.5	18	55	3				20 58	
LJUBLJANA	119.44	53.0	18	55	3				19 58	PP
ZAGREB	120.12	53.9				25	50	-1	20 0	PP
ATHENS	120.17	65.2	18	56	3				20 28	PP
SONNEBERG	120.22	47.5	18	57	4				21 7	
HELWAN	120.33	77.1	18	56	2	25	55	4		
CHEB	120.65	48.3				26	4	11	22 46	PPP
JENA	120.74	47.2	18	57	3	25	51	-1	20 27	PP
PLAUEN	120.78	47.8	18	51	-4	25	51	-2	19 42	PP
RESOLUTE	120.98	353.4	18	54	-1				20 21	
HALLE	121.26	46.8	18	58	2	25	51	-4	20 34	PP
SCORESBY SD.	121.61	17.9	18	49	-7	25	57	1	20 27	PP
COLLMBERG	121.68	47.4	18	47	-9	25	54	-2	19 49	PP
PRAGUE	121.73	49.2	19	1	5	26	1	5	20 39	PP
PRUHONICE	121.74	49.3	18	55	-1				20 59	PP
VIENNA-H.	121.74	51.8	18	53	-3	26	1	5	22 57	PPP
THULE	121.88	1.3	18	52	-5				34 45	
BRATISLAVA	122.10	52.2	18	58	1				20 24	PP
BELGRADE	122.13	57.0	19	3A	6	25	54	-3	31 47	PPS
POTSDAM	122.33	46.4	19	2	4				19 58	PP
HURBANOVO	122.55	53.0				26	18	19	20 30	PP
SOFIA	122.66	60.5	18	57	-1	25	51	-8	20 26	PP
BUDAPEST	122.79	53.7							19 39	PP
TIMISOARA	123.10	56.5	19	7	8				21 33	
BERGEN	123.31	35.6	19	0	1				37 40	SKKS
RACIBORZ	123.76	50.8	19	4K	4				20 44	PP
COPENHAGEN	123.85	42.8	18	59	-2				23 21	PPP
JERUSALEM	124.14	77.7	19	1	0				26 16	SKKS
CHORZOW	124.30	50.9							20 40	PP
SKALNATE PL.	124.40	52.6							21 0	PP
COLLEGE	124.50	330.0	18	55	-7	26	15	10	22 7	
KRAKOW	124.69	51.5	19	0	-2				20 57	PP
GOTEBORG	124.71	40.6	18	57	-5					
CAMPULUNG	125.09	58.7							21 31	
BUCHAREST	125.29	60.1	19	0K	-3	25	53	-14	19 58	PP
KSARA	125.79	76.1	19	9	5	26	14	5	21 3	PP
WARSAW	126.39	49.7	19	9	4	26	7	-3	21 5	PP
FOCSANI	126.62	59.2							22 25	
LWOW	126.85	53.4	19	12	6				27 41	SKKS
BACAU	126.88	58.2	19	6	0				23 5	
LEMBANG	127.70	180.9	19	10K	2				21 26	PP
SKALS TUGAN	127.78	34.3	19	5	-3				19 41	
UPPSALA	128.33	40.1	19	6	-3				19 42	
DJAKARTA	128.35	179.9							21 52	PP
NORD	130.44	9.3	19	10	-3				22 34	PKS
SIMFEROPOL	130.50	63.1	19	11	-2	26	5	-17	24 4	PPP
NURMIJARVI	131.81	41.1	19	13	-3	26	14	-11	22 39	PKS
HELSINKI	131.83	41.6	19	15	-1					

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KIRUNA	132.56	30.9	19	18	1				19	46	
PULKOVO	134.23	43.4	19	18	-2	26	24	-6	24	50	PPP
SODANKYLA	134.71	32.5	19	14	-7				22	44	PKS
GUAM	134.71	237.1	19	22	1				22	1	PP
COLOMBO	134.81	140.5							20	5	
SHIRAZ	134.93	91.3	19	21A	-1	25	59	-32	20	26	PP
GORIS	135.90	75.6	19	22	-1	26	15	-18			
TIFLIS	135.91	72.0	19	11	-12				19	23	PSP
KODAIKANAL	136.59	135.2							22	35	PP
MOSCOW	136.76	50.6	19	22	-3						
APATITY	137.32	32.9	19	18	-8				24	31	PPP
TEHERAN	137.52	83.3	19	24	-2				32	24	PKS
MADRAS	140.30	136.6							23	8	
BOMBAY	141.17	122.2	19	42	9				24	7	PP
KHEYS	141.20	11.4	19	26	-7	26	21	-20	24	59	PPP
POONA	141.49	123.7	19	34	1				22	53	PP
HYDERABAD	143.17	130.6							19	59	
ASHKABAD	143.46	84.6	19	33	-4						
PORT BLAIR	143.98	155.9	19	39	1				23	19	PP
QUETTA	145.27	102.5	19	39K	-1	26	50	2	22	59	PP
PETROPAVLOVK	146.17	301.6	19	39	-3				22	57	PP
VIZIANAGRAM	146.28	137.0							20	57	
BAGUIO CITY	148.64	205.8	19	50	4						
SVERDLOVSK	149.56	51.7	19	50	3				23	21	PKS
TORISIMA	149.91	251.3	19	44	-4						
AGRA	150.50	119.0	19	50	1						
MAGADAN	150.60	314.0	19	57	8						
WARSAK DAM	150.67	101.0	19	53	4						
DUZHANBE	151.03	90.6	19	49	0						
TIKSI	151.97	345.4	19	44	-7				20	11	PKP2
CALCUTTA	152.38	140.6	20	2	11				24	1	PP
NEMURO	152.51	279.1	19	55	4						
TASHKENT	152.52	85.6	19	51	0				23	41	PP
DEHRA DUN	152.74	114.3	20	5	13				24	56	
MERA	152.87	258.2	20	9	17						
OSIMA	153.10	257.5	20	7	15						
ONAHAMA	153.19	263.1	20	0	8						
KUSIRO	153.22	277.7	19	53	1				20	34	PKP2
YOKOHAMA	153.27	259.0	20	16	23				23	22	
KAKIOKA	153.33	261.0	19	48	-5						
TOKYO C.M.O.	153.34	259.6	20	1	8						
HONGO	153.34	259.7	20	5	12						
TUKUBASAN	153.38	260.9	19	49K	-4				27	30	PPP
AJIRO	153.44	257.8	19	51	-2						
MISIMA	153.58	257.7	20	8	15						
ISINOMAKI	153.60	266.3	20	4	11				20	44	
ABASHIRI	153.62	279.9	19	51	-2						
CHITTAGONG	153.65	147.1	19	56	3	27	2	3	24	8	PP
MIYAKO	153.68	269.3	20	22	29						
UTUNOMIYA	153.71	261.4	20	8	15						
SHIRAKAWA	153.75	262.8	20	18	25						
HENGCHUN	153.79	210.1	20	18	25						
OMAESAKI	153.79	256.0	20	10	17				20	55	
SENDAI	153.82	265.7	19	59	6				20	38	
KUMAGAYA	153.84	260.1	20	2	9				22	24	
SHIZUOKA	153.88	256.9	20	4	11						
HUKUSIMA	153.88	264.2	20	22	29						
HUNATU	153.91	258.3	20	4	11						
TITIBU	153.96	259.5	20	15	21						
OBIHIRO	154.03	276.9	20	14	20						
MIZUSAWA	154.05	267.6	20	34	40						
TAWU	154.06	210.7	20	23	29						
URAKAWA	154.07	275.1	20	7	13				22	48	
KOHU	154.15	258.4							20	41	
MAEBASI	154.18	260.3	20	5	11				20	29	
HAMAMATU	154.20	255.7	20	23	29						
MORIOKA	154.26	268.8	20	32	38				21	31	
HATINOHE	154.35	270.8	20	19	25				36	18	
OIWAKE	154.50	259.7	20	25	31				22	22	
IIDA	154.57	257.4	20	29	35						
SIOMISAKI	154.76	251.1	20	0	5						
MATUSIRO	154.85	259.8	19	55	0				20	46	PKP2
OWASE	154.85	252.8	20	4	9						
SAKATA	154.84	266.1							20	58	
MATUMOTO	154.86	258.9	20	24	29						
ASAHIGAWA	154.87	278.4	20	14	19						
NAGANO	154.92	260.0	20	22	27				24	55	
NIIGATA	154.95	263.4	20	17	22	21	15		23	8	SKP

NAGOYA	154.96	255.8	20 10	15				
AOMORI	154.98	270.9	20 10	15				
AKITA	155.02	268.0	20 6	11				
TOMAKOMAI	155.07	275.4					20 50	
KAMEYAMA	155.12	254.6	20 22	27			22 38	
GIHU	155.23	256.0	20 19	24			30 37	
HWALIEN	155.26	213.7	20 18	23				
HAKODATE	155.36	273.1	20 17	22				
SAPPORO	155.37	276.3	20 2	7			20 49	
Y.-SAKHLINSK	155.39	286.1	19 53	-2			23 59	PP
CHATRA	155.45	133.4	19 56	1			24 20	PP
NARA	155.45	253.5	20 13	18				
HIKONE	155.51	255.2	20 10	14			20 44	
AIKAWA	155.55	262.9	20 10	14				
MORI	155.60	273.6					20 42	
TOYAMA	155.63	259.1	19 51	-5			23 23	
WAKAYAMA	155.63	251.9	20 10	14				
OSAKA	155.64	253.1	20 27	31			21 59	
MUROTO	155.69	248.8	20 23	27			24 24	
KYOTO	155.72	254.1	19 56	0				
ABUYAMA	155.74	253.6	19 52K	-4				
SUMOTO	155.87	251.8	20 14	18				
KOBE	155.89	252.8	20 28	32	26 56	-5	24 43	PP
HONG KONG	155.91	196.6	20 13	17				
TOKUSIMA	155.93	250.9	20 29	33				
ILAN	155.93	214.8	20 34	38				
SUTTSU	156.06	275.0	19 58	2				
YAKUSIMA	156.11	238.5	20 5	9				
SIMIDU	156.17	246.3	20 4	8			21 1	
TAIPEI	156.26	214.6	20 35	38				
KOTI	156.30	248.5	20 6	9	26 50	-11	20 55	PKP2
TAKAMATU	156.43	250.7	20 25	28			24 57	PP
SHILLONG	156.55	143.9	19 58	1	27 3	1	35 30	PCS
MIYAZAKI	156.58	242.5	19 54	-3				
TOYOOKA	156.62	254.1	20 20	23				
FRUNSE	156.77	85.5	19 56	-1			20 33	
CANTON	156.84	195.2					20 13	
KAGOSIMA	156.88	240.6	20 23	26			27 53	
MATUYAMA	156.97	248.1					20 38	
OOITA	157.33	245.3	20 31	33				
HIROSIMA	157.52	248.7	19 52	-6			27 30	
YONAGO	157.55	252.1	20 50	52			24 55	PP
KUMAMOTO	157.64	243.2					20 38	
SAIGO	157.99	253.8					20 43	
HAMADA	158.08	249.3	20 35	36			25 4	PP
NAGASAKI	158.09	241.8	20 2	3			20 37	
SAGA	158.17	243.4	20 44	45			33 48	
HUKUOKA	158.34	244.2	20 22	23			22 49	
TOMIE	158.69	239.8	20 38	38			31 2	
YAKUTSK	159.03	329.3	19 58	-2				
KUNMING	159.18	169.3	20 4	4			24 44	PP
LHASA	159.68	136.7	20 4	3			24 45	PP
SEMIPALATNSK	161.61	65.6	20 1	-2			24 6	PP
ZO-SE	161.67	222.2	20 4	1				
NANKING	163.57	218.1	20 7A	2			21 0	
WUHAN	163.71	204.1	20 10	5			25 28	PP
CHENGTU	164.81	170.4	20 8A	2				
CHANGCHUN	166.80	268.4	20 6	-2			21 1	
SIAN	168.46	188.3	20 8	-1				
LANCHOW	170.07	165.3	20 9	-1			25 22	PP
PEKING	171.16	233.4	20 8	-2			25 22	PP
IRKUTSK	173.21	13.7	20 8	-3				
PAOTOW	174.40	205.0	20 15	3				
ULAN-BATOR	177.79	0.4	20 9	-3				

JUNE 7 12.H 57.M 14.S EPICENTRE 53.20 158.68 DEPTH= 0.KM

A=-0.56045 B= 0.21876 C= 0.79877 D= 0.3636 E= 0.9316
G=-0.7441 H= 0.2904 K=-0.6016 HT= -6.6

SE= 2.41

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
PETROPAVLOVK	0.18	185.4	0 37	28				0 51	
SEVERO-KUR.	2.99	213.2	1 2	12				1 34	*SP
KLYUCHI	3.38	21.2	1 14	19	1 55	19			

MAGADAN	7.72	328.7	2 12	16	3 48	22				
OKHA	9.42	278.4	2 20	0						
KURILSK	10.65	225.8	2 44	7						
UGLEGORSK	11.21	255.1	2 57	12	5 5	13				
Y.-SAKHLINSK	11.95	245.3	3 4	9	5 16	6				
YAKUTSK	17.71	311.3	4 15	5	7 33	7				
VLADIVOSTOK	20.40	251.2	4 39	-2	8 20	-5				
TUKUBASAN	21.40	224.9	4 52	1	8 47	2			5 48	PPP
MATUSIRO	21.96	228.9	4 58	1	8 50	-5			12 16	SCP
TIKSI	22.62	335.8	5 7	3			5 38			
ABUYAMA	24.55	231.0	5 24A	2						
COLLEGE	28.94	45.2	6 6	3	10 44	-9			6 53	PP
KHEYS	39.67	345.4	7 37	2	13 32	-7	8 10		9 11	PP
RESOLUTE	43.55	21.7	8 10A	3	14 27	-10			17 49	
NORD	45.42	359.0	8 23A	1						
SEMIPALATNSK	46.29	299.8	8 27	-2			9 1			
HAWAII V.OB.	48.84	115.5	8 50	1						
CORVALLIS	49.61	66.6	8 57K	2						
SVERDLOVSK	51.61	316.0	9 9	-1			9 44			
SHASTA	52.65	69.8	9 20A	2						
APATITY	52.83	336.8	9 18A	-1					21 27	
MINERAL	53.33	69.6	9 24K	1					10 26	
FRUNSE	54.06	295.4	9 27	-1			10 2			
BUTTE	54.41	59.0	9 31	0					10 31	PCP
SODANKYLA	54.51	339.3	9 32	0						
BERKELEY	54.65	72.3	9 34K	1						
RENO	54.89	69.2	9 36K	1						
KIRUNA	55.34	342.1	9 37	-1						
LICK	55.37	72.4	9 40K	2					10 38	
BOZEMAN	55.42	58.4	9 39	1						
VINEYARD	55.93	72.7	9 44A	2						
SHILLONG	56.16	268.2	9 38	-6						
SCORESBY SD.	56.63	0.3	9 48A	1	17 31	-7				
FRESNO	56.82	71.6	9 49	1						
EUREKA	57.07	66.8	9 52	2	17 39	-5			10 26	
RABAUL	57.45	187.7	9 50	-3			10 20			
TASHKENT	57.98	297.3	9 54	-3			10 29			
CHATRA	58.06	273.0	9 55A	-2						
SALT LAKE C.	58.41	63.1	10 1	1						
PASADENA	59.61	72.7	10 9K	1	18 11	-7			21 40	SS
PULKOVO	60.00	332.7	10 10	-1						
BOULDER CITY	60.19	68.9	10 13	1						
DUZHANBE	60.22	295.4	10 12	0						
RAPID CITY	60.50	55.1	10 16	2	18 23	-6			10 49	PCP
SKALSTUGAN	60.65	343.5	10 14	-1						
NURMIJARVI	60.84	336.0	10 16	0					10 52	
HELSINKI	61.06	335.6	10 18	0						
MOSCOW	61.11	326.4	10 18	0						
REYKJAVIK	63.01	0.3	10 33	2						
UPPSALA	63.04	339.1	10 31	0					11 34	
BERGEN	64.76	345.8	10 43	1						
ASHKABAD	66.18	301.8	10 49	-3						
GOTEBORG	66.18	341.2	10 52	0						
QUETTA	67.43	290.4	10 57	-2					11 24	PCP
COPENHAGEN	67.97	340.1	11 3A	0						
LAWRENCE	68.26	53.8	10 54	-11						
TIFLIS	69.68	313.1	11 12	-1					15 27	PPP
LWOW	70.45	330.7	11 17	-1						
FLORISSANT	70.71	50.6	10 48	-32						
ST. LOUIS 1	70.90	50.6	10 47A	-34	20 24	-12				
POTSDAM	70.93	338.5	11 21	0						
DURHAM	71.16	348.1	11 23K	1						
OTTAWA	71.33	37.2	11 18	-5						
SIMFEROPOL	71.33	321.9							27 34	SSS
TEHERAN	71.40	305.0	11 22	-2						
KRAKOW	71.40	333.4	11 23	-1					11 51	PCP
SEVEN FALLS	71.54	33.2	11 25A	0						
WITTEVEEN	71.79	342.6	11 28A	2						
RACIBORZ	71.83	334.4	11 26	0						
COLLMBERG	71.95	338.1	11 27	0					14 4	PP
BREBEUF	72.00	35.8	11 18A	-9						
HALLE	72.00	338.9	11 27	0					14 12	PP
MUNSTER	72.43	341.7	11 30	0						
JENA	72.61	338.9	11 31	0						
DE BILT	72.75	343.2	11 34	2						
PRUHONICE	72.83	336.7	11 32A	0					11 56	
PLAUEN	72.90	338.4	11 31	-2						
RATHFARNHAM	73.13	350.6	11 33	-1						

BENSBERG	73.48	341.7	11	35A	-1					
CHARTERS TS.	73.77	192.2	11	35K	-3				12	25
VIENNA-H.	73.98	354.8	11	40	1					
UCCLE	74.14	343.4	11	39	-1				11	56 PCP
KEW	74.22	346.5	11	40A	0					
PENNSYLVANIA	74.45	41.1				21	0	-16		
MORGANTOWN	74.60	43.2	10	48	-55				12	44
HEIDELBERG	74.66	340.2	11	43	0					
DOURBES	74.77	343.0	11	44	0					
STUTTGART	75.15	339.6	11	46A	0				12	22
TUBINGEN	75.42	339.7	11	47A	0					
STRASBOURG	75.64	340.5	11	49	0				12	29
PARIS	76.38	344.1	11	54	1				12	4 PCP
LJUBLJANA	76.49	335.2	11	53A	0					
TOLMEZZO	76.54	336.3	11	52	-2				13	4
FOLINIERE	76.88	346.0	11	55	-1					
CHUR	76.91	338.8	11	56A	0					
SOFIA	77.04	327.9	11	56	-1					
TRIESTE	77.06	335.6	11	55	-2					
BESANCON	77.26	341.3	11	57A	-1					
NEUCHATEL	77.31	340.6	11	58	0					
GARCHY	77.76	343.3	12	1	1				12	43
CHIAVARI	79.36	338.1							20	54
KSARA	80.14	314.7	12	12	-1					
MONACO	80.34	339.3	12	14	0					
BRISBANE	80.41	185.3	12	13K	-2					
ATHENS	81.18	325.5	12	17A	-2					
JERUSALEM	82.18	314.2	12	23	-1					
BAGNERES	82.34	344.3	12	24	-1					
SETIF	87.99	338.7	12	52	-1					
CANBERRA	88.55	187.9	12	54	-2					
ADELAIDE	89.50	196.3	12	58	-2					
MELBOURNE	91.43	190.8	13	8	-1					
KARAPIRO	91.93	166.7	13	9	-3					
TAMANRASSET	100.83	334.9	13	51	-1				17	55 PP
BYRD STATION	140.49	164.3	19	21	-10				22	52 PP
SOUTH POLE	143.01	180.0	19	29	-7				22	56 PP
ARGENTINE I.	155.50	136.2	20	2	7					

JUNE 7 15.H 34.M 49.S EPICENTRE 13.77 56.93 DEPTH= 0.KM

A= 0.53016 B= 0.81426 C= 0.23644 D= 0.8380 E=-0.5456
G= 0.1290 H= 0.1981 K=-0.9716 HT= 6.0

SE= 2.62

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
BOMBAY	16.08	69.4	3	51	2	7	7	19			4	16	
SHIRAZ	16.33	346.2	3	50K	-2	7	8	14			7	34	SS
POONA	16.92	71.5	3	59K	-1								
ADDIS ABABA	18.41	257.1	4	24	5								
QUETTA	18.77	27.9	4	22A	-1	7	47	-3			4	37	PP
HYDERABAD	21.04	77.2	4	43	-5	8	46	8					
TEHERAN	22.44	348.1	5	5	3	9	15	10					
MADRAS	22.63	89.2	5	6	2	9	23	15			5	55	PPP
AGRA	23.77	52.7	5	16A	1	9	35	7			6	5	PPP
WARSAK DAM	24.12	30.9	5	21	2								
DEHRA DUN	25.51	46.3	5	36	4	10	2	4					
JERUSALEM	26.78	315.6	5	46	2	10	14	-5					
KSARA	27.64	319.9	5	52	0	10	34	1			6	44	PP
HELWAN	28.57	308.3	6	0	0						6	56	PP
TIFLIS	29.78	341.5	6	12	1	11	14	7					
NAMANGAN	30.01	22.6	6	16	3								
ANDIJAN	30.08	23.8	6	16	2								
MAKHACH-KALA	30.22	346.2	6	16	1	11	19	5					
CHATRA	31.10	60.6	6	22	-1								
FRUNSE	32.74	24.4	6	38	1	12	1	8					
SOTCHI	33.18	336.9	6	41	0	12	7	7					
ALMATA	34.07	26.5	6	51	3								
SHILLONG	34.82	64.9	6	54A	-1								
SIMFEROPOL	36.63	332.5	7	10	0	12	56	2					
BROKEN HILL	39.74	226.2	7	32	-4								
BUCHAREST	40.29	325.4	7	42A	1						9	13	PP
SOFIA	40.86	321.4	7	47	2						9	25	PP
SVERDLOVSK	43.07	3.0	8	3	-1								
BULAWAYO	43.72	220.2	8	9	0								

MOSCOW	44.46	344.5	8	13	-2						
LWOW	44.88	330.1	8	19	1					10	4
KRAKOW	47.08	328.0								10	27 PP
WARSAW	47.90	330.9	8	44	2	15	42	3		10	35 PP
LJUBLJANA	47.99	320.8	8	42	-1					9	9
VIENNA-H.	47.99	324.2	8	42	-1						
TRIESTE	48.28	320.0	8	45	0					10	43
TOLMEZZO	49.07	320.6	8	50	-1					10	47 PP
TAMANRASSET	49.43	288.3	8	55K	1					10	18
PRUHONICE	49.92	325.3	8	57	-1					10	55 PP
PULKOVO	49.95	342.8	8	57	-1	16	9	1			
CHIAVARI	50.59	316.7								10	49
SETIF	51.10	305.5								19	31
COLLMBERG	51.44	326.1	9	9	0					11	12 PP
PLAUEN	51.50	324.9	9	7	-3						
HELSINKI	51.91	340.4	9	14	1						
NURMIJARVI	52.27	340.5	9	14	-2						
IRKUTSK	53.79	34.1	9	26	-1	17	2	1			
COPENHAGEN	54.02	330.6	9	28	0						
UPPSALA	54.29	336.8	9	17	-13					9	30
GOTEBORG	55.34	332.5	9	37	-1						
GARCHY	55.71	318.3	9	39	-2						
APATITY	55.91	349.3	9	31	-11	17	10	-19			
SODANKYLA	57.13	346.6	9	48	-3						
FOLINIERE	58.43	319.1								12	2
SKALSTUGAN	58.62	338.4	9	59	-2						
KHEYS	66.88	0.2	10	57	1						
YAKUTSK	69.87	28.7	11	12	-3						
TIKSI	71.35	18.6	11	21	-3						
MATUSIRO	75.00	55.5	11	42	-3					26	6 SS
CHARTERS TS.	94.02	109.6	13	26	5						
SOUTH POLE	103.68	180.0	14	4	-1						
HUNGRY HORSE	117.25	353.4								20	5 PP
EUREKA	126.62	353.2	19	7	-1						
TUCSON TELE.	132.39	345.9	19	19	3						

JUNE 8 16.H 19.M 47.S EPICENTRE 35.22 -34.93 DEPTH= 0.KM

A= 0.67127 B=-0.46887 C= 0.57407 D=-0.5726 E=-0.8198
G= 0.4706 H=-0.3287 K=-0.8188 HT= 0.0

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	
ANGRA DO HO.	7.06	58.7				3	6	-3					
PONTA DELGDA	7.87	68.7	1	57K	-2	3	29	-1					
LISBON	20.87	72.7	4	47K	1	8	50	15					
SERRA PILAR	21.49	66.2	4	50A	-3	8	42	-5			5	15	PP
MALAGA	24.71	77.5	5	23K	-1	9	49	5			6	1	PP
TOLEDO	24.86	70.0	5	25K	-1	9	54	7			6	59	PP
GRANADA	25.31	76.3	5	33K	3	10	39	45			8	57	PCP
ALMERIA	26.24	76.9	5	34	-5	10	16	6			6	38	PPP
MBOUR	26.30	137.6	5	38	-1	9	49	-22					
RATHFARNHAM	27.07	39.2	5	45	-1								
ALICANTE	27.68	73.3	5	54	2	10	37	4					
JERSEY	27.79	49.7	5	45	-8								
BAGNERES	28.16	63.2	5	56	0								
TORTOSA	28.34	68.0	6	0	2						9	35	
FOLINIERE	28.70	51.2	6	31	30								
RELIZANE	28.81	78.5	6	2	0						6	51	PP
WESTON	29.08	295.3	6	3K	-2								
SEVEN FALLS	29.27	305.0	6	5A	-1								
KEW	29.61	46.0	6	8	-1	11	5	1			16	41	SCS
REYKJAVIK	30.02	11.4	6	14	1						10	36	
DURHAM	30.21	39.3	6	20A	5						7	25	PP
SIDA	30.41	14.8	6	28	12								
CLERMONT-FD.	30.54	58.1	6	19	1	11	26	7					
PARIS	30.61	52.1	6	19	1								
ALGIERS UNI.	30.64	75.8	6	17	-1	11	23	2			7	13	PP
GARCHY	30.71	55.2	6	19	0						6	37	PP
DOMINICA	30.92	236.8	6	22K	1								
BREBEUF	30.95	301.3	6	19	-2								
PALISADES	31.02	292.5	6	20	-2	11	25	-2	6	28	7	13	PP
ABERDEEN	31.11	34.9				11	36	8			11	1	
DOURBES	32.23	50.2	5	32	-60	11	41	-5					

UCCLE	32.24	48.9	6	32	0	11	48	2		
SAN JUAN	32.32	246.9	6	32	-1					
OTTAWA	32.42	300.8	6	32A	-2					
BESANCON	32.67	55.7	6	36	0					
DE BILT	33.06	46.8	6	41	1	12	6	8		
NEUCHATEL	33.30	56.3	6	42	0					
MONACO	33.49	62.3	6	43	0					
BENSBERG	34.02	49.3	6	49	1				7	55
STRASBOURG	34.02	53.6	6	50	2	12	21	8	7	1 PP
PENNSYLVANIA	34.03	292.5	6	49	1	12	18	5		
WITTEVEEN	34.12	45.9	6	51	2					
TRINIDAD	34.32	231.0	6	50	-1					
MUNSTER	34.49	47.6	6	52	0					
HEIDELBERG	34.75	52.3	6	55	1					
EBINGEN	34.78	54.5	6	59	4					
CHIAVARI	34.85	61.2							8	54
TUBINGEN	34.88	53.9	6	56	1					
STUTTGART	35.04	53.5	6	56	-1	12	28	-1	8	3 PP
RAVENSBURG	35.18	55.2	7	2	4					
MORGANTOWN	35.74	290.7	7	3K	0					
SCORESBY SD.	36.01	7.4	7	6	1	12	50	6	8	33 PP
PRATO	36.14	61.9	7	7	1	12	47	1		
SONNEBERG	36.46	51.0	7	8	-1				8	33 PP
JENA	36.77	50.1	7	11	0	13	1	5	8	31 PP
HALLE	37.07	49.2	7	13	-1	13	6	6	8	34 PP
PLAUEN	37.08	50.9	7	13	-1				8	37 PP
TAMANRASSET	37.25	98.4	7	15K	0				8	50 PP
ROME	37.29	65.1	7	18K	2	13	12	8		
TOLMEZZO	37.45	57.7	7	16	-1				9	37 PCP
COLLMBERG	37.70	49.7	7	19	0	13	20	10	8	48 PP
COLUMBIA	37.70	281.8	7	19	0				9	35 PCP
POTSDAM	37.87	47.9	7	22	1	13	17	4	8	46 PP
TRIESTE	37.97	58.9	7	22	1	13	19	5	8	50 PP
COPENHAGEN	38.08	42.5	7	23K	1	13	21	5	8	42 PP
CARACAS	38.11	237.6	7	28K	5	13	21	5		
GOTEBORG	38.31	39.2	7	32	8					
LJUBLJANA	38.50	58.2	7	26	0				9	5
PRAGUE	38.50	51.8	7	26K	0	13	27	5	8	59 PP
PRUHONICE	38.57	51.9	7	27K	0	13	29	6	9	54
ZAGREB	39.52	58.5	7	34	0					
VIENNA-H.	39.72	54.7	7	34	-2				9	10 PP
MESSINA	40.18	70.4	7	39	-1	13	45	-3	9	15 PP
BRATISLAVA	40.21	54.8	7	39A	-1	13	54	6		
SKALSTUGAN	40.34	30.5	7	41	0					
RACIBORZ	40.93	51.9	7	47	1				9	51 PPP
UPPSALA	41.68	37.1	7	52	0					
KRAKOW	42.04	51.9	7	47	-8	14	21	6	9	29 PP
SKALNATE PL.	42.27	53.2	7	59	2	13	54	-25	9	35 PP
WARSAW	42.73	48.7	8	0K	-1	14	28	3	9	53 PCP
BELGRADE	42.75	59.6	8	2K	1	14	28	2	9	47 PCP
ST. LOUIS 1	43.77	291.5	8	8	-1	14	43	3		
FLORISSANT	43.84	291.7	8	9	-1	14	36	-5		
THULE	43.99	349.2	8	13	2				10	14 PPP
KIRUNA	44.95	26.2	8	18	-1					
SOFIA	45.14	62.2	8	22	2				10	2 PP
NURMIJARVI	45.26	36.9	8	22	1				10	9 PP
HELSINKI	45.38	37.4	8	24	2					
FUQUENE	46.40	239.5	8	32	2	15	31	13		
ATHENS	46.50	68.5	8	24A	-7					
BUCHAREST	46.80	59.3	8	32K	-1					
NORD	46.99	3.6	8	33	-2	15	27	0		
SODANKYLA	47.14	27.7	8	35	-1				10	30 PP
BOGOTA	47.23	239.0	8	37	0	15	33	3		
FAYETTEVILLE	47.49	289.2	7	37A	-62					
PULKOVO	48.04	38.2	8	40	-3					
CHINCHINA	48.09	240.8	8	43	-1	15	44	2		
RESOLUTE	48.52	342.1	8	46A	-1	15	49	1		
APATITY	49.76	27.9	8	56K	0	16	10	4	9	3 *SP
RAPID CITY	51.94	301.8	9	14	1					
MOSCOW	52.25	43.0	9	14	-1	16	41	1		
SIMFEROPOL	52.26	57.0				16	44	4		
HELWAN	55.20	75.5	9	37K	0	17	25	5		
KHEYS	55.99	11.4	9	43	0					
SOTCHI	56.51	57.2	9	46	-1	17	41	4		
KSARA	57.18	69.3	9	52K	1	17	46	0	11	55 PP
JERUSALEM	57.48	71.8	9	54	1					
BUTTE	57.73	306.4	9	55	0					
HUNGRY HORSE	57.93	309.4	9	54	-3					
BANFF	57.98	312.9	9	56	-1					

BANGUI	58.09	109.1	9	57	-1					12	12 PP
SALT LAKE C.	59.06	300.4	10	5	0						
LA PAZ	60.31	217.2	10	13	0	18	32	5			
HUANCAYO	60.60	226.7	10	14K	-1						
TIFLIS	60.67	57.7	10	15	-1	18	29	-2			
TUCSON	61.71	291.1	10	23	0						
MAKHACH-KALA	62.03	55.5	10	25	0						
EUREKA	62.47	300.4	10	26	-2					12	43 PP
SVERDLOVSK	64.16	37.4	10	38	-1						
RENO	65.13	301.9	10	47	2						
CORVALLIS	65.28	308.1	10	52K	6						
FRESNO	66.36	299.2	10	53	0						
PASADENA	66.38	296.0	10	55	2	19	38	-5		21	0 SCS
SHASTA	66.39	304.0	11	7	14						
COLLEGE	67.47	334.8	10	59	-1	19	52	-4			
TEHERAN	67.88	61.2	11	2	-1	20	5	4			
LWIRO	70.14	107.7	11	17A	0						
SHIRAZ	71.69	66.4	11	26K	0	20	44	-2			
TIKSI	72.83	5.3	11	32	-1						
BROKEN HILL	77.71	117.6								12	2 PCP
NAMANGAN	78.59	47.7	12	6	1						
ANDIJAN	79.15	47.6	12	9	1	22	13	5			
FRUNSE	79.21	44.9	12	10	1	22	14	5			
ALMATA	80.26	43.4	12	17	3						
BULAWAYO	81.59	121.8								12	24
QUETTA	81.89	58.9	12	24K	1	22	43	7		15	34 PP
YAKUTSK	82.31	7.2	12	24	-1						
IRKUTSK	85.89	23.7	12	42	-1						
ULAN-BATOR	90.47	24.6	13	6	1						
PETROPAVLOVK	91.34	351.8	13	9	0						
BYRD STATION	123.49	192.0								20	44 PP
SOUTH POLE	125.03	180.0	19	3	0					20	46 PP
SCOTT BASE	136.24	186.5	19	26	2						
CAPE HALLETT	140.64	191.8	19	33	1						
RABAUL	148.44	346.4	19	45	0					19	59
CHARTERS TS.	164.89	355.7	20	12	6					21	7

JUNE 9 2.H 44.M 9.S EPICENTRE 39.94 39.57 DEPTH= 0.KM

A= 0.59264 B= 0.48974 C= 0.63947 D= 0.6370 E=-0.7709
G= 0.4929 H= 0.4074 K=-0.7688 HT= -1.7

SE= 2.50

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ABASTUMANJ	3.06	52.8	0	50A	-1						1	30	S*
ZUGDIDI	3.11	33.3	0	50A	-1						1	30	S*
GEGECHKORI	3.21	40.5	0	53K	0						1	42	SG
AKHALKALAKI	3.31	62.7	0	54K	0						1	45	SG
BOGDANOVKA	3.34	65.3	0	54	-1						1	47	SG
LENINAKAN	3.38	74.3	0	59	4						1	57	SG
BORZHOMI	3.45	55.6	0	55K	-1						1	48	SG
BAKURIANA	3.49	57.9	0	55	-2						1	48	SG
SOTCHI	3.64	1.7	1	0	1	1	42	-1					
KRASNAYA	3.75	7.0	0	59A	-2	1	40	-6					
EREVAN	3.79	84.8	1	1	0						2	9	
STEPANAVAN	3.82	72.4	1	5	3						2	2	SG
GORI	4.00	58.0	1	2	-2						2	6	SG
TIFLIS	4.35	64.2	1	6	-3						2	19	SG
DUZHETI	4.43	59.5	1	8A	-2						2	21	
PIATIGORSK	4.85	31.4	1	15A	-1						2	18	
KIROVOBAD	5.22	80.0	1	22	1						2	52	SG
GORIS	5.23	92.7	1	21	-1						3	1	
GROZNY	5.73	51.9	1	28	-1						3	9	
THEODOSIA	5.94	330.0	1	29K	-3	2	36	-5					
YALTA	6.07	320.4	1	31	-2	2	40	-4					
ALUSHTA	6.10	322.9	1	32	-2	2	41	-4					
SIMFEROPOL	6.42	322.9	1	38	0	2	49	-4			3	6	
MAKHACH-KALA	6.68	60.5									1	44	
KSARA	6.79	207.0	1	43	-1	2	50	-13			1	49	PP
SHEMAKHA	6.96	81.4									1	48	
JERUSALEM	8.88	204.7	2	11	-2	4	2	7					
TEHERAN	10.25	110.4	2	33	1	4	27	-1					
KISHINEV	10.53	315.7	2	30	-5	4	26	-9					
BUCHAREST	10.95	298.5	2	43	2						4	32	

BACAU	11.36	309.8	3	2	15				4	56	
HELWAN	12.10	216.4	2	55	-2				8	6	
KIZYL-ARVAT	12.91	87.9	3	6	-2				5	36	
ASHKABAD	14.75	91.8	3	29	-3				6	1	
SHIRAZ	14.77	130.1	3	30	-2				8	14	
MOSCOW	15.85	356.0	3	44	-2	6	32	-11	7	12	
KRAKOW	17.13	312.6							5	3	
WARSAW	17.73	320.0	4	9	-1	7	37	11	8	42	PCP
BRATISLAVA	18.08	304.5	4	16A	2						
RACIBORZ	18.13	311.0	4	17	2						
ZAGREB	18.23	296.5	4	18	2						
VIENNA-H.	18.57	304.2	4	23	3						
MESSINA	18.72	272.4	4	23	1	8	52	63			
LJUBLJANA	19.27	296.7	4	30K	1				5	0	
TRIESTE	19.74	295.3	4	37	3						
PRUHONICE	20.26	308.0	4	38A	-2				5	3	
TOLMEZZO	20.35	297.2	4	41	0				6	0	
PRAGUE	20.37	308.1	4	41	0						
ROME	20.54	284.3	4	44	1	8	44	16			
PULKOVO	20.69	346.7	4	41	-3				8	46	
PRATO	21.50	289.9	4	56	3						
COLLMBERG	21.65	310.4	4	53	-1				5	15	PP
SVERDLOVSK	21.79	32.2	4	52	-4				9	40	
PLAUEN	21.88	307.9	5	0	3						
HELSINKI	22.21	340.5	4	58	-2	9	2	2			
HALLE	22.34	310.3	5	4	3				5	26	PP
JENA	22.37	308.7	5	10	9				5	32	PP
TASHKENT	22.54	76.8	5	4	1				6	37	
NURMIJARVI	22.59	340.6	5	2	-2	9	15	8			
RAVENSBURG	22.86	299.9	5	9	3						
STUTTGART	23.26	302.3	5	9	-1	9	26	7	6	5	
KULYAB	23.52	85.3	5	12	-1						
HEIDELBERG	23.74	303.7	5	15	0						
MONACO	24.16	289.6	5	18	-1						
UPPSALA	24.22	332.6	5	26	7	9	45	9			
QUETTA	24.36	105.1	5	22	1	9	50	12			
NAMANGAN	24.38	77.1	5	28	7				9	56	
ISOLA	24.42	290.7	5	22	1				5	57	PP
FERGANA	24.55	78.5	5	26	3				10	3	
ANDIJAN	24.94	77.5	5	29	3				10	12	
KHOROG	24.99	85.4	5	30	3						
GOTEBORG	25.13	324.2	5	32	4				6	4	
FRUNSE	26.34	72.2	5	39	-1				10	31	
UCCLE	26.77	305.7	5	46	2						
NARYN	27.54	75.0	5	52	1						
APATITY	27.87	355.0	5	50	-4				11	2	
ALMATA-2	28.30	70.8	6	0	3				11	15	
SODANKYLA	28.40	349.5	5	59	1				6	24	
SKALSTUGAN	28.65	334.7							6	23	
KIRUNA	29.85	345.5	6	9	-2						
TAMANRASSET	33.48	249.5	6	42	-1						
BANGUI	40.14	213.6	7	35	-5				9	19	
CHATRA	41.38	93.5	7	50K	0						
CHITTAGONG	47.35	95.6	8	33	-5						
ULAN-BATOR	47.74	57.0	8	41	0						
TIKSI	52.45	23.6	9	17	0						
YAKUTSK	55.74	34.8	9	42	1						
BULAWAYO	60.64	191.8	10	12	-3						
RESOLUTE	61.75	347.6	10	23	0						
SEVEN FALLS	73.49	318.1	11	37	0						
COLLEGE	75.36	3.3	11	47	0						
HUNGRY HORSE	89.02	342.7	12	58	0						
EUREKA	97.85	341.1	13	48	9						

JUNE 9 8.H 24.M 1.S EPICENTRE 40.35 19.96 DEPTH= 0.KM

A= 0.71837 B= 0.26092 C= 0.64488 D= 0.3414 E=-0.9399
G= 0.6061 H= 0.2202 K=-0.7643 HT= -1.8

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	
TARANTO	2.07	274.3	0	38	2	1	10	7					
SOFIA	3.45	46.0	1	1	5	1	38	0			1	50	SG
ATHENS	3.76	127.9									1	14	PG

REGGIO CALA.	4.03	237.5	0	59	-5	1	55	2	
MESSINA	4.04	239.4	1	6	2	1	53	0	1 21 PG
BELGRADE	4.48	4.4	1	13A	2	2	20	16	1 34 PG
TIMISOARA	5.48	9.3	1	40	15	2	40	11	3 8 SG
ROME	5.86	287.8							2 0
BUCHAREST	6.10	46.1	1	35	1	2	58	13	2 0 PG
ZAGREB	6.20	333.3	1	33A	-2				3 24 SG
LJUBLJANA	6.95	326.9	1	44	-2	3	11	5	2 23 PG
TRIESTE	6.99	321.4	1	45	-1	3	10	3	3 59 SGSG
BUDAPEST	7.16	354.9	1	53	4				4 9 SG
PRATO	7.47	301.1	2	10	17				5 5
HURBANOVO	7.63	351.0				3	15	-8	
TOLMEZZO	7.88	322.4	1	56	-3	3	27	-3	2 50
BRATISLAVA	8.09	346.3	2	0	-1	3	30	-5	2 39 PG
VIENNA-H.	8.31	343.2	2	5	0				4 53 SG
CHIAVARI	8.82	300.2	2	24	12	3	57	4	3 6
SKALNATE PL.	8.83	1.2	2	15	3	3	51	-2	
KRAKOW	9.70	359.9	2	25	1	4	27	12	
RACIBORZ	9.81	353.3	2	39	14				3 7
LWOW	9.90	15.5	2	32	5	4	36	16	
MONACO	9.92	294.0	2	26	-1				
CHUR	9.97	314.1	2	29	1	4	9	-12	
OROPA	10.24	304.9							3 21
ISOLA	10.31	296.0	2	34	2				
PRUHONICE	10.36	340.2	2	31A	-2				
PRAGUE	10.47	340.0							4 32
RAVENSBURG	10.51	318.4	2	33	-2				6 5
EBINGEN	11.10	318.5	2	39	-4				6 29
TUBINGEN	11.28	320.1	2	43	-2				6 23
STUTTGART	11.35	321.4	2	44K	-2	4	45	-10	
SIMFEROPOL	11.39	61.6	2	41	-6				
PLAUEN	11.52	334.3	2	50	1				3 8
NEUCHATEL	11.52	309.5							4 51 SS
STRASBOURG	11.97	317.5	3	0	5				4 14
COLLMBERG	11.97	338.5	2	57	2	5	19	9	3 8 PP
HEIDELBERG	12.05	322.4	2	54	-2				5 3
JENA	12.09	333.9	2	55	-1	5	26	13	4 49
SETIF	12.17	254.7	3	1	4				3 49
BESANCON	12.22	309.0	2	59	1				
HALLE	12.46	336.2				5	17	-5	3 48
POTSDAM	12.93	340.8							6 37
BENSBERG	13.86	324.2	3	17	-3				8 6
HELWAN	13.98	134.9	3	16	-6	5	46	-13	
KSARA	14.27	112.1	3	25	0				
MUNSTER	14.41	327.9							7 50
JERUSALEM	15.00	120.0	3	38	3	6	14	-9	
UCCLE	15.09	319.0	3	19	-17				
FOLINIERE	16.79	306.9	3	56	-2				
TOLEDO	18.36	276.3	4	22	4				
MOSCOW	19.31	31.3	4	26	-3				
UPPSALA	19.58	356.5	4	30	-2				
HELSINKI	20.09	7.3	4	38	0				
DURHAM	20.36	322.3	4	40	-1				
NURMIJARVI	20.40	6.7	4	39	-2				
PULKOVO	20.50	15.1	4	40	-2	8	34	7	
MAKHACH-KALA	20.71	73.7	4	45	1				
TAMANRASSET	21.35	219.2	4	53	2				5 13 PP
SKALSTUGAN	23.71	351.4	5	12	-2				
APATITY	28.25	10.9	5	55	-2				
SHIRAZ	28.58	101.7	5	59K	-1	10	48	0	
SVERDLOVSK	30.98	44.1	6	21	0				
THULE	50.80	342.3	9	3	-1				
RESOLUTE	57.57	343.4	9	52	-2				
YAKUTSK	63.46	29.7	10	37	3				
PALISADES	67.51	305.2							23 17
COLLEGE	74.68	354.6	11	43	0				
LAWRENCE	81.37	314.5	12	21	1				
RAPID CITY	81.62	322.4	12	22	1				
HUNGRY HORSE	82.74	331.1	12	28	1				
EUREKA	90.95	327.4	13	9	2				
SOUTH POLE	130.16	180.0	19	13	1				

JUNE 9 11.H 23.M 56.S EPICENTRE -18.17 168.25 DEPTH= 0.KM

A=-0.93080 B= 0.19366 C=-0.31000 D= 0.2037 E= 0.9790
G= 0.3035 H=-0.0631 K=-0.9507 HT= 5.1

SE= 2.88

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	0.45	9.0	0 9	-4	0 23	1		
KOUMAC	4.43	237.0	1 15	5				
NOUMEA	4.44	202.0	1 7	-3	1 50	-13		
SUVA	9.68	91.4	2 36	12	4 32	18		
BRISBANE	16.94	234.5	3 54K	-6	7 11	3		
ONERAHI	18.35	164.0	4 24	6	7 56	16		4 48
AFIAMALU	19.65	80.4	4 35K	2				4 46 PP
KARAPIRO	20.69	163.5	4 42	-2				13 28
CHARTERS TS.	20.86	261.2	4 43K	-3	8 39	4		
RABAUL	20.98	309.5	4 52	5				8 52
RIVERVIEW	21.84	221.1	4 57K	1	8 57	4	5 7	5 34 PPP
TUAI	21.97	161.1	5 2	5				
PORT MORESBY	22.25	290.3	5 1	1	9 6	5		5 23
WELLINGTON	23.70	167.7	5 15	1	9 26	-1		
CANBERRA	24.15	221.2	5 18A	-1	9 36	1	5 26	9 46 *SS
KAIMATA	24.42	174.3	5 25	4	9 51	12		
GEBBIES PASS	25.72	172.6	5 31	-3				
ROXBURGH	27.24	178.4	5 54	6	10 13	-13		
MELBOURNE	28.25	221.4	5 57	0	10 52	10		12 16 SS
FORT NELSON	30.37	211.2						13 20 SSS
ADELAIDE	31.10	231.6	6 20	-2	11 26	-2		
MUNDARING	48.67	243.2	8 45	-3			8 53	
PERTH	48.99	243.2	8 57	7	16 2	7		15 48
HONOLULU	51.24	41.5	9 6	-2	16 44	18		
HAWAII V.OB.	51.76	45.6	9 14	2	17 0	27		
CAPE HALLETT	54.15	179.3	9 26	-3	17 4	-2		19 26 SCS
BAGUIO CITY	58.17	303.4	9 59	1	18 1	2		
SCOTT BASE	59.72	180.4	10 6	-3				
LEMBANG	60.02	272.6	10 14	3	18 29	6		
TUKUBASAN	60.30	333.9	10 6	-7	18 26	-1		22 4 SS
WILKES	60.76	203.0	10 17	1	18 27	-5		22 24 SS
DJAKARTA	60.96	273.0	10 14	-3	18 34	-1		
ABUYAMA	61.21	329.6	10 20A	1				
MATUSIRO	61.37	332.7	10 19	-1	18 41	1		23 22 SS
NHATRANG	65.61	293.0	10 50	2	19 36	3		
ZO-SE	66.66	316.8	10 54A	-1				
MIRNY	67.61	204.7	10 57	-4	19 53	-4		
Y.-SAKHLINSK	68.84	341.6	11 10	2	20 16	4		
NANKING	68.85	316.2	11 9	0				
BYRD STATION	69.15	169.8	11 6	-4				
UGLEGORSK	70.89	342.1	11 24	3	20 44	8		
PETROPAVLOVK	71.38	353.9	11 24	0	20 44	2		
SOUTH POLE	71.94	180.0	11 24	-3				13 14
PEKING	75.52	321.3	11 49A	1	21 12	-16		
SIAN	76.82	313.0	11 57A	2				
KUNMING	76.91	302.1	11 58A	2	21 47	3		
MAGADAN	78.74	351.0	12 6	0	22 6	3		
MAWSON	79.06	202.1	12 6	-2				
PAOTOW	79.60	318.8	12 13	2				
LANCHOW	81.31	312.3	12 22A	2				
TOCKLAI	84.09	300.5	12 40K	6				
YAKUTSK	85.56	342.9	12 42	1	23 4	-9		
ULAN-BATOR	85.57	323.7	12 40	-2				
BERKELEY	85.75	48.0	12 43	1	22 43	-32		13 34
LICK	85.96	48.7	12 44A	1				
SHILLONG	86.03	298.4	12 41K	-3				
SHASTA	86.94	45.4	12 48K	0				
FRESNO	87.03	49.9	12 49	0				
PASADENA	87.16	52.8	12 47	-2	23 31	3		14 30 PP
MINERAL	87.32	46.0	12 48	-2				
ARGENTINE I.	87.84	160.5	12 52	-1				
CALCUTTA	87.91	294.4	13 6	13	23 25	-10		
RENO	88.21	47.4	12 56A	2				
LHASA	88.24	301.9	12 56	1	23 23	-15		
IRKUTSK	89.30	326.5	12 59	-1				
COLLEGE	89.31	17.2	12 56	-4	23 27	-21		16 40 PP
VICTORIA	89.90	38.2	13 3	1				
BOULDER CITY	90.39	52.2	13 4	-1				
CHATRA	90.42	298.0	13 7	2	23 34	-24		
COLOMBO	90.59	277.0						23 37
EUREKA	90.89	48.6	13 5	-2				41 40 SKPPKP
RUTH	91.51	49.1	13 11	1	23 47	-21		
TUCSON	92.15	56.9	13 12	-1				
MADRAS	92.18	282.9						23 43

TUCSON TELE.	92.27	56.8	13	14	1						
TIKSI	93.50	348.4	13	16	-3				23	52	SKKS
HUNGRY HORSE	95.51	40.9	13	32	4				38	36	PKPPKP
AGRA	98.28	295.8	13	41A	0						
DEHRA DUN	99.12	298.9				24	22	-1	18	10	
BOMBAY	100.66	286.5				24	27	-3	17	1	
ALMATA	103.15	311.4							18	21	PP
FRUNSE	104.73	310.6							18	31	PP
QUETTA	108.44	296.5				25	6	0	18	55	SS
FLORISSANT	109.88	54.5	14	35	777				28	36	PS
KHEYS	111.08	350.5							19	14	PP
LA PAZ	114.68	118.5							19	49	PP
CHINCHINA	116.35	93.5				25	37	0	29	42	PS
BOGOTA	117.72	94.4				25	47	5	19	56	PP
FUQUENE	118.30	93.6				25	53	9	20	5	PP
SHIRAZ	120.79	294.1	18	55	1				25	40	
PALISADES	122.59	52.6	18	56	-2	25	56	-3	20	36	PP
APATITY	122.93	341.1	18	56	-3				20	30	PP
WESTON	124.40	50.7							20	45	PP
MAKHACH-KALA	124.56	310.0	19	4	2						
BULAWAYO	125.07	228.0	19	2	-1						
TIFLIS	126.71	308.8	19	8	2						
MOSCOW	127.28	327.3							21	5	PP
SCORESBY SD.	127.34	4.3							22	25	PKS
PULKOVO	128.64	334.3	19	8	-2						
BROKEN HILL	128.78	233.4	19	14	4						
SOTCHI	130.04	312.0							22	36	SKP
ADDIS ABABA	130.19	266.5	19	18	5						
NURMIJARVI	130.39	337.3	19	13	0				22	37	SKP
SKALSTUGAN	131.74	345.9	19	16	1				22	41	PKS
SIMFEROPOL	133.50	315.4	19	20	1						
KSARA	134.84	299.8	19	24	3				22	6	PP
LWIRO	135.21	247.2	19	26	4						
JERUSALEM	135.64	297.1	19	25	2				22	2	PP
LWOW	137.37	326.0	19	32	6				22	15	
WARSAW	137.40	330.5	19	28	2				22	11	PP
COPENHAGEN	138.30	339.6	19	30K	2				22	20	PP
BUCHAREST	138.95	318.0	19	30K	1				22	22	PP
HELWAN	139.18	294.8	19	31K	2				22	28	PP
KRAKOW	139.34	328.7							23	8	PKS
POTSDAM	140.70	336.0	19	26	-6						
COLLMBERG	141.57	335.0	19	31	-2				22	40	PP
HALLE	141.83	336.0	19	32	-2				22	17	PP
PRUHONICE	141.90	332.4	19	31A	-3				22	43	PP
BRATISLAVA	141.97	328.4	19	35	1						
BELGRADE	142.22	321.8	19	30A	-5				22	34	PP
JENA	142.42	335.7	19	29	-6				22	41	PP
PLAUEN	142.53	334.8	19	31	-4						
MUNSTER	142.98	340.1	19	34	-2						
DE BILT	143.61	342.4	19	35	-2				22	56	PP
BENSBERG	143.99	339.6	19	38	0						
ZAGREB	144.10	326.3	19	39	1						
RATHFARNHAM	144.69	354.3	19	38	-1				23	1	PP
HEIDELBERG	144.74	336.7	19	36	-3						
UCCLE	145.01	342.1	19	39	0						
STUTTGART	145.04	335.5	19	38A	-1				22	46	PP
TOLMEZZO	145.20	329.5	19	41	1				23	30	PKS
TUBINGEN	145.32	335.5	19	39	-1						
TRIESTE	145.37	327.9	19	40	0						
KEW	145.56	347.3	19	41	1						
EBINGEN	145.64	335.2	19	40	0						
RAVENSBURG	145.69	334.1	19	40	-1						
STRASBOURG	145.78	336.8	19	43A	2				23	4	PP
TARANTO	146.59	317.8	19	34	-8						
PARIS	147.33	342.5	19	45	2				23	16	PP
NEUCHATEL	147.39	336.0	19	46	3						
BESANCON	147.55	337.2	19	44	0						
PAVIA	147.91	331.6	19	51K	7				23	19	PKS
PRATO	147.96	328.0	19	50	6						
FOLINIERE	148.14	345.8	19	45	0						
GARCHY	148.52	340.5	19	44	-1						
ROME	148.59	324.0	19	47K	2				23	33	PKS
REGGIO CALA.	148.91	315.3	19	54	8						
MESSINA	148.93	315.6	19	42	-4	26	51	-2	23	25	PP
ISOLA	149.64	332.7	19	49	2						
MONACO	149.82	331.7	19	47	0						
CLERMONT-FD.	149.83	339.1	19	55K	8				23	41	PKS
BAGNERES	153.21	340.4	19	54	2				23	46	PP

SETIF	156.50	323.2	19	59	2					20	29 PKP2
ALGIERS UNI.	157.35	327.8	19	59	1	27	16	14		24	11 PP
TOLEDO	157.37	344.5								20	30 PKP2
ALICANTE	157.62	336.2	19	53	-5	26	58	-4			
RELIZANE	159.38	330.5	20	0	0					24	15 PP
ALMERIA	159.68	338.1	20	0K	-1	26	32	-33		24	22 PP
GRANADA	159.75	340.9	20	1A	0	27	28	23		24	28 PP
MALAGA	160.42	342.1	19	59K	-2					24	19 PP
TAMANRASSET	163.18	288.7	20	7A	3					24	44 PP

JUNE 9 17.H 47.M 41.S EPICENTRE 38.14 -26.30 DEPTH= 0.KM

A= 0.70691 B=-0.34937 C= 0.61499 D=-0.4431 E=-0.8965
G= 0.5513 H=-0.2725 K=-0.7885 HT= -1.0

SE= 2.93

	DELTA DEG.	AZ. DEG.	P M	P S	O-C P S	S M	S S	O-C S S	*PP M	*PP S	SUPP. M	SUPP. S
PONTA DELGDA	0.64	129.6	0	15A	-1							
ANGRA DO HO.	0.89	305.2									0	29 SG
HORTA	1.87	282.8	0	31	-2	0	50	-8				
LISBON	13.46	82.2	3	8	-7	6	1	15				
SERRA PILAR	13.96	72.1	3	15A	-6	5	48	-10			3	27 PP
TOLEDO	17.38	77.3	4	3K	-2	7	30	12			4	24 PP
MALAGA	17.45	87.9	4	4A	-2	7	20	0			4	18 PP
GRANADA	18.00	86.0	4	13A	0	7	28	-4			4	25 PP
ALMERIA	18.95	86.5	4	24	-1	7	47	-7			4	36 PP
ALICANTE	20.27	81.4	4	39	-1	8	21	-1			4	59 PP
RATHFARNHAM	20.51	35.9	4	38A	-4	8	29	2				
JERSEY	20.60	49.8	4	43	0	8	36	7				
BAGNERES	20.64	67.8	4	43	0	8	41	11				
TORTOSA	20.83	74.2	4	44	-2	8	41	7				
FOLINIERE	21.45	52.0	4	53	1							
RELIZANE	21.57	88.1	4	49	-4	8	18	-30			5	6 PP
BARCELONA	22.05	72.5	4	47	-11	9	5	8				
KEW	22.60	45.5	5	4	1	9	13	6			8	35
CLERMONT-FD.	23.08	61.3	5	12K	4	9	24	8				
ALGIERS UNI.	23.30	84.3	5	10	0	9	28	8			5	47 PP
GARCHY	23.32	57.5	5	10	0	9	42	22				
PARIS	23.32	53.5	5	11	1	9	29	9				
DURHAM	23.61	37.2	5	15A	2	9	29	4				
ABERDEEN	24.83	32.1									8	19
MBOUR	25.07	158.2	5	31	4	9	57	7				
BESANCON	25.26	58.5	5	32	3							
SETIF	25.27	84.6	5	29	0						6	4 PP
ISOLA	25.71	65.8	5	35	2							
NEUCHATEL	25.88	59.3	5	37	2							
MONACO	25.97	66.8	5	38	2							
DE BILT	25.99	47.3	5	38	2	10	7	2				
REYKJAVIK	26.16	4.4	5	40	2							
STRASBOURG	26.67	56.0	5	45K	3	10	19	2			6	17
WITTEVEEN	27.09	46.5	5	49	3							
CHIAVARI	27.34	65.5	6	37	49	10	44	17			9	29
MUNSTER	27.38	48.7	5	51	2							
EBINGEN	27.40	57.1	5	47	-2							
HEIDELBERG	27.44	54.4	5	49	0							
TUBINGEN	27.52	56.4	5	49	-1							
STUTTGART	27.69	55.9	5	49	-3	10	24	-9			6	34 PP
RAVENSBURG	27.78	58.1	5	48	-4							
PRATO	28.63	66.5	6	9	9							
JENA	29.54	52.0	6	6	-2	11	4	1			6	47 PP
ROME	29.76	70.4	6	10	0	11	12	6				
PLAUEN	29.82	53.0	6	8	-3							
HALLE	29.87	51.0	6	11	0						6	54 PP
TOLMEZZO	29.99	61.3	6	30	18						8	36
COLLMBERG	30.48	51.6	6	17	0	11	11	-7				
TRIESTE	30.49	62.8	6	22	5	11	24	6			9	41
POTSDAM	30.73	49.5	6	20	1	11	21	-1				
PRAGUE	31.20	54.3	6	28	5	11	33	4				
COPENHAGEN	31.22	43.2	6	26K	3	11	33	4				
TAMANRASSET	31.22	110.2	6	23	0	11	28	-1			7	19 PP
PRUHONICE	31.27	54.4	6	23	-1	11	34	4				
GOTEBORG	31.66	39.3	6	30	3							
ZAGREB	32.05	62.4	6	35	5							
VIENNA-H.	32.33	57.9	6	31	-2							

SCORESBY SD.	32.49	2.7	6	38	4	11	54	5		
MESSINA	32.70	76.7	6	26	-10	11	42	-10	7	36 PP
BRATISLAVA	32.82	58.1	6	35	-2	11	43	-11	7	17 PP
SEVEN FALLS	33.58	300.0	6	42	-2					
WESTON	34.31	291.6	6	49	-1					
SKALSTUGAN	34.33	29.6	6	49	-1					
KRAKOW	34.74	54.8	6	53	-1	12	24	0		
SKALNATE PL.	34.92	56.3	6	59	4					
UPPSALA	35.16	37.5	6	56	-1					
BELGRADE	35.26	63.9	6	59A	1	12	42	10	7	56 PP
WARSAW	35.54	51.1	7	3	2	12	37	1	8	26 PP
BREBEUF	35.60	297.3	7	1	0					
PALISADES	36.46	289.8	7	5	-3	12	51	0	8	31 PPP
OTTAWA	37.08	297.4	7	12	-1					
LWOW	37.38	55.2	7	17	1					
NURMIJARVI	38.72	37.9	7	28	1					
HELSINKI	38.81	38.5	7	28	0					
KIRUNA	39.28	25.9	7	32	0					
BUCHAREST	39.31	63.7	7	31	-1	13	32	-2	9	0 PP
PENNSYLVANIA	39.43	290.6	7	33	0	13	37	1		
SAN JUAN	39.84	251.7	7	35	-2					
MORGANTOWN	41.27	289.4	7	49	1					
SODANKYLA	41.32	27.9	7	49	0					
PULKOVO	41.41	39.7	7	52	2					
THULE	42.60	346.5	8	1	2					
NORD	43.73	2.0	8	7K	-1	14	39	0		
COLUMBIA	43.90	282.0	8	9	-1					
APATITY	43.91	28.6	8	9	-1	14	37	-5	9	59 PP
SIMFEROPOL	44.81	61.2	8	17	0	14	53	-2		
MOSCOW	45.32	45.6	8	19	-2					
CARACAS	45.58	243.7	8	24	1	15	11	5		
HELWAN	47.82	81.9	8	42	1	15	43	5		
RESOLUTE	47.98	340.5	8	41K	-1	15	39	-1		
ST. LOUIS 1	49.17	291.6	8	50	-1	16	0	3		
FLORISSANT	49.22	291.9	8	52A	0					
KSARA	49.68	75.0	8	57	2	16	8	4	10	58 PP
JERUSALEM	50.02	77.7	8	59	1					
KHEYS	51.73	12.0	9	16	5	16	36	4		
LAWRENCE	52.70	293.9	9	17	-1					
FAYETTEVILLE	53.05	290.1	8	19	-62					
TIFLIS	53.21	62.2	9	22	0					
FUQUENE	53.89	245.2	9	31	4				11	43 PP
MAKHACH-KALA	54.61	59.8	9	24	-8					
BOGOTA	54.73	244.7	9	41	8	17	45	32		
CHINCHINA	55.60	246.3	9	38	-2					
RAPID CITY	56.28	302.4	9	42	-2				10	41 PCP
SVERDLOVSK	57.52	40.6	9	52	-1	17	47	-3		
BOZEMAN	60.72	306.8	10	11	-4					
HUNGRY HORSE	61.38	310.6	10	18	-2					
BUTTE	61.52	307.7	10	20	-1					
SHIRAZ	64.17	71.6	10	37	-1				14	40
LWIRO	64.73	115.0	10	43A	1					
ADDIS ABABA	64.90	98.5	10	45	2					
EUREKA	66.86	302.7	10	55	-1				13	17 PP
TUCSON TELE.	66.90	293.7	10	56	0					
TUCSON	67.03	293.6	10	57	0					
LA PAZ	67.04	224.0	10	58	1	19	50	0		
COLLEGE	67.66	336.8	11	0	-1	20	0	2	21	46 SCS
HUANCAYO	67.78	232.9	11	1	-1					
BOULDER CITY	67.91	298.9	11	1	-1					
TIKSI	69.12	8.2	11	10	0					
RENO	69.35	304.4	11	12A	1					
MINERAL	70.07	306.0	11	25	9					
PASADENA	71.20	298.9	11	23	0					
NAMANGAN	71.40	52.3	11	25	1					
LICK	71.76	303.3	11	25	-1					
BERKELEY	71.87	304.1	11	26	-1					
ANDIJAN	71.97	52.2	11	29	2	20	54	6		
FRUNSE	72.14	49.4	11	25	-3	20	51	1		
ALMATA	73.26	47.9	11	36	1					
QUETTA	74.40	63.8	11	41	0	21	20	4	22	15 PPS
BULAWAYO	77.56	128.1	11	30	-29					
YAKUTSK	78.32	11.3	12	3	0	21	59	0		
IRKUTSK	80.23	28.2	12	12	-2	22	17	-2		
ULAN-BATOR	84.72	29.5	12	37	0					
PETROPAVLOVK	89.11	357.0	13	1	3	23	30	-16		
BYRD STATION	127.83	192.7	19	1	-7					
SOUTH POLE	127.95	180.0	19	9	1				19	32

SCOTT BASE	139.80	184.2	19 32	2								
CAPE HALLETT	144.75	188.7	19 39	0								

JUNE 10 11.H 59.M 7.S EPICENTRE -6.67 131.10 DEPTH= 0.KM

A=-0.65298 B= 0.74853 C=-0.11539 D= 0.7536 E= 0.6574
G= 0.0759 H=-0.0870 K=-0.9933 HT= 6.9

SE= 1.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PORT MORESBY	16.12	100.7	3	51	1	6	53	3				
CHARTERS TS.	19.86	133.7	4	36	0							
RABAUL	21.12	84.4	4	47	-2				5	6		
LEMBANG	23.32	268.2	5	13A	2	9	25	5				
GUAM	24.15	34.1	5	22	3							
BAGUIO CITY	25.19	335.7	5	30	1	9	46	-7				
MUNDARING	28.75	207.0	6	2	0				6	38		
ADELAIDE	29.02	167.0	6	5	1	11	53	58				
BRISBANE	29.13	1377	6	6	1						12	29
RIVERVIEW	32.79	148.2	6	38A	1							
CANBERRA	32.92	152.5	6	38	-1						7	41
MEDAN	33.93	286.5	6	48	1							
MATUSIRO	43.50	8.3	8	6	-1	14	35	-1			17	20
SHILLONG	49.80	311.6	8	54K	-3							
KARAPIRO	50.84	134.4	9	5A	0						13	25
MIRNY	65.25	195.8	10	45	-1							
YAKUTSK	68.49	359.3	11	7	0							
WARSAK DAM	69.27	310.0	11	12	1							
ALMATA	69.75	320.9	11	15	1							
QUETTA	71.50	304.7	11	25A	0	20	34	-9			21	20 SCS
NAMANGAN	72.11	316.8	11	29	0							
TIKSI	78.15	359.3	12	2	-1							
SOUTH POLE	83.37	180.0	12	29	-2						15	19 PP
SHIRAZ	83.43	300.8	12	30K	-1	22	41	-11				
SVERDLOVSK	85.06	328.7	12	39	0							
BYRD STATION	86.78	170.5	12	47	-1							
COLLEGE	92.21	25.0	13	12	-1							
EUREKA	111.88	50.2	18	39	2							
UCCLE	117.80	324.9	18	45	-4							
TAMANRASSET	125.30	293.1	19	5	2						20	52 PP
HUANCAYO	147.80	125.2	19	54	10							
LA PAZ	150.13	140.6	19	58	10						23	34 PKS

JUNE 10 21.H 12.M 4.S EPICENTRE -15.52-173.88 DEPTH= 0.KM

A=-0.95850 B=-0.10274 C=-0.26594 D=-0.1066 E= 0.9943
G= 0.2644 H= 0.0283 K=-0.9640 HT= 5.7

SE= 2.41

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	7.81	249.4	2	1	3						2	58
NOUMEA	19.78	247.1	4	37	2	8	40	28				
KOUMAC	21.35	253.2	4	44	-7	9	0	16				
ONERAHI	22.74	205.4	5	13	8	9	23	13				
KARAPIRO	24.20	200.7	5	19	0						6	12
BRISBANE	33.09	243.5	6	36	-4	11	59	0				
RIVERVIEW	36.39	233.5	7	8K	0	12	47	-3			8	37 PP
CHARTERS TS.	38.16	257.2	7	23	0	13	21	4				
PORT MORESBY	38.49	274.4	7	27	1	13	30	8				
CANBERRA	38.59	232.3	7	27	0						13	32 PCS
HAWAII V.OB.	39.26	28.4	7	34	2	14	3	29				
HONOLULU	39.73	23.4	7	37	1	13	48	7			9	28 PP
KIPAPA	39.87	23.4	7	39	2							
CAPE HALLETT	57.54	185.7	9	54	0	18	3	12			22	7 SS
SCOTT BASE	63.09	184.5	10	31	-1							
MUNDARING	65.07	241.7	10	44	-1							
TUKUBASAN	67.36	320.9	10	57A	-2	19	59	5			20	58 SCS
MATUSIRO	68.73	320.1	11	6	-2	20	3	-8			24	52 SS
BYRD STATION	68.91	171.3	11	7	-2							
ABUYAMA	69.37	317.3	11	10A	-2							

WILKES	70.12	204.6				20	24	-3	21	11	
BERKELEY	71.88	40.8	11	28	1	20	53	5			
LICK	71.95	41.5	11	29K	2						
BAGUIO CITY	72.04	293.3	11	30	2	20	58	9			
PETROPAVLOVK	72.25	343.0	11	28	-1						
PASADENA	72.44	45.9	11	30	0	21	1	7	21	45	PS
FRESNO	72.81	42.9	11	32	0						
Y.-SAKHLINSK	73.42	330.6	11	38	2						
SHASTA	73.53	38.3	11	37	0						
MINERAL	73.79	39.0	11	36K	-2						
RENO	74.41	40.5	11	45	3						
SOUTH POLE	74.58	180.0	11	45	2				14	8	PP
UGLEGORSK	75.21	331.8	11	49	3						
TUCSON	76.76	50.9	11	55	0	22	3	21			
EUREKA	76.82	42.3	11	55	-1						
TUCSON TELE.	76.89	50.9	11	55	-1						
MIRNY	77.13	204.2	12	54	57	21	47	1			
RUTH	77.34	43.0	11	59	1	21	43	-5			
MAGADAN	80.11	342.6	12	13	-1						
SALT LAKE C.	80.19	42.9	12	9	-5						
NHATRANG	80.94	285.4	12	21	3	22	24	8			
BUTTE	82.43	38.1	12	26	0	22	18	-24			
COLLEGE	82.57	10.9	12	25	-1	22	46	3	26	40	
HUNGRY HORSE	82.83	35.5	12	29	1				15	41	PP
BOZEMAN	83.16	38.9	12	32	3						
YAKUTSK	89.02	336.9	12	57	-1						
ULAN-BATOR	94.33	318.5	13	20	-3						
FLORISSANT	94.64	51.2	12	55	-29	23	59	-36			
ST. LOUIS 1	94.70	51.3				23	38	-58			
TIKSI	94.98	344.5	13	26	0						
IRKUTSK	97.20	322.2	13	41	5						
CHINCHINA	99.26	87.4				24	29	5	25	29	S
LA PAZ	100.14	110.3	14	0	11	24	38	10			
BOGOTA	100.66	88.1				24	34	4	18	8	PP
FUQUENE	101.21	87.4							18	9	PP
PALISADES	107.47	51.4	14	32	777	25	20	18	19	4	PP
KHEYS	111.09	352.0							19	48	PP
FRUNSE	116.11	310.3							19	49	PP
ANDIJAN	117.90	308.1							20	0	PP
SCORESBY SD.	122.44	10.8							27	20	SKKS
QUETTA	122.67	296.1	19	2	4						
APATITY	125.07	347.6	19	1	-2				20	54	PP
SODANKYLA	126.49	350.3	19	8	3						
KIMBERLEY	132.43	202.4	19	22	5						
NURMIJARVI	133.10	347.6	19	20	2						
MOSCOW	133.17	336.1							21	42	PP
SHIRAZ	135.20	296.5	19	25	3				22	3	PP
MAKHACH-KALA	135.36	316.3	19	27	5						
TIFLIS	137.70	316.0	19	32	5						
COPENHAGEN	139.63	354.5	19	35	5				22	28	PP
WARSAW	141.51	345.3	19	31	-2				22	38	PP
SIMFEROPOL	142.34	326.9	19	34	-1						
POTSDAM	142.82	352.9	19	29	-7				22	43	
LWOW	142.82	340.8	19	36	0				22	48	
DE BILT	143.50	1.0	19	41	4				23	14	PP
KEW	143.77	6.8	19	35	-2						
KRAKOW	143.78	344.9	19	35	-2						
HALLE	143.81	353.8	19	39	2						
RACIBORZ	144.16	346.7	19	39	1						
JENA	144.41	354.1	19	38	0				22	12	PP
SKALNATE PL.	144.50	344.0	19	41	2				20	11	PKP2
BENSBERG	144.64	358.9	19	38	-1						
PLAUEN	144.78	353.3	19	38	-1						
UCCLE	144.78	1.9	19	40	1						
PRUHONICE	144.96	350.5	19	40	1				23	3	PKS
SONNEBERG	144.99	354.3	19	41	2						
DOURBES	145.49	1.7	19	43	3				23	23	PP
HEIDELBERG	146.15	356.9	19	44	3						
BRATISLAVA	146.21	346.7	19	45	4						
VIENNA-H.	146.29	3476	19	39	-3						
FOLINIERE	146.40	7.9	19	43	1						
BUCHAREST	146.58	333.6	19	45	3				22	4	
PARIS	146.67	4.4	19	48	6				23	26	PP
STUTTGART	146.74	356.2	19	43	1				90	9	SKKS
TUBINGEN	146.99	376.4	19	48	5						
ADDIS ABABA	147.48	262.4	19	52	8						
KSARA	147.57	309.6	19	50	6				23	18	PP
BELGRADE	148.38	340.4	19	51A	6				24	41	PP
TOLMEZZO	148.68	350.8	19	52	6						

ZAGREB	148.68	346.7	19 53	7							
LJUBLJANA	148.76	348.7	19 48	2							
JERUSALEM	148.95	306.6	19 51	5					23 31	PP	
TRIESTE	149.29	349.5	19 53	7					48 12	SSS	
CLERMONT-FD.	149.74	4.2	19 55K	8							
CHIAVARI	151.17	355.2							39 9		
LWIRO	151.45	233.7	19 58	8							
BAGNERES	152.07	9.4							19 59	PKP2	
HELWAN	152.79	306.0	20 2	10					23 38	PKS	
ROME	153.15	349.4	19 56	4					23 46	PP	
TOLEDO	154.16	18.2	20 5	11	28	27	88		20 19	PKP2	
MESSINA	155.92	341.5	19 57	1	27	1	0		23 57	PP	
GRANADA	156.77	20.0	20 26	29	28	3	61		44 8	SS	
MALAGA	156.91	22.0	20 7K	10					21 58	PP	
MBOUR	157.67	89.9	20 10	12					24 26	PP	
ALGIERS UNI.	158.66	6.8	19 58	-2					24 18	PP	
SETIF	159.40	1.7	20 4	4					24 31	PP	
TAMANRASSET	172.76	4.4	20 15	4					25 31	PP	

JUNE 11 0.H 34.M 54.S EPICENTRE -20.98 -65.66 DEPTH= 295.KM

A= 0.38511 B=-0.85149 C=-0.35587 D=-0.9111 E=-0.4121
G=-0.1467 H= 0.3243 K=-0.9345 HT= 4.4

DEPTH OF FOCUS= 0.041R

SE= 2.24

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
LA PAZ	5.03	331.9	1	19A	1	2	20	1					
HUANCAYO	12.83	312.3	2	52	-1	5	22	11					
BOGOTA	26.74	341.1	5	16	2	9	29	2	6	4	10	58	*SS
FUHUENE	27.45	342.4	5	20A	-1	9	41	3			6	13	PP
CHINCHINA	27.57	338.2	5	22K	0	9	40	0			6	21	PP
PORT STANLEY	31.26	170.6	5	51	-3	10	36	-2					
CARACAS	31.30	357.6	5	52A	-2	10	38	-1					
BALBOA HTS.	32.73	334.0	6	7	0						10	3	
GRENADA	33.05	7.1	6	10	1								
ST. VINCENT	34.21	7.6	6	19	0								
FORT FRANCE	35.76	7.5	6	34	2								
DOMINICA	36.29	7.0	6	37	0								
ANTIGUA	38.06	5.9	6	50	-2								
ST. KITTS	38.19	4.5	6	53	0								
SAN JUAN	39.11	359.3	6	58	-2	12	34	-4	8	1	10	0	*SPP
SANTIAGO MA.	40.93	324.9				13	12	7					
SAN SALVADOR	41.48	324.1				13	18	4					
MERIDA	47.80	329.2	8	6	-3	14	41	-1	9	12	17	33	
OAXACA	48.55	318.7	8	22	7	14	59	6					
VERA CRUZ	49.84	321.2	8	26	1	15	14	3			11	42	PPP
TACUBAYA	51.85	318.5	8	37K	-3	15	35	-3			10	41	PP
COLUMBIA	56.59	344.7	9	13	-1	16	22	-19					
CHAPEL HILL	57.99	347.2	9	23	0						11	53	
MBOUR	59.34	57.8	9	33	0	17	21	4					
WASHINGTON	60.51	349.8	9	39	-2								
MORGANTOWN	61.75	347.5	9	49K	0	17	50	3					
PALISADES	62.14	352.9	9	50K	-1	17	54	2	10	54	12	26	PP
PENNSYLVANIA	62.50	349.6	9	53	-1	17	57	1			11	31	*SP
FAYETTEVILLE	62.85	334.2	8	55K	-61	16	59	-62	9	32			
CHIHUAHUA	62.88	320.2							11	6	10	21	PCP
WESTON	63.25	355.3	9	58	-1								
BYRD STATION	63.48	189.1	10	9	9								
ST. LOUIS 1	63.62	338.7	9	59K	-2	18	7	-3	10	34			
FLORISSANT	63.81	338.7	10	1K	-1	18	12	-1	11	10			
CLEVELAND	63.86	346.8	10	4K	1	18	16	3	11	11			
HALIFAX	65.30	1.6	10	14K	2								
LAWRENCE	65.76	335.0	10	13	-2								
BREBEUF	66.55	353.9	10	19K	-1	18	50	4					
OTTAWA	66.69	352.3	10	20K	-1								
SEVEN FALLS	67.93	356.2	10	29K	1								
TUCSON TELE.	68.32	319.9	10	31	0	19	12	5	11	37	38	44	PKPPKP
TUCSON	68.33	319.7	10	31	0	19	7	0			13	24	PP
SOUTH POLE	69.15	180.0	10	34	-2	19	25	8	11	40			
BOULDER CITY	73.29	320.2	11	1	0	20	10	6			14	51	*PPP
RAPID CITY	73.30	332.7	11	0	-1	20	25	21	12	9			
PASADENA	74.16	316.8	11	5K	-1	20	17	4	12	13	14	55	PP

SALT LAKE C.	74.94	325.4	11	10	0								
RUTH	75.58	322.5	11	14	0								
EUREKA	76.31	322.2	11	19	1	20	43	6	12	28	38	20	PKPPKP
FRESNO	76.85	318.1	11	21	0				12	28			
SCOTT BASE	76.88	189.9	11	19K	-2								
VINEYARD	77.83	317.2	11	26K	0						11	55	
BOZEMAN	78.08	329.3	11	29	2	21	1	6	12	29	23	1	*SS
LICK	78.36	317.6	11	30K	1				12	39			
RENO	78.60	320.3	11	31K	1								
BRANNER	78.75	317.4	11	32K	1								
BUTTE	79.07	328.8	11	33	0	21	10	4	12	45	23	8	*SS
BERKELEY	79.07	317.7	11	33K	0	21	10	4	12	42	22	34	PS
CAPE HALLETT	79.71	194.9	11	34A	-2	21	13	1			26	29	SS
MINERAL	80.18	320.0	11	38K	0						11	56	
UKIAH	80.43	318.3	11	40	0								
GRAHAMSTOWN	80.56	122.0	11	50A	10								
KIMBERLEY	80.56	117.1	11	41	1								
SHASTA	80.87	319.9	11	41	-1	21	27	3					
SERRA PILAR	81.34	39.9	11	37K	-7	21	19	-10	12	45	21	35	SCS
MALAGA	81.42	45.4	11	47K	2	21	35	5	12	53			
HUNGRY HORSE	81.43	329.7	11	45	0	21	33	3	13	3	30	16	PKKP
TAMANRASSET	81.88	61.9	11	48K	1				12	55	14	52	PP
GRANADA	82.21	45.4	11	30A	-19						23	12	
ALMERIA	82.79	46.2	11	51A	-1				12	58			
TOLEDO	83.42	43.0	11	56K	1	21	55	5	13	3	23	49	*SS
CORVALLIS	83.77	322.6	11	57K	0								
MAWSON	83.94	162.5	11	56	-2				13	1			
BANFF	84.11	331.1	11	58A	-1								
RELIZANE	84.29	48.4	12	2K	2				13	10	13	56	*SP
PENTICTON	84.80	327.9	12	1	-1								
ALICANTE	84.92	45.8	11	44	-19	22	2	-2			17	0	PPP
VICTORIA	86.23	325.7	12	9	0								
ALGIERS UNI.	86.54	48.6	12	11K	1	22	13	-7	13	19	15	38	PP
BULAWAYO	86.77	110.2	12	11K	-1								
TORTOSA	86.85	44.0	12	15	3	22	14	-9					
BAGNERES	87.80	42.0	12	17	1	22	22	-9					
SETIF	87.93	50.0	12	17	0	22	12	-21	13	26	15	40	PP
FOLINIERE	90.42	36.9	12	28	-1								
CLERMONT-FD.	91.00	40.7	12	34A	3	22	42	-18					
MIRNY	91.27	171.6	12	31	-2								
REYKJAVIK	91.36	17.7	12	34	1								
KEW	91.94	34.7				22	41	-28					
WILKES	92.91	178.5				23	22	5			29	39	SS
LWIRO	93.37	93.7	12	45A	3						23	34	
DOURBES	93.96	37.4	12	45	0								
UCCLE	94.15	36.7	12	45	-1	22	57	-31					
BENSBERG	95.81	37.4	12	53	0								
TUBINGEN	95.87	40.1	12	53	-1								
HEIDELBERG	96.03	39.2	12	54	0								
STUTTGART	96.10	40.0	12	54	-1				14	4	25	11	SP
SCORESBY SD.	96.21	13.5	13	6A	11	23	6	4					
RESOLUTE	97.25	352.5	12	59K	-1	23	10	3			23	58	
TOLMEZZO	97.47	43.2	12	3	-58	23	13	5			13	25	
TRIESTE	97.66	44.1				23	40	31			23	15	SKKS
KARAPIRO	97.94	224.4	13	2	-1								
JENA	98.34	38.6	13	4	-1						13	16	
HALLE	98.77	38.2	13	7	0	23	23	8					
ZAGREB	99.17	44.5				23	23	6					
PRAGUE	99.70	40.1				23	28	9			24	41	
PRUHONICE	99.74	40.2	13	12	1								
POTSDAM	99.74	37.6	13	12	1								
BRATISLAVA	100.69	42.5									17	25	
KRAKOW	103.05	41.3				23	42	7					
WARSAW	104.32	39.3				23	47	6			24	30	
COLLEGE	105.51	334.0	13	36	777								
LWOW	105.54	42.2	18	11	777						24	38	
BUCHAREST	105.59	48.0				23	53	6					
HELWAN	105.97	63.7	19	3	777						23	54	
KSARA	110.66	60.7	17	59	2				19	42	18	39	PP
SIMFEROPOL	111.31	48.7									19	49	
RIVERVIEW	115.19	213.5	17	53A	-13						18	48	
TIFLIS	118.72	53.1	18	15	2								
BRISBANE	119.21	219.3							19	33			
MAKHACH-KALA	120.76	51.8									21	3	
SHIRAZ	124.01	67.8	18	24	0	25	11	13			21	13	PP
SVERDLOVSK	126.97	33.7	14	9	777								
MUNDARING	127.33	182.0	18	30	1								
CHARTERS TS.	128.61	219.5	18	31	-1						21	54	
TIKSI	128.63	354.2	18	30	-2								

PETROPAVLOVK	133.44	324.5						19	1	
PORT MORESBY	135.83	230.1	18	46	1			21	26	PP
QUETTA	136.54	67.9	18	40	-6	20	0	22	9	PKS
YAKUTSK	137.63	349.3	18	39	-9					
WARSAK DAM	140.16	61.8	18	59	6					
ALMATA	141.76	45.8	18	59	2					
Y.-SAKHLINSK	145.29	325.2	19	4	2					
IRKUTSK	147.81	11.6	19	8	2					
GUAM	150.05	260.5	19	11	1	20	27			
LEMBANG	151.59	165.9	19	21K	9			20	33	PKP2
ULAN-BATOR	152.46	10.9	19	16	3					
TUKUBASAN	152.87	309.6	18	16A	-58			19	36	
MATUSIRO	154.05	311.8	19	16	1	20	57	23	12	PP
CHATRA	154.52	71.5	19	18	2			29	41	
SHILLONG	158.87	73.2	19	23A	1					
NHATRANG	170.00	149.8	19	33	2					

JUNE 11 15.H 14.M 9.S EPICENTRE -9.41 152.33 DEPTH= 0.KM

A=-0.87385 B= 0.45823 C=-0.16251 D= 0.4644 E= 0.8856
G= 0.1439 H=-0.0755 K=-0.9867 HT= 6.6

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	5.11	269.7	1	21	1	2	33	13					
RABAUL	5.18	358.3	1	18	-3								
CHARTERS TS.	12.12	208.2	2	53	-4						9	21	
KOUMAC	15.99	135.2	3	47	-1								
BRISBANE	17.89	178.7	4	13	1	7	36	6					
NOUMEA	18.65	135.0	4	21	0	8	5	18					
GUAM	23.94	341.5	5	18	1	9	29	-2			5	56	PP
RIVERVIEW	24.32	182.4	5	21A	1	9	49	12	5	30	6	4	PP
CANBERRA	25.96	186.2	5	35	-1	10	13	8					
SUVA	26.77	111.7	5	41	-2	10	48	30			6	4	
ADELAIDE	28.32	204.0	5	58	1	10	51	8			10	4	
MELBOURNE	29.06	192.1	6	6	2	10	59	4					
FORT NELSON	33.67	186.6	6	50	5	12	26	18					
KARAPIRO	35.26	147.3	6	56A	-2						8	11	PPP
AFIAMALU	35.41	100.7	6	58	-2	12	35	0			8	25	PP
TUAI	36.76	146.8	7	17	6						8	41	
KAIMATA	36.99	156.3	7	17	4	13	4	5			7	46	
WELLINGTON	37.42	151.7	7	16	-1	13	1	-4			8	45	PP
GEBBIES PASS	38.47	156.1	7	23	-2								
ROXBURGH	38.80	160.8	7	29K	1	13	29	3			8	58	PP
MANILA	39.15	307.3	7	34	3	14	2	30					
MUNDARING	40.26	230.8	7	39	-1						9	13	PP
PERTH	40.55	231.1	7	46	3	14	10	17			9	21	PP
BAGUIO CITY	40.57	309.1	7	42	-1	13	59	6					
TAWU	44.11	316.1									18	15	
LEMBANG	44.31	269.8	8	11K	-2	14	41	-7					
DJAKARTA	45.17	270.6	8	18	-2	14	57	-3					
SIOMISAKI	45.45	340.5	8	19	-3	15	7	3			18	48	
TAIPEI	45.54	319.4				15	15	9					
OSIMA	45.62	345.0	8	28	4	15	3	-4					
HERA	45.65	345.6	8	29	5								
OMAESAKI	45.77	343.7	8	27	2	15	4	-5			11	23	PPP
KAGOSIMA	45.78	333.8	8	22	-3						13	17	
OWASE	45.88	341.3	8	26	0								
AJIRO	45.96	344.9	8	8	-18						15	5	
MISIMA	46.06	344.7	8	16	-11						20	56	
YOKOHAMA	46.18	345.6	8	34	6						14	41	
KOTI	46.32	338.2	8	37	8	15	17	0			9	1	
TOKYO C.M.O.	46.40	345.8	8	30	0	15	5	-13			9	57	PP
HUNATU	46.47	344.7	8	29	-2								
KAMEYAMA	46.51	342.0	8	31	0	15	24	4					
SUMOTO	46.55	340.0	8	34	3	15	23	3			15	56	
NARA	46.56	341.2	8	30	-1								
NAGOYA	46.66	342.6	8	30	-2	15	18	-4					
KOHU	46.69	344.6	8	31	-1	15	24	2			18	42	
KOBE	46.77	340.5	8	32	-1	15	24	1			18	22	
OOITA	46.77	336.0	8	35	2								
KUMAMOTO	46.79	334.8	8	54	21								
ABUYAMA	46.81	341.0	8	27A	-6								
KAKIOKA	46.82	346.5	8	38	5								

TAKAMATU	46.82	339.1	8	33	0	15	28	4	10	59 PPP
TUKUBASAN	46.83	346.4	8	31	-2	15	21	-3	10	19 PP
TITIBU	46.85	345.2	8	34	1					
MATUYAMA	46.85	337.6	8	35	1	15	34	10	19	4
MITO	46.90	346.9	8	34	0					
KYOTO	46.90	341.3	8	35	1					
KUMAGAYA	46.93	345.6	8	36	2				12	6
GIHU	46.93	342.5	8	34	0	15	28	2		
HIKONE	46.97	341.9	8	36	2				15	8
UTUNOMIYA	47.20	346.3	8	32	-4				9	1
MAEBASI	47.25	345.4	8	46	9					
OIWAKE	47.31	344.8	8	40	3					
SAGA	47.33	334.7	9	6	29					
ONAHAMA	47.35	347.5	8	28	-9				11	58
HIROSIMA	47.46	337.5	8	37	-1	15	20	-13		
TAKAYAMA	47.49	343.4	8	36	-3					
HUKUOKA	47.58	335.0	8	41	2	15	30	-5		
MATUSIRO	47.60	344.6	8	37	-2	15	33	-2	19	14 SS
TOYOOKA	47.66	340.6	8	40	0					
SHIRAKAWA	47.66	346.9	8	42	2					
SIMONOSEKI	47.67	335.8	8	42	2					
HUKUI	47.70	342.3	8	38	-2					
NAGANO	47.72	344.6	8	39	-1	15	30	-7		
KANAZAWA	48.02	343.0								9 48
TOYAMA	48.02	343.6	8	29	-14					
HAMADA	48.06	337.5	8	42K	-1	15	45	4		
TAKADA	48.12	344.9	8	43	-1					
HUKUSIMA	48.21	347.4	8	54	10					
SENDAI	48.62	348.0	8	49	2				15	29
ISINOMAKI	48.69	348.5	8	46	-2				16	47
NIIGATA	48.70	346.0	8	40	-8	15	27	-23	11	32
YAMAGATA	48.72	347.4	8	47	-1					
WAZIMA	48.74	343.6	8	48	0				15	52
HONG KONG	48.91	310.6	8	50	0					
AIKAWA	48.99	345.2	8	48	-2				15	53
MIZUSAWA	49.41	348.5	9	7	14	16	0	0		
MIYAKO	49.75	349.5	8	58	2					
MORIOKA	49.95	348.8	8	57	-1	16	8	0		
CANTON	49.99	310.9	9	1K	3	16	17	8	11	0 PP
AKITA	50.18	347.7	9	13	14				16	38
HATINOHE	50.69	349.4	9	18	15	16	41	23		
AOMORI	51.11	348.7	9	10	4	16	23	-1		
HAKODATE	52.07	349.0	9	21	7					
NANKING	52.24	323.6	9	14	-1	16	45	6		
MORI	52.38	349.0	9	6	-10				16	29
MURORAN	52.52	349.4	9	19	2					
KUSIRO	52.64	352.7	9	16	-2	16	46	1		
TOMAKOMAI	52.72	350.0	9	36	17					
OBIHIRO	52.74	351.6	9	28	9				9	28
NEMURO	52.85	353.8	9	27	7				17	10
SUTTSU	53.12	348.9	9	18	-4					
SAPPORO	53.18	350.0	9	14	-8	16	38	-14		
MEDAN	54.99	281.1	9	35	0	17	12	-5		
WAKKANAI	55.42	350.9							10	43
VLADIVOSTOK	55.50	341.9	9	37	-2	17	20	-4	13	1 PPP
Y.-SAKHLINSK	56.83	352.2	9	46	-3				13	18 PPP
HONOLULU	57.45	57.4	9	54	1	17	51	2	21	51 SS
KIPAPA	57.57	57.3	9	55	1					
TERRE ADELIE	57.81	185.1	9	55	0					
CHANGCHUN	58.40	337.3	10	1K	1	18	8	6		
HAWAII V.OB.	59.04	60.7	10	6	2	17	44	-26		
KUNMING	59.25	306.6	10	6K	0	18	20	7	12	20 PP
PEKING	59.50	328.3	10	5K	-2	18	16	0		
SIAN	59.82	318.8	10	7	-2					
PETROPAVLOVK	62.42	4.3	10	25	-2				14	8 PPP
PORT BLAIR	62.85	288.3	9	36	-54					
WILKES	63.54	197.5	10	35K	1	19	11	3	23	17 SS
CAPE HALLETT	63.78	174.0	10	34	-2	19	21	11	23	19 SS
LANCHOW	64.24	317.6	10	39K	0	19	19	3		
TOCKLAI	66.39	304.6	10	55	2					
CHITTAGONG	67.16	299.0	10	58	0	19	58	6	13	31 PP
SHILLONG	68.31	302.3	11	2K	-3	20	8	2	13	38 PP
MAGADAN	68.74	359.2	11	3	-5				15	29 SCP
SCOTT BASE	68.82	176.8	11	7A	-1	20	26	14		
ULAN-BATOR	69.78	329.3	11	12	-2	20	21	-2		
CALCUTTA	70.21	298.0	11	22	5				15	52
LHASA	70.57	305.9	11	19K	0	20	37	5	14	1 PP
CHATRA	72.70	301.9	11	30K	-2	21	0	3		

YAKUTSK	73.36	349.1	11	33	-3				14	22 PP
IRKUTSK	73.89	331.6	11	36K	-3				14	22 PP
COLOMBO	73.99	280.0	12	41	62	20	56 -15		15	41
MADRAS	75.02	286.2	11	45K	0	21	30 7	12 12	14	47 PP
KERGUELEN I.	77.89	221.5	12	2	1	22	8 14			
BYRD STATION	80.47	169.8	12	13	-2	22	31 10			
AGRA	80.55	299.6	12	13	-3	22	21 -1	12 45	15	22 PP
SOUTH POLE	80.65	180.0	12	14	-2				12	37
MAWSON	81.16	202.8	12	18	-1	22	30 1		14	22
POONA	82.20	290.2	12	25A	1	22	46 7			
TIKSI	82.36	352.7	12	24	-1				17	24 PPP
BOMBAY	83.24	290.4	12	31	1	23	1 11		24	21 PPS
LAHORE	84.80	303.0	12	36	-2					
SEMIPALATNSK	86.02	322.4	12	41	-3				23	18 SCS
COLLEGE	86.29	21.7	12	41	-4	23	10 -10		16	3 PP
FRUNSE	87.45	314.0	12	49	-2				23	37 SCS
WARSAK DAM	87.66	304.8	12	52	0					
SITKA	88.43	31.4	12	58	3					
KARACHI	89.67	295.1	13	0	-1					
QUETTA	90.71	300.3	13	5	-1	23	58 -3		16	40 PP
DUZHANBE	90.81	308.8	13	10	4				23	6
TASHKENT	90.97	311.6	13	5	-2				16	46 PP
SAN FRANCSCO	91.95	52.2	13	12	0					
BERKELEY	92.11	52.1	13	12	0	23	50 -23		17	11 PP
LICK	92.51	52.7	13	15A	1				16	54 PP
SHASTA	92.51	49.3	13	15	1					
CORVALLIS	92.55	45.4	13	15	1					
VINEYARD	92.61	53.4	13	18	3					
MINERAL	93.05	49.8	13	16	-1					
VICTORIA	93.19	41.5	13	16	-1					
FRESNO	93.87	53.5	13	21	1					
RENO	94.28	50.8	13	22A	0					
PASADENA	94.80	56.3	13	24	-1	24	44 7		17	8 PP
PENTICTON	95.79	41.1	13	24	-5					
EUREKA	97.21	51.2	13	35	-1	24	46 33		17	33 PP
BOULDER CITY	97.74	54.8	13	38	0				16	40
RUTH	97.95	51.6	13	41	2	24	23 6			
BANFF	98.59	39.5	13	42	0					
SVERDLOVSK	98.73	326.2							17	41 PP
HUNGRY HORSE	99.37	42.4	13	45	-1				17	5 PP
KHEYS	99.93	350.4							17	43 PP
BUTTE	100.24	44.9	13	50	1				17	9
SALT LAKE C.	100.47	50.2	13	50	-1					
TUCSON	100.71	58.9	13	56	4	24	39 9		17	54 PP
TUCSON TELE.	100.81	58.8	13	54	2				18	1 PP
BOZEMAN	101.28	45.3	13	50	-4					
SHIRAZ	103.08	298.3	14	1K	-1	24	51 9		18	19 PP
TEHERAN	104.29	304.5	14	7	0				18	23 PP
CHIHUAHUA	104.58	62.9							15	12
RESOLUTE	104.96	14.7	14	10	0				18	29
GUADALAJARA	106.62	71.2							31	3
RAPID CITY	106.88	46.8	14	20	777				18	45 PP
NORD	107.65	358.3				24	59 -3		18	32 PP
TIFLIS	109.28	310.9	14	33	777				18	56 PP
APATITY	109.46	339.1	18	11	777	25	13 3		18	37 PP
TACUBAYA	110.41	72.8	14	21	777	26	32 78		19	20 PP
MOSCOW	111.54	326.5							19	19 PP
SODANKYLA	111.88	340.2	18	36	-1				19	36 PP
VERA CRUZ	113.30	73.2	14	39	777	25	35 10		27	31
KIRUNA	113.61	342.0	18	39	-1					
PULKOVO	113.88	332.0	18	30	-11				29	8 PS
FAYETTEVILLE	114.44	54.7							17	42
NURMIJARVI	116.08	334.1	18	44	-1				20	9 PP
HELSINKI	116.11	333.7	18	49	4					
SIMFEROPOL	116.46	315.7	18	49	3				19	53 PP
FLORISSANT	117.07	51.2	18	52	5	25	44 4			
KSARA	117.12	303.1	18	52	5	26	5 25		20	5 PP
ST. LOUIS 1	117.20	51.4	18	47	0	25	42 2			
BULAWAYO	117.32	241.6	18	42K	-6					
HERMANUS	117.77	223.0							20	6 PP
JERUSALEM	117.91	300.9	18	50	1				20	7 PP
SCORESBY SD.	118.89	357.8	18	50	-1				20	12 PP
SKALSTUGAN	118.93	340.8	18	50	-1					
UPPSALA	119.38	335.7	18	51	-1				20	14 PP
MERIDA	119.44	71.3							20	9 PP
BROKEN HILL	119.49	247.6	18	55	3					
LWOW	121.33	323.5	18	56	1				20	16 PP
HELWAN	121.46	299.2	15	47	777				20	21 PP

WARSAW	121.92	327.0	18	57	1	26	2	6	20	36	PP
BUCHAREST	122.09	317.0	18	57	0				20	37	
LWIRO	122.56	261.3	15	35K	777				28	43	
CLEVELAND	122.99	46.3	18	59K	1	25	57	-3	30	33	PS
GOTEBORG	123.02	335.9	19	3	4						
KRAKOW	123.58	325.1				26	15	13	20	3	PP
SKALNATE PL.	123.82	324.1	19	5	5				23	47	PP
COPENHAGEN	124.14	333.8	19	4	3				20	49	PP
RACIBORZ	124.53	325.9	19	3	1						
SOFIA	124.58	315.9	19	3	1	25	56	-9	20	54	PP
MORGANTOWN	124.71	48.0	19	3K	1				20	49	PP
REYKJAVIK	125.22	356.9	19	5	2						
COLUMBIA	125.43	54.9	19	4	1						
OTTAWA	125.45	40.0	19	2	-1						
HURBANOVO	125.64	323.5				26	11	3	21	57	PKS
BELGRADE	125.66	319.3	19	6A	2				21	0	PP
PENNSYLVANIA	125.82	46.0							20	57	PP
POTSDAM	125.92	330.4	18	59	-5				30	59	PS
BRATISLAVA	126.13	324.3	19	6	1				21	1	PP
CHAPEL HILL	126.50	52.1	19	6	1						
VIENNA-H.	126.51	324.7	19	5	0	26	24	14			
PRUHONICE	126.57	327.3	19	6A	1	26	7	-4	38	24	SS
PRAGUE	126.59	327.4	19	13	8				31	6	PS
COLLMBERG	126.61	329.4	19	5	0	26	7	-4	21	5	PP
BREBEUF	126.73	39.1	19	5A	-1						
HALLE	127.01	330.1	19	6	0				21	3	PP
WASHINGTON	127.06	47.9	19	4	-2						
PLAUEN	127.52	328.9	19	5	-2				21	5	PP
JENA	127.54	329.7	19	8	1				21	10	PP
SEVEN FALLS	127.61	36.1	19	6	-1						
CHEB	127.65	328.4							21	21	PP
ZAGREB	127.98	322.2	19	10	2				21	19	PP
HUANCAYO	128.06	113.3	19	11	3				21	21	PP
SONNEBERG	128.07	329.3	19	13	5						
ABERDEEN	128.40	342.5							21	18	PP
PALISADES	128.51	44.3	19	9	0	26	23	7	21	15	PP
PALISADES	128.51	44.3	19	9	0	26	23	7	21	15	PP
WITTEVEEN	128.58	334.0	19	13	4						
LJUBLJANA	128.74	323.2	19	10	0				21	28	PP
MUNSTER	128.75	332.7	19	1	-9				19	18	
BALBOA HTS.	128.81	86.1	19	10	0						
TRIESTE	129.41	323.1	19	12	1				21	22	PP
TOLMEZZO	129.42	324.3	19	15	4				21	28	PP
BENSBERG	129.65	332.0	19	12	1				21	27	PP
TARANTO	129.65	315.6							21	21	
WESTON	129.65	41.6							21	21	PP
DE BILT	129.73	334.2	19	14	3				21	15	PP
HEIDELBERG	129.94	329.6	19	11	-1				21	26	PP
STUTTGART	130.06	328.7	19	13A	1				21	14	PP
DURHAM	130.24	340.5				26	24	4	21	32	PP
TUBINGEN	130.32	328.6	19	12	-1						
RAVENSBURG	130.50	327.5	19	13	0						
EBINGEN	130.59	328.3	19	13	0						
UCCLE	131.03	333.5	19	13	-1				21	34	PP
DOURBES	131.42	332.7	19	16	1	26	26	3			
BOLOGNA	131.47	323.1	19	17	2				22	45	
REGGIO CALA.	131.77	313.5	19	46	31				22	41	
MESSINA	131.80	313.6	19	14	-1	26	22	-2	21	38	PP
PRATO	131.95	322.5	19	40	24				23	43	PP
ROME	132.16	319.5	18	58	-18				22	51	PP
CHINCHINA	132.26	91.8	19	18A	2				22	46	SKP
PAVIA	132.33	325.0	19	18A	2				21	48	PP
LA PAZ	132.41	122.5	19	19	2				21	44	PP
KEW	132.45	337.1	19	20	3				22	48	PKS
BESANCON	132.73	329.1	19	19	2				21	49	PP
OROPA	132.73	326.2	19	26	9				22	58	
CHIAVARI	132.75	324.0	19	9	-8	26	2	-25	22	7	PKS
RATHFARNHAM	132.95	342.6	19	29	11				22	28	
HALIFAX	133.18	35.1	19	7	-11						
PARIS	133.31	332.8	19	22	4				21	28	PP
BOGOTA	133.73	92.6	19	22	3						
BANGUI	133.80	267.1	19	18	-1				21	51	PP
ISOLA	134.14	325.2	19	16	-4				21	54	PP
GARCHY	134.14	331.0	19	20	0				21	58	PP
FUQUENE	134.19	91.5	19	20	0				23	0	SKP
MONACO	134.20	324.4	19	21	1				21	53	PP
FOLINIERE	134.63	334.9	19	19	-2						
CLERMONT-FD.	135.18	329.4	19	24K	2	26	35	4			
LUANDA	135.41	247.2	19	0A	-22						

BAGNERES	138.60	328.9	19 29	1					23 7	PKS
SETIF	139.85	316.8	19 21	-9					22 19	PP
TORTOSA	139.99	326.1	19 13	-17					23 14	PP
ALGIERS UNI.	141.07	319.2	19 28	-4					22 37	PP
CARACAS	141.33	85.0	19 26	-7					23 12	PKS
SAN JUAN	141.70	72.3	19 32	-1					22 41	PP
ALICANTE	142.23	324.1	19 32	-2	26 40	-3			22 42	PP
TOLEDO	143.08	329.1	19 33	-3					22 50	PP
RELIZANE	143.30	319.9	19 35	-1	26 54	10			22 56	PP
SERRA PILAR	144.19	335.0	19 29K	-9	26 51	5	19 38		22 47	PP
ALMERIA	144.41	324.1	19 36A	-2					22 53	PP
GRANADA	144.82	325.6	19 38K	-1	26 32	-15			22 56	PP
COIMBRA	144.89	334.0	19 39A	0						
ST. KITTS	145.04	73.2	19 38	-1						
TAMANRASSET	145.55	296.7	19 41	1	26 45	-3			23 3	PP
MALAGA	145.59	325.8	19 41A	1					23 4	PP
LISBON	146.42	333.3	19 44A	2						
GRENADA	146.45	82.4	19 42	0						
DOMINICA	146.57	76.5	19 42	0						
ST. VINCENT	146.86	80.4	19 44	2						
FORT FRANCE	146.86	77.5	19 47	5						
LOME	151.19	265.6	19 58	9						
PONTA DELGDA	151.75	356.7	20 0A	10					20 8	PKP2
MBOUR	168.42	296.3	20 13K	5					25 11	PP

JUNE 11 16.H 37.M 42.S EPICENTRE -9.53 152.60 DEPTH= 0.KM

A=-0.87573 B= 0.45394 C=-0.16442 D= 0.4602 E= 0.8878
G= 0.1460 H=-0.0757 K=-0.9864 HT= 6.6

SE= 3.16

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
RABAUL	5.31	355.4	1 17	-5					
PORT MORESBY	5.38	270.9	1 23	0	2 38	11			
CHARTERS IS.	12.16	209.5	2 55	-2					
BRISBANE	17.77	179.5	4 12	2	7 32	5			
NOUMEA	18.40	135.4	4 19	1	8 1	20			
GUAM	24.13	341.0	5 18	0	9 59	25			
RIVERVIEW	24.22	182.9	5 21K	2	9 43	7	5 58	PP	
CANBERRA	25.88	186.8	5 35	0	10 4	0	10 28		
SUVA	26.48	111.7	5 48	8	10 48	35	9 42		
ADELAIDE	28.33	204.5	6 0	3	10 52	9	8 36		
MELBOURNE	29.01	192.5	6 3	0	11 3	9			
FORT NELSON	33.59	187.0	6 59	15	12 27	21			
KARAPIRO	35.02	147.5	6 55	-1			8 16	PPP	
AFIAMALU	35.13	100.6	6 55K	-2	12 33	3	8 15	PP	
TUAI	36.52	146.9	7 14	5			15 27		
KAIMATA	36.78	156.5	7 13	2	13 0	5			
WELLINGTON	37.20	151.9	7 12K	-3	13 10	8	8 44	PP	
GEBBIES PASS	38.26	156.3	7 22	-1					
ROXBURGH	38.60	161.1	7 26	0	13 20	-3	8 58	PP	
MANILA	39.43	307.2	7 35	2	13 50	14			
MUNDARING	40.40	231.1	7 39	-2	13 40	-10			
BAGUIO CITY	40.85	308.9	7 43	-2	13 58	1			
TAWU	44.37	315.9					20 33		
LEMBANG	44.58	269.9	8 14K	-1	14 50	-2			
HWALIEN	44.99	318.2	8 32	13					
DJAKARTA	45.44	270.7	8 22	0	15 2	-2			
SIOMISAKI	45.64	340.2	8 22	-2	15 6	-1	18 42		
TAIPEI	45.80	319.2			15 8	-1			
OSIMA	45.80	344.8	8 27	2					
MERA	45.83	345.3	8 32	7					
OMAESAKI	45.95	343.4	8 25	-1					
KAGOSIMA	46.00	333.5	8 27	0			15 20		
OMASE	46.07	341.0	8 22	-5					
AJIRO	46.14	344.6	8 33	5			21 41		
MISIMA	46.24	344.5	8 27	-2					
YOKOHAMA	46.36	345.4	8 29	0	14 55	-22	18 47		
KOTI	46.52	337.9	8 30	-1	15 6	-13			
TOKYO C.M.O.	46.57	345.6	8 31	0	15 5	-15	9 52		
HUNATU	46.65	344.4	8 32	0					
KAMEYAMA	46.70	341.7	8 34	2			10 34	PP	
SUMOTO	46.74	339.8	8 36	3	15 18	-5	15 55		
NAGOYA	46.85	342.4	8 28	-5					

KOHU	46.86	344.3	8	32	-1				15	24
KOBE	46.96	340.3				16	20	54	9	36
KAKIOKA	46.99	346.2	8	29	-5					
TUKUBASAN	47.00	346.2	8	30	-5	15	12	-14	10	18 PP
KUMAMOTO	47.00	334.6	8	44	9					
ABUYAMA	47.01	340.8	8	31K	-4					
TITIBU	47.02	345.0	8	37	2					
TAKAMATU	47.02	338.9	8	38	3	15	25	-2		
MATUYAMA	47.06	337.3	8	40	5	15	28	1	11	37
MITO	47.07	346.6	8	35	0					
KYOTO	47.09	341.0	8	32	-3					
KUMAGAYA	47.11	345.4	8	40	5				12	15
GIHU	47.12	342.3	8	34	-1	15	26	-2	19	45
HIKONE	47.16	341.7	8	40	4					
UTUNOMIYA	47.37	346.0	8	37	0					
MAEBASI	47.42	345.1	8	43	5					
OIWAKE	47.49	344.6	8	42	4					
ONAHAMA	47.52	347.3	8	38	-1				10	18
SAGA	47.54	334.5	8	53	14					
MATUMOTO	47.57	343.9	8	46	7					
HIROSIMA	47.66	337.3	8	38	-2	15	21	-15		
TAKAYAMA	47.68	343.2	8	39	-1					
MATUSIRO	47.78	344.3	8	38	-3	15	31	-6	18	55 SCS
HUKUOKA	47.79	334.8	8	22	-19	15	20	-18		
SHIRAKAWA	47.83	346.6	8	43	2					
TOYOOKA	47.85	340.4	8	39	-2					
HUKUI	47.88	342.1	8	42	0				9	42
SIMONOSEKI	47.89	335.6	8	43	1					
NAGANO	47.90	344.4	8	49	7					
TOYAMA	48.20	343.4	8	37	-7	15	32	-11		
HAMADA	48.27	337.3	8	49K	4	15	47	3		
TAKADA	48.29	344.6	8	49	4					
HUKUSIMA	48.38	347.1	8	49	4					
SENDAI	48.79	347.7	8	51	2	15	51	-1	10	46
ISINOMAKI	48.85	348.2	8	48	-1					
NIIGATA	48.87	345.8	9	12	23	15	55	2	11	42
YAMAGATA	48.88	347.2	8	49	0					
WAZIMA	48.92	343.4	8	35	-15				15	48
AIKAWA	49.16	345.0	8	58	7				15	19
HONG KONG	49.19	310.5	8	51	-1					
MIZUSAWA	49.57	348.3	9	9	14	16	11	9		
SAKATA	49.62	346.9	9	18	23					
MIYAKO	49.91	349.3	8	54	-3					
MORIOKA	50.11	348.5	8	58	-1	16	10	0		
CANTON	50.27	310.7	8	53K	-7	16	8	-4		
AKITA	50.35	347.5	9	21	21				16	25
HATINOHE	50.84	349.1	9	17	13	16	46	26		
AOMORI	51.27	348.5	9	17	10	16	53	27		
URAKAWA	52.20	350.8	9	14	-1				12	37
HAKODATE	52.23	348.8	9	18	3					
NANKING	52.48	323.4	9	18K	1	16	44	1		
MORI	52.54	348.7	9	30	13				16	52
MURORAN	52.68	349.2	9	16	-2					
KUSIRO	52.78	352.4	9	17	-2	16	42	-5		
TOMAKOMAI	52.87	349.8	9	35	15					
OBIHIRO	52.89	351.3	9	37	17				17	26
NEMURO	52.99	353.6	9	19	-1	16	38	-11		
SUTTSU	53.28	348.7	9	22	-1				16	38
SAPPORO	53.34	349.7	9	26	3	17	4	10		
MEDAN	55.28	281.1	9	40	3	17	22	2		
VLADIVOSTOK	55.69	341.7	9	38	-2	17	21	-5	11	49 PP
Y.-SAKHLINSK	56.98	352.0	9	47	-2	17	37	-6	13	14 PPP
CHANGCHUN	58.60	337.1	10	2K	1	18	3	-1		
HAWAII V.OB.	58.86	60.5	10	2	-1	17	38	-30		
KUNMING	59.53	306.5	10	7K	0	18	17	1		
PEKING	59.73	328.1	10	10K	1	18	15	-4		
PETROPAVLOVK	62.51	4.1	10	24	-4	18	50	-4	12	46 PP
WILKES	63.52	197.6	10	32K	-2	19	7	0	11	1 PCP
LANCHOW	64.50	317.5	10	38K	-3					
TOCKLAI	66.67	304.5	10	57	2					
CHITTAGONG	67.45	299.0	11	2	3	20	2	7	13	33 PP
SHILLONG	68.59	302.2	11	1K	-6	20	11	2	13	38 PP
SCOTT BASE	68.70	176.8	11	6	-1				12	33 PCP
MAGADAN	68.86	359.0	11	4	-4	20	4	-8		
ULAN-BATOR	70.02	329.2	11	17	2					
CALCUTTA	70.50	298.0							10	7
LHASA	70.85	305.9	11	20	0	20	35	0		
CHATRA	72.98	301.8	11	31A	-2	20	56	-4		

YAKUTSK	73.52	349.0	11	33	-3					14	19 PP
IRKUTSK	74.12	331.5	11	40K	0	21	11	-2		25	42 SS
MADRAS	75.31	286.1	11	50K	3	21	31	5		26	28 SS
KERGUELEN I.	77.98	221.5	12	16	14	22	4	9			
BYRD STATION	80.31	169.8	12	12	-2	22	24	4			
SOUTH POLE	80.54	180.0	12	13	-2					15	22 PP
AGRA	80.84	299.5	12	13A	-4	22	16	-9		22	56 PS
MAWSON	81.16	202.8	12	18	-1						
POONA	82.49	290.2	12	27K	1	22	46	4			
TIKSI	82.51	352.6	12	23	-3	22	34	-8		17	25 PPP
BOMBAY	83.53	290.3	12	31	0	22	53	0		25	18
LAHORE	85.09	303.0	12	38	-1	23	10	2			
SEMIPALATNSK	86.27	322.3	12	43	-2					23	4 SKKS
COLLEGE	86.30	21.7	12	42	-3	23	5	-15			
FRUNSE	87.72	313.9				23	31	-2		25	14
WARSAK DAM	87.94	304.8	12	52	-1						
SITKA	88.39	31.3	12	54	-1						
QUETTA	91.00	300.3	13	5	-2	23	59	-4		16	40 PP
DUZHANBE	91.09	308.8	13	11	3	24	2	-2			
TASHKENT	91.24	311.6	13	9	1					25	17 PS
BERKELEY	91.97	52.1	13	12	0					25	24 PPS
LICK	92.36	52.7	13	14A	1						
SHASTA	92.38	49.3	13	13	-1						
CORVALLIS	92.44	45.4	13	13A	-1						
MINERAL	92.91	49.7	13	14A	-2						
FRESNO	93.72	53.5	13	19	-1						
RENO	94.14	50.8	13	22A	0						
PASADENA	94.64	56.3	13	23	-1	25	18	43		16	44 PP
EUREKA	97.08	51.2	13	34	-1					17	49 PP
BOULDER CITY	97.59	54.8	13	42	5						
SVERDLOVSK	98.97	326.2	13	45	1					17	48 PP
HUNGRY HORSE	99.27	42.4	13	43	-2					17	3 PP
KHEYS	100.08	350.4	13	49	0					25	53 PS
SALT LAKE C.	100.34	50.2	13	51	1						
TUCSON	100.54	58.9	14	4	13					17	56 PP
TUCSON TELE.	100.64	58.8	13	53	2						
BOZEMAN	101.17	45.3	13	51	-3						
SHIRAZ	103.37	298.2	14	2	-1	24	41	-2	14 26	29	58 PKKP
CHIHUAHUA	104.39	62.9	14	6	-2	25	51	63		36	36
GUADALAJARA	106.40	71.2								27	58 PS
RAPID CITY	106.76	46.9	14	53	777					17	32
NORD	107.77	358.4				24	56	-7		18	41 PP
TIFLIS	109.56	310.8								19	5 PP
APATITY	109.66	339.1								18	36 PP
TACUBAYA	110.19	72.8				26	15	62		19	23 PP
MOSCOW	111.79	326.5								19	21 PP
SODANKYLA	112.07	340.2	18	34	-3					19	33 PP
VERA CRUZ	113.07	73.2								22	50
KIRUNA	113.79	342.1	18	39	-2						
PULKOVO	114.10	332.1								19	37 PP
NURMIJARVI	116.29	334.2	18	45	0					20	7 PP
HELSINKI	116.33	333.8	18	44	-1						
SIMFEROPOL	116.73	315.7	18	52	6	25	44	6		22	28 PKS
KIMBERLEY	116.90	231.1	18	53	6						
FLORISSANT	116.93	51.3								20	13 PP
ST. LOUIS 1	117.06	51.5	18	10	-37						
KSARA	117.41	303.1	18	49	1					20	5 PP
BULAWAYO	117.51	241.4	18	50	2						
HERMANUS	117.87	222.8								30	2 SCSP
JERUSALEM	118.20	300.9	18	54	5					20	1 PP
SCORESBY SD.	119.01	357.9	18	56	5					29	59 PS
MERIDA	119.22	71.4								32	18
UPPSALA	119.59	335.8	18	51	-1					20	15 PP
BROKEN HILL	119.70	247.4	18	55	3						
LWOW	121.57	323.5	19	1	5					20	31 PP
HELWAN	121.75	299.2	18	59	3					20	35 PP
WARSAW	122.16	327.1	18	57K	0	26	4	7		20	37 PP
BUCHAREST	122.35	317.0	19	1	4					20	23
LWIRO	122.81	261.1	18	58	0						
GOTEBORG	123.24	336.0	19	3	4						
BERGEN	123.70	341.2								37	19 SS
COPENHAGEN	124.36	333.9	19	2	1						
MORGANTOWN	124.59	48.1	19	7K	6						
RACIBORZ	124.78	325.9	19	3	1						
SOFIA	124.85	315.9	19	6	4					20	56 PP
COLUMBIA	125.27	55.0	19	8	5						
REYKJAVIK	125.35	357.0	19	3	0						
OTTAWA	125.37	40.2	19	1	-2						
PENNSYLVANIA	125.71	46.1	19	9	5						

HURBANOVO	125.89	323.6								22	41
BELGRADE	125.92	319.3	19	9	5					23	52 PPP
POTSDAM	126.15	330.5	19	8	4						
CHAPEL HILL	126.36	52.2	19	10	5						
BRATISLAVA	126.38	324.4	19	10	5						
BREBEUF	126.65	39.3	19	9A	4						
VIENNA-H.	126.75	324.8	19	8	2					22	42 PKS
PRUHONICE	126.81	327.4	19	6	0					21	5 PP
PRAGUE	126.82	327.5	19	11	5					21	6 PP
COLLMBERG	126.84	329.4	19	5	-1	26	25	14		21	7 PP
HALLE	127.24	330.1	19	7	0					21	5 PP
SEVEN FALLS	127.54	36.3	19	7	0						
PLAUEN	127.75	329.0	19	4	-4						
HUANCAYO	127.77	113.3	19	11	3						
JENA	127.77	329.8	19	7	-1					21	12 PP
CHEB	127.89	328.5	19	13	5					21	17 PP
ZAGREB	128.24	322.3	19	12	4					21	38
SONNEBERG	128.31	329.4	19	13	4						
BALBOA HTS.	128.55	86.1	19	8	-1						
ABERDEEN	128.58	342.7				28	1	105		22	33 SKP
WITTEVEEN	128.80	334.1								19	18 PP
MUNSTER	128.97	332.8	19	11	1						
LJUBLJANA	128.99	323.2	19	11	1					21	33 PP
WESTON	129.56	41.8								21	18 PP
TRIESTE	129.66	323.2	19	16	5					22	36 PKS
TOLMEZZO	129.67	324.3	19	14	3					22	43 PKS
BENSBERG	129.87	332.1	19	16A	4					21	27 PP
TARANTO	129.91	315.7	20	18	66						
DE BILT	129.95	334.3								21	37 PP
HEIDELBERG	130.17	329.7	19	11	-1						
STUTTGART	130.29	328.8	19	12	0					21	45 PP
DURHAM	130.43	340.6				26	31	10		22	39 PKS
TUBINGEN	130.55	328.7	19	16	3						
RAVENSBURG	130.74	327.6	19	12	-1						
EBINGEN	130.82	328.4	19	15	2						
STRASBOURG	131.18	329.5	19	19	5					21	35 PP
UCCLE	131.25	333.6	19	15	1					21	35 PP
DOURBES	131.64	332.8	19	20	5						
REGGIO CALA.	132.04	313.5	19	26	10						
MESSINA	132.07	313.7	19	13	-3	26	21	-4		21	38 PP
LA PAZ	132.12	122.4	19	18	2	26	38	13			
PRATO	132.21	322.6								23	44 PP
ROME	132.41	319.6	19	18	2					22	47 PP
PAVIA	132.57	325.1	19	15	-2					23	5 PP
KEW	132.66	337.2	19	16	-1					22	45 PKS
BESANCON	132.96	329.2	19	21	4					21	49 PP
CHIAVARI	133.00	324.1								43	26 SSS
RATHFARNHAM	133.14	342.8	19	23	5					21	37
BOGOTA	133.46	92.6	19	17A	-1					22	45 SKP
PARIS	133.53	333.0	19	24	6					21	48 PP
FUQUENE	133.92	91.6	19	21A	2					22	48 SKP
BANGUI	134.06	266.9	19	18	-1					21	48 PP
GARCHY	134.37	331.1	19	25	5					22	50 PP
ISOLA	134.38	325.3	19	20	0					22	46
MONACO	134.44	324.6	19	23	3						
FOLINIERE	134.84	335.0	19	22	1						
CLERMONT-FD.	135.41	329.6	19	28	6	26	34	3			
BAGNERES	138.83	329.0	19	32	4					23	28
SETIF	140.11	316.9	19	34	3					22	28 PP
TORTOSA	140.23	326.3	19	47	16					23	30 PP
CARACAS	141.08	85.1	19	27	-5						
ALGIERS UNI.	141.33	319.4	19	26	-7					22	35 PP
SAN JUAN	141.48	72.5	19	30	-3						
ALICANTE	142.48	324.2	19	32	-3	26	40	-3		22	42 PP
TOLEDO	143.31	329.3	19	32	-4					22	30 PP
RELIZANE	143.55	320.1	19	34	-2					22	52 PP
SERRA PILAR	144.40	335.3	19	30A	-8	26	36	-10	19 41	22	50 PP
ALMERIA	144.65	324.2	19	39K	1					23	16 PP
ST. KITTS	144.82	73.5	19	40	1						
GRANADA	145.06	325.8	19	37A	-2					23	10 PP
COIMBRA	145.10	334.2	19	44K	5						
ANTIGUA	145.69	73.6	19	40	0						
MALAGA	145.84	326.0	19	39	-1					22	3 PP
TAMANRASSET	145.84	296.7	19	42	2					23	8 PP
GRENADA	146.20	82.6	19	41	0						
DOMINICA	146.33	76.7	19	43	2						
ST. VINCENT	146.61	80.6	19	43	1						
FORT FRANCE	146.62	77.7	19	44	2						

LISBON	146.64	333.5	19 46K	4						20 5	PKP2
BARBADOS	148.24	80.5	19 53	9							
PONTA DELGDA	151.88	357.1	19 59K	9							
MBOUR	168.71	296.3	20 15	7							

JUNE 12 3.H 56.M 44.S EPICENTRE -22.53 179.45 DEPTH= 559.KM

A=-0.92454 B= 0.00889 C=-0.38098 D= 0.0096 E= 1.0000
G= 0.3810 H=-0.0037 K=-0.9246 HT= 4.0

DEPTH OF FOCUS= 0.083R

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	
SUVA	4.46	347.4	1	28	1	2	44	9					
PORT VILA	11.49	292.6									3	51	
AFIAMALU	11.95	45.6	2	35A	-3	4	40	-6					
NOUMEA	12.03	268.6	2	40	1	5	0	13					
ONERAHI	13.91	197.4	3	1	3	5	32	11					
KARAPIRO	15.71	191.5	3	16A	0	6	3	9			6	57	
TUAI	16.34	186.4	3	19	-3	6	2	-3			13	59	SCS
WELLINGTON	19.10	190.8	3	48	0	6	53	1			4	10	
KAIMATA	21.03	196.7	4	6	0	7	21	-3					
GEBBIES PASS	21.85	193.3	4	12	-1	7	31	-6			7	51	
BRISBANE	24.64	253.2	4	37	-1						10	43	
RIVERVIEW	27.28	239.4	5	2A	0	9	2	-1			8	2	PCP
CANBERRA	29.41	237.5	5	20K	0	9	35	-1			10	58	SCP
CHARTERS TS.	30.98	268.2	5	34A	1				6	52			
MELBOURNE	33.26	234.8	5	53A	0	10	32	-3					
PORT MORESBY	33.59	287.6	5	55	0	10	38	-2	7	36	13	54	*SS
ADELAIDE	37.55	241.5	6	28	0	11	36	-3					
GUAM	49.36	313.1	7	58	-2	14	21	-5					
TERRE ADELIE	50.35	198.5	8	8	0								
SCOTT BASE	55.71	183.2	8	45	-1								
MUNDARING	56.32	245.8	8	49	-1								
BYRD STATION	63.05	170.1	9	34	0								
SOUTH POLE	67.61	180.0	10	3	0						11	33	
MIRNY	68.16	205.5	10	6	0								
MATUSIRO	70.48	325.7	10	18	-2	18	47	-2			19	33	
LEMBANG	70.65	270.5	10	20	-1	18	45	-6					
NHATRANG	76.97	289.2									10	56	PCP
PETROPAVLOVK	77.38	347.3	10	58	-1								
LICK	81.35	43.7	11	20A	1						13	26	PP
PASADENA	81.80	47.9	11	22	0						13	25	PP
FRESNO	82.20	45.0	11	24K	0						13	32	PP
SHASTA	82.91	40.6	11	29K	2						13	33	PP
MINERAL	83.18	41.3	11	29K	0						13	33	PP
RENO	83.81	42.7	11	33	1								
TUCSON	86.03	52.8	11	42	0				13	48	30	34	*SSS
TUCSON TELE.	86.16	52.8	11	44	1								
EUREKA	86.22	44.5	11	44	1	21	25	-6	13	47	13	56	
SALT LAKE C.	89.58	45.0	11	59	0				14	10			
PENTICTON	89.66	34.9	11	58A	-1								
COLLEGE	90.71	13.4	12	2	-2	21	48	-23	14	11			
HUNGRY HORSE	92.18	37.8	12	11	0	21	44	-40	14	16	15	59	PP
YAKUTSK	93.10	338.9	12	20	5								
TIKSI	100.09	345.6									15	52	
RESOLUTE	110.40	16.4	17	27	-1								
QUETTA	119.80	292.8	17	48	1								
SVERDLOVSK	124.28	324.3									23	45	
BULAWAYO	128.92	216.0	17	58	-6								
APATITY	130.26	343.7									20	26	
SCORESBY SD.	130.40	9.3									20	39	PP
SODANKYLA	132.04	346.2	17	59	-11						20	44	SKP
KIRUNA	132.85	349.3	18	10	-2						20	46	SKP
BROKEN HILL	133.53	220.4	18	2	-11								
MOSCOW	136.49	329.5									21	0	PP
NURMIJARVI	138.16	341.6	18	15	-7						21	12	PP
HELSINKI	138.34	341.1	18	21	-1						21	13	PP
UPPSALA	140.56	345.6	18	19	-8						21	8	SKP
LWIRO	142.23	233.1	18	28	-2						21	17	
GOTEBORG	143.71	348.6	18	33	1								
KSARA	146.14	297.5	18	41	5								
JERUSALEM	146.99	294.0	18	41	4						21	27	PP

KRAKOW	148.17	334.7	18 43	4			18 49	PKP2
WITTEVEEN	149.26	351.4	18 48	8				
COLLMBERG	149.41	343.2	18 41	1	20 58		21 19	*PKP2
HALLE	149.50	344.5	18 46	5				
MUNSTER	149.94	349.9	18 48	7				
JENA	150.12	344.5	18 41	0	21 5			
PRUHONICE	150.14	340.3	18 50K	8	21 5			
PLAUEN	150.37	343.5	18 46	4	21 3			
HELWAN	150.54	291.1	18 50K	8	21 5			
HEIDELBERG	152.20	347.0	18 52	7				
STUTTGART	152.67	345.8	18 46	1			19 6	
LJUBLJANA	153.53	336.0	18 47	1			18 56	PKP2
ATHENS	154.10	311.9	18 55K	8				
BANGUI	154.12	228.6	18 48	1				
GARCHY	155.14	354.1	19 18	29				
ISOLA	157.52	345.6	19 29	37				
SETIF	165.43	340.5	19 1	1			20 3	PKP2
TAMANRASSET	174.39	273.7	19 7A	2	21 27		24 35	P'

JUNE 12 6.H 58.M 15.S EPICENTRE -30.69-179.20 DEPTH= 254.KM

A=-0.86138 B=-0.01199 C=-0.50782 D=-0.0139 E= 0.9999
G= 0.5078 H= 0.0071 K=-0.8615 HT= 1.6

DEPTH OF FOCUS= 0.035R

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	
ONERAHI	7.39	225.0	1	50	4	3	15	5			2	15	
KARAPIRO	8.43	209.6	1	59K	-1								
TUAI	8.63	199.3	2	1	-1	3	32	-6			3	54	
WELLINGTON	11.64	203.1	2	36	-4	4	38	-8					
SUVA	12.67	349.7	2	55	2	5	15	6					
KAIMATA	13.99	209.9	3	23	14	5	31	-8					
GEBBIES PASS	14.51	204.2	3	11	-4	5	41	-9					
NOUMEA	15.31	299.6	3	26	1	6	15	7					
KOUMAC	17.97	300.3	3	53	-1	7	15	12					
AFIAMALU	18.04	23.9	3	53	-2	7	1	-3					
BRISBANE	24.69	270.6	4	59K	-1						10	38	
RIVERVIEW	25.23	255.0	5	5A	1								
CANBERRA	27.00	251.7	5	21	0						8	33	
MELBOURNE	30.32	246.6	5	51	1								
CHARTERS TS.	32.82	280.5	6	11	-1						12	6	
ADELAIDE	35.43	251.7	6	35	1						8	55	PCP
RABAUL	37.71	308.6				12	25	1			9	3	PCP
CAPE HALLETT	42.06	184.8	7	31	2								
SCOTT BASE	47.68	184.0	8	15	2								
BYRD STATION	54.84	169.4	9	7	1								
GUAM	55.94	316.3	9	12	-2								
SOUTH POLE	59.48	180.0	9	39	1				10	38	13	56	SCP
MAWSON	71.67	200.9	10	54	-2								
MATUSIRO	77.89	326.1	11	29	-2								
PASADENA	86.43	46.6	12	15	0								
LICK	86.47	42.4	12	11K	-4								
BERKELEY	86.48	41.6	12	16A	1								
FRESNO	87.17	43.8	12	19	0								
SHASTA	88.36	39.5	12	25	1								
MINERAL	88.55	40.2	12	25A	0								
RENO	89.02	41.7	12	28A	1								
BOULDER CITY	89.70	47.0	12	31	1								
TUCSON	90.04	52.0	12	34	2						30	2	PKKP
TUCSON TELE.	90.16	52.0	12	34	1								
CORVALLIS	90.58	36.3	12	34A	-1								
EUREKA	91.22	43.7	12	37	0	13	1						
COLLEGE	98.35	13.0	13	7	-3								
LA PAZ	98.85	115.0	13	37	25								
RESOLUTE	117.83	17.4	18	14	-2								
BULAWAYO	122.83	211.4									18	25	
QUETTA	123.75	287.7	18	29	1								
SHIRAZ	135.60	282.4	18	51	1						22	22	SKP
SODANKYLA	140.20	344.7	18	51	-8						21	56	PP
SIDA	144.80	14.4	19	7	0								
NURMIJARVI	146.21	338.9	19	7	-2	20	11				22	21	SKP
HELSINKI	146.38	338.3	19	10	0						22	22	SKP
UPPSALA	148.72	343.6	19	15K	2								

BANGUI	148.90	216.2	19	13	0			21	7		
KSARA	150.25	285.3	19	22A	7						
JERUSALEM	150.62	281.1	19	22	6						
GOTEBORG	151.91	347.2	19	25	7						
HELWAN	153.66	276.1	19	29	9						
KRAKOW	155.91	328.8	19	51	28	20	19				
RACIBORZ	156.63	330.9	19	55	31						
COLLMBERG	157.50	339.7	19	58	33			23	35	PP	
HALLE	157.62	341.5						29	50	SKKS	
PRUHONICE	158.13	335.7	20	1A	35	20	55	23	39	PP	
JENA	158.24	341.4	20	3	37			21	18		
PLAUEN	158.47	339.9	19	59	32						
VIENNA-H.	158.81	330.2	20	4	37						
STUTTGART	160.82	342.7	19	29	0	20	13				
TOLMEZZO	161.67	332.2	20	16	46						
GARCHY	163.34	354.6	20	24	52						
TAMANRASSET	171.07	209.3	19	39	2			20	59	PKP2	
SETIF	173.29	326.2						21	8	PKP2	

JUNE 12 7.H 19.M 43.S EPICENTRE -36.56 -98.25 DEPTH= 0.KM

A=-0.11550 B=-0.79679 C=-0.59312 D=-0.9897 E= 0.1435
G= 0.0851 H= 0.5870 K=-0.8051 HT= -0.4

SE= 3.87

	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	
PORT STANLEY	32.22	130.9	6	35	3								
LA PAZ	33.33	61.2	6	39	-3	12	0	-2					
BYRD STATION	44.37	185.2	8	13	-1								
CHINCHINA	46.42	31.9	8	30	0	15	16	-2					
BOGOTA	46.79	34.1	8	31	-2	15	19	-4			10	34	
FUQUENE	47.70	34.0	8	41K	1	15	38	2					
BALBOA HTS.	48.57	25.0	8	47	0								
SOUTH POLE	53.62	180.0	9	26	1						14	54	
CARACAS	55.32	38.4	9	29	-9	17	10	-11					
VERA CRUZ	55.49	2.4				17	25	2			19	53	
SCOTT BASE	55.61	194.8	9	48	8								
TACUBAYA	55.66	358.9	9	44	4	17	15	-11			13	25	
CAPE HALLETT	56.07	201.6	9	40	-3	17	36	5			21	29	SS
MERIDA	57.78	9.5	9	50	-5						21	23	SS
SAN JUAN	62.51	34.7	10	24	-4						11	21	
ST. KITTS	63.24	38.4	10	31	-1								
WELLINGTON	65.05	236.1				19	33	7			11	46	
KARAPIRO	66.10	239.7	10	48	-3								
ROXBURGH	66.58	230.0				19	55	10			24	5	SS
TERRE ADELIE	67.44	201.7	11	3	4								
AFIAMALU	68.70	268.2	11	4	-3	19	57	-13					
TUCSON	69.46	348.6	11	10	-2						21	22	SCS
TUCSON TELE.	69.53	348.7	11	9	-3						39	26	PKPPKP
COLUMBIA	72.01	15.0	11	26	-1								
FAYETTEVILLE	72.38	3.4	10	26K	-64								
PASADENA	72.76	342.8	11	33	1	21	2	5			14	42	PP
SUVA	74.18	259.0				21	27	14					
CHAPEL HILL	74.29	16.1	11	51	10								
WILKES	75.06	191.6				21	25	2			11	55	PCP
MAWSON	75.18	172.6	11	44	-2								
ST. LOUIS 1	75.20	6.5	11	27	-19	21	20	-5					
LAWRENCE	75.21	2.4	11	43	-3								
FLORISSANT	75.34	6.4	11	21	-26	21	23	-3					
FRESNO	75.65	342.3	11	51	2								
LICK	76.66	341.0	11	58A	4								
RUTH	76.98	346.7	11	55	-1	21	46	2					
BERKELEY	77.32	340.7	11	57	-1	21	51	3			12	22	PCP
EUREKA	77.41	346.0	11	58	0	21	29	-20			14	47	PP
WASHINGTON	77.59	16.8	12	3	4								
MORGANTOWN	77.67	14.4	12	6	6								
SALT LAKE C.	77.96	349.5	12	4	3								
RENO	78.29	343.1	12	7A	4								
UKIAH	78.76	340.4	12	8	2						14	6	
CLEVELAND	79.16	12.7	12	10A	2	22	9	1					
PENNSYLVANIA	79.23	15.6	12	19	11	22	5	-3					
MINERAL	79.49	342.1	12	12A	2								
SHASTA	80.02	341.6	12	3	-10								
PALISADES	80.36	18.4	12	9	-5	22	9	-11			15	17	PP

RAPID CITY	80.39	356.4	12	17	2						
NOUMEA	81.09	249.0	12	15	-3					12	56
WESTON	82.32	19.8	12	23K	-2	22	37	-3			
BOZEMAN	82.67	351.0	12	27	0					13	4
BUTTE	83.21	350.0	12	31	2						
KOUMAC	83.75	249.2	12	29	-3					12	49
CORVALLIS	83.89	342.3	12	34	1						
OTTAWA	84.08	15.7	12	34	0						
BREBEUF	84.66	17.1	12	39	2						
RIVERVIEW	84.67	231.5	12	40	3	23	7	3		24	2 PS
CANBERRA	85.02	229.2	12	37	-1	23	1	-6		24	16 PS
MELBOURNE	85.70	225.1	12	36	-6						
HUNGRY HORSE	85.70	349.5	12	41	-1						
SEVEN FALLS	86.86	18.4	12	51	3						
PENTICTON	87.59	346.2	12	50	-1						
MBOUR	91.61	73.4	13	12	2	23	53	-16			
COLLEGE	108.26	340.0				25	7	2		19	20 PP
MALAGA	113.36	60.8				25	26	0		19	36 PP
TAMANRASSET	113.90	78.7	18	45	4					19	34 PP
TOLEDO	115.10	57.9								19	46 PP
LWIRO	117.49	116.0								23	19
ALGIERS UNI.	118.70	63.9								20	12 PP
STUTTGART	127.24	52.4	19	9	2					20	56 PP
TOLMEZZO	129.07	56.2	19	27	17					20	42
TRIESTE	129.37	57.3	19	22	11					24	33 PPP
COLLMBERG	130.15	50.0	19	19	7					21	39 PP
UPPSALA	133.58	38.8	18	57	-22						
TUKUBASAN	133.68	287.9								22	53 PKS
KIRUNA	134.06	27.6	19	31	12						
KHEYS	134.91	5.3	19	30	9						
MATUSIRO	135.22	287.6	19	14	-8	29	1	150		39	53 PSPS
SODANKYLA	136.47	27.5	19	28	4					22	7 PP
LWOW	136.92	53.3	19	36	11						
NURMIJARVI	137.04	37.6	19	31	6						
JERUSALEM	141.50	83.1	19	40	7					24	21 PP
KSARA	142.68	80.3	19	43	8	26	45	2		22	52 PP
SIMFEROPOL	143.41	61.7	19	44	8						
MEDAN	143.66	209.4	19	55	18					20	33
MOSCOW	144.69	43.0	19	38	0						
NHATRANG	145.40	232.6	19	40	0					20	1 PKP2
GORIS	152.05	73.1	20	6	16						
SHIRAZ	154.62	97.3	19	58	4					25	52
IRKUTSK	157.64	321.7	20	27	29						
ULAN-BATOR	158.30	309.4	20	4	5						
QUETTA	166.10	113.0	20	14	7					21	8 PKP2
SEMIPALATNSK	176.13	4.0	20	11	4						
TASHKENT	169.19	60.2								21	41
DUZHANBE	169.50	75.1	20	55	46						
FRUNSE	171.67	39.1								23	32 SKP

JUNE 13 5.H 47.M 5.S EPICENTRE -44.79 -76.57 DEPTH= 0.KM

A= 0.16533 B=-0.69255 C=-0.70217 D=-0.9727 E=-0.2322
G=-0.1630 H= 0.6830 K=-0.7120 HT= -3.5

SE= 2.15

	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
SANTA LUCIA	12.23	24.1	2	55A	-4	4	57	-20				
PORT STANLEY	14.23	125.7	3	28	3							
ARGENTINE I.	21.60	165.9	4	51	-3							
LA PAZ	29.09	16.8	6	10	5	11	1	5				
HUANCAYO	32.65	2.3	6	37A	1	12	11	19				
BYRD STATION	38.53	191.0	7	28	2							
SOUTH POLE	45.40	180.0	8	23	1						9	29 PCP
BOGOTA	49.24	3.3	8	53	0	16	2	4			19	33 SS
CHINCHINA	49.55	1.2	8	54K	-1	16	1	-2				
FUQUENE	50.10	3.7	9	0	1	16	25	15				
SCOTT BASE	51.79	193.9	9	13	1							
CAPE HALLETT	54.35	200.2	9	31A	0	17	16	7			20	55 SS
CARACAS	55.72	11.5	9	40	-1	17	20	-7				
GRENADA	58.15	17.2	9	58	0							
SAN JUAN	63.59	11.1	10	31	-4							
HAWSON	63.82	163.9	10	35	-2							
TACUBAYA	67.14	336.8	10	58	0						12	37

MIRNY	68.70	175.5	11	6	-2						
WILKES	69.07	183.1	11	11	1	20	27	12		24	57 SS
ROXBURGH	72.88	222.2				21	33	34			
WELLINGTON	73.15	228.3								22	19
KARAPIRO	75.11	231.1	11	47	1						
KIMBERLEY	77.71	118.2	11	59A	-2						
COLUMBIA	78.53	356.2	12	4	-1						
MBOUR	79.87	58.1	12	14	2	22	20	4			
CHAPEL HILL	80.37	358.0	12	15	0						
FAYETTEVILLE	82.08	345.7	11	23K	-61						
TUCSON	82.77	331.3	12	29	1						
WASHINGTON	83.31	359.6	12	31	1						
ST. LOUIS 1	83.96	349.3	12	33K	-1	22	58	1			
AFIAMALU	83.97	256.5	12	46	12						
MORGANTOWN	84.10	357.4	12	34A	0						
FLORISSANT	84.14	349.2	12	35A	0	23	0	1			
LAWRENCE	85.07	345.5	12	38	-1						
PENNSYLVANIA	85.22	359.0	12	40	0	23	3	-7		16	0 PP
PALISADES	85.45	2.0	12	39K	-2	23	15	3	12 57	16	3 PP
CLEVELAND	86.00	356.3	12	44A	0						
BULAWAYO	86.27	114.7	12	46K	1						
WESTON	86.92	3.9	12	48	0	23	29	3			
PASADENA	87.18	326.5	12	51	1	23	12	-17		29	37 SS
BOULDER CITY	87.55	329.8	12	52	1						
LARAMIE	89.58	338.6	13	1	0						
MELBOURNE	89.61	211.7	13	1	0						
HALIFAX	89.77	9.2	13	4K	2						
OTTAWA	89.81	0.6	13	6K	4						
BREBEUF	89.95	2.1	13	2K	-1						
CANBERRA	90.20	215.7	13	3	-1						
BROKEN HILL	90.28	110.7	13	6A	2						
RIVERVIEW	90.55	218.0	12	56K	-10					24	59 PS
EUREKA	91.08	330.6	13	9	1					30	32 PKKP
RAPID CITY	91.61	341.1	13	10	0						
SEVEN FALLS	91.67	3.9	13	10A	-1						
ADELAIDE	94.40	208.4	13	24	1						
HUNGRY HORSE	98.40	335.8	13	41	0					17	42 PP
LWIRO	99.28	102.5	13	51	6						
TAMANRASSET	100.37	68.3	13	51	1					17	56 PP
ALGIERS UNI.	108.39	56.3								18	3 PP
SETIF	109.42	58.1								19	2 PP
MESSINA	116.95	62.0								19	46 PP
ROME	117.28	57.1								20	11 PP
PAVIA	117.32	52.6								29	50
RESOLUTE	119.81	354.5	18	51	-2						
TRIESTE	120.22	54.3								20	10 PP
COLLEGE	122.49	331.4	18	57	-1						
HELWAN	122.55	78.7	19	0	2						
COLLMBERG	122.90	48.4	18	59	0					19	42
PRUHONICE	123.04	50.4	18	57	-2						
JERUSALEM	126.38	79.2	19	7	2					21	4 PP
KSARA	127.98	77.5	19	10	1					21	14 PP
LWOW	128.30	54.2	19	10	1						
SKALSTUGAN	128.43	34.8	19	9	0						
NORD	129.94	9.6	19	12	0						
SIMFEROPOL	132.30	63.9	19	16	-1						
NURMIJARVI	132.75	41.4	19	16	-2						
KIRUNA	133.05	31.0	19	17	-1						
SODANKYLA	135.27	32.4	19	17	-5						
APATITY	137.89	32.6	19	25	-2						
TIFLIS	137.99	72.8	19	1	-26						
MAKHACH-KALA	140.33	72.2	19	30	-1						
KHEYS	140.78	10.6	19	33	1						
PETROPAVLOVK	143.60	303.3	19	34	-3						
NHATRANG	147.16	190.5	19	47	4					19	49 PKP2
QUETTA	147.88	104.5	19	46K	2					19	56 PKP2
BAGUIO CITY	148.23	212.5	19	48	3						
TIKSI	150.44	344.0	19	45	-3						
SVERDLOVSK	150.90	50.2	19	51	2						
TUKUBASAN	151.03	265.7	19	55K	6					43	53 SSP
MATUSIRO	152.52	264.7	19	59	8					20	36 PKP2
Y.-SAKHLINSK	152.76	288.8	20	0	8						
NAMANGAN	156.50	88.1	19	57	0						
CANTON	156.88	203.8	20	1	4						
ANDIJAN	156.92	89.1	20	0	3						
YAKUTSK	156.96	327.7	19	55	-3						
SHILLONG	158.66	150.2								22	10
FRUNSE	159.16	85.2	20	2	2						

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KUNMING	160.36	178.1	20	3	1								24	25	PP
LHASA	161.97	142.9	20	6	3								24	35	PP
CHANGCHUN	164.31	274.2	20	3	-2								24	48	PP
CHENGTU	165.88	182.1	20	3	-4										
SIAN	168.65	203.8	20	11	2										
PEKING	169.45	247.6	20	10	1								25	17	PP
LANCHOW	171.26	182.2	20	11	1										
IRKUTSK	172.50	355.8	20	9	-2										
ULAN-BATOR	176.06	323.7	20	9	-3										

JUNE 14 23.H 38.M 12.S EPICENTRE -9.31 152.80 DEPTH= 0.KM

A=-0.87783 B= 0.45119 C=-0.16077 D= 0.4571 E= 0.8894
G= 0.1430 H=-0.0735 K=-0.9870 HT= 6.6

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RABAUL	5.12	353.0	1	16	-4								
CHARTERS TS.	12.44	209.8	3	1	0	5	43	21					
KOUMAC	15.74	136.6	3	43	-2						5	8	
BRISBANE	17.98	180.0	4	23	10	7	56	24					
NOUMEA	18.40	136.2									5	16	
GUAM	24.00	340.4	5	18	1	9	47	15					
RIVERVIEW	24.45	183.3	5	22A	0	9	43	3			9	56	*SS
CANBERRA	26.12	187.1	5	36A	-2								
MELBOURNE	29.26	192.7	6	5	-1								
AFIAMALU	34.97	100.9	6	57	1								
KARAPIRO	35.09	147.9	6	54	-3								
CHATEAU	36.05	149.3	7	5	0								
WELLINGTON	37.30	152.3	7	19	3								
MANILA	39.46	306.8	7	42	8	12	58	-39					
MUNDARING	40.69	231.0	7	45	1				7	50			
BAGUIO CITY	40.87	308.6	7	45	0								
LEMBANG	44.78	269.7	8	18K	1								
ABUYAMA	46.87	340.5	8	34A	0								
MATUSIRO	47.63	344.1	8	38	-2	15	33	-3			19	16	SS
NHATRANG	48.31	295.5	8	44	-1								
TERRE ADELIE	57.95	185.3	9	54	-3								
PETROPAVLOVK	62.29	4.0	10	26A	0								
WILKES	63.78	197.6				19	10	-1					
CAPE HALLETT	63.83	174.1	10	35	-2	19	38	27			23	8	SS
CHITTAGONG	67.51	298.8	11	3	3								
SHILLONG	68.64	302.0	11	7	0								
MIRNY	69.75	201.6	11	13	-1								
CHATRA	73.04	301.7	11	41K	7								
YAKUTSK	73.35	348.9	11	35	-1								
BYRD STATION	80.49	169.8	12	14	-2								
SOUTH POLE	80.75	180.0	12	16	-1						12	50	
TIKSI	82.32	352.5	12	24	-1								
COLLEGE	86.03	21.6	12	43	-1								
NAMANGAN	89.41	311.6									13	58	
QUETTA	91.06	300.3	13	7	-1								
LICK	92.08	52.7	13	13	0								
SHASTA	92.10	49.3	13	14	1								
CORVALLIS	92.15	45.3	13	25	12								
MINERAL	92.63	49.7	13	16A	1								
RENO	93.85	50.7	13	22A	1								
PASADENA	94.36	56.3	13	27	4								
EUREKA	96.79	51.2	13	34	0						30	51	PKKP
SVERDLOVSK	98.91	326.2									17	18	PP
KHEYS	99.90	350.4	13	46	-2								
NURMIJARVI	116.19	334.3	18	46	0								
BULAWAYO	117.78	241.5	18	49A	0								
UPPSALA	119.48	335.9	18	51	-1								
PRUHONICE	126.74	327.6	19	7	1								
COLLMBERG	126.76	329.6	19	6	0								
LJUBLJANA	128.93	323.4	19	11	1								
STUTTGART	130.21	329.0	19	12	-1								
DOURBES	131.54	333.0	19	21	6								
LA PAZ	132.07	122.2	19	20	4						22	57	PKS
GARCHY	134.28	331.4	19	22	2								
ISOLA	134.32	325.5	19	22	2								
FOLINIERE	134.73	335.2	19	23	2								
SETIF	140.09	317.2	19	29	-2								
TAMANRASSET	145.92	297.1	19	44A	3								

DOMINICA	146.09	76.5	19 43	2							
TRINIDAD	146.30	84.8	19 43	1							
ST. VINCENT	146.38	80.3	19 45	3							
PONTA DELGDA	151.67	357.5	19 57K	7						20 3	PKP2

JUNE 15 15.H 36.M 55.S EPICENTRE 40.22 142.28 DEPTH= 48.KM

A=-0.60567 B= 0.46851 C= 0.64316 D= 0.6119 E= 0.7910
G=-0.5087 H= 0.3935 K=-0.7657 HT= -1.8

DEPTH OF FOCUS= 0.002R

SE= 2.69

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MIYAKO	0.61	202.7	0 12K	-2	0 19	-6		
HATINOHE	0.65	298.9	0 15K	0	0 24	-2		
MORIOKA	1.00	239.0	0 20K	1	0 33	1		
AOMORI	1.29	298.3	0 25K	2	0 43	4		
MIZUSAWA	1.40	219.5	0 24	0	0 43	1		
AKITA	1.75	254.1	0 31K	2	0 56	5		
ISINOMAKI	1.93	202.9	0 30K	-2	0 55	0		
HAKODATE	1.96	324.7	0 34	2	0 59	3		
URAKAWA	1.97	11.0	0 33	1	1 1	5		
HIROO	2.20	20.6	0 35	-1	1 3	1		
SENDAI	2.22	209.2	0 35K	-1	1 5	3		
MORI	2.28	326.1	0 40K	3	1 10	6		
SAKATA	2.30	235.9	0 40	3	1 15	11		
TOMAKOMAI	2.47	348.0	0 43	4	1 13	5		
YAMAGATA	2.47	217.9	0 39	0	1 10	1		
OBIHIRO	2.79	14.1	0 46	2	1 17	0		
HUKUSIMA	2.84	210.3	0 43A	-1	1 19	1		
SAPPORO	2.93	346.6	0 46A	0	1 23	3		
SUTTSU	3.00	329.9	0 48	1	1 26	4		
KUSIRO	3.19	29.3	0 47K	-2	1 22	-5		
NIIGATA	3.40	228.6	0 49	-3	1 31	-1		
ONAHAMA	3.44	198.7	0 50	-3	1 31	-2		
SHIRAKAWA	3.49	208.1	0 52	-2	1 35	1		
ASAHIGAWA	3.56	1.1	0 53	-2	1 43	7		
AIKAWA	3.82	236.3	0 58K	0	1 45	2		
NEMURO	3.97	37.4	0 57K	-3	1 39	-7		
ABASHIRI	4.08	20.8	0 59	-3	1 49	0		
MITO	4.09	200.9	1 0A	-2	1 52	3		
UTUNOMIYA	4.12	208.1	1 2	-1	2 3	13		1 28
KAKIOKA	4.31	203.2	1 1	-4	2 3	8		
TUKUBASAN	4.34	203.9	1 3A	-3				
TAKADA	4.43	226.6	1 6	-1	2 1	3		
MAEBASI	4.57	214.5	1 9	0	2 7	6		
TYOSI	4.63	194.5	1 7K	-3	2 7	4		
KUMAGAYA	4.66	210.2	1 9	-1	2 4	0		
NAGANO	4.77	223.4	1 13A	1	2 22	15		
OIWAKE	4.86	218.2	1 12	-1	2 15	6		
MATUSIRO	4.87	222.3	1 14	1	2 10	1		
HONGO	4.92	204.5	1 13	-1				2 19
TITIBU	4.93	211.8	1 13A	-1	2 13	3		
TOKYO C.M.O.	4.95	204.6	1 12	-2	2 14	3		1 33
WAZIMA	5.07	237.7	1 17A	1	2 22	8		
YOKOHAMA	5.21	204.3	1 16	-2	2 13	-5		
MATUMOTO	5.21	221.9	1 20	2	2 26	8		
WAKKANAI	5.22	355.4	1 26	8				
TOYAMA	5.31	230.2	1 22	3	2 4	-16		
KOHU	5.41	214.1	1 20	-1	2 26	4		
HUNATU	5.47	211.6	1 21	0	2 28	4		
MERA	5.63	200.9	1 21	-3				
TAKAYAMA	5.67	225.9	1 25	1				1 48
MISIMA	5.73	208.4	1 23	-2	2 34	3		
AJIRO	5.74	207.0	1 21	-4	2 27	-4		
KANAZAWA	5.75	232.0	1 21	-4				
OSIMA	5.91	203.8	1 26	-2				3 41
SHIZUOKA	6.08	211.6	1 26	-4	2 43	4		
HUKUI	6.33	230.8	1 36	3	2 36	-9		1 48 PP
OMAESAKI	6.47	211.2	1 35	0	3 4	15		
KURILSK	6.48	37.6	1 32	-4				
GIHU	6.49	223.9	1 36	0	2 54	5		
NAGOYA	6.56	221.5	1 39	2	3 0	9		

HAMAMATU	6.58	214.9	1	39	2	3	12	20		
TSURUGA	6.70	229.0	1	40	1	3	5	10		
Y.-SAKHLINSK	6.81	2.6	1	39	-1	2	54	-3	3	15
HIKONE	6.87	225.9	1	42A	1	3	9	10		
KAMEYAMA	7.07	222.5	1	46	2	3	11	7		
TU	7.16	221.5	1	46	1					
MAIZURU	7.22	231.1	1	47K	1	3	16	8		
KYOTO	7.34	227.1	1	48	0	3	19	8		
HATIDYOZIMA	7.38	196.5	1	57	9				3	6
TOYOOKA	7.53	233.9	1	52A	2	3	20	5		
NARA	7.54	224.9	1	52	2	3	28	13		
ABUYAMA	7.54	227.0	1	50A	0	3	21	6		
OSAKA	7.72	226.1	1	56	3	3	38	18		
OWASE	7.82	220.2	1	52	-2	3	37	15		
KOBE	7.90	227.8	1	59	4	3	39	15		
TOTTORI	7.94	236.3	1	57	1	3	33	8		
SAIGO	8.10	243.2	1	58	0	3	36	7		
WAKAYAMA	8.23	225.7	2	5	5					
VLADIVOSTOK	8.29	293.8	2	2	1					
SUMOTO	8.30	227.3	2	4A	3	3	46	12	2	40
HIMEJI	8.48	230.2	2	0	-3	3	39	0		
YONAGO	8.53	238.7	2	6	2	3	45	5		
SIOMISAKI	8.53	219.7	2	12	8	4	7	27		
TOKUSIMA	8.68	227.4	2	9	3	3	54	10		
TAKAMATU	8.81	230.7	2	9	1	4	10	23		
MUROTO	9.51	225.6	2	27	9	4	28	24		
KOTI	9.66	229.2	2	24	4	4	15	7		
HAMADA	9.68	240.0	2	22A	2	4	14	6		
HIROSIMA	9.77	236.4	2	24	3	4	20	9		
MATUYAMA	9.90	233.0	2	23	0	4	17	3		
SIMIDU	10.54	228.1	2	29	-3				5	27
ODITA	11.03	234.1	2	40	2	4	51	10	6	4
HUKUOKA	11.60	238.9	2	46	0	5	4	9		
SAGA	11.85	237.8	2	53	4	5	25	24		
NAGASAKI	12.46	237.0	2	57	0	5	37	21		
KAGOSIMA	12.83	231.4	3	2	0	6	5	40		
CHANGCHUN	13.12	291.5	3	7A	1	5	42	10		
OKHA	13.34	1.7	3	9	0					
SEVERO-KUR.	14.24	38.2	3	19	-2					
PETROPAVLOVK	16.99	35.7	3	57	1				4	16 PPP
ZO-SE	19.37	248.6	4	22A	-3	7	56	1		
PEKING	19.95	277.9	4	29A	-2	8	9	1		
MAGADAN	20.08	12.7	4	32	-1	8	8	-3		
NANKING	20.61	254.1	4	35A	-3	8	19	-2		
YAKUTSK	23.13	344.9	5	1	-2	9	5	-2		
SIAN	27.11	268.0	5	40A	-1					
IRKUTSK	28.55	307.7	5	53A	-1	10	37	0	12	23 SSS
HONG KONG	29.75	241.5	6	4A	0	11	2	6		
CANTON	29.79	243.7	6	5A	0	10	59	2		
BAGUIO CITY	30.29	224.7	6	7	-2	11	7	2		
LANCHOW	30.36	274.6	6	8A	-2	11	7	1		
MANILA	31.48	222.1							7	25
TIKSI	32.20	352.1	6	25	-1				7	23 PP
CHENGTU	32.39	265.0	6	25	-3	11	35	-3		
KUNMING	36.21	257.6	7	0A	0	12	39	2		
TOCKLAI	41.37	266.0	7	50K	7					
LHASA	42.79	272.2	7	57A	2	14	20	5		
SEMIPALATNSK	43.61	305.0	8	0	-2	14	22	-5	17	51 SCS
SHILLONG	44.20	266.6	8	8A	1	14	36	0		
RABAUL	45.13	166.0	8	12	-2					
CHITTAGONG	46.01	262.9	8	21A	0	15	4	2	10	9 PP
COLLEGE	46.06	33.8	8	21	0	15	3	0		
CHATRA	47.14	271.2	8	31	1	15	20	2		
FRUNSE	49.47	296.5	8	48	0	15	49	-2	10	44 PP
KHEYS	49.68	347.6	8	49	0				10	43 PP
PORT BLAIR	51.99	251.1	9	7	0					
SVERDLOVSK	53.24	317.2	9	16	0				11	18 PP
SITKA	53.56	42.3	9	23	4					
MEDAN	53.60	238.8	9	39	20					
TASHKENT	53.72	296.7	9	20	0	16	49	0	11	20 PP
AGRA	53.98	277.0	9	20A	-2	16	52	0	11	23 PP
DUZHANBE	55.27	293.9	9	29	-2				16	54 PSP
WARSAK DAM	55.39	287.7	9	31	-1	17	12	1		
NORD	57.92	356.4	9	49A	-1					
RESOLUTE	59.36	15.1	9	57A	-3	18	3	0		
APATITY	60.08	335.2	10	3	-2	18	10	-3	12	11 PP
CHARTERS TS.	60.11	175.7	10	6	1				11	10
QUETTA	60.68	286.1	10	9A	0	18	22	1	12	23 PP
POONA	61.95	271.1	10	15A	-3	18	49	12		

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THULE	62.02	7.8	10	14	-4				10	49
SODANKYLA	62.30	336.8	10	18	-2				10	52
BOMBAY	62.52	272.1				19	2	18		
VICTORIA	63.75	47.7	10	29A	-1					
KIRUNA	63.79	338.9	10	28	-2					
MOSCOW	65.11	322.9	10	37	-1	19	14	-2	19	39 PS
PENTICTON	65.44	45.4	10	39	-1					
PULKOVO	65.80	329.0	10	42	-1	19	24	0	13	3 PP
CORVALLIS	65.94	51.3	10	44A	0					
NOUMEA	66.15	155.5	10	43	-2				11	39
NURMIJARVI	67.46	331.7	10	52	-1	19	57	13	13	33 PP
HELSINKI	67.58	331.3	10	53	-1					
BRISBANE	67.97	169.9	11	6	10	20	2	12		
TEHERAN	68.63	299.1	11	3	2	20	6	8		
SHASTA	68.67	54.4	11	1	0					
HUNGRY HORSE	69.01	44.0	11	3	0				39	8 PKPPKP
SCORESBY SD.	69.02	354.4	11	2	-1	20	6	3		
UKIAH	69.05	56.1	11	10	7					
SKALSTUGAN	69.20	338.5	11	3	-1					
TIFLIS	69.40	307.5	11	6	1				13	44 PP
GORIS	69.75	304.9	11	12	5					
BERKELEY	70.40	56.7	11	18	7	20	22	3	23	29
UPPSALA	70.40	333.8	11	10	-1				12	15
RENO	70.96	54.1	11	18	3					
LICK	71.11	56.9	11	23K	7					
BUTTE	71.23	45.3	11	17	1					
SHIRAZ	71.37	293.3	11	16K	-1	20	29	-1	11 33	20 48 SP
BOZEMAN	72.27	44.8	11	25	2					
FRESNO	72.63	56.4	11	25	0					
EUREKA	73.35	52.3	11	28	-1					
SIMFEROPOL	73.54	315.3	11	30	0				16	2 PPP
GOTEBORG	73.94	334.8	11	30	-2					
RUTH	74.10	52.0	11	42	9	21	4	3		
RIVERVIEW	74.13	172.3	11	39A	5	21	24	22		
WARSAW	74.77	327.0	11	37A	0	21	3	-6	11	49 PCP
LWOW	75.21	323.8	11	40	0				14	29 PP
PASADENA	75.29	57.7	11	43	3	21	15	0	22	5 PS
COPENHAGEN	75.39	333.3	11	41A	0	21	20	4	11 54	14 30 PP
CANBERRA	75.42	174.3	11	47	6					
MUNDARING	75.78	202.7	11	39	-4				11	59
KRAKOW	76.85	326.0	11	49	0				21	54 SCS
SKALNATE PL.	77.36	325.2	11	50	-2				14	47 PP
RAPID CITY	77.48	42.2	11	53	0					
RACIBORZ	77.56	326.9	11	53	0				12	6 PCP
POTSDAM	77.79	330.9	11	53	-1	21	44	2	14	49 PP
BUCHAREST	78.08	318.9	11	57	1	22	13	28		
LARAMIE	78.14	45.5	11	58	2					
COLLMBERG	78.68	330.3	11	59	0				12	11 PCP
HALLE	78.91	330.9	12	1	1				15	1 PP
PRAGUE	79.10	328.8	12	3A	2					
PRUHONICE	79.12	328.7	12	1A	-1	22	0	4	14	57 PP
BUDAPEST	79.18	324.7	12	10	8	21	36	-21		
BRATISLAVA	79.49	326.2	12	4K	0	22	1	1	15	12 PP
JENA	79.51	330.8	12	3	-1	22	17	17	15	5 PP
PLAUEN	79.65	330.2	12	2	-2					
WITTEVEEN	79.68	334.4	12	6	1					
VIENNA-H.	79.73	326.6	12	6	1	22	31	29		
KSARA	79.84	305.8	12	7	2	22	11	7	15	10 PP
CHEB	79.89	329.9	12	4	-2					
MUNSTER	80.08	333.5	12	7	0					
DURHAM	80.45	339.7	12	9A	0					
BELGRADE	80.54	322.2	12	9	0				15	16 PP
SOFIA	80.71	319.2	12	12	2	21	46	-27	15	5 PP
DE BILT	80.78	334.8	12	10	0	22	43	30	15	20 PP
BENSBERG	81.08	333.1	12	11	-1					
TUCSON	81.20	55.1	12	11	-2					
TUCSON TELE.	81.21	55.0	12	15	2					
JERUSALEM	81.62	304.6	12	15	0				15	24 PP
ZAGREB	81.79	325.3	12	15A	-1					
HEIDELBERG	81.82	331.4	12	16	0				12	28 PCP
STUTTGART	82.14	330.8	12	17	0				15	24 PP
UCCLE	82.16	334.6	12	17	-1				15	26 PP
LJUBLJANA	82.24	326.2	12	17A	-1				15	36 PP
TUBINGEN	82.41	330.7	12	19	0				12	31 PCP
TOLMEZZO	82.59	327.3	12	15	-5				15	28 PP
DOURBES	82.68	334.1	12	21	1	22	33	0		
RAVENSBURG	82.83	330.0	12	19	-2				12	32 PCP
STRASBOURG	82.85	331.5	12	21	0				15	35 PP

TRIESTE	82.89	326.4	12	21	0	22	35	0		15	41 PP
RATHFARNHAM	82.97	341.6	12	20A	-2						
KEW	83.03	337.5	12	21A	-1	22	37	1		15	35 PP
KARAPIRO	83.53	154.1	12	24A	-1					13	5
CHUR	83.63	329.5	12	38	13						
ATHENS	83.99	315.7	12	16A	-11				12 30		
NEUCHATEL	84.48	331.1	12	29	0						
PARIS	84.49	334.6	12	30	1	23	16	25			
BESANCON	84.62	331.8	12	30	0						
PAVIA	85.15	328.8	12	32	-1						
LAWRENCE	85.28	41.3	12	32	-1						
HELWAN	85.36	305.5	12	33A	-1					15	53 PP
PRATO	85.43	326.9	12	43	9	23	17	17			
FOLINIERE	85.47	336.3	12	34	0						
GARCHY	85.62	333.5	12	35	0					16	8 PP
ROME	86.44	324.9	12	40A	1	23	26	16		16	5 PP
CLERMONT-FD.	86.91	332.7	12	43K	2					16	19 PP
MONACO	87.04	329.0	12	41	-1						
FLORISSANT	87.80	38.4	12	45	-1	23	24	1			
MESSINA	87.98	320.8	12	45	-1	23	27	3		16	13 PP
ST. LOUIS 1	88.00	38.4	12	45	-2	23	25	1		23	9 SKS
FAYETTEVILLE	88.02	42.5	11	47A	-60					22	27 PS
SEVEN FALLS	88.18	21.9	12	47	0						
BREBEUF	88.80	24.4	12	50A	0						
PENNSYLVANIA	91.47	29.3	13	4K	1	23	58	2			
MORGANTOWN	91.68	31.3	13	5K	1						
WESTON	92.33	24.2	13	7	0						
PALISADES	92.71	26.6	13	24	15	24	20	13		17	6 PP
SETIF	94.24	326.3	13	15	-1					16	58 PP
TOLEDO	94.57	334.7	13	17	0	24	12	-11		16	48 PP
ALGIERS UNI.	94.72	328.3	13	16	-2					17	6 PP
SERRA PILAR	94.81	338.3	13	13A	-5						
GRANADA	96.85	333.2				25	13	74		17	31 PP
TAMANRASSET	105.50	319.0	14	7	777					18	23 PP
LWIRO	109.26	283.9								18	52 PP
CAPE HALLETT	113.93	171.0								19	33 PP
MBOUR	122.36	336.0								20	28 PP
SOUTH POLE	130.03	180.0	18	49	-16					21	32 PP
BYRD STATION	130.72	166.8	19	3	-4						
HUANCAYO	136.62	60.4	19	30	13						
LA PAZ	144.60	56.9	19	33	1						

JUNE 15 22.H 49.M 39.S EPICENTRE -31.89-177.95 DEPTH= 0.KM

A=-0.85014 B=-0.03043 C=-0.52567 D=-0.0358 E= 0.9994
G= 0.5253 H= 0.0188 K=-0.8507 HT= 1.2

SE= 3.44

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ONERAHI	7.47	236.7	1	54	1						2	22	
TUAI	7.97	208.8	1	55	-5	3	22	-10					
KARAPIRO	8.06	219.8	1	57	-4	3	30	-4			4	38	
CHATEAU	9.02	214.2	2	20	6						3	54	
WELLINGTON	11.05	209.9				4	29	-19					
KAIMATA	13.57	215.5	3	20	4	5	28	-21					
GEBBIES PASS	13.93	209.5	3	14	-7	5	34	-23					
SUVA	14.06	345.7	3	16	-6						4	26	
AFIAMALU	18.77	18.9	4	22	0	7	47	-2					
RIVERVIEW	25.98	257.4	5	44A	8	10	17	12			6	33	
CANBERRA	27.67	253.8	5	53A	2						7	49	
MELBOURNE	30.86	248.6	6	21	1								
CHARTERS TS.	34.10	281.3	6	50A	2	12	14	0					
ADELAIDE	36.09	253.1	7	5	0								
CAPE HALLETT	40.97	185.5	7	46K	0	14	4	5					
TERRE ADELIE	42.42	202.5	8	0	2	14	23	3					
BYRD STATION	53.47	169.3	9	23	-1								
WILKES	53.86	208.3	9	25	-2	16	54	-7			19	15	SCS
MUNDARING	55.05	251.1	9	31	-4								
SOUTH POLE	58.29	180.0	9	57	-2						12	1	PP
MIRNY	60.83	207.3	10	12	-4								
MAWSON	70.94	200.7	11	20	-1						14	30	
MANILA	74.50	298.6	11	20	-22								
MATUSIRO	79.48	325.4	12	7	-3	22	6	-5					
PORT STANLEY	81.60	147.0	12	21	0								

HONG KONG	84.36	300.4				23	7	6			
Y.-SAKHLINSK	86.17	334.2	12	45	1						
BOULDER CITY	89.74	46.3	13	4	3						
TUCSON	89.94	51.3	13	5	3						
TUCSON TELE.	90.07	51.3	13	5	2				16	55	
EUREKA	91.35	43.1	13	10	1						
COLLEGE	99.27	12.5	13	45	0						
PALISADES	119.99	58.0				25	50	0	30	22	PS
QUETTA	125.13	286.5	19	4	2						
SVERDLOVSK	133.07	320.0							22	50	PP
SHIRAZ	136.89	280.7	19	29	4				22	6	PP
LWIRO	137.61	221.8	19	30	4				23	4	PP
APATITY	139.84	341.9	19	21	-9						
SODANKYLA	141.64	345.0	19	29	-4						
KIRUNA	142.44	348.7	19	37	3						
TIFLIS	144.70	298.4	19	40	2						
SKALSTUGAN	147.63	351.5	19	46	3						
NURMIJARVI	147.71	339.1	19	47	4						
HELSINKI	147.89	338.5	19	48	4						
SOTCHI	148.26	302.4	19	40	-4						
BANGUI	148.53	213.0	19	50	5						
UPPSALA	150.16	344.2	19	53	6						
KSARA	151.59	283.1	19	55	6						
JERUSALEM	151.88	278.7	19	58	8						
SIMFEROPOL	151.89	306.9	19	58	8						
GOTEBORG	153.30	348.1	20	3	11						
HELWAN	154.82	273.1	20	5A	11						
LWOW	155.71	323.9	20	8	13						
POTSDAM	158.00	341.8	20	33	35						
RACIBORZ	158.20	331.2	20	31	33						
COLLMBERG	158.99	340.6							20	37	PKP2
HALLE	159.09	342.5	20	38	38				21	4	PKP2
PRUHONICE	159.66	336.3	20	9	9				20	41	PKP2
JENA	159.71	342.4	20	39	39						
BRATISLAVA	160.13	329.2	20	2	1						
CHEB	160.26	340.0							20	43	PKP2
UCCLE	161.03	355.5	20	31	29						
STUTTGART	162.27	344.1	20	3	0				20	51	PKP2
BESANCON	164.36	350.0	21	1	56						
TAMANRASSET	170.42	199.6	20	12	3				25	21	PP
MALAGA	172.81	46.1	20	21	10				25	41	PP
GRANADA	172.96	39.9	21	50K	99				26	5	PP
SETIF	174.88	328.0	20	12	1				21	47	PKP2
ALGIERS UNI.	175.06	350.6	20	15	4						

JUNE 15 23.H 27.M 41.S EPICENTRE -0.63 133.02 DEPTH= 0.KM

A=-0.68222 B= 0.73107 C=-0.01085 D= 0.7311 E= 0.6823
G= 0.0074 H=-0.0079 K=-0.9999 HT= 7.2

SE= 2.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	16.54	122.2	3	59	4	7	6	7					
GUAM	18.19	39.3	4	17	2	7	55	19					
MANILA	19.25	322.6	4	35	7	8	15	15					
RABAUL	19.46	100.8	4	28	-2								
BAGUIO CITY	20.92	324.6	4	47	1	8	45	10					
CHARTERS TS.	23.28	147.0	5	12A	2	9	22	3					
LEMBANG	26.07	255.7	5	29	-8						8	50	
DJAKARTA	26.71	257.5	5	42	0								
HONG KONG	29.27	322.3	6	5	-1	10	51	-7			7	6	PP
CANTON	30.37	322.2	6	16A	1								
BRISBANE	32.68	146.2	6	37	1								
ZO-SE	33.50	341.4	6	43	0								
ADELAIDE	34.58	171.7	6	53	1						14	43	
MUNDARING	34.99	205.4	6	56	0						8	7	
NANKING	35.19	338.8	6	58	1	12	34	3					
RIVERVIEW	37.15	154.6	7	15A	1	13	3	2			8	43	PP
TUKUBASAN	37.25	9.5	7	12K	-3	13	3	1	7	19	8	51	PP
MATUSIRO	37.29	6.9	7	13	-2	12	56	-7	8	41	15	52	SCS
CANBERRA	37.59	158.3	7	17	-1				7	25	8	56	PP
MELBOURNE	38.62	164.8	7	28A	2								
KUNMING	38.90	313.3	7	30A	1	13	29	1					
CHENGTU	41.58	321.0	7	51K	0	14	5	-3					
PORT BLAIR	41.85	288.3									9	44	

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PEKING	43.29	341.1	8	6A	1	14	32	-1			
CHANGCHUN	44.79	352.1	8	16	-1						
LANCHOW	45.49	326.3	8	24A	2						
SHILLONG	47.52	306.3	8	43A	5	15	32	-1			
Y.-SAKHLINSK	48.21	8.9	8	42	-2						
LHASA	50.07	310.6	9	1K	3	16	10	1			
CHATRA	51.87	305.4	9	12K	0						
IRKUTSK	57.97	339.6	9	56A	0						
TERRE ADELIE	66.32	176.4	10	50	-2				18	7	
ALMATA	66.40	318.6	10	53A	0						
WARSAK DAM	67.00	307.5	10	54	-3						
WILKES	67.49	189.6	10	59	-1	20	37	41	13	7	
FRUNSE	67.78	317.4	11	2A	1						
NAMANGAN	69.15	314.7	11	11	1	20	17	2			
QUETTA	69.77	302.5	11	14A	0	20	20	-3	13	54	PP
MIRNY	71.55	195.7	11	25	0				11	31	PCP
SCOTT BASE	79.24	173.1	12	9A	1				18	10	
SVERDLOVSK	80.95	328.0	12	12	-5						
MAWSON	81.94	201.4	12	23	0						
SHIRAZ	82.05	299.9	12	23K	0	22	34	-3	15	32	PP
TEHERAN	83.56	305.9	12	32	1	22	55	2			
TANANARIVE	85.51	251.2	12	44A	3						
COLLEGE	85.96	24.9	12	42	-1	23	41	25			
MAKHACH-KALA	87.14	312.9	12	48	-1	23	19	-9			
KHEYS	88.18	350.9	12	54	0						
TIFLIS	89.08	311.6	12	30	-28						
SOUTH POLE	89.38	180.0	13	0	1				13	38	
BYRD STATION	92.39	170.4	13	5	-8						
SOTCHI	92.83	313.4							23	29	
APATITY	94.24	337.7	13	14	-8				17	3	PP
SIMFEROPOL	96.75	315.1							23	36	
SODANKYLA	96.85	338.0	13	31	-3				17	30	PP
JERUSALEM	96.97	301.8	13	35	1				17	39	
KIRUNA	98.96	339.2	13	40	-3						
NURMIJARVI	99.51	331.6	13	45	-1						
ARCATA	100.16	48.7							17	46	PP
RESOLUTE	100.87	11.6	13	50A	-2						
LWOW	102.65	321.1							18	17	
UPPSALA	103.05	332.1	13	59	-3				18	21	PP
BULAWAYO	103.30	249.2	18	15	777						
KRAKOW	105.14	322.1	18	15	777						
EUREKA	106.52	48.9	14	19	777						
BRATISLAVA	107.50	320.9	18	47	777						
POTSDAM	108.34	326.0							18	57	PP
PRUHONICE	108.42	323.3	17	56	777				19	3	PP
COLLMBERG	108.82	325.0	18	31	777				18	59	PP
HALLE	109.33	325.4							19	6	PP
PLAUEN	109.63	324.4							19	4	PP
JENA	109.78	325.0	19	0	777						
STUTTGART	112.06	323.6							19	19	PP
DE BILT	112.76	328.1							19	31	PP
STRASBOURG	113.04	323.9							19	38	PP
UCCLE	113.88	327.2							19	38	PP
DOURBES	114.11	326.4				25	27	-1	19	41	PP
BESANCON	114.73	323.2							19	32	PP
PARIS	115.96	326.0							19	23	PP
GARCHY	116.43	324.3							19	42	PP
FOLINIERE	117.61	327.2							23	59	
SETIF	120.01	312.3	18	53	1				20	15	PP
TORTOSA	121.33	319.1	19	6	11						
ALGIERS UNI.	121.48	313.8	18	57	2				20	26	PP
TAMANRASSET	124.47	297.4	19	3	2				20	49	PP
TOLEDO	124.77	320.4				25	49	-16	20	52	PP
ALMERIA	125.34	316.4							20	52	PP
GRANADA	125.94	317.3				25	36	-32	20	33	PP
MALAGA	126.73	317.3	19	3A	-2				21	3	PP
OTTAWA	128.71	25.7	19	10K	1						
SEVEN FALLS	129.23	20.9	19	12	2						
MORGANTOWN	130.90	33.8							21	33	PP
WASHINGTON	132.99	32.3	19	19	2				22	45	PP
SANTA LUCIA	139.45	148.9				26	49	11	32	45	
MBOUR	147.33	296.1	19	48A	5				20	2	PKP2
HUANCAYO	149.16	115.0							24	4	PP
CHINCHINA	151.08	80.9							19	50	PP
BOGOTA	152.65	81.2							20	3	PP
LAPAZ	153.07	130.1				26	56	-1	17	23	
SAN JUAN	154.22	45.7	19	59	6						
CARACAS	157.87	63.0	20	9	11				37	23	PPS

JUNE 15 23.H 31.M 23.S EPICENTRE -32.25-177.80 DEPTH= 0.KM

A=-0.84676 B=-0.03254 C=-0.53098 D=-0.0384 E= 0.9993
G= 0.5306 H= 0.0204 K=-0.8474 HT= 1.1

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ONERAHI	7.39	239.5	1 53	1					
TUAI	7.73	210.8	1 54	-3	3 20	-6		4 1	
KARAPIRO	7.87	222.1	1 57	-2	3 28	-1		3 46	
CHATEAU	8.80	216.1	2 19	7				3 50	
WELLINGTON	10.80	211.3	2 35	-4	4 31	-11			
KAIMATA	13.35	216.8	3 20	7	5 28	-16		5 42	
GEBBIES PASS	13.68	210.6	3 13	-5	5 33	-19		3 36	
SUVA	14.44	345.5	3 32	4				4 26	
AFIAMALU	19.06	18.2	4 21	-5	7 45	-11		4 47	PP
BRISBANE	25.94	273.1	5 36	0				12 19	
CANBERRA	27.69	254.5						9 9	PCP
FORT NELSON	29.41	238.7						12 40	SS
MELBOURNE	30.85	249.1	6 21	1					
CHARTERS TS.	34.30	281.7	6 50A	0				7 30	
RABAUL	39.62	308.5	7 32	-3					
SCOTT BASE	46.22	184.5						26 48	
GUAM	57.89	315.7	9 53	-3					
MAWSON	70.65	200.7	11 19	0					
MATUSIRO	79.85	325.4	12 9	-3					
PASADENA	86.64	45.8	12 48	1	23 31	8		23 19	SKS
BERKELEY	86.86	40.8	12 48	1	23 17	-9		27 43	
FRESNO	87.46	43.0	12 52	1					
SHASTA	88.80	38.8	12 59	2					
RENO	89.40	41.5	13 1A	1					
BOULDER CITY	89.90	46.3	13 4	2					
TUCSON	90.06	51.2	13 4	1					
TUCSON TELE.	90.19	51.2	13 6	2					
CORVALLIS	91.15	35.6	13 7A	1					
EUREKA	91.53	43.0	13 10	0				30 26	PKKP
HUANCAYO	93.95	106.8					16 9	17 56	PP
HUNGRY HORSE	98.38	37.2	13 14	-27				14 49	
LAWRENCE	104.30	52.9						15 24	
CARACAS	113.14	92.0						36 0	SS
PENNSYLVANIA	117.16	57.2	18 59	12					
RESOLUTE	118.95	17.5	18 49	-2					
OTTAWA	120.12	52.8	18 56	3					
BULAWAYO	122.10	209.6	18 58	1					
QUETTA	125.35	286.2	19 5	2				20 58	PP
BROKEN HILL	127.19	212.6	19 9	2					
HALIFAX	128.30	56.1	19 10	1					
LWIRO	137.43	221.4	19 28	2				23 12	
SODANKYLA	142.02	344.9	19 30	-4					
KIRUNA	142.82	348.7	19 37	2					
SKALSTUGAN	148.01	351.5	19 47	3					
NURMIJARVI	148.09	339.0	19 47	3					
HELSINKI	148.27	338.4	19 48	3					
UPPSALA	150.54	344.2	19 53	5					
KSARA	151.79	282.4	19 52	2			22 31	23 36	PP
JERUSALEM	152.06	278.0	19 59	8				21 43	PP
GOTEBORG	153.68	348.1	20 6	13					
HELWAN	154.97	272.3	19 55	0				27 28	
COPENHAGEN	155.49	345.9	19 58	3				23 58	PP
WARSAW	155.78	331.1	19 54	-2				20 7	PKP2
BUCHAREST	157.75	310.0	19 43	-15				20 45	PP
KRAKOW	157.86	328.6						20 32	
POTSDAM	158.38	341.7	20 0	1					
RACIBORZ	158.57	330.9						20 34	
WITTEVEEN	159.18	352.4	20 7	7					
COLLMBERG	159.37	340.5	20 19	19				24 16	PP
HALLE	159.47	342.4	20 14	14				24 5	PP
MUNSTER	159.90	350.2	20 10	9					
PRUHONICE	160.04	336.1	20 16	15				20 41	PKP2
DE BILT	160.04	354.6	20 0	-1				24 17	PP
JENA	160.09	342.4	20 0	-1					
SOFIA	160.30	308.0	19 55	-6				23 21	PP
PLAUEN	160.33	340.8	20 0	-1					

CHEB	160.64	339.9	20	28	26					20	43	
SONNEBERG	160.69	342.4								20	45	
BENSBERG	160.94	350.3								20	45	
BELGRADE	161.04	316.7	20	11A	9					23	55	
STUTTGART	162.65	344.1	20	3	-1							
STRASBOURG	163.15	347.2	20	5	1					20	56	PKP2
FOLINIERE	163.37	6.2	20	17	13					20	57	
PARIS	163.45	359.3	19	51	-13					24	41	PP
BESANCON	164.74	350.2	20	12	6					21	1	PKP2
GARCHY	164.97	357.7	20	12	6					24	53	PP
PAVIA	165.99	339.2	20	5	-2					24	57	PP
CLERMONT-FD.	166.48	357.2	20	0	-7					24	44	PP
ROME	167.35	322.5	20	9	1					24	50	PP
MONACO	167.82	341.8								21	15	PKP2
MALAGA	172.96	48.9				25	36	-97		22	14	PKP2
GRANADA	173.14	42.5								25	40	PP
ALICANTE	173.53	19.0	20	4	-7	26	3	-70		21	12	PKP2
SETIF	175.25	327.0	20	11	-1				22 23	25	28	PP
ALGIERS UNI.	175.43	351.4	20	14	2	26	24	-49		21	40	PKP2

JUNE 16 10.H 20.M 4.S EPICENTRE -2.06 68.52 DEPTH= 0.KM

A= 0.36589 B= 0.92997 C=-0.03568 D= 0.9306 E=-0.3661
G=-0.0131 H=-0.0332 K=-0.9994 HT= 7.2

SE= 3.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLOMBO	14.40	51.7	3	17	-10	6	12	3					
KODAIKANAL	15.11	36.0	2	58A	-38	6	10	-15					
MADRAS	18.91	37.4	4	24	0	7	56	3			4	43	PP
POONA	21.12	14.1	4	49	0	8	45	5					
BOMBAY	21.25	11.3	4	52	2	8	52	10					
PORT BLAIR	27.65	59.9									12	10	
QUETTA	32.09	357.4	6	32A	1	11	50	7			7	49	PPP
CHATRA	33.89	30.8	6	45	-1	12	7	-4					
SHIRAZ	35.05	335.3	6	56K	0	12	31	2			8	21	PP
SHILLONG	35.57	38.0	7	4	3	12	44	7					
WARSAK DAM	35.98	4.3	7	6	2								
LHASA	38.17	32.6	7	24	1	13	17	0					
LEMBANG	39.25	98.2	7	30K	-2	13	30	-3					
LWIRO	39.69	269.0	7	38K	2								
TEHERAN	40.87	338.5	7	46	1	14	2	5					
BROKEN HILL	41.42	250.5	7	29A	-21								
ANDIJAN	42.75	4.3	8	3	2								
KUNMING	42.77	48.6	8	4	3	14	26	1					
BULAWAYO	42.91	242.3	8	0	-2								
NAMANGAN	42.93	3.5	8	2	0								
PRETORIA	45.38	235.1	8	21	-1								
ALMATA	45.76	8.6	8	25	0								
JERUSALEM	46.16	319.6	8	32	4								
CHENGTU	46.91	43.2	8	33	-1	15	22	-3					
KSARA	47.09	322.2	8	35	0	15	39	11			10	27	PP
HELWAN	47.64	314.7	8	43	3						12	1	
TIFLIS	48.60	336.3	8	48	1								
MAKHACH-KALA	48.66	339.5	8	46	-2	15	50	0					
LANCHOW	50.21	37.6	8	59	-1	16	13	2					
CANTON	50.29	57.5				16	12	-1					
HONG KONG	50.69	58.9				16	16	-2			10	14	PCP
SOTCHI	52.27	333.7	9	13	-2								
SIAN	52.38	42.7	9	14	-2								
BAGUIO CITY	54.57	68.3	9	40	8								
SIMFEROPOL	55.92	331.0	9	41	-1	17	31	2					
NANKING	58.42	50.0				18	1	-1					
SVERDLOVSK	59.05	354.9	10	5	1	18	12	2					
BUCHAREST	59.75	326.0	10	3	-6						11	38	
SOFIA	60.33	323.0	10	13	0						12	23	PP
PEKING	60.39	40.7	10	12	-1	18	27	-1					
IRKUTSK	61.97	24.0	10	23	-1								
MOSCOW	62.89	341.0	10	29	-1								
MESSINA	63.12	315.2	10	38	6	19	10	8			13	28	PP
LWOW	64.24	329.7	10	36	-3	19	16	0					
MAWSON	65.54	182.4	10	45	-2								
TAMANRASSET	66.11	295.9	10	52	1								
KRAKOW	66.49	328.2	10	4	-50						15	54	

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BRATISLAVA	67.01	325.4	11	3	6					
LJUBLJANA	67.45	322.4	11	2	2					
VIENNA-H.	67.46	325.2	10	59	-1					
PULKOVO	68.49	340.3	11	5	-1	20	8	0		
PRUHONICE	69.38	326.1	11	2	-10				13	45 PP
SETIF	69.85	309.8	11	11	-3					
COLLMBERG	70.89	326.8	11	20	-1				12	14
PLAUEN	70.96	325.8	11	18	-3					
NURMIJARVI	71.00	338.7	11	21	0					
POTSDAM	71.38	327.8	11	23	-1				14	19
JENA	71.50	326.0	11	22	-2				13	59 PP
HALLE	71.56	326.6	11	25	0					
ALGIERS UNI.	71.83	309.7	11	22	-4	20	49	2	14	10 PP
STUTTGART	71.86	323.3	11	25	-2				11	47 PCP
HEIDELBERG	72.46	323.7	11	31	1					
ADELAIDE	72.64	125.9	11	32	1					
STRASBOURG	72.69	322.6	11	36	4	20	56	-1	14	25 PP
BESANCON	73.27	320.9	11	41	6					
UPPSALA	73.30	335.9	11	35	0					
APATITY	73.67	346.7	11	40	3	21	11	3	21	47
MATUSIRO	75.03	51.4	11	44	-1	21	21	-2	29	33 SSS
GARCHY	75.13	320.1	11	47	1				12	39
SODANKYLA	75.23	344.5	11	45	-1					
UCCLE	75.60	323.9	11	47	-1	21	33	4		
KIRUNA	77.27	343.2	11	57	-1					
SKALSTUGAN	77.50	337.6	11	57	-2					
MALAGA	77.61	308.2	11	58	-2					
CHARTERS TS.	77.78	110.0	11	59	-2					
TOLEDO	78.02	311.4	12	1	-1					
YAKUTSK	78.72	24.9	12	4	-2					
Y.-SAKHLINSK	80.78	41.8				22	19	-6		
KHEYS	82.76	358.3	12	27	0					
TIKSI	82.94	16.1	12	26	-2					
MBOUR	86.14	284.5				23	26	8	13	13
SOUTH POLE	87.96	180.0	12	51	-2				18	0
SCOTT BASE	89.74	167.9	13	6	5					
CAPE HALLETT	91.60	162.6	13	14	4					
PALISADES	128.52	323.9							38	35 SS
HUNGRY HORSE	133.83	2.4	19	26	7				21	49
RAPID CITY	137.52	351.2	19	35	9				22	7
EUREKA	142.53	5.7	19	29	-6					
FAYETTEVILLE	142.54	336.7							21	40
FRESNO	144.62	11.6	19	34	-4					
BOULDER CITY	146.11	4.9	19	43	2					
PASADENA	147.47	10.4	19	51	8					
TUCSON TELE.	149.87	358.7	19	53	6					
TUCSON	149.96	358.9	19	49	2				20	21

JUNE 17 5.H 2.M 36.S EPICENTRE -18.32-177.82 DEPTH= 562.KM

A=-0.94927 B=-0.03618 C=-0.31238 D=-0.0381 E= 0.9993
G= 0.3121 H= 0.0119 K=-0.9500 HT= 5.1

DEPTH OF FOCUS= 0.083R

SE= 1.29

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SUVA	3.57	272.1				2	28	6			2	48
AFIAMALU	7.27	53.8	1	51	A -1	3	20	-1				
NOUMEA	15.28	252.3	3	12	0	6	2	16				
KOUMAC	17.03	259.6	3	29	0	6	16	-1				
ONERAHI	18.71	200.2	3	49	4							
KARAPIRO	20.39	195.2	4	1	A 1							
WELLINGTON	23.75	194.0	4	29	-2							
BRISBANE	28.50	246.2	5	10	-3						10	19
RIVERVIEW	31.71	234.7				10	9	-3				
CANBERRA	33.91	233.4	5	59	A 1							
CHARTERS TS.	33.93	261.1	5	59	0						11	14
PORT MORESBY	35.09	279.8	6	9	1							
CAPE HALLETT	54.44	184.5	8	36	A -1							
SCOTT BASE	60.05	183.7	9	15	0							
BYRD STATION	66.75	170.7	9	57	-1							
TUKUBASAN	67.27	324.0	10	1	K 0				12	25		
MATUSIRO	68.57	323.1	10	8	-1						10	33 PCP
SOUTH POLE	71.80	180.0	10	27	-1				12	25		

BERKELEY	76.45	42.2	10 54K	0					
LICK	76.54	42.9	10 55K	1					
PASADENA	77.08	47.2	10 57	0					
FRESNO	77.42	44.3	11 1	2					
HONG KONG	77.79	298.5					11 34		
SHASTA	78.06	39.8	11 3K	1					
MINERAL	78.33	40.4	11 3A	-1					
RENO	78.98	41.9	11 8A	1					
CORVALLIS	79.89	36.2	11 14K	2					
EUREKA	81.43	43.6	11 20	0					
TUCSON	81.44	52.1	11 21	1					
TUCSON TELE.	81.57	52.0	11 21	0	12 26				
ARGENTINE I.	82.90	157.1	11 27	0					
SALT LAKE C.	84.80	44.1	11 35	-2					
COLLEGE	86.05	12.4	11 41	-2	13 45				
RAPID CITY	92.00	44.1	12 11	1					
QUETTA	120.46	294.7	17 49	1					
SODANKYLA	128.51	348.2	17 58	-6			20 33	SKP	
KIRUNA	129.16	351.2	18 3	-2			20 34	SKP	
BULAWAYO	133.82	215.4	18 13	-1					
SKALSTUGAN	134.25	353.7	18 14	-1					
NURMIJARVI	134.89	344.5	18 10	-6					
HELSINKI	135.11	344.1	18 15	-1					
UPPSALA	137.04	348.6	18 11	-9			21 28		
BROKEN HILL	138.39	220.2	18 11	-11					
DURHAM	143.50	3.7	18 29K	-3					
RATHFARNHAM	144.47	8.7	18 38	5					
POTSDAM	144.95	348.4	18 35	1					
WITTEVEEN	145.39	355.2	18 37K	2					
COLLMBERG	145.99	347.8	18 36	0	20 53		22 8	PP	
HALLE	146.00	349.1	18 37	1					
JENA	146.61	349.2	18 35	-2			18 51		
LWIRO	146.77	234.8	18 42	5					
KEW	146.86	2.9	18 39	2					
PRUHONICE	146.89	345.3	18 40	3	20 53				
PLAUEN	146.93	348.3	18 35	-2					
BENSBERG	147.19	354.2	18 41	4					
SONNEBERG	147.21	349.3	18 41	4	20 52				
JERUSALEM	147.35	300.6	18 42	4					
UCCLE	147.55	357.4	18 39	1					
BRATISLAVA	147.84	341.1	18 38	0	20 56				
DOURBES	148.23	357.0	18 45	6					
HEIDELBERG	148.55	351.8	18 44	5					
STUTTGART	149.08	350.8	18 40	0	20 58				
TUBINGEN	149.35	351.0	18 46	5					
STRASBOURG	149.47	352.7	18 48K	7					
FOLINIERE	149.55	3.5	18 42	1					
EBINGEN	149.70	351.0	18 46	5					
RAVENSBURG	149.99	349.9	18 46	4					
LJUBLJANA	150.52	342.4	18 44	2					
TOLMEZZO	150.60	344.6	18 42	0					
BESANCON	150.98	354.7	18 51	8					
HELWAN	151.10	298.9	18 50K	7					
GARCHY	151.11	358.7	18 44	1	21 5				
ISOLA	153.89	352.0	18 57	10					
SETIF	161.96	351.6	18 58	1			20 33	PKP2	
TAMANRASSET	174.57	325.4	19 6K	1			20 44	PKP2	

JUNE 17 16.H 35.M 33.S EPICENTRE 51.90–173.15 DEPTH= 0.KM

A=–0.61525 B=–0.07388 C= 0.78487 D=–0.1192 E= 0.9929
G=–0.7793 H=–0.0936 K=–0.6197 HT= -6.1

SE= 3.80

	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
PETROPAVLOVK	17.18	284.9	3	38	-25							
COLLEGE	18.40	35.4	4	13	-5	7	52	11				
MAGADAN	21.47	305.0	4	54	2							
SITKA	22.37	61.7	5	1	0	9	14	11				
KURILSK	26.39	270.9	5	37	-3							
UGLEGORSK	28.29	282.2	6	9	12							
Y.-SAKHLINSK	28.75	277.9	6	2	1	10	47	-3				
VICTORIA	31.51	76.1	6	29A	3							
YAKUTSK	31.71	311.1	6	26	-1							

TIKSI	31.95	329.5	6	23	-6					
CORVALLIS	33.43	82.5	6	46A	4					
ARCATA	34.96	88.6	7	13	17					
SHASTA	36.12	87.6	6	59	-6				11	17
TUKUBASAN	36.38	263.2	7	6A	-2	12	45	-4	9	30 PCP
MINERAL	36.81	87.4	7	12K	1				7	32
HUNGRY HORSE	37.17	71.4	7	18	4					
MATUSIRO	37.34	265.2	7	15	-1	13	2	-2	8	38 PP
RESOLUTE	37.80	25.1	7	20	0				9	37
BERKELEY	37.90	91.2	7	23A	3	13	16	3		
RENO	38.40	87.2	7	28A	3					
LICK	38.61	91.4	7	29A	3					
BUTTE	39.19	73.8	7	34	3	13	27	-5	7	49
ABUYAMA	40.06	265.5	6	40A	-58					
FRESNO	40.11	90.6	7	42	3					
BOZEMAN	40.28	73.4	7	44	4					
EUREKA	40.81	84.5	7	38	-7					
CHANGCHUN	40.94	283.9	7	44A	-2				9	24 PP
RUTH	41.57	84.0	8	12	21	13	59	-9		
SALT LAKE C.	42.56	80.1	7	50	-9					
PASADENA	42.82	92.3	8	3	2	14	31	5	9	51 PP
BOULDER CITY	43.70	87.7	8	10	2					
KHEYS	44.72	349.5	8	19	3					
RAPID CITY	45.80	70.8	8	28	3				10	8 PP
NORD	46.15	4.7	8	29A	1	15	15	1	11	5 PPP
IRKUTSK	48.03	305.0	8	42	-1					
TUCSON	48.65	88.5	8	48	1				10	50 PP
TUCSON TELE.	48.65	88.3	8	49	2				11	1 PP
PEKING	48.68	285.3	8	48A	0	15	51	1	10	44 PP
GUAM	51.04	237.0	9	0	-6				9	21
ZO-SE	51.51	273.0	9	9	0	16	29	0	11	13 PP
PAOTOW	51.96	289.7	9	14	1	16	37	1		
NANKING	52.33	275.7	9	14A	-2	16	39	-2	16	55 *SS
LAWRENCE	53.64	71.2	9	25	0					
FAYETTEVILLE	56.19	73.1	8	44A	-60					
FLORISSANT	56.59	68.2	9	47	0	17	36	-2		
ST. LOUIS 1	56.78	68.3	9	48	0	17	39	-1		
SIAN	56.84	284.6	9	46A	-2					
LANCHOW	58.61	289.6	9	51A	-10					
APATITY	59.21	348.5	10	5K	0	18	9	-3	10	54 PCP
OTTAWA	59.97	53.8	10	2	-8					
SODANKYLA	60.13	351.3	10	2	-9				10	56 PCP
KIRUNA	60.16	354.1	10	2	-10				10	56
BREBEUF	60.94	52.5	10	8	-9				20	7 SCS
SEVEN FALLS	61.12	49.6	10	10	-8					
MORGANTOWN	61.84	61.0	10	16	-7				20	12 SCS
CANTON	62.09	272.4	10	25A	0	18	53	4	19	10 *SS
PENNSYLVANIA	62.12	58.8	10	25K	0	18	50	0	20	16 SCS
HONG KONG	62.16	271.1	10	25K	0	18	51	1		
CHENGTU	62.30	285.1	10	25A	-1	18	47	-5		
SVERDLOVSK	62.98	330.1	10	22	-9					
RABAUL	63.18	219.5	10	35	3					
MANILA	63.66	260.0	10	43	8	19	7	-2		
PALISADES	64.04	56.2	10	29	-9	19	12	-2	12	44 PP
WESTON	64.35	53.6	10	31	-9	19	17	0		
SKALSTUGAN	64.79	357.3	10	42	0				11	16
CHAPEL HILL	65.01	63.3	10	47	3				13	21
TACUBAYA	65.11	90.0	11	10	25					
COLUMBIA	65.30	66.0	10	47	1					
AFIAMALU	65.54	178.5	10	57	10					
NURMIJARVI	67.04	350.5	10	57	0	19	50	0	15	26 PCS
PULKOVO	67.09	347.4	10	57	0					
KUNMING	67.11	281.8	10	58A	1	19	51	0	13	25 PP
HELSINKI	67.34	350.3	11	0	1					
UPPSALA	68.27	354.2	10	58	-7				11	18
FRUNSE	68.95	313.1	11	10	1	20	12	-1		
MOSCOW	69.75	342.0	11	15	1					
PORT MORESBY	69.93	222.1	11	14	-1	21	21	56	11	25 PCP
LHASA	70.63	293.4	11	21A	2	20	35	2	20	54 *SS
GOTEBORG	70.69	357.1	11	23	4				11	43
ANDIJAN	71.62	313.2	11	26	1					
NAMANGAN	71.75	313.8	11	27	1					
COPENHAGEN	72.69	356.7	11	33	2	20	58	1	13	36
SHILLONG	73.24	290.0	11	22	-13					
DURHAM	73.47	5.1				21	45	40		
RATHFARNHAM	74.60	8.1	11	42	-1					
CHATRA	74.97	294.2	11	37	-8	21	21	-1		
WARSAW	75.56	351.1	11	48	0				22	7 PS

WITTEVEEN										
CHITTAGONG	75.72	287.9	11	50A	1	21	31	1	14	41 PP
POTSDAM	75.97	356.1	11	52	2				12	6 PCP
NOUMEA	76.01	199.4	11	49	-2				12	16
DE BILT	76.37	1.1	11	54	1				14	51 PS
KEW	76.83	4.6	11	55	0					
HALLE	76.89	356.7	11	57	1	21	41	-2	12	10 PCP
COLLMBERG	77.05	356.0	11	58	2				14	51 PP
DEHRA DUN	77.20	302.9	11	59	2	21	43	-3		
JENA	77.47	356.9	12	1	2				14	43 PP
WARSAK DAM	77.47	309.7	11	58	-1					
BENSBERG	77.52	359.8	12	1	2					
LWOW	77.61	348.7	12	1A	1	21	51	0		
UCCLE	77.66	1.6	12	3	3					
KRAKOW	77.83	351.4	12	2	1				22	25 PS
PLAUEN	77.89	356.5	12	1	0				12	13 PCP
RACIBORZ	77.94	352.5	12	3	2					
SONNEBERG	78.03	357.2	12	3	1				12	16 PCP
PRAGUE	78.21	355.0	12	5	2					
PRUHONICE	78.29	354.9	11	55	-8				12	1 PCP
SKALNATE PL.	78.66	351.1	12	8	3					
HEIDELBERG										
MAKHACH-KALA	79.17	330.9	12	9	1					
FOLINIERE	79.52	4.9	12	5	-5					
PARIS	79.60	2.9	12	13	3				15	25 PP
STUTTGART	79.69	358.4	12	3	-8	22	12	-1	15	0 PP
AGRA	79.76	301.0	12	12A	1					
STRASBOURG	79.90	359.4	12	13	1					
VIENNA-H.	79.90	353.6	12	14	2					
BRATISLAVA	79.93	353.0	12	14	2	22	20	4	12	26 PCP
TUBINGEN	79.94	358.5	12	13	1					
CHARTERS TS.	79.96	218.4	12	10	-2					
EBINGEN	80.29	358.6	12	11	-3				12	16 PCP
RAVENSBURG	80.68	358.1	12	16	0					
SIMFEROPOL	80.71	340.7							13	4
SOTCHI	80.74	336.4	12	17	1					
TIFLIS	81.11	332.2	12	25	7					
GARCHY	81.15	2.6	12	20	1				12	29 PCP
BESANCON	81.23	0.6	12	21	2					
NEUCHATEL	81.48	359.9	12	22	2					
TOLMEZZO	81.94	355.7	12	25	2				13	15
LJUBLJANA	82.21	354.6	12	24A	0				12	38
BUCHAREST	82.63	346.2				22	44	0	14	27
TRIESTE	82.65	355.1				22	41	-3	16	10
CLERMONT-FD.	82.66	2.6	12	30	4					
QUETTA	82.81	310.8	12	29A	2	22	45	0	15	44 PP
BELGRADE	82.95	350.3	12	30K	2				17	49 PPP
BRISBANE	84.42	210.0	12	35	0	22	58	-3		
TEHERAN	84.43	325.0	12	40	5	23	1	0		
SOFIA	84.71	347.9	12	39	2				15	33
MONACO	84.75	359.6	12	39A	2					
BAGNERES	85.24	4.9	12	40	0					
SAN JUAN	85.78	65.6	12	44	2					
ROME	86.46	355.8	12	41	-5	23	20	-1	24	34 PS
KARACHI	87.26	307.9	12	51	2					
TOLEDO	88.11	8.4	12	54	0	23	33	-4		
LEMBANG	88.72	257.4	12	55K	-2				16	31 PP
POONA	88.96	299.1	12	58A	0					
ATHENS	89.30	346.7	12	56A	-3					
SHIRAZ	89.46	321.5	13	0K	0	23	27	-22	24	50 PS
MESSINA	89.96	353.2	12	47	-15	23	42	-12	16	29 PP
KARAPIRO	90.00	188.9	13	0	-3					
RIVERVIEW	90.92	209.1	13	6K	-1	24	1	-2	23	39 SKS
KSARA	90.93	336.2	13	9	2	24	4	1	16	49 PP
MALAGA	91.21	9.0	13	9	1	23	55	-10	16	49 PP
CARACAS	91.61	70.9	13	4K	-6				25	25 PS
ALGIERS UNI.	91.64	3.0	12	50	-20	23	41	-28	16	23 PP
SETIF	92.27	1.2	13	15	2					
CANBERRA	92.96	210.2	13	14	-2					
JERUSALEM	93.04	336.1	13	18	1				16	53 PP
HELWAN	95.79	338.8	13	21	-8				13	41
ADELAIDE	96.21	218.0	13	29	-2					
TAMANRASSET	105.64	1.3	14	15	777				18	33 PP
SANTA LUCIA	122.87	103.6	19	22	24				37	50 SS
BANGUI	123.05	346.0	18	59	1					
CAPE HALLETT	124.45	186.1	19	14	13				30	44
LWIRO	127.22	332.0	19	9	3					
SCOTT BASE	130.07	185.5	19	12	0				22	32 PKS

TANANARIVE	134.24	300.5						22	50 PKS
BYRD STATION	135.13	168.5	19	16	-5			22	49 SKP
BROKEN HILL	138.82	327.2	19	22	-6				
SOUTH POLE	141.71	180.0	19	18	-15			23	53
BULAWAYO	114.04	323.6	19	28A	-9				
PRETORIA	149.28	320.0	19	53	7				
KIMBERLEY	153.28	323.0	20	6	14				
GRAHAMSTOWN	156.57	314.7	20	28K	32				

JUNE 18 2.H 4.M 8.S EPICENTRE 34.28 26.12 DEPTH= 0.KM

A= 0.74353 B= 0.36454 C= 0.56061 D= 0.4402 E=-0.8979
G= 0.5034 H= 0.2468 K=-0.8281 HT= 0.4

SE= 2.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	4.16	332.9				2	8	11			1	24	PG
HELWAN	6.23	133.4	1	34	-2	2	40	-9					
JERUSALEM	8.04	105.5	1	58	-3						3	5	
KSARA	8.12	90.5	2	1	-1	3	28	-8			2	37	PG
SOFIA	8.69	346.3	2	13	3								
MESSINA	9.39	297.7	2	20	0	3	57	-11			2	29	PP
SIMFEROPOL	12.31	27.6	3	11	11								
TRIESTE	14.78	323.9									8	1	SGSG
LWOW	15.61	355.0	3	46	3	6	27	-11					
TOLMEZZO	15.67	324.5	3	47	3	6	48	9			4	7	
TIFLIS	16.48	57.7	3	57	3								
SETIF	17.03	282.4	4	7	5								
ISOLA	17.74	309.5	4	12	2						4	30	
PRUHONICE	17.85	335.0	4	11	-1						5	1	
EBINGEN	18.89	322.5	4	27	2								
STUTTGART	19.14	324.2	4	28	1						5	30	
PLAUEN	19.15	332.0	4	28	0						5	8	
NEUCHATEL	19.25	317.0	4	29	0								
SONNEBERG	19.45	330.3	4	30	-1								
COLLMBERG	19.49	334.7	4	31	-1						4	57	PPP
JENA	19.72	331.9	4	34	0								
HEIDELBERG	19.83	324.9	4	35	-1								
BESANCON	19.94	316.6	4	38	1						5	18	
HALLE	20.04	333.5	4	23	-15						8	28	SS
TEHERAN	20.74	78.7	4	47	2								
TAMANRASSET	21.37	243.0	4	53K	1								
GARCHY	21.66	313.8	4	55	1						5	26	
SHIRAZ	22.84	94.4	5	7K	1						9	14	PCP
UCCLE	22.88	322.8									5	31	
FOLINIERE	24.46	314.3	5	23	1								
PULKOVO	25.65	4.9	5	33	0	9	59	-1					
HELSINKI	25.92	358.7	5	35	-1								
UPPSALA	26.18	350.3	5	36	-2						6	24	
NURMIJARVI	26.26	358.4	5	37	-2								
SKALSTUGAN	30.56	347.9	6	15	-3								
SODANKYLA	33.14	0.4	6	37	-3								
APATITY	33.58	5.1	6	42	-2								
KIRUNA	33.76	356.1	6	43	-3								
LWIRO	36.42	175.5	7	10	1								
KHEYS	48.06	6.7	8	43	0								
NORD	49.92	352.5	8	55A	-3								
CHATRA	52.42	80.6	9	15	-2								
OTTAWA	73.85	314.1	11	40A	1								
MATUSIRO	85.32	48.5	12	41	0								
SOUTH POLE	124.10	180.0	18	59	-2								

JUNE 19 12.H 21.M 53.S EPICENTRE -15.46-178.72 DEPTH= 434.KM

A=-0.96404 B=-0.02159 C=-0.26488 D=-0.0224 E= 0.9997
G= 0.2648 H= 0.0059 K=-0.9643 HT= 5.7

DEPTH OF FOCUS= 0.063R

SE= 2.05

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

SUVA	3.82	225.2	1	16	3	2	17	6			
AFIAMALU	6.89	78.0	1	41	-3	2	53	-13			
NOUMEA	15.59	241.9	3	20	1	6	20	20			
KOUMAC	16.95	250.1	3	31	-2	6	34	9			
ONERAHI	21.15	195.7	4	16	2						
KARAPIRO	22.95	191.7	4	31A	1				5	36	
TUAI	23.53	188.1	4	34	-2	8	21	4			
CHATEAU	24.18	190.9	4	48	7				7	57	
TONGARIRO	24.18	191.0							7	57	
WELLINGTON	26.34	191.1	4	59	-2						
BRISBANE	28.99	241.1	5	23	-1						
GEBBIES PASS	29.10	192.9	5	23	-2						
RABAUL	30.74	288.3	5	37	-2						
CHARTERS TS.	33.63	256.9	6	5A	1						
PORT MORESBY	33.84	276.2	6	8	2						
CANBERRA	35.00	229.6	6	11	-4						
ADELAIDE	42.74	234.9	7	19K	0						
CAPE HALLETT	57.21	184.0	9	6	0						
MUNDARING	60.99	241.8	9	31	0						
SCOTT BASE	62.83	183.4	9	44	0						
MATUSIRO	65.78	322.9	10	1	-1						
BYRD STATION	69.70	170.8	10	25	-1						
SOUTH POLE	74.64	180.0	10	53	-2				12	31	11 9 PCP
VINEYARD	74.92	44.5	10	57A	1						
BERKELEY	74.94	43.1	10	56A	-1						
LICK	75.06	43.8	10	58A	1						
HONG KONG	75.68	298.3	11	1	0						
PASADENA	75.81	48.1	11	1	0						
FRESNO	76.00	45.1	11	2A	-1						
SHASTA	76.44	40.6	11	4A	-1						
MINERAL	76.74	41.3	11	6K	-1						
RENO	77.46	42.7	11	10A	0						
CORVALLIS	78.12	37.0	11	18	4						
BOULDER CITY	79.09	47.9	11	19	0						
EUREKA	79.98	44.3	11	24	0						
VICTORIA	80.38	33.7	12	24	58						
TUCSON	80.39	52.8	11	26	0						
TUCSON TELE.	80.51	52.7	11	27	0						
SALT LAKE C.	83.37	44.7	11	40	-1						
COLLEGE	83.46	12.8	11	40	-2				13	38	
BANFF	86.09	34.3	11	54K	0						
BOZEMAN	86.10	40.5	11	56	2						
LARAMIE	87.91	46.2	12	9	6						
RAPID CITY	90.56	44.3	12	16	1						
LAWRENCE	94.61	51.0	12	34	0						
FAYETTEVILLE	94.65	54.0	11	34	-60						
SODANKYLA	125.56	348.3	18	10	-1						
KIRUNA	126.21	351.1	18	10	-2						
NURMIJARVI	131.92	344.7	18	21	-2						
UPPSALA	134.09	348.6	18	19	-8						
COLLMBERG	143.03	347.8	18	40	-4				21	49	PP
HALLE	143.04	348.9	18	47	3				21	38	PP
JENA	143.66	349.0	18	42	-3						
KSARA	143.86	306.7	18	48	3						
PRAGUE	143.87	345.6	18	47	2						
PRUHONICE	143.92	345.4	18	45A	0						
PLAUEN	143.97	348.2	18	41	-4						
KEW	144.06	1.7	18	44	-1						
SONNEBERG	144.25	349.1	18	44	-2						
BENSBERG	144.27	353.6	18	44	-2						
UCCLE	144.66	356.6	18	45	-1						
BRATISLAVA	144.877	341.5	18	48K	1				20	30	
VIENNA-H.	145.02	342.3	18	47	0						
DOURBES	145.35	356.2	18	49	1						
HEIDELBERG	145.61	351.4	18	48	0						
STUTTGART	146.14	350.5	18	49	0						
TUBINGEN	146.40	350.6	18	51	2						
STRASBOURG	146.54	352.2	18	51	2						
FOLINIERE	146.75	2.1	18	51	1						
EBINGEN	146.76	350.6	18	52	2						
LJUBLJANA	147.54	342.7	18	52	1				20	43	PP
LWIRO	147.59	239.5	18	58	7						
TOLMEZZO	147.63	344.8	18	51	0	20	46				
BESANCON	148.06	353.9	18	52	1						
TRIESTE	148.13	343.3	18	56	4						
GARCHY	148.24	357.7	18	53	1						
HELWAN	148.90	302.6	18	59	6						
ATHENS	150.08	322.8	19	0A	5						

ISOLA	150.96	351.4	19	3	7			19	38		
MONACO	151.34	350.7	18	57	1						
SETIF	159.02	350.7	19	6	-1					19	46 PKP2
TAMANRASSET	171.69	331.8	19	19	2					20	43 PKP2

JUNE 19 12.H 34.M 35.S EPICENTRE 44.57 149.19 DEPTH= 0.KM

A=-0.61394 B= 0.36607 C= 0.69933 D= 0.5121 E= 0.8589
G=-0.6007 H= 0.3582 K=-0.7148 HT= -3.4

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	PP S	SUPP. M	SUPP. S
NEMURO	2.89	245.9	0	49	1	1	20	-4				
ABASHIRI	3.57	262.9	0	59	1							
KUSIRO	3.82	247.1	1	1	0	1	43	-5				
OBIHIRO	4.64	251.3	1	16	3							
HIROO	4.85	243.9	1	17	1	2	10	-4				
ASAHIGAWA	4.97	263.3	1	21	3							
URAKAWA	5.26	244.9	1	23	1	2	23	-1			2	46
TOMAKOMAI	5.86	253.4	1	37	7							
SAPPORO	5.87	258.0	1	33	3	2	47	8				
MURORAN	6.39	252.3	1	39	1						2	46
HAKODATE	6.75	248.8	1	42K	-1	3	9	7				
MORI	6.75	251.6	1	45	2							
HATINOHE	6.95	237.2	1	45	-1	2	55	-11				
AOMORI	7.24	241.8	1	50	0	3	4	-10				
MIYAKO	7.28	230.0				3	1	-13				
MORIOKA	7.69	233.6	1	54	-2	3	11	-14				
MIZUSAWA	8.11	230.7	2	1	-1	3	23	-12				
AKITA	8.31	237.5	2	11	6						3	7
ISINOMAKI	8.51	226.6	2	4K	-4	3	32	-13				
SENDAI	8.85	227.6	2	15	3	3	39	-15				
SAKATA	9.00	234.3									3	49
YAMAGATA	9.16	229.5	2	13	-4	3	49	-13				
HUKUSIMA	9.46	227.0	2	18	-3	3	55	-14				
ONAHAMA	9.87	222.4				4	2	-17				
SHIRAKAWA	10.07	225.5	2	28	-1	4	11	-13				
NIIGATA	10.12	232.5	2	21	-9							
MITO	10.53	222.0	2	42	7	4	21	-14				
UTUNOMIYA	10.69	224.7	2	41	3						4	26
KAKIOKA	10.79	222.6	2	35	-4							
TUKUBASAN	10.84	222.8	2	35K	-5	4	25	-18				
TYOSI	10.90	218.7				4	28	-16				
KUMAGAYA	11.25	225.0	2	43	-2						4	43
TOKYO C.M.O.	11.44	222.3				4	36	-22				
NAGANO	11.48	230.4	2	48	0							
OIWAKE	11.54	228.2	2	52	3							
MATUSIRO	11.57	229.9	2	46	-4	4	49	-12			4	2
YOKOHAMA	11.69	221.9				4	52	-12				
WAZIMA	11.73	236.5	2	50	-2	4	56	-9				
KOHU	12.04	226.1									3	23
HUNATU	12.07	224.9				4	50	-23				
COLLEGE	39.56	36.7	7	36	1							
RABAUL	48.62	176.0	8	48	1							
RESOLUTE	53.76	17.2	9	25	-1							
SODANKYLA	60.27	337.9	10	10	-3							
KIRUNA	61.50	340.3	10	20	-1							
SHASTA	62.01	59.4	10	25K	0							
MINERAL	62.70	59.3	10	29K	0							
RENO	64.29	59.1	10	41A	1							
QUETTA	64.32	287.8	10	39	-1							
BUTTE	64.52	49.8	10	42	1							
BOZEMAN	65.56	49.4	10	50	2							
NURMIJARVI	65.97	333.5	10	49	-1							
EUREKA	66.66	57.1	10	55	0							
UPPSALA	68.64	336.1	11	5	-2						12	19
PASADENA	68.68	62.8	11	7	0							
BOULDER CITY	69.59	59.4	11	15	2							
RAPID CITY	70.79	46.7	11	21	1						39	36
LARAMIE	71.43	50.1	11	25	1							
SHIRAZ	74.22	296.0	11	40K	-1							
TUCSON	74.55	60.0	11	43	0							
TUCSON TELE.	74.55	59.8	11	43	0							
KRAKOW	75.94	329.0	11	46	-4						12	2 PCP

COLLMBERG	77.26	333.5	11 57	-1	12 9 PCP
HALLE	77.42	334.2	11 57	-2	
PRUHONICE	77.89	332.0	12 2	1	
JENA	78.03	334.1	12 0	-2	
PLAUEN	78.23	333.6	12 0	-3	
LAWRENCE	78.60	45.8	12 5	0	
ADELAIDE	79.73	188.7	12 12	1	
HEIDELBERG	80.25	335.0	12 14	0	
RATHFARNHAM	80.27	345.4	12 13	-1	
STUTTGART	80.64	334.4	12 17	1	
KEW	80.77	341.2	12 17	0	
TUBINGEN	80.92	334.4	12 17	-1	
STRASBOURG	81.27	335.2	12 20	0	
FAYETTEVILLE	81.33	47.1	11 20A	-60	
ST. LOUIS 1	81.37	43.0	12 20K	0	
TOLMEZZO	81.49	331.0	12 24	3	
MELBOURNE	82.11	183.4	12 26	2	
BREBEUF	82.62	28.8	12 27A	0	
BESANCON	83.00	335.7	12 28	-1	
FOLINIERE	83.33	340.3	12 31	1	
GARCHY	83.79	337.6	12 32	-1	
MORGANTOWN	85.23	35.9	12 41A	1	
ISOLA	85.43	333.7	12 41	0	
MONACO	85.72	333.3	12 42	0	
BYRD STATION	133.74	166.0	19 19	0	
SOUTH POLE	134.37	180.0	19 20	0	

JUNE 19 17.H 17.M 26.S EPICENTRE 28.09 142.57 DEPTH= 0.KM

A=-0.70165 B= 0.53699 C= 0.46833 D= 0.6078 E= 0.7941
G=-0.3719 H= 0.2846 K=-0.8836 HT= 2.4

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TORISIMA	3.10	320.8	0 54	3	1 36	6		1 23
OSIMA	7.20	338.5	1 52	3				5 26
MERA	7.20	341.7	1 58	9				
OMAESAKI	7.48	331.3	1 52	-1				3 39
AJIRO	7.55	337.8	1 58	4	3 14	-7		
MISIMA	7.66	337.1	1 57	1				
SHIZUOKA	7.73	333.6	2 8	11				3 58
YOKOHAMA	7.73	342.0	1 56	-1	3 22	-4		3 39
HAMAMATU	7.80	329.1	1 58	0				3 58
TOKYO C.M.O.	7.94	343.1	2 3	3	3 25	-6		
HUNATU	8.07	337.3	2 2	1	3 32	-2		
KOHU	8.29	336.7	2 6	1				
KAKIOKA	8.37	346.6	2 1	-5	3 36	-6		
TUKUBASAN	8.38	346.1	2 2K	-4	3 32	-10		
MITO	8.46	348.4	2 4	-3	3 49	5		
KUMAGAYA	8.48	342.2	2 7	0	3 42	-3		
KAMEYAMA	8.52	323.8	2 6	-2				3 47
NAGOYA	8.52	327.3	2 14	6				3 9
NARA	8.74	320.4	2 12	1				
UTUNOMIYA	8.74	345.5	2 12	1				3 54
MAEBASI	8.80	341.2	2 13	1				3 45
GIHU	8.81	327.3	2 12	0				3 56
OSAKA	8.89	319.1	2 21	8				4 28
OIWAKE	8.90	338.5	2 13	0				
ONAHAMA	8.95	351.4			3 42	-14		4 51
HIKONE	8.96	324.6	2 14	0				
MATUMOTO	9.02	335.6	2 27	12				
KYOTO	9.04	321.5	2 16	1	4 16	17		
SUMOTO	9.05	315.4	2 19	4	4 20	21		
KOBE	9.11	318.0	2 14	-2				5 24
MATUSIRO	9.20	337.5	2 16	-1	3 56	-7		
SHIRAKAWA	9.22	348.2	2 14	-3	3 52	-11		
NAGANO	9.32	337.8	2 21	2				4 44
KOTI	9.49	307.2	2 19	-2	4 28	18		
TOYAMA	9.71	333.5	2 30	6	4 31	16		
HUKUSIMA	9.80	350.2	2 24	-1	4 7	-10		
TOYOOKA	9.92	320.3	2 27	0	4 27	7		
NIIGATA	10.24	344.1	2 30	-1				
SENDAI	10.25	352.6	2 31	-1				4 13
YAMAGATA	10.31	350.2	2 30	-2				

ISINOMAKI	10.37	354.5	2	30	-3	4	19	-12			
WAZIMA	10.42	334.2	2	32	-2				5	12	
SAKATA	11.02	348.7	2	45	3						
MIZUSAWA	11.08	354.2				4	35	-13			
HAMADA	11.24	309.8	2	46	1				5	56	
KUMAMOTO	11.28	297.6	2	50	4						
MORIOKA	11.64	354.6	2	47	-4	4	49	-14			
SAGA	11.75	299.0	3	5	13						
AKITA	11.78	350.6				4	51	-15	3	30	
HUKUOKA	11.82	300.6	2	55	2				6	20	
NAGASAKI	11.89	296.0	2	57A	3				5	29	
AOMORI	12.79	353.8	3	7	1						
URAKAWA	14.03	0.6							4	48	
MORI	14.08	353.9	3	17	-6						
GUAM	14.69	171.7	3	35	4						
KUSIRO	14.94	5.2	3	38	4	6	2	-19			
SAPPORO	14.98	356.5							3	42	
NEMURO	15.40	8.3							3	42	
WAKKANAI	17.32	357.9							5	29	
KURILSK	17.62	12.4	4	9	0						
ZO-SE	18.84	284.4	4	23A	-1						
Y.-SAKHLINSK	18.90	0.3	4	22	-2						
NANKING	20.96	286.7	4	46A	-1	8	36	-1			
CHANGCHUN	20.96	323.1	4	46	-1						
BAGUIO CITY	23.39	244.9	5	12	1	9	21	0			
MANILA	24.00	240.7	5	21	4	9	36	4			
PEKING	24.81	305.5	5	22	-3						
HONG KONG	26.30	263.8	5	39	0	10	25	14			
PETROPAVLOVK	27.61	21.2	5	56	5						
SIAN	29.35	290.5	6	5A	-2						
PAOTOW	29.45	303.6	6	5	-3						
MAGADAN	31.96	7.9	6	44	14						
RABAUL	33.40	162.4	6	41	-1						
CHENGTU	33.59	283.9	6	42A	-2	11	1	-66			
LANCHOW	33.61	293.6	6	39A	-5						
YAKUTSK	34.99	349.5	6	54	-2	12	22	-6			
KUNMING	35.63	274.6	7	1A	-1	12	39	1			
IRKUTSK	37.26	321.1	7	16	1						
PORT MORESBY	37.53	172.6	7	18	0						
TIKSI	44.25	353.8	8	12	-1	14	45	-2			
LHASA	44.85	284.9	8	18	0						
SHILLONG	45.05	279.1	8	18A	-1						
CHARTERS TS.	48.02	175.3	8	41	-2						
MEDAN	48.35	247.8	8	44	-1						
LEMBANG	48.41	229.5	8	45A	-1						
CHATRA	48.81	282.2	8	49	0						
DEHRA DUN	55.67	289.1							10	7	
FRUNSE	55.86	304.5	9	41	-1						
BRISBANE	56.02	169.0	9	47	4	17	25	-6			
COLLEGE	56.29	28.8	9	44	-1						
ANDIJAN	57.87	302.4	9	55	-1						
NAMANGAN	58.34	302.8	9	59	0						
KHEYS	61.59	349.3	10	21	-1	18	43	0			
SVERDLOVSK	62.66	322.2	10	28	-1	18	57	0			
ADELAIDE	62.82	183.6	10	29	-1						
CANBERRA	63.36	174.1	10	32K	-1						
MUNDARING	64.78	204.7	10	42	-1						
QUETTA	64.90	292.1	10	43A	0				11	13	PCP
MELBOURNE	65.61	177.9	10	48K	0						
RESOLUTE	71.03	13.7	11	20	-2	20	34	-3			
APATITY	71.27	337.5	11	22	-1	20	37	-4			
KARAPIRO	72.57	153.2	11	32	1						
SODANKYLA	73.61	338.7	11	35	-2						
MAKHACH-KALA	74.89	310.8	11	44	0	21	19	-2			
TEHERAN	75.08	302.7	11	51	5						
MOSCOW	75.09	325.6	11	45	-1						
KIRUNA	75.23	340.6	11	45	-1						
SHASTA	75.81	51.4	11	51	1						
PULKOVO	76.43	331.2	11	52	-1						
MINERAL	76.50	51.4	11	54	0						
SHIRAZ	76.71	296.6	12	54K	59	21	38	-4	21	59	*SS
BERKELEY	77.10	54.0	12	17	20						
TIFLIS	77.23	310.5	11	59	1	21	47	0			
LICK	77.77	54.2	12	19K	18						
RENO	78.09	51.6	12	5A	3						
VINEYARD	78.22	54.7	12	19	16						
NURMIJARVI	78.33	333.5	12	3	-1						
HELSINKI	78.41	333.1	12	4	0						
FRESNO	79.34	54.1	12	10	1						

SOTCHI	79.70	313.9	12 11	0	22 13	0					
BUTTE	79.75	43.2	11 59	-12							
SKALSTUGAN	80.61	339.8	12 15	-1							
EUREKA	80.75	50.2	12 18	1					12 38		
BOZEMAN	80.84	43.0	12 19	2							
SCORESBY SD.	81.09	354.8	12 19K	0							
UPPSALA	81.44	335.3	12 19	-1							
PASADENA	81.73	55.8	12 21	-1					12 40		
SIMFEROPOL	82.46	317.2	12 25	-1	22 40	-2					
SALT LAKE C.	82.85	47.5	12 29	1							
BOULDER CITY	83.25	52.9	12 31	1							
GOTEBORG	85.04	335.8	12 36	-3							
LWOW	85.22	325.2	12 39	-1					15 57		
RAPID CITY	86.37	41.2	12 46	1							
LARAMIE	86.54	44.5	12 47	1							
KRAKOW	87.09	327.1	12 49	0							
RACIBORZ	87.89	327.9	12 53	0							
TUCSON	88.00	54.3	12 55	2							
TUCSON TELE.	88.03	54.2	12 55	2					16 24	PP	
COLLMBERG	89.36	331.1	12 59	-1					16 40	PP	
PRUHONICE	89.64	329.4	13 0	-1					16 28	PP	
BRATISLAVA	89.73	327.0	13 3	1							
VIENNA-H.	90.03	327.4	13 3	0							
JENA	90.24	331.5	13 2	-2					13 55		
LJUBLJANA	92.48	326.7	13 13A	-1					16 54		
HELWAN	92.64	305.9	13 15	0							
STUTTGART	92.85	331.2	13 16	0					17 2	PP	
TOLMEZZO	92.94	327.7	13 16	0					17 20	PP	
TRIESTE	93.14	326.8	13 16	-1					16 57	PP	
STRASBOURG	93.63	331.8	13 18	-2					17 2	PP	
LAWRENCE	94.21	41.4	13 22	0							
BESANCON	95.42	331.9	13 27	-1					17 18	PP	
ROME	96.50	324.9							17 27		
ISOLA	97.37	329.4	13 36	-1					17 34	PP	
CLERMONT-FD.	97.79	332.7							17 35		
SETIF	104.40	325.4							18 22	PP	
TOLEDO	105.59	333.9							18 30	PP	
SCOTT BASE	106.68	174.8							33 38	SS	
TAMANRASSET	114.62	316.2	18 44	2					19 39	PP	
SOUTH POLE	117.93	180.0	18 47	-2					19 54	PP	
BYRD STATION	118.84	168.6	18 52	1							
LA PAZ	149.43	74.4	19 48	1					20 22		

JUNE 20 2.H 1.M 9.S EPICENTRE -38.21 -72.75 DEPTH= 0.KM

A= 0.23360 B=-0.75240 C=-0.61590 D=-0.9550 E=-0.2965
G=-0.1826 H= 0.5882 K=-0.7878 HT= -1.0

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
SANTA LUCIA	5.05	20.5	1 21A	2	2 25	6		
LA PLATA	12.37	79.0	3 4	4	5 31	1!		
LA PAZ	22.00	11.9	5 0	2	9 8	12		
HUANCAYO	26.15	354.3	5 38	0	10 8	0		
ARGENTINE I.	27.54	172.3	5 54	4				
BOGOTA	42.62	358.1	7 59K	-1	14 24	1		
CHINCHINA	43.04	355.8	8 2K	-1	14 23	-6		
FUQUENE	43.46	358.6	8 4A	-2				
BYRD STATION	45.53	190.3	8 22	-1	14 9	-56		10 8 PP
BALBOA HTS.	47.35	350.8	8 37A	0	15 41	10		
CARACAS	48.75	7.6	8 38A	-10				10 28 PP
TRINIDAD	49.74	14.7	8 57	1				
GRENADA	51.04	13.9	9 7	1				
ST. VINCENT	52.22	14.2	9 13	-2				
BARBADOS	52.52	16.2	9 22	5				
SANTIAGO MA.	53.49	340.9	9 23	-1	16 55	-2		
FORT FRANCE	53.77	14.0	9 25	-1	17 2	2		
SAN SALVADOR	53.86	340.1	9 27	0	16 41	-21		
DOMINICA	54.28	13.5	9 35	5				
ST. KITTS	56.04	11.6	9 42	-1				
CIUD. TRUJL.	56.41	3.2	9 43	-3				
SAN JUAN	56.63	7.5	9 43A	-4				10 31 PCP
COMITAN	57.14	337.7	9 58	7	17 47	2		21 35 SS
SCOTT BASE	58.85	192.3	10 1	-2	18 9	1		

OAXACA	59.38	333.1	10	13	7	18	25	10	22	21	SS
MERIDA	60.94	341.9	10	18A	1	18	27	-8	12	24	PP
VERA CRUZ	61.18	334.7	10	20A	1	18	32	-6	20	16	SCS
CAPE HALLETT	61.51	198.1	10	18K	-3	18	36	-6	10	22	PCP
PUEBLA	61.75	332.5							30	52	
TACUBAYA	62.45	331.7	10	28K	1	18	48	-6	12	49	PP
MANZANILLO	64.21	326.6	10	46	7	19	20	4	23	40	SS
LEON	64.96	330.1				19	36	11	17	36	
GUADALAJARA	65.23	328.4				19	39	11	22	39	
MAZATLAN	68.75	326.8				19	51	-20	32	31	
MAWSON	69.33	163.4	11	10	-1						
HERMANUS	71.09	119.2	11	23	1	20	45	7	14	10	PP
TERRE ADELIE	72.09	193.5	11	26	-2	20	49	-1			
CHIHUAHUA	73.44	329.7	11	36	0	21	0	-5	25	46	SS
MBOUR	73.90	56.5	11	41	2	21	11	1			
CHAPEL HILL	73.98	354.7	11	36	-3				12	17	
MIRNY	75.00	174.1	11	42	-3						
WILKES	75.75	181.4	11	46A	-3	21	31	0	14	43	PP
LUBBOCK	76.37	335.3	11	52	-1						
FAYETTEVILLE	76.54	342.3	10	50A	-64	20	36	-64	11	22	PCP
GEORGETOWN	76.83	356.5	11	53	-2	21	41	-2			
WASHINGTON	76.83	356.5	11	53K	-2	21	27	-16			
MORGANTOWN	77.74	354.3	11	58A	-2	21	47	-6			
ST. LOUIS 1	78.14	346.1	11	59A	-4	21	51	-6			
KIMBERLEY	78.23	117.2	12	4	1						
FLORISSANT	78.32	346.0	12	1A	-3	21	54	-5			
TERRE HAUTE	78.35	348.5	10	31	-93	20	51	-68			
PITTSBURGH	78.54	354.4	12	3K	-2	21	54	-7			
TUCSON	78.56	327.8	12	5A	0	22	2	1	15	2	PP
TUCSON TELE.	78.59	327.9	12	6K	1						
FORDHAM	78.68	359.1	12	3	-3	22	9	6			
PENNSYLVANIA	78.77	356.0	12	3	-3	22	1	-3	15	1	PP
PALISADES	78.84	359.1	12	6A	0	22	3	-1	15	21	PP
LAWRENCE	79.53	342.3	12	6	-4						
CLEVELAND	79.71	353.3	12	7A	-4	22	7	-7	15	13	PP
ROXBURGH	79.74	219.2	12	13	2	22	11	-3	27	21	SS
WELLINGTON	79.76	225.0	12	8	-3	22	8	-6	15	15	PP
WESTON	80.22	1.1	12	12A	-2	22	19	0			
CHATEAU	80.72	227.0	12	17	0				12	24	PCP
TONGARIRO	80.73	227.0	12	17	0						
KAIMATA	80.74	222.4	12	22	5	22	21	-3			
COBB RIVER	81.02	224.1	12	20	2	22	18	-9			
LOME	81.31	75.2	12	22	2	22	35	5			
LUANDA	81.45	94.5	12	23A	3	22	54	22			
KARAPIRO	81.57	228.0	12	21	0				15	31	PP
PRETORIA	82.45	116.7	12	22	-4						
HALIFAX	82.86	6.6	12	27A	-1						
OTTAWA	83.27	357.9	12	27	-3						
PASADENA	83.43	323.5	12	31A	0	22	54	2	13	37	PP
BOULDER CITY	83.45	326.8	12	31K	0	22	53	1			
ONERAHI	83.72	228.9							22	51	
LARAMIE	84.62	335.8	12	37	0						
SEVEN FALLS	84.96	1.3	12	37	-1						
RUTH	86.26	328.5	12	45A	0	23	8	-12			
BULAWAYO	86.27	112.6	12	47A	2						
FRESNO	86.33	323.9	12	45K	0						
SALT LAKE C.	86.35	331.3	12	44K	-1	23	17	-3			
RAPID CITY	86.42	338.5	13	246K	0						
EUREKA	86.89	327.9	12	46A	-2	23	20	-6	16	17	PP
VINEYARD	87.06	322.9	12	51	2						
PONTA DELGDA	87.13	35.5	13	6	17				14	24	
ANGRA DO HO.	87.18	34.0	13	12	23	24	1	33	23	42	SKS
LICK	87.66	323.1	12	53K	1				16	24	PP
BERKELEY	88.37	323.0	12	55A	0	23	23	-17	16	30	PP
SAN FRANCSCO	88.39	322.8	13	1	6						
AFIAMALU	88.45	253.6	12	59K	4	23	25	-15	16	20	PP
RENO	88.60	325.5	12	57K	1						
BROKEN HILL	89.76	108.1	12	58A	-4						
UKIAH	89.83	323.1	13	9	7						
MINERAL	90.06	324.9	13	3K	0				16	40	
BOZEMAN	90.32	334.2	13	4A	0	23	28	-29			
SHASTA	90.70	324.6	13	6	0						
BUTTE	91.15	333.5	13	8A	0	23	12	-53			
FORT NELSON	91.41	208.2				24	4	-3	13	41	
SUVA	92.92	244.3	13	21	5	24	31	11	16	54	PP
HUNGRY HORSE	93.66	333.8	13	17A	-3				17	5	PP
BANGUI	93.76	87.4	13	21	1				14	9	PP
CORVALLIS	94.19	326.4							14	11	

TAMANRASSET	95.12	65.1	13	28A	2	24	8	6	17	18	PP
LISBON	96.30	44.8	13	30A	-2	24	5	-3	17	1	PP
MELBOURNE	96.74	209.2	13	35	1	24	7	-3	17	31	PP
CANBERRA	97.25	213.3	13	43	7	24	8	-5	17	39	PP
RIVERVIEW	97.54	215.6	13	41K	4	24	10	-5	17	39	PP
LWIRO	97.68	98.9	13	41A	3				17	21	
NOUMEA	98.12	233.5	13	46	6				17	43	PP
SERRA PILAR	98.29	43.4	13	36A	-5				17	40	PP
GRANADA	98.43	49.0	13	44A	3	24	20	1	18	2	PP
ALMERIA	98.89	49.8	13	42A	-1	24	26	4	17	47	PP
HONOLULU	99.37	289.6	13	47K	1	24	25	1	17	46	
TOLEDO	99.97	46.7	13	48	0	24	32	5	17	55	PP
RELIZANE	100.03	52.3	13	47	-2	24	28	1	17	53	PP
TANANARIVE	100.24	123.8	13	56	6				17	59	PP
ALICANTE	101.07	49.7	13	53	0	24	32	0	18	4	PP
ADELAIDE	101.56	206.0	14	1	6	24	31	-4	18	8	PP
BRISBANE	102.06	220.5	14	1	3	25	29	52			
ALGIERS UNI.	102.24	52.8	14	0	2	24	47	9	18	9	PP
SETIF	103.37	54.5	14	2	-1	25	52	69	18	22	PP
BAGNERES	104.44	46.3	14	7	-1				14	29	PP
BARCELONA	104.56	48.6				24	48	-1	18	27	PP
JERSEY	107.07	40.4	18	47	777						
FOLINIERE	107.65	41.4	14	40	777						
RATHFARNHAM	107.69	35.3	14	30	777	25	4	2	18	54	PP
CLERMONT-FD.	107.77	45.5	14	1	777				20	52	
GARCHY	108.64	44.2	18	2	777				19	5	PP
MONACO	109.08	49.1							19	2	PP
ISOLA	109.11	48.5	14	41	777				19	1	PP
PARIS	109.24	42.6	14	24	777	24	5	-64			
KEW	109.38	39.2	14	30	777	25	12	2	19	5	PP
MUNDARING	109.69	188.1							19	13	PP
PERTH	109.75	187.7	14	36	777				19	16	PP
BESANCON	110.24	45.4	14	36	777				19	4	PP
NEUCHATEL	110.65	46.0							19	11	PP
EDINBURGH	110.75	34.3				25	15	0	28	51	PS
DURHAM	110.77	35.9	18	43	8	25	18	3	19	8	PP
PAVIA	110.92	48.6							19	16	PP
DOURBES	111.11	42.3	14	38	777	25	16	-1			
ROME	111.15	52.9	18	14	-22				19	18	PP
MESSINA	111.16	57.6	18	38	2	25	22	5	19	22	PP
REGGIO CALA.	111.17	57.7	18	12	-24						
PRATO	111.37	50.5							19	31	PP
UCCLE	111.37	41.6	14	36	777	25	13	-5			
CHARTERS TS.	111.41	219.5				25	2	-16	19	20	PP
BOLOGNA	111.84	50.1							19	43	PP
ABERDEEN	111.98	33.7				25	33	13	19	20	PP
STRASBOURG	111.98	44.9	18	33	-4	25	20	0	19	18	PP
CHUR	112.04	47.2							19	17	PP
EBINGEN	112.44	45.8	18	42	4				19	42	PP
DE BILT	112.53	40.8	18	40	2	25	15	-7	19	37	PP
RAVENSBURG	112.59	46.4	18	37	-1				19	36	PP
TUBINGEN	112.68	45.5							19	30	PP
STUTTGART	112.93	45.4	18	34	-5	25	25	1	19	26	PP
HEIDELBERG	112.95	44.6	18	33	-6				19	23	
TARANTO	113.47	56.3							19	1	PP
WITTEVEEN	113.69	40.7							19	30	
TOLMEZZO	113.85	49.0	18	51	10				19	54	PP
TRIESTE	113.91	50.0	18	59	18	25	41	13	19	51	PP
SCORESBY SD.	114.37	16.6	18	47	5				19	38	PP
LJUBLJANA	114.57	49.9	18	39	-3				19	55	PP
SONNEBERG	114.83	44.6				25	31	0	19	43	PP
JENA	115.32	44.2	18	45	1	25	33	0	19	46	PP
CHEB	115.34	45.3							22	13	PKS
ZAGREB	115.34	50.7	18	45K	1	25	39	6	20	7	PP
PLAUEN	115.42	44.8	18	46	2	25	33	-1	19	40	PP
HALLE	115.80	43.7	18	45	0	25	33	-2	19	55	PP
COLLMBERG	116.28	44.3							27	8	SKKS
PRAGUE	116.49	46.0				25	38	0	19	53	PP
PRUHONICE	116.51	46.1	18	43	-3				19	56	PP
ATHENS	116.58	61.4	18	51K	5	25	36	-2	20	5	PP
VIENNA-H.	116.75	48.4	18	52	6				20	9	PP
POTSDAM	116.84	43.2	19	4	17	25	39	0	19	56	PP
BERGEN	116.98	33.0							28	1	
BRATISLAVA	117.14	48.8	18	34	-13	25	14	-26	20	1	PP
BELGRADE	117.64	53.3	18	51K	3	25	43	1	20	5	PP
HURBANOVO	117.66	49.5							20	0	PP
BUDAPEST	117.97	50.1							20	4	PP
COLLEGE	118.05	332.1	18	49	0	27	43	120	20	12	PP

COPENHAGEN	118.05	39.8	15	7	777	25	52	9		20	3 PP
HELWAN	118.14	72.8	18	55	6					20	18 PP
SOFIA	118.53	56.6	18	53	3	25	28	-17	19 18	20	24 PP
TIMISOARA	118.55	52.7								19	24
RACIBORZ	118.65	47.2								22	21 PKS
GOTEBORG	118.73	37.6	18	53	3						
CHORZOW	119.20	47.3	18	58	7					22	50 PPP
SKALNATE PL.	119.46	48.8	18	58	6					20	30 PP
KRAKOW	119.64	47.8	19	1	9	25	46	-3		20	28 PP
PORT MORESBY	119.76	226.8				25	55	6		20	19 PP
RABAUL	120.77	235.0	18	51	-3					19	29
BUCHAREST	121.10	55.8	19	13	18	26	4	10		20	29 PP
WARSAW	121.16	45.8	18	55	0	25	57	3		20	27 PP
SKALSTUGAN	121.35	31.5	18	57	2						
LWOW	121.97	49.3	18	58	1					20	20 PP
JERUSALEM	121.99	72.8	18	58	1					20	33 PP
UPPSALA	122.30	36.7	18	56	-1					20	34
NORD	122.99	8.4	18	56	-3					20	32 PP
KSARA	123.42	70.9	19	4	5	26	24	23		20	55 PP
NURMIJARVI	125.84	37.2	19	1	-3	26	5	-3		21	7 PP
HELSINKI	125.90	37.7	19	4	0						
KIRUNA	125.90	27.9	19	3	-1					21	0 PP
SIMFEROPOL	126.59	57.8	19	5	0					21	2 PP
SODANKYLA	128.14	29.0	19	7	-2					21	12 PP
PULKOVO	128.42	39.0	19	9	0	26	8	-8		23	54 PPP
APATITY	130.77	29.1	19	11	-3	26	11	-11		21	30 PP
MOSCOW	131.54	45.1	19	17	2	26	16	-8		21	34 PP
TIFLIS	132.93	65.0	19	17	-1					22	47 SKP
GORIS	133.35	68.4	19	15	-3					21	39 PP
KHEYS	133.79	9.9	19	19	0					21	48 PP
SHIRAZ	134.36	83.7	19	12	-8	26	22	-8		21	55 PP
LEMBANG	135.20	180.5	19	16K	-6					22	15 PP
DJAKARTA	135.84	179.4	19	26	3					21	51
GUAM	138.64	243.7	19	16	-12					21	33 PP
KODAIKANAL	141.42	128.4	19	40K	7	26	49	7		22	28 PP
PETROPAVLOVK	141.97	310.0	19	27	-7	26	25	-17		32	33 SKSP
SVERDLOVSK	144.29	43.2	19	36	-2					22	56 PP
BOMBAY	144.44	113.0	19	37	-1					23	3 PP
MEDAN	144.66	165.1	19	33A	-6						
TIKSI	144.72	348.3	19	35	-4						
POONA	144.95	114.6	19	40A	1					23	5 PP
MAGADAN	145.17	322.1	19	36	-4					33	16 PS
MADRAS	145.23	128.9	19	43A	3					33	14
QUETTA	145.93	91.3	19	36	-5					23	6 PKS
DUZHANBE	149.98	77.2	19	50	3						
PORT BLAIR	150.56	150.0	19	52	4						
TASHKENT	150.80	71.8	19	50	1					20	12
WARSAK DAM	150.97	87.3								19	57 PKP2
YAKUTSK	152.43	337.1	19	48	-3					23	25 PP
Y.-SAKHLINSK	152.64	300.2	19	50	-1					23	47 PP
AGRA	153.14	105.6	19	54	2					23	58 PPP
MANILA	153.55	211.3	20	6	13					36	31
MIZUSAWA	153.61	282.7								21	17
TUKUBASAN	153.83	275.9	19	51	-2					23	51 PP
HONGO	153.96	274.6	20	14	21						
DEHRA DUN	154.69	99.3	20	1	7					23	24
FRUNSE	154.86	69.0	19	55	1					23	54
BAGUIO CITY	155.33	212.0	19	55	0						
MATUSIRO	155.39	275.7	19	52	-3					24	0 PP
ABUYAMA	157.04	270.4	19	56A	-1						
SEMIPALATNSK	157.29	48.8	19	57	-1					24	2 PP
CALCUTTA	157.50	128.6	20	13	15					24	27
CHITTAGONG	159.39	135.6	20	3	3	27	7	3		24	40 PP
CHATRA	159.67	118.0	20	1	1					24	24 PP
TAWU	160.32	220.5	20	16	15						
VLADIVOSTOK	160.69	292.5	19	59	-3						
SHILLONG	161.89	129.6	20	5	2						
TAIPEI	162.13	226.8								29	3
HONG KONG	163.07	202.5								38	13 SKSP
CANTON	164.06	200.8	20	6A	1					24	49 PP
LHASA	164.08	117.6	20	7A	2						
CHANGCHUN	165.26	298.1	20	5	-1					24	56 PP
IRKUTSK	165.79	7.3	20	5	-2					31	57 SKKS
KUNMING	166.40	162.4	20	8A	1					24	56 PP
ZO-SE	166.53	242.4	20	6A	-1					24	56 PP
NANKING	168.75	240.4	20	8A	0					25	15 PP
CHENGTU	172.01	159.5	20	10	0					25	22 PP
PEKING	172.83	287.5	20	8A	-3					25	30 PP
SIAN	175.83	199.4	20	12A	0						

LANCHOW	176.52	127.2	20	15A	3					25	53 PP
PAOTOW	176.80	318.6	20	12	0						

JUNE 20 12.H 59.M 41.S EPICENTRE -39.10 -73.05 DEPTH= 0.KM

A= 0.22684 B=-0.74427 C=-0.62818 D=-0.9566 E=-0.2915
G=-0.1831 H= 0.6009 K=-0.7781 HT= -1.4

SE= 2.29

	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	
LA PLATA	12.79	75.5	3	11A	5	5	37	6					
LA PAZ	22.93	12.2	5	10	3	9	8	-6					
ARGENTINE I.	26.68	171.8	5	42	-1								
HUANCAYO	27.02	355.1	5	48A	2	10	26	3					
CHINCHINA	43.92	356.3	8	11K	0	14	43	0					
FUQUENE	44.35	359.0	8	14	0								
BYRD STATION	44.60	190.4	8	15	-1	14	55	2					
BALBOA HTS.	48.20	351.4	8	43A	-2	15	43	-1					
CARACAS	49.68	7.9	9	21A	25	16	28	23					
SOUTH POLE	51.08	180.0	9	6	-1	16	18	-6			12	39	
GRENADA	51.97	14.1	9	13	0								
ST. VINCENT	53.15	14.4	9	21	-1								
BARBADOS	53.45	16.4	9	39	15								
SANTIAGO MA.	54.27	341.4	9	33	3	17	12	5					
SAN SALVADOR	54.63	340.6	9	37	4	17	19	7					
FORT FRANCE	54.70	14.2	9	31	-3						19	18	
DOMINICA	55.20	13.7	9	36	-1								
SAN JUAN	57.55	7.8	9	51A	-3						13	37	PPP
COMITAN	57.88	338.2				17	59	3					
SCOTT BASE	57.93	192.5	9	55A	-2	18	1	5					
OAXACA	60.08	333.6				18	37	13			29	5	
CAPE HALLETT	60.59	198.3	10	12K	-3	18	28	-3			10	23	PCP
MERIDA	61.72	342.4	10	22A	-1	18	43	-2			12	37	PP
VERA CRUZ	61.89	335.2	10	24	0	18	42	-5			11	48	
TACUBAYA	63.14	332.2	10	31K	-1	19	4	1			12	48	PP
GUADALAJARA	65.88	328.9	10	55	5								
MAWSON	68.53	163.4	11	4	-3	20	7	-2			39	19	PKPPKP
HERMANUS	70.86	119.0	11	21	0	20	38	2					
TERRE ADELIE	71.16	193.7	11	23	0	20	39	-1					
CHIHUAHUA	74.10	330.1	11	41	1	21	7	-6			25	37	
MIRNY	74.13	174.2	11	37	-3								
WILKES	74.85	181.5	11	43A	-2	21	18	-3	11	51	14	41	PP
CHAPEL HILL	74.86	355.0	11	43	-2								
WINDHOEK	76.24	107.9	11	54	1								
LUBBOCK	77.09	335.6	11	56	-1								
FAYETTEVILLE	77.33	342.6	10	57A	-62	20	44	-64			12	50	PCP
GEORGETOWN	77.71	356.8	12	0	-1	21	51	-2					
WASHINGTON	77.71	356.8	12	0K	-1	21	32	-21			14	51	PP
KIMBERLEY	78.02	117.2	12	0K	-2								
MORGANTOWN	78.61	354.6	12	4A	-2	21	58	-4					
ROXBURGH	78.90	219.4	12	12	5	22	3	-2			27	13	SS
ST. LOUIS 1	78.96	346.4	12	8	0	22	3	-3					
WELLINGTON	78.96	225.3	12	6	-2	22	4	-2			27	37	SS
FLORISSANT	79.14	346.3	12	8A	-1	22	5	-3					
TERRE HAUTE	79.18	348.7	11	9	-60	22	9	1					
TUCSON	79.19	328.1	12	8A	-1	22	11	3			31	32	PKKP
TUCSON TELE.	79.23	328.2	12	8A	-1								
PITTSBURGH	79.42	354.6	12	11A	1	22	8	-3			15	21	
PENNSYLVANIA	79.65	356.3	12	10	-1	22	10	-3			15	18	PP
PALISADES	79.74	359.3	12	12A	0	22	15	1			14	29	PP
KAIMATA	79.92	222.7				22	14	-2			12	30	
CHATEAU	79.94	227.3	12	12	-1						12	44	
TONGARIRO	79.94	227.3	12	21	8						12	44	
COBB RIVER	80.22	224.4	12	16	2	22	12	-7					
CLEVELAND	80.58	353.6	12	13A	-3	22	18	-5					
KARAPIRO	80.80	228.2	12	15	-2						15	27	PP
WESTON	81.12	1.3	12	18A	-1	22	29	0					
LUANDA	81.61	94.6	12	23A	1								
LOME	81.76	75.3	12	29	7	22	45	10					
PRETORIA	82.25	116.8	12	26	1								
ONERAHI	82.96	229.2									22	45	
PASADENA	84.01	323.8	12	34A	0	22	51	-7			28	31	SS
BOULDER CITY	84.08	327.1	12	34	0								
OTTAWA	84.16	358.1	12	33A	-2								

BREBEUF	84.22	359.6	12	34A	-1	22	58	-2				
SEVEN FALLS	85.87	1.5	12	41A	-2							
KERGUELEN I.	86.09	156.8	12	46	2	23	21	3				
BULAWAYO	86.14	112.7	12	45A	0							
RUTH	86.91	328.7	12	49A	1	23	13	-13				
FRESNO	86.92	324.1	12	48A	0							
SALT LAKE C.	87.02	331.5	12	47K	-2	23	25	-2				
RAPID CITY	87.17	338.8	12	48A	-2	23	20	-9			31	30
EUREKA	87.53	328.2	12	51A	0	23	34	2	13	1	16	2 PP
VINEYARD	87.64	323.1	12	54	2							
AFIAMALU	87.97	253.8	12	59	5	23	13	-23			28	51 SS
LICK	88.24	323.3	12	56A	1							
BERKELEY	88.95	323.2	12	59A	1	23	27	-18			16	38 PP
SAN FRANCSCO	88.96	323.0	13	0	2							
RENO	89.21	325.7	12	59A	0							
BROKEN HILL	89.70	108.3	13	0A	-2							
UKIAH	90.41	323.3	12	43	-22							
FORT NELSON	90.51	208.4	13	23	17	23	56	-3				
MINERAL	90.66	325.0	13	5A	-1							
BOZEMAN	91.03	334.4	13	7A	-1	23	26	-38				
SHASTA	91.30	324.8	13	9	0						13	19
BUTTE	91.85	333.7	13	11A	-1	23	34	-37				
SUVA	92.32	244.5	13	19	5	23	40	-36			16	41 PP
BANGUI	94.03	87.7	13	22	0						20	37 SKS
HUNGRY HORSE	94.37	334.0	13	22A	-1						17	20 PP
TAMANRASSET	95.71	65.4	13	30A	1	24	15	10			17	20 PP
MELBOURNE	95.84	209.4	13	29	-1	24	43	-3			17	21 PP
CANBERRA	96.37	213.4	13	33	1	24	5	-4			17	31 PP
RIVERVIEW	96.67	215.8	13	30	-4	24	6	-5			17	29 PP
LISBON	97.10	45.1	13	36A	0	24	3	-10			17	32 PP
BANFF	97.29	334.6	13	33	-4							
LWIRO	97.77	99.2	13	41A	2	24	21	5				
VICTORIA	98.01	328.9	13	37K	-3							
COIMBRA	98.54	44.4	13	43	1	24	20	0			17	44 PP
SERRA PILAR	99.10	43.6	13	40A	-5						17	46 PP
GRANADA	99.20	49.3	13	47K	2	24	19	-5			17	49 PP
HONOLULU	99.45	289.6	13	49	3	24	22	-3			17	51 PP
ALMERIA	99.65	50.1	13	45	-2	24	23	-3			17	52 PP
TANANARIVE	99.93	124.2	13	50	1						17	53 PP
ADELAIDE	100.65	206.1	14	23	31	24	27	-4			18	1 PP
TOLEDO	100.75	47.0	13	51	-1	24	34	3			18	1 PP
RELIZANE	100.76	52.6	13	51	-1	24	59	28			17	59 PP
BRISBANE	101.22	220.6	13	52	-2	25	28	55				
ALICANTE	101.82	50.0	13	57	0	24	36	0			18	11 PP
ALGIERS UNI.	102.96	53.1	14	2A	0	24	47	5			18	16 PP
TORTOSA	103.99	48.6	14	6	-1	24	50	4				
SETIF	104.08	54.8	14	7	0	25	7	20			18	25 PP
BAGNERES	105.23	46.6	14	11	777						18	34 PP
BARCELONA	105.33	48.9				25	4	12			18	18 PP
JERSEY	107.90	40.7	12	45	777							
FOLINIERE	108.47	41.7									18	42
RATHFARNHAM	108.56	35.6	18	29	777						19	9 PP
CLERMONT-FD.	108.57	45.8	18	58A	777	26	4	57				
MUNDARING	108.77	188.3									18	59 PP
PERTH	108.83	188.0	14	44	777						19	1 PP
GARCHY	109.45	44.5	14	31	777						18	41 PP
PARIS	110.05	43.0	14	35	777	26	45	92				
KEW	110.22	39.5	18	27	-7	25	10	-4			19	7 PP
CHARTERS TS.	110.57	219.5				24	50	-25			19	9 PP
BESANCON	111.04	45.8	18	51	15						19	28 PP
CHIAVARI	111.30	49.8	14	51	777						19	36 PP
NEUCHATEL	111.44	46.4									19	19 PP
DURHAM	111.63	36.2	19	13	36	25	14	-5			19	20 PP
PAVIA	111.69	49.0									18	34 PP
MESSINA	111.83	58.0	18	59	22						22	35 PKS
REGGIO CALA.	111.84	58.2	19	9	32						28	54
ROME	111.88	53.3	18	21	-16						19	21 PP
DOURBES	111.93	42.7	14	44	777	25	18	-2				
PRATO	112.12	50.9									19	19 PP
UCCLE	112.20	42.0	14	44	777							
BOLOGNA	112.60	50.5									18	40 PP
STRASBOURG	112.78	45.3	14	48	777	25	19	-5			19	29 PP
CHUR	112.82	47.6									19	27 PP
ABERDEEN	112.86	34.0				25	12	-12			19	27 PP
EBINGEN	113.23	46.2									19	33 PP
DE BILT	113.36	41.1	18	51	11	25	24	-2			19	29 PP
RAVENSBURG	113.38	46.8									19	33 PP
TUBINGEN	113.48	45.9									19	36 PP

STUTTGART	113.72	45.7	14	49	777	25	28	0	19 24	PP
HEIDELBERG	113.75	44.9	14	50	777				19 27	PP
BENSBERG	113.77	42.9							19 33	PP
TARANTO	114.16	56.7	15	50	777				20 49	
RESOLUTE	114.43	353.8	18	41	-1	27	19	109	19 33	
WITTEVEEN	114.52	41.0							19 37	PP
TOLMEZZO	114.62	49.4	18	47	4				19 39	PP
TRIESTE	114.66	50.4	18	43	0	25	32	1	19 40	PP
SCORESBY SD.	115.30	16.8	18	49	5				19 43	PP
LJUBLJANA	115.33	50.3	18	47	3				19 45	PP
SONNEBERG	115.63	45.0				25	51	16	19 44	PP
ZAGREB	116.09	51.1				21	1	-35	19 42	PP
JENA	116.12	44.6	18	45	-1	25	39	2	19 46	PP
CHEB	116.14	45.7				25	35	-2	19 53	PP
PLAUEN	116.22	45.2	18	51	5				19 47	PP
HALLE	116.61	44.1	18	48	1	25	38	0	19 56	PP
COLLMBERG	117.08	44.7	18	49	1	25	39	-1	19 56	PP
ATHENS	117.22	62.0				25	33	-8	19 54	PP
PRAGUE	117.28	46.4				25	41	0	19 54	PP
PRUHONICE	117.30	46.5				25	39	-2	19 57	PP
VIENNA-H.	117.52	48.9				25	37	-5	19 53	PP
POTSDAM	117.65	43.7	18	48	-1	25	40	-2	20 3	PP
BERGEN	117.86	33.4							36 19	SS
BRATISLAVA	117.91	49.2				25	36	-7	19 54	PP
BELGRADE	118.36	53.8	18	51A	1	26	1	16	20 0	PP
HURBANOVO	118.42	49.9				25	43	-2	20 0	PP
HELWAN	118.63	73.4	15	18	777	25	37	-9		
BUDAPEST	118.73	50.6							19 57	
COLLEGE	118.73	332.0	18	49	-2	25	47	1	20 21	PP
COPENHAGEN	118.89	40.2	18	51	0	25	50	3	20 6	PP
PORT MORESBY	118.98	226.7							25 47	
SOFIA	119.22	57.1	18	53	1	25	44	-4	20 24	PP
TIMISOARA	119.28	53.2							19 37	
RACIBORZ	119.43	47.7							20 27	PP
CHORZOW	119.98	47.7							30 17	PS
RABAUL	120.06	234.9	18	43	-10				20 26	
KRAKOW	120.42	48.3	18	53	-1	25	52	0	20 26	PP
BUCHAREST	121.79	56.3	18	57	0	25	52	-4	20 25	PP
WARSAW	121.96	46.3	18	58	1	25	52	-5	20 27	PP
SKALSTUGAN	122.24	31.8	18	59	1				20 34	PP
ISTANBUL UN.	122.25	61.0	18	57	-1					
JERUSALEM	122.48	73.5	19	0	2				20 35	PP
LWOW	122.73	49.8	18	59	1				23 18	PPP
UPPSALA	123.16	37.1							20 37	PP
NORD	123.92	8.5	18	59	-2				20 43	PP
KSARA	123.93	71.6	19	3	2				20 48	PP
NURMIJARVI	126.69	37.7	19	6	0	26	0	-11	21 0	PP
HELSINKI	126.75	38.2	19	6	0					
KIRUNA	126.81	28.2	19	6	0				21 4	PP
ISFJORD	127.23	15.1	19	8	1					
SIMFEROPOL	127.26	58.5	19	7	0				21 7	PP
SODANKYLA	129.04	29.4	19	10	-1				21 17	PP
PULKOVO	129.26	39.5	19	10	-1	26	15	-3	21 30	PP
APATITY	131.66	29.5	19	15A	-1	26	9	-16	21 35	PP
MOSCOW	132.33	45.7	19	16	-1	26	13	-13	21 37	PP
TIFLIS	133.52	65.9	19	20	1				21 47	PP
GORIS	133.89	69.3	19	18	-2	26	20	-9	21 47	PP
LEMBANG	134.30	180.9	19	17A	-4				21 42	PP
SHIRAZ	134.68	84.8	19	23	2	26	11	-20	21 55	PP
DJAKARTA	134.95	179.8	19	29	7				22 17	
TEHERAN	136.33	76.3	19	16	-8				21 49	PP
GUAM	138.03	243.1	19	29	2					
KODAIKANAL	141.04	129.6	19	34	1				22 37	PP
PETROPAVLOVK	142.37	309.1	19	31	-4	26	36	-7	22 42	PP
KARACHI	143.57	101.0	19	36	-1				19 53	
MEDAN	143.85	165.9	19	36K	-2					
BOMBAY	144.29	114.5	19	37	-1					
POONA	144.77	116.1	19	36	-3				23 18	PP
MADRAS	144.84	130.3	19	39	0				23 17	
SVERDLOVSK	145.10	44.0	19	39	-1				22 59	PP
TIKSI	145.55	347.9	19	39	-2					
MAGADAN	145.73	321.2	19	40	-1					
QUETTA	146.13	92.8	19	43A	1	26	46	-3	23 8	PKS
PORT BLAIR	149.89	151.3	19	54	6				21 22	
WARSAK DAM	151.23	89.7							19 58	PKP2
TASHKENT	151.29	73.4	19	51	1				23 35	PP
Y.-SAKHLINSK	152.88	298.7	19	50	-2					
AGRA	153.10	107.6	19	52A	0				23 47	PPP

YAKUTSK	153.16	336.2	19	51	-1				23	47 PP
MIZUSAWA	153.57	281.0	20	4	11					
TUKUBASAN	153.68	274.2	19	52A	-1				23	56 PP
HONGO	153.79	272.9							20	51 PKP2
BAGUIO CITY	154.45	211.6	19	55	1					
DEHRA DUN	154.76	101.5	20	24	29				23	59
MATUSIRO	155.23	273.9	19	54	-1				24	3 PP
FRUNSE	155.39	70.9	19	56	1				23	59
ABUYAMA	156.80	268.5	19	58A	1					
CALCUTTA	157.10	130.8	20	4	6				24	14 PP
SEMIPALATNSK	158.00	50.3	19	59	-1				24	9 PP
CHITTAGONG	158.89	137.9	20	5	5	27	11	7	24	50 PP
CHATRA	159.43	120.6	20	2	1				24	25 PP
VLADIVOSTOK	160.80	290.1	20	0	-2					
SHILLONG	161.47	132.3	20	3	0					
HONG KONG	162.15	202.3	20	4	1	27	22	15	24	41 PP
CANTON	163.13	200.7	20	6	2				24	38 PP
LHASA	163.84	120.9	20	7A	2				24	45 PP
CHANGCHUN	165.45	294.8	20	4	-3				24	58 PP
KUNMING	165.61	164.5	20	8A	1				24	51 PP
ZO-SE	165.89	239.9	20	6A	-1				24	55 PP
IRKUTSK	166.71	7.0	20	6	-2				32	2 SKKS
CHENGTU	171.24	163.1	20	11	1				25	18 PP
PEKING	172.82	280.3	20	11A	0				25	36 PP
SIAN	174.90	198.7	20	12A	0					
LANCHOW	176.07	139.9	20	13A	1				25	41 PP
PAOTOW	177.21	302.8	20	13A	1				25	53 PP

JUNE 21 8.H 34.M 39.S EPICENTRE -4.48-105.21 DEPTH= 0.KM

A=-0.26152 B=-0.96207 C=-0.07765 D=-0.9650 E= 0.2623
G= 0.0204 H= 0.0749 K=-0.9970 HT= 7.1

SE= 3.03

	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	
OAXACA	22.93	21.1									10	11	SS
MANZANILLO	23.40	2.1									7	12	
TACUBAYA	24.46	13.8	5	25	3	9	58	18			5	55	PP
VERA CRUZ	25.17	20.5									10	56	SS
MERIDA	29.54	30.6									13	54	
HUANCAYO	30.48	106.1	6	15A	-2	11	25	7					
CHINCHINA	31.01	72.7	6	23	2	11	29	3					
BOGOTA	32.39	74.2	6	35	1	11	56	8			13	45	SS
CHIHUAHUA	32.93	358.6									15	59	
FUQUENE	32.96	72.9	6	39	1	11	59	2					
TUCSON	36.92	352.1	7	14	2								
TUCSON TELE.	36.99	352.2	7	14	1								
LA PAZ	38.28	111.0	7	21	-3	13	22	3					
PASADENA	40.33	343.3	7	39	-2	13	52	3			16	39	SS
CARACAS	40.92	68.5	7	57	11	14	15	17					
FAYETTEVILLE	41.66	13.5	6	51	-61								
SANTA LUCIA	43.19	136.1				14	30	-2					
LAWRENCE	44.21	11.1	8	12	-1								
COLUMBIA	44.57	29.0	8	16	1	14	51	-1					
EUREKA	44.86	348.2	8	18	0								
ST. LOUIS 1	45.09	16.6	8	19	-1	15	1	2					
FLORISSANT	45.20	16.4	8	22	1	15	5	4					
RAPID CITY	48.37	1.9	8	46	0								
BOZEMAN	50.20	354.7	8	57	-3								
HUNGRY HORSE	53.18	352.7	9	20	-2								
PALISADES	53.56	29.3				16	55	-3			20	43	SS
OTTAWA	56.20	24.7	9	43	-1								
BREBEUF	57.17	26.0	9	51A	0								
ARGENTINE I.	67.20	162.6	10	56	-2								
BYRD STATION	75.82	182.5	11	49	-1								
COLLEGE	75.93	342.7	11	50	0								
RESOLUTE	79.28	2.8	12	6	-3						22	8	
CAPE HALLETT	84.10	197.8	12	41	7								
SOUTH POLE	85.55	180.0	12	41	0								
RIVERVIEW	98.78	234.9	13	37A	-6								
UCCLE	105.77	38.4	14	11	777								
MATUSIRO	113.91	308.0	17	53	-48						29	5	PS
QUETTA	153.39	15.3	20	2	10								

JUNE 21 21.H 33.M 47.S EPICENTRE -60.79 -20.89 DEPTH= 0.KM

A= 0.45833 B=-0.17492 C=-0.87140 D=-0.3566 E=-0.9343
G=-0.8141 H= 0.3107 K=-0.4906 HT= -9.2

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	
ARGENTINE I.	19.86	238.3	4	35	0								
PORT STANLEY	22.18	277.5	4	58	-1								
SOUTH POLE	29.38	180.0	6	6	-1						7	30	
BYRD STATION	32.31	198.8	6	33	0								
HERMANUS	36.83	62.7				12	57	1			15	37	SS
GRAHAMSTOWN	41.05	70.0	7	16	-30								
SCOTT BASE	41.53	182.4	7	53A	3								
SANTA LUCIA	42.01	287.5	7	54	0	14	10	-4			9	31	PP
MIRNY	44.02	148.2	8	11	0	14	45	1					
KIMBERLEY	44.11	64.5	8	12	1								
WINDHOEK	46.38	51.8	8	29	-1								
CAPE HALLETT	46.96	184.6	8	35K	1	15	28	2			18	58	SS
PRETORIA	48.21	66.0	8	43	-1								
WILKES	48.22	156.1	8	50K	6	15	47	4			10	45	PP
TERRE ADELIE	52.03	171.2	9	11	-2	16	44	8					
BULAWAYO	53.30	63.0									9	20	PCP
LA PAZ	55.56	301.3	9	41	2	17	30	6					
BROKEN HILL	58.29	59.8									9	57	PCP
HUANCAYO	62.62	296.3	10	31	3	19	5	9					
TANANARIVE	63.16	80.6	10	35A	3						11	12	PCP
LWIRO	69.44	54.5	11	13A	1								
BANGUI	71.86	41.9	11	23	-3								
MBOUR	74.97	3.9	11	40	-5	21	22	0					
BOGOTA	77.09	305.1	12	0	3	21	49	4					
CHINCHINA	78.04	303.8	12	2	0	21	54	-2					
CARACAS	79.80	314.0	12	33K	22	22	47	33					
KARAPIRO	80.72	193.1	12	13	-3								
MUNDARING	81.16	144.2	12	18	-1						12	35	
ADELAIDE	83.14	163.2	12	29	0								
CANBERRA	83.88	171.7	12	24	-9								
RIVERVIEW	85.50	173.4									15	53	PP
TAMANRASSET	85.98	24.3	12	45K	2						16	3	PP
GRANADA	98.64	13.9									17	43	PP
SETIF	99.01	21.3	13	44	0						17	34	PP
ALGIERS UNI.	99.17	19.3				24	23	0			17	45	PP
HELWAN	99.83	44.2									17	52	PP
TOLEDO	101.26	13.1	13	44	-10	24	34	1			25	46	
JERUSALEM	102.93	46.5									18	17	PP
MESSINA	103.04	28.7	18	13	777						24	20	
KSARA	105.01	46.1									18	35	PP
ROME	105.90	25.3									24	53	
ISOLA	107.06	20.6	18	46	777								
SHIRAZ	107.88	61.2									18	43	PP
SOFIA	109.24	33.0	18	58	777								
TRIESTE	109.75	25.1									19	0	PP
PALISADES	110.26	319.9									19	6	PP
LJUBLJANA	110.29	25.5									19	18	PP
STRASBOURG	111.45	20.0	14	40	777						28	13	PS
STUTTGART	111.89	21.0									18	58	PP
UCCLE	113.07	17.1	18	35	-4								
PRUHONICE	114.04	24.2				25	28	0			19	30	PP
PLAUEN	114.07	22.4	19	31	50								
RATHFARNHAM	114.33	9.6	19	41	59								
JENA	114.38	21.9									19	35	PP
SIMFEROPOL	114.44	39.7									19	40	PP
DE BILT	114.46	17.3	19	43	61						20	37	PP
OTTAWA	114.79	320.6	19	41	59						20	34	
QUETTA	114.82	72.4	18	43	1						19	14	PP
SEVEN FALLS	114.89	324.8	19	46	63								
COLLMBERG	115.00	22.7	18	44	1						19	37	PP
TIFLIS	115.25	49.0									19	34	PP
LWOW	116.03	30.6									19	32	PP
MAKHACH-KALA	117.33	50.2									19	57	PP
GOTEBORG	120.92	19.9	18	58	4								
CHATRA	121.81	91.4	18	56K	0								
PASADENA	122.58	282.5	18	58	1								
SHILLONG	123.06	96.4	19	4	6								
RAPID CITY	123.83	300.7	18	58	-2								

UPPSALA	123.95	22.3	18	58	-2					
MOSCOW	125.01	36.1	19	1	-1					
EUREKA	125.83	288.0	19	5	1				21 2	PP
NAMANGAN	125.86	69.0	18	55	-9					
NURMIJARVI	125.96	25.9	19	3	-1					
ANDIJAN	126.00	69.6	19	4	0					
SKALSTUGAN	126.56	17.7	19	4	-1					
PULKOVO	126.59	29.4	19	4	-1					
LICK	126.81	282.0	19	19K	13					
BERKELEY	127.53	281.9	19	3	-4					
RENO	127.69	285.1	19	9K	2					
BOZEMAN	128.48	296.4	19	9	0					
FRUNSE	128.67	69.7	19	9A	0					
BUTTE	129.42	295.6	19	12	1					
KIRUNA	131.79	19.6	19	14	-1					
HUNGRY HORSE	131.84	296.6	19	15	0					
SODANKYLA	132.48	22.8	19	16	0				21 43	PP
APATITY	134.00	25.7	19	15	-4				22 42	PKS
RESOLUTE	143.52	334.5	19	32	-4					
KHEYS	147.58	17.5	19	46	3					
MATUSIRO	152.33	141.8	19	57	6				43 58	SS
COLLEGE	156.04	302.8	19	51	-5				20 34	
Y.-SAKHLINSK	163.24	138.0							20 6	PKP2
TIKSI	163.91	35.2	20	0	-4					
YAKUTSK	165.93	72.2	20	6	0					
PETROPAVLOVK	172.21	177.9	20	13	3					

JUNE 22 16.H 12.M 0.S EPICENTRE 11.76 57.71 DEPTH= 0.KM

A= 0.52315 B= 0.82782 C= 0.20256 D= 0.8453 E=-0.5342
G= 0.1082 H= 0.1712 K=-0.9793 HT= 6.3

SE= 1.93

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
KARACHI	15.72	32.9	3	45	0							
BOMBAY	16.20	62.2	3	52	1	7	3	11			6	36
POONA	16.96	64.7	4	1A	0							
SHIRAZ	18.44	345.6	4	16	-3	7	48	5				
KODAIKANAL	19.46	92.6									8	10
QUETTA	20.24	23.7	4	41A	1	8	27	5			5	3 PP
MADRAS	21.98	84.4	4	58	0	9	11	15			5	9
AGRA	24.45	48.4	5	22A	0							
TEHERAN	24.55	347.6	5	26	3	9	53	11				
WARSAK DAM	25.49	27.5	5	36	4							
DEHRA DUN	26.40	42.5	5	42	2	10	34	21				
JERUSALEM	28.75	317.4	6	5	3	11	0	9				
KSARA	29.65	321.3	6	15	5	11	11	6				
HELWAN	30.41	310.3	6	18	1						7	54
CHATRA	31.48	57.3	6	26	0	11	35	1			9	17 PCP
NAMANGAN	31.59	20.4	6	29A	2							
ANDIJAN	31.63	21.5	6	28	1							
TIFLIS	31.91	341.6	6	31A	1	11	32	-9				
LWIRO	31.93	246.0	6	33A	3							
MAKHACH-KALA	32.33	345.9	6	35	2	11	49	2				
FRUNSE	34.26	22.3	6	52A	2							
SHILLONG	35.03	62.1	6	57A	0							
LHASA	35.71	55.0	7	3A	0							
BROKEN HILL	38.96	228.8	7	25	-5							
BULAWAYO	42.72	222.3	8	0	-1							
SOFIA	42.89	322.3	8	4	2							
KUNMING	44.53	66.1	8	16A	0							
MESSINA	45.84	312.5	8	28	2						15	0
MOSCOW	46.58	344.5	8	32	0							
CHENGTU	46.70	58.9	8	32	-1							
LWOW	46.99	330.6	8	36	1	15	25	-2				
PRETORIA	47.08	217.4	8	37	1							
SKALNATE PL.	48.48	327.8	8	48	1							
KRAKOW	49.17	328.5	8	52	0						11	43 PPP
BRATISLAVA	49.60	325.1	8	55K	0	16	2	-1			10	48 PP
WARSAW	50.01	331.3	8	59A	1						16	10
LJUBLJANA	50.01	321.5	9	0	1						9	20
RACIBORZ	50.08	327.7	9	0	1							
TRIESTE	50.30	320.7	9	1	0							
NHATRANG	50.32	83.8	9	0	-1							

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TAMANRASSET	50.80	289.8	9 6A	1			10 23	PCP
TOLMEZZO	51.10	321.3	9 6	-1			10 22	
KIMBERLEY	51.33	217.7	9 11	2				
PRUHONICE	51.99	325.9	9 12A	-2			10 26	
PRAGUE	52.10	326.0	9 13	-1				
WINDHOEK	52.42	229.4	9 19	2				
SETIF	52.89	306.6	9 21	1			9 41	
COLLMBERG	53.52	326.7	9 24	-1			10 33	PCP
PLAUEN	53.57	325.5	9 22	-3				
RAVENSBURG	53.79	321.5	9 27	0				
CANTON	53.98	70.0	9 27	-1				
HELSINKI	54.04	340.5	9 27	-2				
POTSDAM	54.04	327.9	9 28	-1				
SONNEBERG	54.05	325.0	9 27	-2				
JENA	54.10	325.7	9 28	-1			10 24	
HALLE	54.18	326.5	9 28	-2			10 34	PCP
EBINGEN	54.36	321.8	9 30	-1				
NURMIJARVI	54.40	340.6	9 30	-1				
STUTTGART	54.42	322.5	9 29	-3			10 22	PCP
HONG KONG	54.73	71.0	9 31	-3	17 13	-1		
HEIDELBERG	55.03	323.0	9 34	-2				
NEUCHATEL	55.13	319.8	9 36	-1				
STRASBOURG	55.25	321.8	9 36	-2			10 5	
BESANCON	55.84	319.7	9 41	-1				
COPENHAGEN	56.13	331.0	9 44	0	17 30	-2		
UPPSALA	56.42	337.0	9 45	-1				
RELIZANE	56.65	305.1	9 48	0			10 10	
CLERMONT-FD.	57.19	317.3	9 52K	0				
GOTEBORG	57.46	332.9	9 56	3				
GARCHY	57.71	318.9	9 54	-1			12 12	
DOURBES	57.76	322.5	9 55	-1				
APATITY	58.00	349.3	9 56A	-1				
UCCLE	58.17	323.2	9 51	-7			17 58	PS
DE BILT	58.20	324.8	9 55	-4				
PEKING	58.46	50.2	9 59	-1				
SODANKYLA	59.25	346.6	10 4	-2			10 54	PCP
NANKING	59.39	59.7	10 5	-2				
GRANADA	60.17	306.1	10 13A	1				
FOLINIERE	60.44	319.7	10 14	0				
SKALSTUGAN	60.75	338.6	10 14	-2				
TOLEDO	60.93	309.1	10 16A	-1	18 30	-5		
BAGUIO CITY	60.96	77.7	10 18	0				
KIRUNA	61.11	344.8	10 17	-2				
KEW	61.16	322.7	10 18	-1	18 34	-4		
ZO-SE	61.36	61.0	10 19	-1				
DURHAM	62.94	326.0	10 29K	-2	18 58	-2	16 25	
SERRA PILAR	64.53	310.0	10 43K	2				
RATHFARNHAM	65.18	323.5	10 45	-1			11 47	
KHEYS	68.87	0.1	11 9	0				
MUNDARING	70.84	129.9	11 22	1				
YAKUTSK	71.26	28.3	11 32A	8				
MBOUR	72.50	281.5	11 33A	2			11 54	PCP
TIKSI	73.00	18.3	11 32A	-2				
SIDA	73.24	333.3	11 39	4				
MATUSIRO	75.51	55.1	11 47	-1			32 12	
SCORESBY SD.	75.53	340.0	11 49A	1				
MIRNY	82.28	166.5	12 25	0				
THULE	86.52	349.0	12 46	0				
ADELAIDE	89.42	125.8	13 0	0				
RESOLUTE	92.06	353.0	13 12	-1				
SOUTH POLE	101.69	180.0	14 0	3			17 32	PP
PALISADES	111.09	322.7					29 59	PPS
RAPID CITY	121.77	343.9					20 25	
EUREKA	128.68	353.7	19 12	2		19 31	21 10	PP

JUNE 22 23.H 28.M 47.S EPICENTRE 51.68-173.43 DEPTH= 0.KM

A=-0.61852 B=-0.07128 C= 0.78253 D=-0.1145 E= 0.9934
G=-0.7774 H=-0.0896 K=-0.6226 HT= -6.0

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
PETROPAVLOVK	17.07	285.5	4 5K	3				
COLLEGE	18.67	35.2	4 21	-1	7 58	10		
MAGADAN	21.45	305.5	4 50	-2				

SITKA	22.62	61.3	5	7	3					
Y.-SAKHLINSK	28.61	278.2	5	58	-2					
YAKUTSK	31.72	311.3	6	28	0					
VICTORIA	31.73	75.6	6	29K	1					
TIKSI	32.05	329.7	6	31K	0					
TUKUBASAN	36.19	263.2	7	0	-6				15 16	SS
SHASTA	36.29	87.1	7	9	2					
MINERAL	36.99	87.0	7	14K	1					
MATUSIRO	37.15	265.3	7	14	0	12	57	-5		
HUNGRY HORSE	37.40	71.0	7	18	1					
BERKELEY	38.06	90.7	7	23	1					
RESOLUTE	38.07	25.0	7	21	-1				9	37
BRANNER	38.39	91.2	7	26K	1					
RENO	38.58	86.7	7	29	3					
LICK	38.78	90.9	7	29A	1					
BUTTE	39.42	73.4	7	34	1					
ABUYAMA	39.87	265.5	7	38A	1					
FRESNO	40.28	90.1	7	42	1					
BOZEMAN	40.51	73.0	7	44	2					
EUREKA	41.00	84.0	7	47	1	13	33	-27	9	27 PP
PASADENA	42.99	91.8	8	4	1					
KHEYS	44.90	349.5	8	19	1	15	1	4		
RAPID CITY	46.03	70.5	8	27	0					
NORD	46.38	4.6	8	29	-1				9	46 PCP
IRKUTSK	48.02	305.0	8	41	-2					
PEKING	48.57	285.3	8	47	0	15	49	0		
TUCSON	48.82	88.1	8	49	0					
TUCSON TELE.	48.83	87.9	8	49	0					
ZO-SE	51.35	273.0	9	8	0					
SCORESBY SD.	56.42	11.1	9	45	-1				10	43 PCP
FAYETTEVILLE	56.42	72.8	8	45A	-61					
FLORISSANT	56.83	67.9	9	48	-1	17	39	-2		
ST. LOUIS 1	57.02	68.0	9	49K	-1	17	40	-4		
APATITY	59.39	348.4	10	5	-2					
OTTAWA	60.23	53.5	10	11	-1					
SODANKYLA	60.32	351.2	10	12	-1				10	58 PCP
KIRUNA	60.36	354.0	10	12	-1				10	57 PCP
ROCHESTER	61.14	56.2	10	18	-1					
BREBEUF	61.20	52.3	10	18A	-1					
SEVEN FALLS	61.39	49.4	10	20	0					
HONG KONG	62.00	271.0	10	37	13	19	1	13		
MORGANTOWN	62.10	60.7	10	25K	0					
PENNSYLVANIA	62.38	58.5	10	26	-1	18	52	-1		
PALISADES	64.30	55.9	10	39	-1	19	16	-1	24	22 SS
WESTON	64.61	53.3	10	41K	-1					
SKALSTUGAN	64.99	357.2	10	43	-1					
CHAPEL HILL	65.26	63.0	10	47	1					
COLUMBIA	65.55	65.8	10	47	-1					
HALIFAX	66.61	47.1	10	53K	-2					
KUNMING	66.98	281.7	10	56	-1	19	50	0		
NURMIJARVI	67.22	350.4	10	57	-1				11	25 PCP
HELSINKI	67.52	350.2	10	59	-1					
UPPSALA	68.47	354.0	11	5	-1					
FRUNSE	68.97	313.0	11	9A	0					
MOSCOW	69.91	341.9	11	15	0					
LHASA	70.56	293.2	11	21	2					
GOTEBORG	70.89	356.9	11	22	1					
ANDIJAN	71.65	313.1	11	25A	-1					
NAMANGAN	71.78	313.7	11	29	3					
NHATRANG	72.68	267.8							12	22
SHILLONG	73.16	289.9	11	35A	0					
RATHFARNHAM	74.84	8.0	11	45	1					
CHATRA	74.91	294.1	11	45	0					
CHITTAGONG	75.63	287.8	11	49	0	21	30	0	14	40 PP
DEHRA DUN	77.17	302.8	11	59	2					
COLLMBERG	77.25	355.9	11	58	0				12	44
WARSAK DAM	77.48	309.5	12	2	3					
LWOW	77.79	348.5	12	0	-1					
UCCLE	77.88	1.4	12	1	0					
KRAKOW	78.01	351.2	12	2	0				22	30 SCS
PRAGUE	78.41	354.8	12	7	3					
PRUHONICE	78.49	354.8	12	4A	-1				12	49
DOURBES	78.58	1.3	12	5	0					
MAKHACH-KALA	79.27	330.7	12	9	0					
HEIDELBERG	79.28	358.6	12	9	0					
CHARTERS TS.	79.69	218.2	12	9	-2					
FOLINIERE	79.75	4.7	12	13	1					
STUTTGART	79.90	358.2	12	12	0					

STRASBOURG	80.11	359.2	12 15	1				
BRATISLAVA	80.12	352.9	12 15	1			12 28	PCP
TUBINGEN	80.15	358.3	12 14	0				
EBINGEN	80.50	358.4	12 15	-1				
RAVENSBURG	80.89	357.9	12 18	0				
TIFLIS	81.22	332.0	12 19	0				
GARCHY	81.37	2.4	12 20	0			13 15	
QUETTA	82.82	310.7	12 28A	0	22 45	-1	12 34	PCP
CLERMONT-FD.	82.88	2.4	12 29	1				
TEHERAN	84.51	324.8	12 37	1				
ISOLA	84.52	359.7	12 37	1				
MONACO	84.97	359.4	12 39	0				
SHIRAZ	89.53	321.3	13 1	0	23 28	-22		
KARAPIRO	89.76	188.7	13 0	-2				
SETIF	92.49	1.0	13 15	1				
JERUSALEM	93.17	335.9	13 18	1				
HELWAN	95.93	338.6	13 30	0				
BYRD STATION	134.95	168.5	19 17	-5				
BULAWAYO	144.11	323.0	19 37A	-1				

JUNE 25 2.H 2.M 37.S EPICENTRE -30.27-177.55 DEPTH= 0.KM

A=-0.86431 B=-0.03703 C=-0.50159 D=-0.0428 E= 0.9991
G= 0.5011 H= 0.0215 K=-0.8651 HT= 1.7

SE= 2.90

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ONERAHI	8.72	229.0	2 20	10				2 55
KARAPIRO	9.55	215.0	2 20	-2				2 44
TUAI	9.56	205.8	2 24	2	4 1	-10		3 0
CHATEAU	10.56	210.7	2 33	-3	4 38	2		2 55
TONGARIRO	10.57	210.7	2 54	18	4 38	2		
SUVA	12.61	342.2	3 1	-3	5 1	-25		5 52
WELLINGTON	12.62	207.5	2 59	-5	5 10	-16		
COBB RIVER	13.36	213.5			5 29	-15		3 39
KAIMATA	15.09	212.9	3 41	5	6 10	-15		6 37
GEBBIES PASS	15.50	207.5	3 39	-3	6 16	-19		
NOUMEA	16.39	295.2	3 59	6	7 23	28		
APIA	17.24	19.2	4 1	-3	6 57	-18		
KOUMAC	19.03	296.3	4 28	2	8 16	20		
BRISBANE	26.12	268.9	5 38	1	10 31	23		
RIVERVIEW	26.71	254.2	5 43K	0			9 4	PCP
MELBOURNE	31.80	246.1	6 29	1				
CHARTERS TS.	34.16	278.7	6 48	-1	12 38	23		
ADELAIDE	36.91	251.0	7 14	2			9 33	PCP
RABAUL	38.60	306.3	7 22	-4			9 37	
PORT MORESBY	38.92	294.8	7 12	-17				
CAPE HALLETT	42.60	185.5	8 3	4	14 28	5		
TERRE ADELIE	44.04	202.0	8 13	2				
KIPAPA	54.72	22.4	9 41	8				
BYRD STATION	54.98	169.6	9 35	0				
WILKES	55.44	207.8	9 36	-3	17 15	-8	17 24	SP
MUNDARING	55.91	249.9	9 40	-2				
GUAM	56.65	314.6	9 45	-2				
SOUTH POLE	59.89	180.0	10 9	-1			11 13	PCP
MIRNY	62.42	206.8	10 25	-2			10 46	
MAWSON	72.56	200.5	11 29	-2				
MATUSIRO	78.36	325.0	12 2	-2	21 32	-27	15 6	PP
ABUYAMA	78.42	322.2	12 3A	-1				
ZO-SE	84.33	310.9	12 34	-1				
CANTON	84.93	300.3	12 32	-6				
PASADENA	85.11	45.7	12 39	0	23 12	4	24 47	
LICK	85.21	41.5	12 40	0				
BERKELEY	85.22	40.8	12 41A	1	23 8	-2		
PETROPAVLOVK	85.50	345.8	12 41	0				
SANTA LUCIA	86.29	126.7			23 11	-9	29 1	SS
NANKING	86.51	310.3	12 45	-1				
UGLEGORSK	86.83	334.7	12 47	-1				
SHASTA	87.14	38.7	12 50	1				
MINERAL	87.32	39.3	12 50A	0				
RENO	87.76	40.9	12 53K	1				
TUCSON	88.66	51.1	12 58	2				
TUCSON TELE.	88.79	51.1	12 58	1				
EUREKA	89.94	42.9	13 3	1			31 18	PKKP

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CHANGCHUN	90.37	322.6	13	4	0				
PEKING	93.10	315.2	13	17	0				
SALT LAKE C.	93.20	43.9	13	18	1				
KUNMING	94.11	296.6	13	23	1				
BUTTE	96.01	39.4	13	30	0				
COLLEGE	97.63	12.3	13	36	-2				
RAPID CITY	100.34	44.9	13	50	0				
YAKUTSK	101.26	337.5	13	53	-1				
RESOLUTE	117.01	17.2	18	45	-2				
PALISADES	118.83	57.1						30 8	SKKS
QUETTA	124.99	287.5	19	2	0				
KHEYS	125.10	350.5						21 2	
BROKEN HILL	128.96	213.1	19	16	6				
SHIRAZ	136.91	282.3	19	25	0			32 8	PP
APATITY	138.42	342.7	19	28	0				
LWIRO	139.03	222.6						22 37	PP
SODANKYLA	140.17	345.7	19	28	-3				
KIRUNA	140.93	349.3	19	27	-5				
MAKHACH-KALA	142.12	302.2						23 11	PKS
MOSCOW	144.45	325.9	19	35	-3				
PULKOVO	145.05	335.6	19	37	-2				
SKALSTUGAN	146.09	352.1	19	41	0				
NURMIJARVI	146.33	340.1	19	42	1				
HELSINKI	146.51	339.7	19	43	1				
UPPSALA	148.70	345.3	19	48	3				
BERGEN	149.81	357.2	19	53	6				
KSARA	151.52	285.9	20	0	10			23 36	PP
GOTEBORG	151.79	349.2	19	56	6				
JERUSALEM	151.94	281.5	19	58	8			23 45	PP
COPENHAGEN	153.63	347.2	20	1	8				
LWOW	154.59	326.3	19	54	0				
POTSDAM	156.57	343.5	20	41	44			24 1	PP
SKALNATE PL.	156.78	329.4	20	1	4				
COLLMBERG	157.57	342.5	19	58	0			24 4	PP
HALLE	157.65	344.3	19	59	1		20 31	24 7	PP
PRAGUE	158.26	338.8	20	4	5				
JENA	158.27	344.3	19	58	-1			24 11	PP
PRUHONICE	158.30	338.5	20	0K	1			24 17	PP
PLAUEN	158.53	342.9						20 33	
KEW	158.72	4.8	19	58	-1			20 34	PKP2
SONNEBERG	158.87	344.3	19	59	-1			20 34	
BRATISLAVA	158.90	332.0	19	59	-1			24 11	PP
BENSBERG	159.04	351.6	20	36	36			20 48	PKP2
SOFIA	159.20	312.3	20	0	0			20 38	PKP2
DOURBES	160.13	355.9	20	2	1				
HEIDELBERG	160.31	347.8	20	2	1				
STUTTGART	160.81	346.2	19	59	-3			20 45	PKP2
STRASBOURG	161.27	349.0	20	2	0			20 45	PKP2
FOLINIERE	161.39	6.1	20	4	2				
EBINGEN	161.43	346.2	20	2	0				
LJUBLJANA	161.65	332.5	20	2K	0			20 48	
TOLMEZZO	161.92	335.9	20	8	5			20 52	PKP2
TRIESTE	162.28	333.2	20	3	0		20 51	24 48	PP
BESANCON	162.83	351.8	20	4	0			20 52	PKP2
GARCHY	163.01	358.6	20	4	0				
ISOLA	165.65	346.5						21 6	PKP2
ROME	165.86	327.9	20	7	0			21 19	
MONACO	166.00	344.9						21 7	PKP2
MESSINA	116.60	309.6						21 0	
TOLEDO	169.04	27.3	20	9	0			21 20	PKP2
TAMANRASSET	172.05	200.9	20	12	2			25 25	PP
SETIF	173.60	338.1						21 41	PKP2
RELIZANE	174.31	15.8	20	10	-1			25 51	PP

JUNE 25 13.H 53.M 57.S EPICENTRE 6.83 -73.01 DEPTH= 155.KM

A= 0.29019 B=-0.94966 C= 0.11808 D=-0.9563 E=-0.2922
G= 0.0345 H=-0.1129 K=-0.9930 HT= 6.9

DEPTH OF FOCUS= 0.019R

SE= 1.94

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	PP S	SUPP. M	SUPP. S
FUQUENE	1.53	208.1	0	31	0							

BOGOTA	2.43	205.8	0	43	1	1	12	-1				
CHINCHINA	3.19	234.8	0	51	0	1	25	-5				
BALBOA HTS.	6.83	288.5	1	36	-3	2	49	-7				
CARACAS	7.03	58.3	1	35K	-7	2	51	-10				
TRINIDAD	12.09	70.9	2	50	2							
GRENADA	12.27	64.2	2	50	-1							
ST. VINCENT	13.16	60.5	3	2	0							
SAN JUAN	13.30	29.7	3	3	-1	5	22	-7				
DOMINICA	14.16	52.5	3	14	-1							
BARBADOS	14.61	63.6	3	28	8							
ANTIGUA	14.97	45.8	3	27K	2							
SANTIAGO MA.	16.59	294.7	3	45	0							
SAN SALVADOR	17.32	294.4	3	55	1							
HUANCAYO	18.89	187.0	4	11K	0	7	37	4				
MERIDA	21.35	312.8	4	36	0	8	33	14				
LA PAZ	23.67	168.3	5	0	1	8	59	0				
TACUBAYA	28.35	298.7	5	43	1							
MORGANTOWN	33.25	350.2	6	27A	2							
PALISADES	34.05	358.8	6	32	1				6	41		
PENNSYLVANIA	34.11	353.4	6	31	-1	11	49	4				
FAYETTEVILLE	34.99	329.3	5	38A	-62	9	56	-123			6	26 PP
ST. LOUIS I	35.29	336.3	6	41	-1	12	3	-1				
CLEVELAND	35.33	348.9	6	44	2							
WESTON	35.44	2.2	6	44A	1							
FLORISSANT	35.49	336.3	6	45	1	12	8	1				
OTTAWA	38.50	356.9	7	10A	1							
BREBEUF	38.53	359.3	7	10A	1						8	50 PP
HALIFAX	38.53	10.8	7	10A	1						9	18
SEVEN FALLS	40.19	2.3	7	24A	1							
TUCSON TELE.	43.29	311.0	7	48	0	14	5	2	8	23	9	7 PCP
TUCSON	43.33	310.8	7	49	1	14	10	6	8	23		
RAPID CITY	45.54	329.5	8	5	-1				8	42		
SALT LAKE C.	48.38	320.4	8	28	0				9	6		
PASADENA	49.71	309.6									13	38
EUREKA	50.42	316.8	8	44	0	15	48	4	9	21	10	46 PP
BOZEMAN	50.76	326.1	8	48	2							
BUTTE	51.82	325.6	8	54	0							
RENO	53.09	315.2	9	5K	1							
LICK	53.53	311.9	9	7K	0				9	45		
BRANNER	53.96	311.8	9	11K	1				9	46		
HUNGRY HORSE	54.00	327.2	9	10	0				9	48		
BERKELEY	54.19	312.3	9	12A	0				9	48		
MINERAL	54.68	315.4	9	15K	0				9	52		
SHASTA	55.37	315.5	9	19K	-1							
MBOUR	55.48	77.3	10	0	39							
ARCATA	56.63	315.1	9	30	1							
CORVALLIS	57.59	319.4	9	35	-1				10	13		
VICTORIA	59.41	323.5	9	48A	-1							
ALBERNI	60.57	323.8	9	57	0							
SIDA	68.95	22.9	10	51	0				11	33		
RESOLUTE	68.97	353.9	10	49A	-2	19	37	-4			20	34
SITKA	69.45	328.9	10	53	-1							
TOLEDO	69.53	50.1	11	1	7				11	33		
RELIZANE	72.70	54.8	11	41	28							
BAGNERES	73.07	47.2	11	14	-1						11	32 PCP
FOLINIERE	73.39	41.2	11	16	-1							
ABERDEEN	73.98	32.4				21	36	58			25	56 SS
SETIF	76.65	54.5	12	15	39							
UCCLE	76.75	39.5	11	43	7						22	22 PS
TAMANRASSET	76.84	68.3	11	36A	-1						12	20
COLLEGE	77.42	335.0	11	39	-1							
ISOLA	78.15	46.4	11	43	-1							
NORD	78.60	7.2	11	46	0							
STRASBOURG	78.82	41.9	11	47	0						12	13
HEIDELBERG	79.47	41.1	11	52	1							
EBINGEN	79.60	42.4	11	50	-2							
TUBINGEN	79.68	42.0	11	50	-2							
STUTTGART	79.82	41.8	11	51	-2						11	57 PCP
SONNEBERG	81.09	40.1	11	57	-3							
JENA	81.33	39.6	11	59	-2							
HALLE	81.56	39.0	12	2	0							
GOTEBORG	81.59	32.7	12	0	-2						12	41
PLAUEN	81.70	40.0	12	0	-3							
SKALSTUGAN	81.83	26.8	12	3	0							
COPENHAGEN	81.85	34.8	12	4	1							
COLLMBERG	82.22	39.2	12	5	0						15	11 PP
TOLMEZZO	82.37	44.2	12	7	1						13	15
ISFJORD	82.67	12.1	12	10	2							
TRIESTE	82.90	44.9	12	9	0							

PRUHONICE	83.25	40.5	12	11	0				12	53	
LJUBLJANA	83.42	44.5	12	11	0				13	12	
UPPSALA	84.47	30.5	12	15	-2						
BRATISLAVA	85.04	42.2	12	20	0						
SODANKYLA	87.45	22.5	12	31	0	13	16				
NURMIJARVI	87.84	29.4	12	33	1						
HELSINKI	88.09	29.7	12	34	0						
LWOW	89.36	40.0	12	42	2						
BYRD STATION	89.83	187.3	12	42	0				30	14	PKKP
APATITY	89.94	21.6	12	43	0						
BANGUI	91.10	85.5	12	45	-3						
QUETTA	126.81	44.1	18	47	1						
RIVERVIEW	131.18	230.4	18	59	5						
CANBERRA	132.17	227.6	18	57	1						
RABAUL	134.97	270.9	19	3	2						
ADELAIDE	139.55	221.7	19	6	-3				19	52	
CHARTERS TS.	139.72	246.9	19	3	-7						
MUNDARING	153.55	197.8	19	34	2	20	26				

JUNE 25 14.H 41.M 49.S EPICENTRE -30.18-177.88 DEPTH= 0.KM

A=-0.86528 B=-0.03209 C=-0.50026 D=-0.0371 E= 0.9993
G= 0.4999 H= 0.0185 K=-0.8659 HT= 1.8

SE= 2.39

	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	
ONERAHI	8.57	227.4	2	18	9								
KARAPIRO	9.46	213.5	2	21	0								
TUAI	9.52	204.2	2	21	2	4	3	-8			3	5	
CHATEAU	10.50	209.3	2	48	13								
SUVA	12.44	343.5	3	3	1						3	35	
WELLINGTON	12.57	206.3	2	57	-6	5	10	-15					
COBB RIVER	13.28	212.5	3	21	8	5	37	-5					
GEBBIES PASS	15.45	206.6	3	44	3	6	17	-17			5	59	
NOUMEA	16.09	295.5	3	19	-31								
AFIAMALU	17.15	20.5	3	58	-5	6	58	-15					
KOUMAC	18.74	296.6	3	47	-36						4	28	
BRISBANE	25.84	268.9	4	57	-38	10	29	26					
RIVERVIEW	26.46	254.0	5	44A	3						6	28	PP
CANBERRA	28.24	250.8	5	26	-31	9	56	-47	5	59	12	24	PCS
FORT NELSON	30.47	235.7	6	18	1	11	56	38					
MELBOURNE	31.57	246.0	6	30K	3	11	40	5					
CHARTERS TS.	33.86	278.8	6	9	-38	12	17	6					
ADELAIDE	36.67	250.9	7	12	1	12	59	5			8	45	PP
RABAUL	38.31	306.6	7	22	-2						9	23	
PORT MORESBY	38.62	295.0	7	30	3	13	22	-2	8	9	9	4	PP
CAPE HALLETT	42.66	185.3	8	0K	0	14	28	4					
SCOTT BASE	48.26	184.3	8	45	0	15	51	6					
HONOLULU	54.61	22.8	9	35	2	17	23	11			19	31	SCS
KIPAPA	54.75	22.8	9	33	-1								
BYRD STATION	55.12	169.6	8	55	-42								
WILKES	55.39	207.7	9	36A	-3	17	15	-7			21	0	SS
MUNDARING	55.67	250.0	8	59	-42						9	39	PP
PERTH	55.99	249.9	9	49	6	17	52	22			21	54	
GUAM	56.38	314.8	9	45	-1								
SOUTH POLE	59.98	180.0	9	29	-42						18	34	PCP
LEMBANG	73.21	271.8	11	34K	-1	21	4	1					
BAGUIO CITY	75.20	299.2	11	45	-2								
TUKUBASAN	76.95	326.2	11	54A	-2	21	35	-9			12	5	PCP
MATUSIRO	78.12	325.2	12	1	-2	21	21	-36			27	8	SS
ABUYAMA	78.18	322.4	12	2A	-1								
KERGUELEN I.	80.45	217.9	12	15	-1				12	45			
HONG KONG	83.55	300.2	12	33	1	23	9	16					
ZO-SE	84.05	311.1	12	33	-1	22	53	-5					
CANTON	84.64	300.4	12	35	-2	22	54	-10					
Y.-SAKHLINSK	84.67	334.1	12	37	0								
BRANNER	85.08	41.3	12	40K	1								
SAN FRANCSCO	85.17	40.9	12	40	0								
PASADENA	85.26	45.9	12	40	0	23	6	-4			16	12	PP
LICK	85.33	41.7	12	40K	-1								
BERKELEY	85.34	40.9	12	41A	0	23	6	-5			28	10	SS
PETROPAVLOVK	85.34	346.0	12	38	-3						22	59	SKKS
FRESNO	86.01	43.1	12	43	-1								
NANKING	86.24	310.5	12	45	0	23	13	-7			23	7	SKS

VLADIVOSTOK	86.28	325.7	12	45	0					23	7 SKKS
SANTA LUCIA	86.57	126.9	12	49	2	23	7	-16		29	9 SS
SHASTA	87.25	38.8	12	51	1						
MINERAL	87.43	39.5	12	49	-2						
RENO	87.88	41.0	12	54K	1						
TUCSON	88.83	51.3	12	55	-3					20	6
TUCSON TELE.	88.96	51.3	12	57	-1						
CORVALLIS	89.50	35.6	13	OK	-1						
EUREKA	90.07	43.1	13	2	-1						
CHANGCHUN	90.13	322.7	13	1	-3					15	53 PP
TACUBAYA	90.27	67.8	13	11	7						
RUTH	90.50	43.7	13	10	5	23	38	-21			
VERA CRUZ	92.64	69.4				23	47	-31		23	23
PEKING	92.84	315.4	13	15	-1	23	47	-33			
SALT LAKE C.	93.34	44.0	13	18	0						
KUNMING	93.82	296.7	13	20	-1	23	54	-35			
CHENGTU	95.75	302.1	13	29	-1	24	4	-2			
BUTTE	96.13	39.5	13	31	0						
BOZEMAN	96.76	40.5	13	36	2						
HUNGRY HORSE	96.78	37.1	13	34	0					17	27
COLLEGE	97.60	12.5	13	37	-1	24	8	-7		17	30 PP
LANCHOW	98.67	306.6	13	42	-1						
MERIDA	98.81	71.0								19	20
RAPID CITY	100.48	45.0	13	51	0						
YAKUTSK	101.07	337.6	13	54	0	24	25	-8			
SHILLONG	102.60	292.3								15	5
COLOMBO	104.01	269.9								28	0
FLORISSANT	106.42	54.5				24	43	-14		18	51 PP
ST. LOUIS 1	106.45	54.7				24	51	-6		27	50 PS
CHATRA	106.94	291.5								18	36
KODAIKANAL	107.69	271.7								28	17
TIKSI	108.07	344.5	14	23	777	24	58	-6			
CARACAS	113.27	91.2	18	17	-23	25	15	-11			
DEHRA DUN	115.68	291.5								20	7
RESOLUTE	117.01	17.2								19	45
KIMBERLEY	117.53	202.4	18	59	11						
PALISADES	119.02	57.1				25	42	-5		19	56 PP
SEMIPALATNSK	119.90	313.7	18	51	-2					20	25 PP
BREBEUF	120.37	52.2	18	48	-6						
FRUNSE	122.04	304.1	18	56	-1					30	31 PS
THULE	123.69	15.5	18	59	-1						
BULAWAYO	123.85	210.3	19	1	10						
QUETTA	124.69	287.6	19	2	0	26	6	1		21	11 PP
KHEYS	124.96	350.5	19	2	-1						
DUZHANBE	125.43	298.0	19	2	-2						
TASHKENT	125.61	301.4	19	4	0					22	39 SKP
WINDHOEK	125.61	197.1	19	5	1						
NORD	127.98	3.4	19	5	-4						
BROKEN HILL	128.88	213.5	19	17A	7						
SVERDLOVSK	131.80	321.0	19	18	2					22	41 SKP
ASHKABAD	133.38	295.3	19	11	-8					22	50 PKS
SHIRAZ	136.61	282.5	19	24	-1					22	23 PP
APATITY	138.25	342.6	19	26	-2					22	20 PP
LWIRO	138.90	223.0	19	22	-7						
SODANKYLA	140.01	345.5	19	25	-6				20 35	22	33 PP
GORIS	142.86	296.7	19	31	-5						
TIFLIS	143.92	300.5	19	37	-1					29	41 SKKKS
SIDA	144.02	15.1	19	42	4						
MOSCOW	144.22	325.8	19	35	-3					22	50 PP
PULKOVO	144.85	335.5	19	36	-3					22	56 PP
SKALSTUGAN	145.96	351.9	19	40	-1						
NURMIJARVI	146.15	340.3	19	42	1					23	29 PKS
HELSINKI	146.32	339.5	19	42	0						
UPPSALA	148.54	345.0	19	47	-2						
BERGEN	149.71	356.9	19	52	5						
BANGUI	149.97	214.5	19	50	2						
SIMFEROPOL	150.89	309.3	19	55	6						
KSARA	151.22	286.1	19	47	-3					23	42 PP
JERUSALEM	151.64	281.8	19	18	-32					23	18 PP
GOTEBORG	151.65	348.8	19	55	5						
ABERDEEN	152.86	5.0								23	54
COPENHAGEN	153.48	346.9	19	59A	6					23	45 PP
WARSAW	153.94	333.0	19	50	-4						
WOW	154.35	326.1	19	55	1					20	28
HELWAN	154.74	276.7	19	50	-5					20	18
DURHAM	155.29	5.1	20	4	9	27	0	0		20	28 PKP2
KRAKOW	156.05	330.9	19	57	1					24	5 PP
RATHFARNHAM	156.10	12.5								20	31 PKP2

BUCHAREST	156.33	313.5	19	42	-15				20	25	
POTSDAM	156.40	343.1	19	55	-2				23	58	PP
MBOUR	156.40	127.6	20	5	8				20	26	PKP2
SKALNATE PL.	156.56	329.1	20	10	13				24	12	PP
RACIBORZ	156.73	333.2	20	10	13				20	27	PKP2
WITTEVEEN	157.14	352.9	20	9	11				20	39	PKP2
COLLMBERG	157.40	342.0	19	51	-7				24	14	PP
HALLE	157.49	343.8	19	21	-37				20	30	
MUNSTER	157.86	351.0	19	48	-11				20	32	
DE BILT	157.99	355.0							34	53	PS
PRAGUE	158.08	338.4							20	34	PKP2
JENA	158.10	343.8	19	54	-5				24	18	PP
PRUHONICE	158.12	338.1	19	54	-5				24	18	PP
PLAUEN	158.36	342.4	19	32	-27						
KEW	158.66	4.2	19	56	-4				20	35	
BRATISLAVA	158.68	331.6	19	59	-1				24	11	PP
SONNEBERG	158.70	343.9	19	56	-4				20	34	PKP2
BENSBERG	158.91	351.1	20	9	9				20	37	PKP2
SOFIA	158.92	312.1	20	1	1				20	37	PKP2
UCCLE	159.34	356.0	19	55	-5				20	35	PKP2
BELGRADE	159.46	320.4	19	59A	-2				29	30	PS
DOURBES	160.02	355.3	20	0	-1	26	57	-8			
HEIDELBERG	160.17	347.2	20	1	0				20	47	PKP2
STUTTGART	160.65	345.6	19	59	-3				24	20	PP
TUBINGEN	160.92	345.8							20	45	PKP2
STRASBOURG	161.13	348.3	20	1	-1				24	26	PP
EBINGEN	161.28	345.6	20	1	-1				20	48	PKP2
FOLINIERE	161.33	5.4	20	3	0				20	47	PKP2
LJUBLJANA	161.44	332.0	20	2	-1				20	47	PKP2
RAVENSBURG	161.51	343.9	20	1	-2				20	47	PKP2
TOLMEZZO	161.72	335.3	20	5	2				20	51	PKP2
TRIESTE	162.07	332.7	20	13	10				24	54	PP
CHUR	162.40	343.0	20	52	48						
BESANCON	162.70	351.1	20	4	0						
NEUCHATEL	162.80	348.8	20	54	50						
GARCHY	162.91	357.8	20	4	0						
PAVIA	164.04	341.6	20	7	2				24	44	PP
ISOLA	165.49	345.7	20	9	2				21	6	PKP2
ROME	165.63	327.3	20	3	-4				23	47	PP
MONACO	165.84	344.1							21	5	PKP2
MESSINA	166.32	309.3	20	6	-1	27	0	-10	24	56	PP
BAGNERES	167.04	6.5	20	10	2				25	11	PP
TOLEDO	169.09	25.9	20	10	1				25	9	PP
GRANADA	171.55	32.8	20	9A	-2	27	13	0	25	33	PP
TAMANRASSET	172.02	203.2	20	11	0				25	30	PP
ALMERIA	172.33	28.8	20	13K	2				25	34	PP
ALGIERS UNI.	173.39	353.5	20	10	-1				25	47	PP
SETIF	173.40	336.3	20	11	0				25	35	PP
RELIZANE	174.29	13.0	20	8	-4				25	44	PP

JUNE 25 19.H 35.M 31.S EPICENTRE -28.11 -69.33 DEPTH= 99.KM

A= 0.31183 B=-0.82652 C=-0.46864 D=-0.9356 E=-0.3530
G=-0.1654 H= 0.4385 K=-0.8834 HT= 2.4

DEPTH OF FOCUS= 0.010R

SE= 2.10

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	PP S	SUPP. M	SUPP. S	
SANTA LUCIA	5.43	191.6	1	19A	-1	2	1	-20					
LA PAZ	11.60	5.7	2	43	0	5	0	9					
PORT STANLEY	25.09	163.0	5	17	1								
BOGOTA	32.85	351.3	6	27	1	12	38	63					
ARGENTINE I.	37.29	176.5	7	3	0								
FORT FRANCE	43.31	11.6	7	57	4								
SAN JUAN	46.31	4.2	8	14	-3				8	38			
COMITAN	49.31	330.6									22	39	SSS
TACUBAYA	55.37	325.2	9	28	3								
BYRD STATION	55.94	189.3	9	30	0								
SOUTH POLE	62.05	180.0	10	12	0				10	48	11	13	PCP
COLUMBIA	62.75	349.1	10	13	-3				10	39			
MBOUR	65.97	57.2	10	40	3	19	24	9					
CHIHUAHUA	66.49	325.0	10	49	8								
FAYETTEVILLE	68.01	338.5	9	47A	-63				10	12	10	35	PCP

MORGANTOWN	68.11	351.2	10 50A	-1						
PENNSYLVANIA	69.01	353.1	10 54	-2	19 53	1				
ST. LOUIS I	69.21	342.6	10 56A	-2	19 50	-4	11 20			
FLORISSANT	69.40	342.6	10 58A	-1	19 52	-4	11 23			
CLEVELAND	70.15	350.3	11 2	-1						
WESTON	70.16	358.4	11 2	-1						
TUCSON	71.84	323.8	11 12	-1			11 38			
TUCSON TELE.	71.85	323.9	11 13	0			11 38	13 44	PP	
CAPE HALLETT	71.98	196.1	11 15A	1	20 32	6				
HALIFAX	72.56	4.3	11 18	0						
BREBEUF	73.36	356.9	11 22	0	20 41	-1				
OTTAWA	73.38	355.3	11 22K	0						
SHAWINIGAN	74.37	357.5	11 28K	0						
SEVEN FALLS	74.89	358.9	11 31	0			11 56			
PASADENA	77.27	320.2	11 44	0	21 28	3	12 10	12 19	*SP	
RAPID CITY	78.24	335.8	11 49	-1			12 16			
SALT LAKE C.	79.07	328.5	11 52	-2						
EUREKA	80.06	325.2	12 0	0			12 25	15 3	PP	
KIMBERLEY	80.29	117.3	11 54	-7						
VINEYARD	80.96	320.1	12 5	1						
LICK	81.52	320.4	12 8A	1			12 33			
RENO	82.09	323.0	12 11A	1			12 37			
BERKELEY	82.24	320.4	12 11A	0			12 36			
BOZEMAN	82.63	331.9	12 14	1						
MINERAL	83.63	322.5	12 17A	-1						
SHASTA	84.31	322.4	12 20	-2			12 43			
PRETORIA	84.35	116.0	12 50	28						
MIRNY	84.69	173.0	12 23	0						
HUNGRY HORSE	86.00	331.9	12 30	0			12 56			
BULAWAYO	87.38	111.3						12 40	PCP	
CORVALLIS	87.51	324.7	12 36A	-1			13 3			
TAMANRASSET	88.13	63.0	12 42K	2			13 10	16 10		
CHATEAU	89.80	224.7	12 50	2				13 16		
BROKEN HILL	90.00	106.3						12 50	PCP	
BANGUI	90.23	85.2	12 51	1				13 26		
VICTORIA	90.32	327.4	12 51	1						
KARAPIRO	90.56	225.7	12 52A	0			13 18			
SETIF	95.01	51.6	13 16	4			13 43			
LWIRO	96.12	95.8						17 15		
FOLINIERE	98.08	38.6	13 28	2						
STUTTGART	103.65	41.9	13 52	1			14 19			
THULE	104.28	0.3	13 53	-1						
COLLEGE	110.40	333.5	18 12	-8				19 1		
LWOW	112.99	44.6						28 36		
MOSCOW	122.16	39.7						27 12	SKKS	
KHEYS	123.39	9.0						27 21	SKKS	
TIFLIS	125.52	57.1	18 53	4			19 21			
RABAUL	128.74	237.9	18 57	2			19 25	22 4		
SHIRAZ	129.53	73.5	18 59A	2				22 14		
TIKSI	135.28	351.9			26 22	15				
ASHKABAD	135.55	63.3	19 12	4	26 12	5				
QUETTA	141.93	76.1	19 18	-2				22 51	PKS	
DUZHANBE	143.75	62.3	19 25	2				22 59	PKS	
TASHKENT	143.85	57.6						30 13		
LEMBANG	145.14	174.7	19 31K	6				19 59	*SPKP	
FRUNSE	147.44	53.6	19 33	4						
SEMIPALATNSK	147.95	37.6	19 36	6						
LAHORE	148.38	74.8	19 34	3						
MATUSIRO	155.32	296.9	19 42	1			20 33	30 26	SKKS	
ABUYAMA	157.75	293.9	20 19K	35						

JUNE 27 16.H 50.M 23.S EPICENTRE -32.51-177.89 DEPTH= 0.KM

A=-0.84432 B=-0.03114 C=-0.53494 D=-0.0369 E= 0.9993
G= 0.5346 H= 0.0197 K=-0.8449 HT= 1.0

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ONERAHI	7.19	241.0	1	54	5						2	26
TUAI	7.46	211.4	1	51	-2	3	17	-2			2	30
KARAPIRO	7.62	223.0	1	52	-3							
CHATEAU	8.54	216.8	2	10	2	3	49	3			2	38
TONGARIRO	8.54	216.8	2	10	2	3	48	2				
WELLINGTON	10.54	211.8	2	34	-1	4	29	-6				

COBB RIVER	11.38	218.7	2 59	12	4 48	-8			5 46	
KAIMATA	13.09	217.3	3 16	6	5 25	-12				
GEBBIES PASS	13.41	210.9	3 13	-1	5 33	-12				
SUVA	14.68	346.1	3 27	-4	6 17	2			4 40	
NOUMEA	17.21	302.3	4 6	3	7 36	22				
AFIAMALU	19.34	18.2	4 33K	4	7 55	-7				
KOUMAC	19.87	302.4	4 35	0					5 37	
BRISBANE	25.88	273.7	5 32	-3	11 7	63				
RIVERVIEW	25.90	258.6	5 27	-8	10 11	7			6 14	PP
CANBERRA	27.55	255.0	5 53A	3	11 58	87	6	7		
MELBOURNE	30.68	249.5	6 17	-1					8 21	
CHARTERS TS.	34.28	282.2	6 47	-3					8 27	18
ADELAIDE	35.96	253.9	7 2	-2					13 19	
PORT MORESBY	39.64	297.6	7 39	4	13 43	4				
RABAUL	39.73	308.8	7 38	2						
CAPE HALLETT	40.35	185.6	7 44	3	13 59	9			16 22	SS
SCOTT BASE	45.94	184.5	8 27	1						
BYRD STATION	52.84	169.3	9 17	-2						
WILKES	53.34	208.5			16 59	5			19 5	SCS
MUNDARING	54.90	251.5	9 33	-2						
SOUTH POLE	57.66	180.0	9 52	-2					12 2	PP
MIRNY	60.30	207.4	10 11	-2						
ARGENTINE I.	69.96	155.8	11 12	-3						
MAWSON	70.37	200.8	11 17	-1						
MATUSIRO	80.03	325.5	12 11	-2	22 13	-4			27 20	SS
PORT STANLEY	81.04	146.9	12 19	1						
PASADENA	86.88	45.8	12 49	1	23 20	-5			29 25	SS
LICK	87.07	41.6	12 49	0						
BERKELEY	87.11	40.8	12 51	2					13 30	
FRESNO	87.72	43.0	12 51	-1						
UGLEGORSK	88.72	335.0	13 0	3						
SHASTA	89.06	38.8	12 57	-1						
MINERAL	89.23	39.5	12 58K	-1						
TUCSON	90.29	51.3	13 3	-1					13 57	
TUCSON TELE.	90.42	51.3	13 2	-3						
HUANCAYO	93.94	106.8	13 26	5						
LA PAZ	97.07	114.5							31 15	SS
COLLEGE	99.87	12.5	13 43	-5					14 11	
YAKUTSK	103.21	337.4							24 37	
RESOLUTE	119.23	17.6	18 50	-1					28 9	
PALISADES	120.27	58.2	19 32	39					20 54	PP
QUETTA	125.35	286.1	19 2	-1						
BROKEN HILL	126.93	212.5	19 16	10						
SVERDLOVSK	133.58	319.7							22 45	PKS
APATITY	140.46	341.7	19 33	2					23 8	PKS
SODANKYLA	142.25	344.8	19 15	-19						
MAKHACH-KALA	143.02	299.7							22 50	PKS
KIRUNA	143.07	348.5	19 34	-2					19 47	
TIFLIS	145.04	297.6	19 40	1						
MOSCOW	146.11	323.9	19 37	-4						
SIDA	146.26	16.0	19 29	-12						
PULKOVO	146.95	334.0	19 44	2						
BANGUI	148.03	212.4	19 48	4						
SKALSTUGAN	148.26	351.4	19 47	2						
NURMIJARVI	148.32	338.8	19 46	1						
HELSINKI	148.49	338.2	19 48	3						
UPPSALA	150.78	343.9	19 54	5						
KSARA	151.77	281.9	20 5	15					23 45	PP
JERUSALEM	152.02	277.5	19 58	8						
SIMFEROPOL	152.30	305.9	19 59	8						
GOTEBORG	153.93	347.9	19 57	4						
COPENHAGEN	155.73	345.7							24 4	PP
LWOW	156.24	323.1	20 14	18						
COLLMBERG	159.60	340.1	20 38	38	28 53	109			22 51	PP
HALLE	159.70	342.1	20 42	42						
PRAGUE	160.22	336.0							23 47	
PRUHONICE	160.25	335.7							20 43	PKP2
JENA	160.32	342.0	20 39	38					21 4	
STUTTGART	162.89	343.7	20 47	43						
ROME	167.52	321.6							24 59	PP
TAMANRASSET	169.84	198.1	20 12	3					21 26	
SETIF	175.43	324.4							21 2	

JUNE 29 1.H 57.M 15.S EPICENTRE -42.86 -73.95 DEPTH= 0.KM

A= 0.20325 B=-0.70666 C=-0.67774 D=-0.9610 E=-0.2764

G=-0.1873 H= 0.6513 K=-0.7353 HT= -2.7

SE= 1.95

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	9.76	16.6	2	26	2	4	30	14				
PORT STANLEY	14.02	134.6	3	26	4							
ARGENTINE I.	23.09	169.6	5	10	2							
LA PAZ	26.74	12.5	5	45	2						11	40
HUANCAYO	30.72	357.4	6	19A	0						9	23
BYRD STATION	40.79	191.0	7	44	0							
BOGOTA	47.26	359.8	8	41	4	15	32	2				
SOUTH POLE	47.33	180.0	8	37	0						10	19 PCP
CHINCHINA	47.63	357.8	8	40	1	15	35	0				
FUQUENE	48.10	0.3	8	43	0							
CARACAS	53.49	8.6	9	18K	-6	16	49	-7				
SCOTT BASE	54.12	193.2	9	28	-1							
GRENADA	55.78	14.5	9	42	1							
CAPE HALLETT	56.81	199.2	9	47	-1	17	45	4				
ANTIGUA	60.73	13.3	10	13	-3							
SAN JUAN	61.36	8.5	10	18	-2							
TACUBAYA	66.17	333.9	10	54	3						16	10
TERRE ADELIE	67.36	194.4	10	58	-1							
WILKES	71.08	181.9									20	48
GRAHAMSTOWN	75.04	121.6	11	44	-1							
ROXBURGH	75.58	220.5									22	15
WINDHOEK	75.75	107.5	11	48	-1							
COLUMBIA	76.76	354.0	11	55	0							
CHATEAU	76.91	228.3	11	56	0						12	47
KIMBERLEY	76.92	117.0	11	56K	0							
MBOUR	77.23	56.4	11	57	0	21	48	1				
KARAPIRO	77.81	229.3	12	0	-1						12	35
PIETERMZBURG	79.95	121.1	12	11	-1							
FAYETTEVILLE	80.71	343.5	11	14	-62						11	27
PRETORIA	81.17	116.8	12	19	0							
WASHINGTON	81.43	357.5	12	19	-1						16	3
TUCSON	82.04	329.1	12	23	0							
TUCSON TELE.	82.08	329.2	12	23	0						16	3 PP
MORGANTOWN	82.29	355.3	12	25	0							
FLORISSANT	82.63	347.1	12	26	0	22	40	-3				
PENNSYLVANIA	83.35	357.0	12	33	3	22	49	-2				
PALISADES	83.49	0.0				22	54	2			27	54 SS
WESTON	84.89	2.0	12	32	-6							
BULAWAYO	85.31	113.0	12	40A	0							
PASADENA	86.65	324.6	12	50	3	23	14	-9			28	57 SS
HALIFAX	87.58	7.4	12	51	0							
OTTAWA	87.89	358.8	12	52	0							
BREBEUF	87.97	0.2	12	53	0							
SHAWINIGAN	89.03	0.8	12	57	-1							
BROKEN HILL	89.15	108.9	12	59A	0							
FRESNO	89.58	324.8	13	1	0							
SEVEN FALLS	89.64	2.1	13	0	-1							
SALT LAKE C.	90.01	332.2	13	4	1							
RAPID CITY	90.43	339.4	13	4	0							
LICK	90.85	323.9	13	10A	4							
SHASTA	93.98	325.2	13	21	0							
BOZEMAN	94.13	334.9	13	20	-2							
BANGUI	94.84	88.5	13	23	-2							
BUTTE	94.92	334.1	13	24	-1							
HUNGRY HORSE	97.44	334.3	13	35	-2							
LWIRO	97.80	100.4	13	41	3							
TAMANRASSET	97.87	66.4	13	37	-2						17	30 PP
BRISBANE	97.93	220.8	12	34	-65						32	8
MALAGA	101.37	50.2	14	0	6						18	6 PP
GRANADA	102.14	50.3									18	45 PP
TOLEDO	103.79	48.1									16	25
SETIF	106.78	56.1									18	4 PP
TORTOSA	106.96	49.9	17	59	777						28	38
BAGNERES	108.27	47.9	18	52	777							
MESSINA	114.35	59.9									25	51
ROME	114.63	55.1									19	54 PP
DURHAM	115.05	37.6									20	21 PP
STUTTGART	116.80	47.4	18	46	0						19	51 PP
RESOLUTE	118.08	353.8	18	47	-2						27	49
COLLMBERG	120.20	46.5	18	53	0							
HELWAN	120.28	76.0									20	18 PP
PRUHONICE	120.34	48.4									20	19 PP
COLLEGE	121.71	331.2	18	54	-2							

JERUSALEM	124.12	76.3	19 1	0						
LWOW	125.63	52.1							20 59	PP
SKALSTUGAN	125.77	33.4	19 3	-1						
NORD	127.73	9.0	19 6	-1						
SIMFEROPOL	129.73	61.4	19 15	4	26 17	-2			28 37	SKKS
NURMIJARVI	130.05	39.7	19 10	-2						
KIRUNA	130.42	29.8	19 11	-2						
PULKOVO	132.56	41.7							21 42	PP
SODANKYLA	132.62	31.1	19 16	-1						
APATITY	135.25	31.4	19 17	-5						
MOSCOW	135.39	48.5	19 15	-7						
SHIRAZ	135.57	89.1	19 15	-7					22 53	PKS
TIFLIS	135.57	69.7	19 24	2					23 2	PKS
GORIS	135.75	73.2							19 52	PSP
ASHKABAD	143.73	81.3	19 40	3					22 46	PP
PETROPAVLOVK	144.08	305.1	19 37	0					33 1	PS
QUETTA	146.42	99.1	19 43	2					42 21	SS
MAGADAN	148.12	317.2	19 36	-8						
SVERDLOVSK	148.20	48.0	19 48	4						
TIKSI	149.05	346.2	19 43	-3						
DUZHANBE	151.58	85.9	19 57	7						
WARSAK DAM	151.73	96.6							20 6	PKP2
TASHKENT	152.81	80.6	19 52	1						
TUKUBASAN	153.04	267.3	19 59	7						
MATUSIRO	154.56	266.5	20 1	7					23 54	PP
YAKUTSK	156.24	332.0	20 8	12						
FRUNSE	157.02	79.3	19 57	0						
CHATRA	157.81	130.0	20 0	2						
SHILLONG	159.20	141.5	20 40	40						

JUNE 29 4.H 29.M 14.S EPICENTRE -30.13-177.42 DEPTH= 0.KM

A=-0.86548 B=-0.03900 C=-0.49942 D=-0.0450 E= 0.9990
G= 0.4989 H= 0.0225 K=-0.8664 HT= 1.8

SE= 3.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KARAPIRO	9.73	215.0	2	19	-5						4	19	
TUAI	9.74	205.9	2	26	2						4	4	
CHATEAU	10.74	210.7	2	34	-4						4	31	
SUVA	12.51	341.5	3	6	4						6	25	
WELLINGTON	12.80	207.5	3	14	8	5	13	-17					
COBB RIVER	13.54	213.5	3	23	8	5	32	-16					
KAIMATA	15.27	212.9	3	39	1	6	16	-13			6	45	
GEBBIES PASS	15.68	207.6	3	42	-2	6	16	-23					
NOUMEA	16.43	294.5	3	59	6	7	16	20					
AFIAMALU	16.96	19.1	3	48	-12	6	39	-29					
KOUMAC	19.07	295.7	4	27	1	8	14	18					
BRISBANE	26.23	268.6	4	37A	-61	10	18	9					
RIVERVIEW	26.86	253.9	5	45A	1				5	55	6	21	PP
CANBERRA	28.64	250.7	6	1A	1	10	57	9			7	58	PCP
MELBOURNE	31.96	245.9	6	27A	-2								
CHARTERS TS.	34.25	278.4	6	47A	-2	12	25	9					
ADELAIDE	37.06	250.8	7	12K	-1						9	32	PCP
PORT MORESBY	38.96	294.5	7	18	-11						9	5	
CAPE HALLETT	42.76	185.5	8	1	1	14	29	4					
TERRE ADELIE	44.21	201.9	8	13	1								
SCOTT BASE	48.34	184.4	8	46	1								
BYRD STATION	55.11	169.6	9	35	-1								
MUNDARING	56.06	249.8	9	39	-4						9	51	
SOUTH POLE	60.04	180.0	10	9	-2	18	0	-23			39	32	PKPPKP
TUKUBASAN	77.12	325.9	11	53A	-4	21	39	-6	12	7	26	45	SS
MATUSIRO	78.30	324.9	12	0	-3	21	51	-7			15	5	PP
ZO-SE	84.32	310.8	13	16	41								
VINEYARD	84.77	42.0	12	37	0								
PASADENA	84.93	45.7	12	38	0	23	5	-1			28	4	SS
LICK	85.03	41.4	12	39A	1								
BERKELEY	85.04	40.7	12	34	-4	23	10	3			38	52	
PETROPAVLOVK	85.39	345.8	12	38	-2								
UKIAH	85.40	39.3	12	41	1								
FRESNO	85.70	42.8	12	41	-1								
SANTA LUCIA	86.29	126.7	12	46	1	23	22	3			23	4	SKS
NANKING	86.50	310.2	12	45	-1								
UGLEGORSK	86.74	334.7	12	45	-2								

SHASTA	86.95	38.6	12	49	1				
MINERAL	87.14	39.3	12	49K	0				
RENO	87.58	40.8	12	51	0				
TUCSON	88.48	51.1	12	56	1				
TUCSON TELE.	88.61	51.1	12	57	1			30	37 PKKP
RUTH	90.19	43.5	13	6	3	23	35 -21		
CHANGCHUN	90.32	322.5	13	2	-2				
SALT LAKE C.	93.02	43.8	13	17	1				
PEKING	93.08	315.2	13	16	-1	23	49 -32		
MAGADAN	93.13	344.4				23	46 -36		
KUNMING	94.15	296.5	13	23	2	24	4 -27		
HUANCAYO	94.24	106.4	13	24	2				
CHENGTU	96.05	301.9	13	30	0	24	21 15		
HUNGRY HORSE	96.50	36.9	13	33	1				
COLLEGE	97.46	12.3	13	34	-3				
LA PAZ	97.68	114.0	13	56	18	24	18 3		
RAPID CITY	100.16	44.8	13	50	1				
YAKUTSK	101.17	337.5	13	52	-1				
ST. LOUIS 1	106.10	54.5				24	51 -4		
RESOLUTE	116.84	17.2	18	44	-2			27	48
PALISADES	118.66	57.0				25	45 0	27	5 SKKS
NAMANGAN	124.08	301.4	19	1	1				
KHEYS	124.97	350.5						20	47 PP
QUETTA	125.05	287.5	19	4	2			21	3 PP
STALINABAD	125.75	297.9	19	4	0				
HALIFAX	126.83	54.7	19	5	-1				
NORD	127.90	3.5	19	6	-2				
BROKEN HILL	129.14	213.1	19	12K	2				
SVERDLOVSK	132.01	321.1	19	15	0				
SHIRAZ	136.98	282.4	19	25	0			21	58 PP
APATITY	138.31	342.8	19	19	-8				
SODANKYLA	140.06	345.8	19	23	-7				
KIRUNA	140.81	349.4	19	28	-4				
MAKHACH-KALA	142.14	302.4	19	27	-7				
TIFLIS	144.24	300.6	19	35	-3				
MOSCOW	144.39	326.1	19	34	-4				
PULKOVO	144.96	335.8	19	37	-2				
SKALSTUGAN	145.96	352.3	19	40	-1				
NURMIJARVI	146.23	340.5	19	40	-1				
HELSINKI	146.41	339.9	19	41	0				
UPPSALA	148.59	345.4	19	46	1			20	5
BANGUI	150.24	213.7	19	48	1				
SIMFEROPOL	151.16	309.6	19	54	5				
KSARA	151.58	286.2	19	58	9			23	37 PP
GOTEBORG	151.67	349.3	19	55	5				
JERUSALEM	152.01	281.8	19	57	7				
KISHINEV	153.62	317.1	19	58	6				
LWOW	154.53	326.6	19	56	2				
HELWAN	155.12	276.7	19	55	1			20	31
MBOUR	156.12	126.8	20	1	5			24	13 PP
POTSDAM	156.46	343.8	20	23	27				
SKALNATE PL.	156.71	329.7	20	0	4				
COLLMBERG	157.47	342.8	19	57	0			24	8 PP
HALLE	157.54	344.6	19	57	-1			24	5 PP
JENA	158.16	344.6	19	56	-2			20	39
PRUHONICE	158.21	338.9	20	32	34			24	6 PKS
KEW	158.57	5.0						20	33 PKP2
SONNEBERG	158.76	344.6	19	59	0			20	35 PKP2
BRATISLAVA	158.82	332.3	20	0	1			20	36 PKP2
SOFIA	159.18	312.7	19	59	-1			24	13 PP
UCCLE	159.31	356.8	19	57	-3			20	36 PKP2
BELGRADE	159.66	321.1						20	0 PP
DOURBES	159.99	356.2						20	41 PKP2
HEIDELBERG	160.20	348.1						20	40 PKP2
STUTTGART	160.69	346.5	20	1	0			20	44 PKP2
TUBINGEN	160.96	346.7						20	44 PKP2
STRASBOURG	161.15	349.3						20	46 PKP2
FOLINIERE	161.24	6.3						20	45 PKP2
LJUBLJANA	161.57	332.9	20	2	0			20	48
TOLMEZZO	161.83	336.3						20	47 PKP2
BESANCON	162.70	352.2						20	52 PKP2
GARCHY	162.87	358.9	20	2	-1				
ISOLA	165.53	347.0						21	5 PKP2
ROME	165.80	328.5	20	7	1			23	26
MONACO	165.89	345.4						21	7 PKP2
BAGNERES	166.94	7.9	20	6	-1				
TOLEDO	168.86	27.4	20	9	1			21	31 PKP2
MALAGA	171.21	39.7	20	7A	-3			25	26 PP

GRANADA	171.29	34.6	20	46	36				25	34 PP
ALMERIA	172.08	30.8	20	9A	-1				25	51 PP
TAMANRASSET	172.22	200.5	20	11	1				25	21 PP
ALGIERS UNI.	173.37	356.7	20	12	1				25	32 PP
SETIF	173.50	339.4	20	12	1				25	31 PP
RELIZANE	174.14	16.4	20	2	-9				25	33 PP

JUNE 29 5.H 14.M 59.S EPICENTRE 30.08 138.66 DEPTH= 462.KM

A=-0.65084 B= 0.57254 C= 0.49861 D= 0.6605 E= 0.7508
G=-0.3744 H= 0.3293 K=-0.8668 HT= 1.8

DEPTH OF FOCUS= 0.068R

SE= 1.61

	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
TORISIMA	1.47	73.7	0	58	-1	1	43	-4				
HATIDYOZIMA	3.17	17.4	1	10	1							
OWASE	4.50	333.0	1	21	0	2	28	3				
OMAESAKI	4.53	355.4				2	28	3				
OSIMA	4.72	7.2	1	24	1	2	26	-2				
MERA	4.93	11.2									2	5
AJIRO	4.97	4.1				2	31	-2				
MISIMA	5.04	2.7	1	25	-1							
KAMEYAMA	5.11	339.3	1	28	2	2	39	4				
NARA	5.18	333.2	1	29	2	2	39	3				
OSAKA	5.28	330.7									2	40
NAGOYA	5.28	344.7	1	29	1	2	43	5				
SUMOTO	5.31	324.2									3	15
YOKOHAMA	5.40	8.6									2	37
ABUYAMA	5.45	332.1	1	31A	1	2	44	3				
KYOTO	5.52	334.1	1	32	2	2	44	2				
GIHU	5.54	343.8	1	32	1	2	45	2				
HIKONE	5.56	339.2	1	34	3	2	47	4				
KOTI	5.57	309.7				2	45	2				
KOHU	5.58	359.1	1	32	1	2	50	7				
TOKYO C.M.O.	5.66	9.0				2	42	-3				
TYOSI	5.92	17.5	1	34	0	2	34	-15				
KUHAGAYA	6.09	5.5	1	36	0	2	51	-1				
MATUMOTO	6.19	354.8									2	35
OIWAKE	6.24	359.2	1	37	-1							
TUKUBASAN	6.25	10.7	1	35A	-3						2	44
KAKIOKA	6.27	11.3	1	36	-2	2	54	-2				
MAEBASI	6.32	3.0	1	36	-3	2	55	-2				
MATUSIRO	6.46	356.8	1	38	-2	2	58	-1				
MITO	6.47	13.1	1	38A	-2	2	56	-4				
UTUNOMIYA	6.54	8.6	1	39	-2	2	57	-4				
NAGANO	6.59	356.8	1	41	0	3	1	-1				
TOYAMA	6.72	349.9	1	40	-3	3	2	-2				
YAKUSIMA	7.07	275.1	1	46	0						2	14
ONAHAMA	7.11	14.6	1	45	-2	3	8	-4				
KAGOSIMA	7.13	284.1	2	12	25						4	44
SHIRAKAWA	7.15	10.1	1	46	-1	3	8	-5				
KUMAMOTO	7.33	293.9	1	49	0	3	20	4				
HAMADA	7.36	312.5	1	51	1	3	18	1				
SAGA	7.80	296.1	1	55	1							
HUKUSIMA	7.80	10.6	1	53	-1	3	23	-2				
HUKUOKA	7.86	298.5									3	28
NAGASAKI	7.96	291.7	1	58K	2	3	32	4				
SENDAI	8.38	12.2	2	1	0	3	33	-4				
ISINOMAKI	8.62	14.1	2	3A	0	3	38	-3				
MIZUSAWA	9.26	12.0	2	12	2	3	52	-2				
AKITA	9.69	6.6									4	3
MORIOKA	9.82	11.4	2	17	1	4	2	-3				
AOMORI	10.86	8.6									5	27
URAKAWA	12.50	14.3									2	48
ZO-SE	15.09	278.3	3	9	-3							
NANKING	17.15	281.7	3	31	-2							
GUAM	17.46	159.9	3	35	-1							
PEKING	20.87	304.5	4	8K	-1	7	31	1				
BAGUIO CITY	21.42	234.6				7	40	0				
LANCHOW	29.69	290.8	5	27	-1							
LHASA	41.06	281.8	7	4	1							
CHITTAGONG	42.48	271.0	7	14	0	13	7	5	8	53	9	7 PP
CHATRA	45.08	279.1	7	34	0							

COLLEGE	56.23	29.5	8 56	-1
QUETTA	60.99	289.9	9 28K	-1
NORD	67.83	356.2	10 11	-1
RESOLUTE	69.89	13.2	10 24A	0
SODANKYLA	70.49	337.6	10 27	-1
KIRUNA	72.20	339.4	10 37	-1
THULE	72.43	6.5	10 37	-2
VICTORIA	72.96	43.5	10 43A	1
CORVALLIS	74.80	47.2	10 53A	0
NURMIJARVI	75.00	332.1	10 54	0
HELSINKI	75.07	331.7	10 53	-1
KARAPIRO	75.93	150.7	10 59	0
SHASTA	77.21	50.4	11 7A	1
MINERAL	77.91	50.4	11 12A	2
UPPSALA	78.18	333.8	11 10	-1
HUNGRY HORSE	78.50	40.5	11 14	1
BERKELEY	78.66	52.8	11 15K	1
LICK	79.35	53.1	11 18A	1
RENO	79.50	50.4	11 19	1
BUTTE	80.60	42.0	11 24	0
BOZEMAN	81.68	41.7	11 30	1
PASADENA	83.41	54.4	11 38	0
SALT LAKE C.	83.99	46.1	11 42	1
TUCSON	89.57	52.5	12 9	1
TUCSON TELE.	89.60	52.4	12 9	1
ALGIERS UNI.	101.55	325.0	12 43	-19
SOUTH POLE	119.91	180.0	17 55	-1
HUANCAYO	143.75	67.7	18 43	1

JUNE 29 10.H 23.M 0.S EPICENTRE 47.25 -27.33 DEPTH= 0.KM

A= 0.60517 B=-0.31278 C= 0.73208 D=-0.4591 E=-0.8884
G= 0.6503 H=-0.3361 K=-0.6812 HT= -4.4

SE= 2.53

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RATHFARNHAM	14.73	58.0	3 42A	10				5 19
JERSEY	16.91	74.1	4 1	1	8 10	62		
REYKJAVIK	17.18	8.1	4 10	7				
SIDA	17.34	13.9	4 2	-3				
FOLINIERE	18.00	75.2	4 13	-1				
KEW	18.05	66.5	4 16	2	7 37	3		
TOLEDO	18.37	105.2	4 17K	-1	7 40	-1		4 25 PP
BAGNERES	19.78	92.1	4 35	0				5 3
PARIS	19.95	74.5	4 37	0				4 57 PP
MALAGA	19.96	113.5	4 39K	2	8 27	10		5 3 PP
GRANADA	20.18	111.3	4 41K	2	8 22	1		5 5 PP
GARCHY	20.57	78.7	4 42	-1				5 13
TORTOSA	20.95	97.7	4 49	2				
CLERMONT-FD.	20.95	82.8	4 46	-1	8 49	12		
UCCLE	20.99	68.5	4 46	-2			4 50	
ALHERIA	21.10	110.5	4 52K	3				5 4 PP
DOURBES	21.19	70.4	4 49	-1	8 43	2		
ALICANTE	21.53	104.6	4 54	1	8 43	-5		5 14 PP
BESANCON	22.52	77.7	5 2	-1				
BENSBERG	22.76	67.8	5 5	0				5 46
MUNSTER	22.99	65.2	5 10	2				
NEUCHATEL	23.22	77.9	5 10	0				
SCORESBY SD.	23.44	4.5	5 14	2	9 33	10		
STRASBOURG	23.44	73.7	5 13A	1	9 32	9		
RELIZANE	23.71	108.9	5 5	-10				5 28
HEIDELBERG	23.93	71.4	5 17	0				
TUBINGEN	24.30	73.4	5 20	0				
EBINGEN	24.30	74.3	5 20	-1				
STUTTGART	24.39	72.8	5 20	-1	9 49	10		7 4
MONACO	24.50	85.4	5 25	3				
ALGIERS UNI.	24.74	104.0	5 25	0	9 42	-3		6 1 PP
RAVENSBURG	24.81	75.0	5 25	0				
PAVIA	25.20	81.2						16 26
HALIFAX	25.22	277.5	5 30	1				
SONNEBERG	25.37	68.6	5 30	-1				
HALLE	25.71	65.8	5 34	0				6 8 PP
GOTEBORG	25.76	51.5	5 42	8				
PLAUEN	25.96	68.1	5 35	-1				

POTSDAM	26.31	63.7	5 39	-1						
COLLMBERG	26.38	66.1	5 40	0					7 19	
SETIF	26.62	102.6	5 41	-1					6 19	PP
TOLMEZZO	27.41	76.7	5 50	0					6 32	
PRAGUE	27.47	68.5	5 50	0						
PRUHONICE	27.56	68.7	5 51K	0	10 38	6			7 8	
TRIESTE	28.12	77.9	6 0	4	10 50	9				
LJUBLJANA	28.51	76.8	6 0	0					6 20	
ROME	28.63	86.0	6 3	2						
UPPSALA	28.92	47.5	5 54	-9						
VIENNA-H.	29.11	71.7	6 4	-1						
SEVEN FALLS	29.28	286.0	6 5	-1						
BRATISLAVA	29.60	71.6	6 8A	-1						
SHAWINIGAN	30.72	285.7	6 18	-1						
KRAKOW	30.94	67.1	6 22	1						
WESTON	31.26	277.4	6 24	0					8 33	
SKALNATE PL.	31.36	68.6	6 27	2						
BREBEUF	31.62	284.2	6 12A	-15						
KIRUNA	31.67	32.4	6 32	4						
NURMIJARVI	32.46	46.6	6 32	-3						
BELGRADE	32.85	76.3	6 37A	-1						
OTTAWA	33.04	285.0	6 40	0					7 54	
LWOW	33.56	66.2	6 44K	0						
THULE	33.60	343.7	6 42	-3						
SODANKYLA	33.89	34.1	6 45	-2						
NORD	34.66	2.7	6 51	-3						
PULKOVO	35.33	47.7	7 5	6						
SOFIA	35.61	78.3	7 2	0						
TAMANRASSET	35.90	121.4	7 3	-1	12 56	13			8 29	PP
BUCHAREST	36.73	74.2	7 11	0					8 2	
WASHINGTON	36.74	275.5	7 12	1						
KISHINEV	37.49	69.0							8 7	
ATHENS	38.10	85.0	7 3	-20						
MORGANTOWN	38.33	278.3	7 27A	2						
RESOLUTE	39.21	337.1	7 31	-1						
MOSCOW	39.93	53.0	7 36	-2						
COLUMBIA	42.05	271.6	7 57	2						
ST. LOUIS 1	45.71	283.1	8 25A	0	15 17	8				
FLORISSANT	45.72	283.4	8 26	1						
HELWAN	47.90	89.5	8 43	1						
KSARA	48.61	82.1	8 50	2						
CARACAS	49.55	235.5	8 55	0	16 4	1				
FAYETTEVILLE	49.75	282.6	7 54	-62						
TIFLIS	50.07	68.3	8 59	0						
SVERDLOVSK	51.33	44.7							9 58	
BOZEMAN	54.96	301.6	9 35	-1						
HUNGRY HORSE	55.14	305.7	9 35	-2						
BUTTE	55.63	302.7	9 40	0						
BANGUI	58.14	122.5	9 56	-2					10 32	
SALT LAKE C.	58.29	297.3	9 59	0						
COLLEGE	59.04	334.6	10 2	-3						
TIKSI	60.22	8.5	10 12	-1						
SHIRAZ	62.30	75.4	10 27A	0						
TUCSON TELE.	62.86	289.1	10 30	0						
TUCSON	62.99	289.1	10 31	0						
RENO	63.81	300.6	10 37	0						
MINERAL	64.32	302.3	10 38K	-2						
SHASTA	64.54	303.0	10 40	-1						
FRESNO	65.62	298.3	10 49	1						
LICK	66.34	299.8	10 54A	1						
BERKELEY	66.35	300.6	10 51	-2						
PASADENA	66.37	295.2	10 53	0						
STALINABAD	66.56	58.2							12 56	
NAMANGAN	66.58	54.6	10 57	2						
LWIRO	69.46	117.6	11 13	0						
YAKUTSK	69.53	11.3	11 13	0						
QUETTA	71.21	65.8	11 24	1					14 0	PP
HUANCAYO	72.90	229.5	11 35	2						
LA PAZ	73.26	220.9	12 5	30						
SOUTH POLE	137.06	180.0	19 24	-2						
MUNDARING	148.37	74.3	19 50	5						
SCOTT BASE	148.81	185.7	19 46	0						

JUNE 29 17.H 6.M 57.S EPICENTRE 52.69-168.04 DEPTH= 0.KM

A=-0.59547 B=-0.12619 C= 0.79340 D=-0.2073 E= 0.9783
G=-0.7762 H=-0.1645 K=-0.6087 HT= -6.4

SE= 1.69

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	15.98	32.4	3	48	0	7	0	14				
PETROPAVLOVK	20.02	284.3	4	36	-1	8	19	2				
MAGADAN	23.63	303.2	5	14	1							
CORVALLIS	30.23	87.4	6	15K	1							
Y.-SAKHLINSK	31.73	279.8	6	27	-1							
TIKSI	32.88	328.6	6	37	-1							
SHASTA	32.98	92.8	6	40	2							
UKIAH	33.43	95.7	6	45	3							
YAKUTSK	33.56	311.0	6	43	-1							
MINERAL	33.67	92.6	6	45	1							
HUNGRY HORSE	33.93	75.2	6	47	0						9	24 PCP
BERKELEY	34.82	96.6	6	54	0	12	34	9				
RENO	35.25	92.3	7	1	3							
LICK	35.53	96.8	7	OK	-1						7	13
RESOLUTE	35.73	25.8	7	1	-1	12	37	-2				
BUTTE	35.95	77.9	7	4	0							
FRESNO	37.02	95.9	7	16	3							
BOZEMAN	37.04	77.5	7	13	0							
PASADENA	39.76	97.5	7	38	2	13	39	-2			7	53
MATUSIRO	40.52	268.5	7	42	0	13	50	-2				
ABUYAMA	43.23	268.8	8	4K	0							
KHEYS	44.49	350.3	8	15	0	15	2	12				
NORD	45.07	5.7	8	19	0							
TUCSON	45.52	93.3	8	24	1							
TUCSON TELE.	45.52	93.1	8	24	1						10	16 PP
IRKUTSK	50.11	306.8	8	58	-1							
FAYETTEVILLE	52.95	77.1	8	18	-62							
FLORISSANT	53.36	72.0	9	23	0	16	52	-3				
ST. LOUIS 1	53.55	72.1	9	22	-3	16	53	-4				
OTTAWA	56.93	57.2	9	48	-1							
SHAWINIGAN	57.62	54.5	9	52A	-2							
BREBEUF	57.92	55.8	9	54	-2	17	53	-2				
SEVEN FALLS	58.17	52.9	9	55	-3							
MORGANTOWN	58.69	64.6	10	OK	-1							
APATITY	59.00	350.6	10	2	-2							
KIRUNA	59.63	356.3	10	6	-2							
SODANKYLA	59.76	353.5	10	8	-1							
REYKJAVIK	60.58	16.3	10	15	0							
WASHINGTON	60.78	63.4	10	14	-2							
PALISADES	60.96	59.7	10	16	-1	18	32	-3			22	28 SS
WESTON	61.31	57.0	10	18K	-1							
SIDA	61.53	14.6	10	22	1							
COLUMBIA	62.09	69.9	10	23	-2							
SVERDLOVSK	63.78	332.6	10	41	5							
SKALSTUGAN	64.07	359.8	10	36	-2							
NURMIJARVI	66.69	353.2	10	55	0							
PULKOVO	66.92	350.0	10	56	0							
HELSINKI	67.01	353.0	10	57	0							
UPPSALA	67.72	356.9	11	0	-1							
GOTEBORG	69.97	360.0	11	29	14							
FRUNSE	70.63	316.2	11	19	0							
RATHFARNHAM	73.29	11.3	11	36	1							
ANDIJAN	73.29	316.4	11	53	18							
NAMANGAN	73.39	317.0	11	36	0							
SHILLONG	75.87	293.5	12	48	58							
HALLE	76.18	0.0	11	52	0							
COLLMBERG	76.38	359.3	11	53	0						12	34
STALINABAD	76.62	317.6	11	57	3	21	54	14				
BENSBERG	76.65	3.1	11	55	1							
UCCLE	76.68	5.0	11	55	1							
JENA	76.75	0.3	11	55	0						12	15
DOURBES	77.40	4.9	12	0	2							
KRAKOW	77.41	354.7	11	58	0						12	6 PCP
CHATRA	77.45	297.7	11	59A	0							
PRUHONICE	77.68	358.3	12	1A	1							
HEIDELBERG	78.25	2.2	12	3	0							
SKALNATE PL.	78.26	354.5	12	0	-3							
FOLINIERE	78.36	8.4	12	4	0							
CHITTAGONG	78.41	291.5	12	2	-2							
STUTTGART	78.89	1.8	12	7	0							
STRASBOURG	79.04	2.8	12	8	1							
TUBINGEN	79.13	2.0	12	8	0							

BRATISLAVA	79.42	356.5	12	11K	2					12 15 PCP
EBINGEN	79.48	2.0	12	10	0					
MAKHACH-KALA	79.91	334.3	12	11	-1					
LAHORE	80.09	309.8	12	13A	0					
GARCHY	80.12	6.1	12	13	0					12 24
BESANCON	80.31	4.1	12	15	1					
NEUCHATEL	80.60	3.5	12	17	1					
SIMFEROPOL	80.89	344.3	12	17	0					
TOLMEZZO	81.28	359.3	12	22	3					
CLERMONT-FD.	81.63	6.2	12	23	2					
TIFLIS	81.77	335.8	12	23	1					
TRIESTE	82.03	358.7	12	24	1					
SAN JUAN	82.57	69.6	12	23	-3					
CHARTERS TS.	82.61	222.7	12	23	-3					
ISOLA	83.42	3.6	12	33A	3					12 36 PCP
MONACO	83.88	3.3	12	35	2					
BAGNERES	84.07	8.7	12	34	0					
QUETTA	84.58	314.6	12	38A	2	23	3	0		15 52 PP
TEHERAN	85.48	328.8	12	42	1					
TOLEDO	86.76	12.3	12	47	0	23	7	-17		
CARACAS	88.38	74.9	12	54	-1	23	27	-12		
MALAGA	89.83	13.1	13	3K	1					
SETIF	91.29	5.3	13	8	-1					
RELIZANE	91.37	9.3	13	1	-8					
JERUSALEM	93.47	340.3	13	19	0					
LWIRO	127.81	338.5	19	10K	2					
BYRD STATION	135.31	169.3	19	15	-7					
SOUTH POLE	142.50	180.0	19	28	-7					
BULAWAYO	145.04	332.0	19	41	2					
PRETORIA	150.45	329.3								20 22 PKP2

JUNE 30 19.H 58.M 31.S EPICENTRE 60.44–150.89 DEPTH= 0.KM

A=–0.43329 B=–0.24123 C= 0.86837 D=–0.4864 E= 0.8737
G=–0.7587 H=–0.4224 K=–0.4959 HT= -9.1

SE= 2.14

	DELTA DEG.	AZ. DEG.	P M	S	O–C S	S M	S	O–C S	*PP M	S	SUPP. M	S
COLLEGE	4.67	16.3	1	18	5	2	17	8				
SITKA	8.78	105.9	2	10	-1							
VICTORIA	19.75	114.8	4	35K	1							
CORVALLIS	22.85	121.5	5	7K	1							
HUNGRY HORSE	24.27	103.2	5	20	1	9	34	-2	5	34	8	59 PCP
RESOLUTE	24.38	32.3	5	22K	2	9	39	1				
SHASTA	26.44	125.4	5	41K	1							
BUTTE	26.63	105.4	5	42	0							
MINERAL	27.06	124.7	5	47K	1							
UKIAH	27.45	128.4	6	18	29						6	20
BOZEMAN	27.61	104.2	5	50	-1							
PETROPAVLOVK	28.03	277.5	5	54	0							
MAGADAN	28.36	294.2	5	59	2	10	42	-2				
RENO	28.48	123.1	5	59K	0							
BERKELEY	28.92	128.4	6	3	0						6	31
LICK	29.62	128.0	6	9K	0						9	12
EUREKA	30.16	118.1	6	15	1						9	16 PCP
FRESNO	30.85	126.0	6	21	1							
SALT LAKE C.	30.97	111.6	6	21	0							
TIKSI	31.76	323.6	6	28	0	11	36	-2				
RAPID CITY	32.59	98.3	6	36	1				6	50		
BOULDER CITY	33.58	120.3	6	44	0				6	58	9	23 PCP
PASADENA	33.78	126.3	6	45	0	12	3	-6				
YAKUTSK	36.02	308.0	7	6	1							
NORD	36.09	10.3	7	6K	1						8	35 PP
KHEYS	38.24	352.6	7	24	1	13	15	-3				
TUCSON TELE.	38.46	118.6	7	25	0				7	39		
ST. LOUIS 1	43.09	92.1	7	52K	-11							
FAYETTEVILLE	43.13	98.0	7	1	-63						8	52 PPP
OTTAWA	45.12	74.0	8	19K	-1							
SHAWINIGAN	45.67	70.8	8	23K	-1							
BREBEUF	46.04	72.4	8	26K	-1	15	6	-7				
SEVEN FALLS	46.15	68.9	8	27	-1							
MORGANTOWN	47.41	82.5	8	37K	-1							
PENNSYLVANIA	47.53	79.8	8	38	-1						10	49
PALISADES	49.30	76.6	8	52	0	15	54	-5	9	10	10	14 PCP

WASHINGTON	49.39	80.8	8	52	-1					
WESTON	49.48	73.4	8	52K	-2					
MATUSIRO	49.80	274.9	8	57	1	15	57	-9	11 9	PP
REYKJAVIK	49.95	26.5	8	58	1					
COLUMBIA	51.31	88.0	9	6	-2					
HALIFAX	51.35	66.0	9	7K	-1					
KIRUNA	51.88	4.2	9	11	-1					
APATITY	52.28	357.9	9	14K	-1	16	37	-3		
SODANKYLA	52.48	1.2	9	16	-1				9 35 10 26	PCP
SKALSTUGAN	55.65	9.0	9	39	-1				10 38	PCP
NURMIJARVI	59.34	2.6	10	4	-2					
HELSINKI	59.68	2.4	10	8	0					
UPPSALA	59.72	6.7	10	7	-2				10 37	
PULKOVO	60.12	359.3	10	11	0	18	22	-2		
GOTEBORG	61.44	10.4	10	21	1				10 42	
RATHFARNHAM	63.13	22.9	10	31K	-1					
KEW	65.96	19.7	10	49K	-1					
MUNSTER	66.62	14.3	10	54	0					
POTSDAM	66.80	10.6	10	56	1					
UCCLE	67.33	16.7							11 29	
BENSBERG	67.56	14.8	11	0	0					
HALLE	67.57	11.5	11	0	0				11 22	PCP
COLLMBERG	67.86	10.8	11	2K	0				13 30	PP
JENA	68.09	11.9	11	2	-1				11 34	
FOLINIERE	68.54	20.5	11	6	0					
SONNEBERG	68.60	12.2	11	5	-2					
PARIS	68.99	18.5	11	9	0					
HEIDELBERG	69.28	14.1	11	11	0					
PRUHONICE	69.31	10.0	11	11K	0					
KRAKOW	69.62	6.3	11	13	0				11 36	PCP
STUTTGART	69.97	13.8	11	13	-2				12 9	
STRASBOURG	69.97	14.9	11	14	-1					
LWOW	70.02	3.5	11	15K	0					
SKALNATE PL.	70.51	6.2	11	20	2				11 35	PCP
EBINGEN	70.51	14.1	11	18	0					
GARCHY	70.57	18.5	11	18	-1					
BESANCON	71.04	16.4	11	21	0					
VIENNA-H.	71.18	9.0	11	22	0					
BRATISLAVA	71.31	8.5	11	23A	0				11 46	PCP
KISHINEV	72.90	0.2	11	32	-1	20	56	-3		
NAMANGAN	73.10	327.6	11	33	-1	20	57	-4		
ANDIJAN	73.13	327.0	11	51	17					
LJUBLJANA	73.21	10.6	11	34K	0					
BAGNERES	74.16	21.6	11	39	-1					
MONACO	74.69	16.1	11	43	0					
SIMFEROPOL	74.89	376.3	11	43	-1	21	19	-2		
STALINABAD	76.12	329.0	11	51	0					
TOLEDO	76.40	25.7	11	52K	-1					
SOFIA	77.11	4.4	11	57	0					
TIFLIS	77.39	348.0	11	59	1	21	46	-2		
CARACAS	77.96	90.0				22	27	32	12 36	
RABAUL	78.07	238.7	11	55	-7					
MALAGA	79.36	26.8	12	9K	0				15 9	PP
SHILLONG	80.34	305.5	12	12	-2					
TRINIDAD	80.58	85.1	12	13	-3					
CHATRA	81.06	309.9	12	20K	2					
LAHORE	81.15	322.2	12	28K	9					
RELIZANE	81.33	23.2	12	23	4				13 6	
SETIF	81.76	19.2	12	21	-1				15 29	PP
ATHENS	81.85	4.3	12	20K	-2					
CHITTAGONG	83.22	304.1	12	38	9					
QUETTA	84.54	327.7	12	36K	0				15 52	PP
KSARA	85.92	354.4	12	44	1					
JERUSALEM	87.99	354.8	12	54	1				16 57	PP
SHIRAZ	88.21	339.8	12	54A	0	23	34	-4	25 38	PS
HELWAN	90.01	358.1	13	3	1				13 50	
HUANCAYO	93.39	108.4	13	18	0					
CHARTERS TS.	94.81	237.1	13	24	-1					
TAMANRASSET	94.88	21.8	13	24K	-1				17 12	PP
LWIRO	121.96	0.4	18	58A	2					
CAPE HALLETT	135.14	195.8	19	20	-1					
BYRD STATION	141.37	171.6	19	26	-7					
PRETORIA	145.32	1.5	19	40	0					
PIETERMZBURG	149.17	357.8	19	51	5					
SOUTH POLE	150.27	180.0	19	43	-5				24 10	SKP
MIRNY	152.02	230.0	19	56	6					
GRAHAMSTOWN	152.82	4.7	19	59	8					
MAWSON	163.75	229.6	20	57	53					

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

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

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

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