The International Seismological Summary

1960 JULY, AUGUST, SEPTEMBER

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
December 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

JULY 1 7.H 58.M 58.S EPICENTRE 55.75 165.19 DEPTH= 0.KM

A=-0.54655 B= 0.14451 C= 0.82486 D= 0 2556 E= 0.9668
G=-0.7975 H= 0 2109 K=-0.5653 HT= -7.5

SE= 3.41

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KLYUCHI	2.49	284.9	0 40	-2	1 9	-5		0 47
PETROPAVLOVK	4.70	237.1	1 11	-3	2 5	-5		1 27
SEVERO-KUR.	7.46	230.7	1 51	-2				2 57
MAGADAN	8.60	302.2	2 9	1				3 54
OKHA	13.06	269.5	3 8	-1	5 34	-3		
UGLEGORSK	15.56	254.2	3 42	0				6 38
Y.-SAKHLINSK	16.46	247.3	3 51	-3				
YAKUTSK	19.18	303.6	4 23	-4	7 53	-6		
TIKSI	22.07	330.0	4 52	-6	8 50	-7		5 18 PP
COLLEGE	24.42	49.1	5 17	-4	8 42	-57		
VLADIVOSTOK	24.80	253.4	5 18	-7	9 32	-13		
TUKUBASAN	25.94	231.6	5 37K	2	10 24	20		
MATUSIRO	26.53	234.9	5 40	-1	10 18	4		
CHANGCHUN	27.97	261.7	6 0	6	10 36	-1		
IRKUTSK	34.93	290.4	6 53	-2				
PEKING	35.60	264.8	7 7	6				
KHEYS	38.15	345.3	7 21	-1	13 14	-2		8 47 PP
PAOTOW	38.69	270.7	7 35	8				
ZO-SE	39.40	249.9	7 35	2				
RESOLUTE	39.71	24.2	7 31	-4	13 30	-10		
NANKING	39.94	253.3	7 43	6				
VICTORIA	42.60	68.6	7 56	-3				
NORD	42.88	0.4	8 5	4				
LANCHOW	45.34	270.9	8 20	-1				
HUNGRY HORSE	47.55	63.2	8 38	-1				10 8
SEMIPALATNSK	48.26	301.3	8 40	-4				
SHASTA	48.27	76.2	8 43	-1				
MINERAL	48.95	76.0	8 48A	-2				
CHENGTU	49.20	265.8	8 56	4	16 2	5		
HONG KONG	50.17	249.6	9 5	6	16 10	-1		
BERKELEY	50.33	78.8	9 0	0	16 23	10		19 51
RENO	50.49	75.5	9 1	-1				
LICK	51.05	78.8	9 5A	-1				
APATITY	51.90	338.7	9 15	3	16 36	1		
SVERDLOVSK	52.34	317.8	9 12	-4	16 34	-7		20 14 SS
FRESNO	52.48	77.9	9 23	6				
EUREKA	52.63	72.8	9 16	-2				10 38
SODANKYLA	53.37	341.4	9 19	-4				
SALT LAKE C.	53.90	68.9	9 27	0				
SCORESBY SD.	53.96	3.0	9 27	-1	17 2	-1		12 56 PPP
KIRUNA	53.99	344.3	9 26	-2				
KUNMING	54.18	262.4	9 30	1	17 4	-2		
ALMATA	54.83	296.7	9 32	-2				
FLAMING GRGE	55.07	67.1	9 33	-3				10 44
PASADENA	55.30	78.9	9 37	0	17 26	5		21 8 SS
BOULDER CITY	55.79	75.0	9 40	-1				
RAPID CITY	55.92	60.4	9 42	0				
FRUNSE	56.32	297.9	9 42	-3	17 30	-4		9 50
LARAMIE	56.76	64.2	9 47	-1				
LHASA	57.30	275.6	9 51	-1	17 46	-1		
SKALSTUGAN	59.17	346.3	10 8	3				
PULKOVO	59.36	335.4	10 10	4	18 6	-8		12 24 PP
NURMIJARVI	59.94	338.7	10 4	-6				
TASHKENT	60.09	300.2	10 10	-1	18 21	-2		10 18
REYKJAVIK	60.32	3.6	10 17K	4				
TUCSON TELE.	60.76	74.8	10 15	-1				
TUCSON	60.77	74.9	10 15	-1				
MOSCOW	60.97	329.1	10 13	-4				18 41 PS
UPPSALA	61.89	342.1	10 26	3				
DUZHANBE	62.44	298.5	10 24	-3	18 48	-5		
LAWRENCE	63.68	59.1	10 33	-2				
WARSAK DAM	64.58	293.4	10 42	1				
GOTEBORG	64.85	344.5	10 47	4				
LAHORE	65.02	289.7	10 42	-2				
ST. LOUIS 1	66.33	55.8	10 49	-3	19 37	-5	10 58	
FAYETTEVILLE	66.46	60.3	10 50A	-3				
OTTAWA	66.94	42.0	11 0	4				
ABERDEEN	66.96	352.5						12 42
SHAWINIGAN	67.05	39.4	11 2	5				

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SEVEN FALLS	67.25	37.9	11	2A	4							
ASHKABAD	67.93	305.3	11	0	-2	19	56	-5				
WARSAW	68.38	337.2	11	10	5						11	28 PCP
DURHAM	69.31	351.8	11	10K	-1	20	22	5			14	45
QUETTA	69.97	294.2	11	14	-1	20	19	-6			11	34 PCP
TIFLIS	70.56	316.8				20	23	-9			11	24 PCP
KRAKOW	70.66	337.1	11	17	-2							
HALLE	70.83	342.7	11	25	5						14	0 PP
COLLMBERG	70.85	341.9	11	15K	-5						11	41 PCP
MUNSTER	71.05	345.5	11	26	4							
WESTON	71.17	40.8	11	21	-1							
PALISADES	71.37	43.3				20	31	-10			25	15 SS
JENA	71.45	342.7	11	20	-4						12	0
SIMFEROPOL	71.52	325.6	11	27	3	20	42	-1				
PLAUEN	71.77	342.2	11	23	-3							
PRUHONICE	71.83	340.5	11	31K	5						14	8 PP
GORIS	71.85	314.5	11	31	5	20	48	1			15	52 PPP
KEW	72.47	350.6				20	22	-32				
TEHERAN	72.90	308.8	11	31	-2	21	15	16				
FOCSANI	72.90	330.6									12	5
DOURBES	73.28	347.1	11	35	0	20	58	-5				
HEIDELBERG	73.39	344.2	11	37	2							
STUTTGART	73.91	343.7	11	42	4							
STRASBOURG	74.33	344.6	11	46	5						14	52 PP
COLUMBIA	74.35	52.1	11	38	-3							
BUCHAREST	74.38	330.8	11	42	1							
PARIS	74.81	348.2	11	49	5						14	16 PP
FOLINIERE	75.16	350.2	11	45	-1							
LJUBLJANA	75.60	339.4	11	47	-1						14	42
CHARTERS TS.	77.23	198.2	11	56	-1							
SHIRAZ	77.51	304.6	1'	56K	-3	21	46	-4				
ISOLA	78.73	344.1	12	8	2						12	20 PCP
BAGNERES	80.73	348.9	12	21	5						12	32 PCP
KSARA	80.86	319.3	12	23	6							
MESSINA	82.90	336.3	12	22	-6						15	4 PP
JERUSALEM	82.93	318.9	12	26	-2							
TOLEDO	84.30	351.7	12	32	-3	22	59	-1				
HELWAN	86.07	321.1	12	49	5							
ALGIERS UNI.	86.59	345.7	12	48	2	23	23	1				
SETIF	86.79	343.7	12	52	5						16	10 PP
TAMANRASSET	99.89	341.0	13	49	1						17	46 PP
BANGUI	114.07	323.0	19	30	49							
CAPE HALLETT	127.82	178.1	19	31	23							
BYRD STATION	141.92	164.1	19	32	-2							
MAWSON	143.91	219.5	19	37	0							
SOUTH POLE	145.57	180.0	19	38	-2						20	20

JULY 2 4.H 29.M 29.S EPICENTRE 51.77-173.77 DEPTH= 0.KM

A=-0.61769 B=-0.06746 C= 0.78353 D=-0.1086 E= 0.9941
G=-0.7789 H=-0.0851 K=-0.6214 HT= -6.1

SE= 2.77

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	16.84	285.1	3	58	-1							
COLLEGE	18.72	35.6	4	22	0	7	57	8				
MAGADAN	21.23	305.4				8	33	-9				
SITKA	22.76	61.4	5	1	6							
UGLEGORSK	27.94	282.1	5	41	-13							
YAKUTSK	31.50	311.2	6	49	23							
TIKSI	31.86	329.6	6	28	-1							
CORVALLIS	33.83	81.9	6	50	4							
SHASTA	36.50	86.9	7	10	1							
MATUSIRO	36.95	264.9	7	13	0	12	59	1			8	36 PP
HUNGRY HORSE	37.57	70.9	7	14	-4						7	35
RESOLUTE	38.07	25.0	7	29	7							
BERKELEY	38.28	90.6	7	26	2							
RENO	38.78	86.6	7	28	0							
LICK	38.99	90.7	7	35K	5							
BUTTE	39.59	73.4	7	34	-1							
CHANGCHUN	40.60	283.6	7	42	-1	13	33	-20				
BOZEMAN	40.68	72.9	7	45	1							
EUREKA	41.20	83.9	7	48	0						8	2
PASADENA	43.20	91.7	8	14	10	14	5	-27				

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BOULDER CITY	44.08	87.1	8 11	0				
FLAMING GRGE	44.36	77.7	8 15	1			13 50	
RAPID CITY	46.20	70.3	8 28	0				
NORD	46.30	4.5	8 28	-1				
PEKING	48.34	285.0	8 46	1				
TUCSON	49.03	87.9	8 50	-1				
GUAM	50.65	236.5	8 59	-4				
NANKING	51.96	275.3	9 12A	-1				
LAWRENCE	54.04	70.7	9 26	-2				
SIAN	56.50	284.3	9 47A	1				
FAYETTEVILLE	56.59	72.6	9 45A	-2				
FLORISSANT	56.99	67.8	9 49	-1	17 39	-4		
ST. LOUIS 1	57.18	67.8	9 49K	-2	17 40	-6		
LANCHOW	58.29	289.2	9 58	-1				
APATITY	59.26	348.2	10 8	2				
SODANKYLA	60.19	351.1	10 11	-1				
KIRUNA	60.25	353.8	10 13	1				
OTTAWA	60.35	53.4	10 11	-2				
SHAWINIGAN	60.97	50.8	10 16K	-1				
BREBEUF	61.31	52.1	10 17K	-3				
SEVEN FALLS	61.49	49.2	10 19	-2				
CHENGTU	61.96	284.7	10 24	0				
MORGANTOWN	62.24	60.6	10 25	-1				
PALISADES	64.43	55.7	10 41	1	19 16	-2	11 8	PCP
WESTON	64.73	53.1	10 31	-11				
COLUMBIA	65.70	65.6	11 11	22				
HALIFAX	66.70	46.9	10 54	-1				
KUNMING	66.76	281.4	10 55A	0				
NURMIJARVI	67.09	350.2	10 56	-1				
PULKOVO	67.12	347.0					21 44	
UPPSALA	68.35	353.8	11 6	1				
MOSCOW	69.75	341.7	11 8	-6				
LHASA	70.33	293.0	11 19A	2				
ANDIJAN	71.43	312.9	11 25	1				
SHILLONG	72.92	289.6	11 32A	-1				
DURHAM	73.63	4.7	11 14	-23			13 36	PP
CHATRA	74.68	293.8	11 44A	1				
CHITTAGONG	75.40	287.5	11 49	2			14 41	PP
HALLE	76.99	356.3	11 56	0				
COLLMBERG	77.14	355.6	11 57	0			12 17	PCP
JENA	77.57	356.5	11 58	-1			13 4	
UCCLE	77.79	1.2	12 18	17				
LAHORE	77.87	305.9	12 1	0				
PLAUEN	77.99	356.1	11 59	-3				
PRUHONICE	78.38	354.5	12 4	0				
DOURBES	78.50	1.1	12 4	-1				
CHARTERS TS.	79.63	217.9	12 9	-2				
FOLINIERE	79.67	4.5	12 11	0				
STUTTGART	79.80	358.0	12 11	-1				
BRATISLAVA	80.00	352.6	12 13	0			12 21	PCP
STRASBOURG	80.02	359.0	12 13	0				
SIMFEROPOL	80.70	340.3	11 47	-29				
QUETTA	82.60	310.4	12 27A	1	22 48	5	15 35	PP
ISOLA	84.43	359.4	12 37	1			12 59	
BAGNERES	85.39	4.5	12 46	6				
SAN JUAN	86.18	65.1	12 47	3				
SHIRAZ	89.32	321.0	12 59A	-1				
KARAPIRO	89.82	188.4	13 0	-2				
TAMANRASSET	105.77	0.7					25 10	
LWIRO	127.15	331.2					23 54	
BYRD STATION	135.09	168.4	19 19	-3			23 9	SKP
SOUTH POLE	141.58	180.0	19 28	-5			22 45	SKP
MAWSON	148.72	218.1	19 48	3				
PRETORIA	149.13	318.9	19 48	2				

JULY 2 8.H 58.M 6.S EPICENTRE -45.89 -74.47 DEPTH= 0.KM

A= 0.18702 B=-0.67293 C=-0.71567 D=-0.9635 E=-0.2678
G=-0.1916 H= 0.6895 K=-0.6984 HT= -3.9

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
PORT STANLEY	12.38	124.0	3	1	1							
SANTA LUCIA	12.78	14.6	3	3A	-3	5	53	23				

ARGENTINE I.	20.19	167.5	4 36	-3				
ANTOFAGASTA	22.38	9.8	5 3	2				
HUANCAYO	33.73	358.5	6 48	3				
BYRD STATION	37.71	191.6	7 17	-2				
SOUTH POLE	44.30	180.0	8 11	-2				
BOGOTA	50.29	0.5	9 1	1	16 15	3		
CHINCHINA	50.65	358.5	9 2A	-1	16 20	3		
SCOTT BASE	51.08	193.8	9 12	6				
FUQUENE	51.14	0.9	9 6A	0				
CAPE HALLETT	53.84	200.0	9 24	-3	17 7	6		
CARACAS	56.54	8.9	9 58	12	18 13	36		
MAWSON	62.35	163.0	10 23	-3			10 29	
SAN JUAN	64.41	8.8	10 39	-1				
MIRNY	67.48	174.6	10 58	-2				
WINDHOEK	75.20	107.1	11 45A	-1				
KARAPIRO	75.57	230.1	11 49	1				
KIMBERLEY	75.88	116.7	11 8K	-42				
MBOUR	79.22	56.3	12 9	1				
FAYETTEVILLE	83.52	344.0	12 30A	-1				
TUCSON	84.46	329.7	12 36	0				
BULAWAYO	84.46	113.1	12 36A	0				
TUCSON TELE.	84.50	329.8	12 36	0				
ST. LOUIS I	85.33	347.7	12 38	-2				
FLORISSANT	85.51	347.6	12 41	0	22 21	-51		
LAWRENCE	86.52	343.9	12 44	-2				
PALISADES	86.52	0.4	12 43	-3	23 25	3	16 17	PP
BROKEN HILL	88.51	109.2	13 0	5				
BOULDER CITY	89.25	328.3	12 59	0				
RIVERVIEW	90.58	216.5	13 9A	4	23 41	-18		
FLAMING GRGE	91.90	334.3	13 13	2				
EUREKA	92.77	329.1	13 15	0				
TAMANRASSET	99.41	67.1	13 45	0			17 48	PP
DURHAM	117.66	38.7					19 35	PP
COLLMBERG	122.53	48.1	18 57	0				
COLLEGE	124.17	330.4	18 59	-2				
NORD	130.78	9.5	19 11	-2				
SIMFEROPOL	131.45	63.9					22 41	
NURMIJARVI	132.59	41.6	19 15	-2				
KIRUNA	133.22	31.3	19 14	-4				
SHIRAZ	135.89	92.6	19 23K	0			21 56	PP
MOSCOW	137.63	51.1	19 24	-2				
PETROPAVLOVK	145.44	301.6	19 38	-2				
QUETTA	146.18	104.0	19 43A	2			19 51	PKP2
MANILA	146.24	207.8	19 52	11				
SVERDLOVSK	150.43	51.9	19 53	5				
WARSAK DAM	151.58	102.7					19 57	PKP2
TIKSI	151.89	344.5	19 53	3				
STALINABAD	152.00	91.9	19 59	9				
MATUSIRO	153.86	260.7	19 59	6			20 20	

JULY 2 11.H 55.M 40.S EPICENTRE -56.15 -27.50 DEPTH= 0.KM

A= 0.49642 B=-0.25847 C=-0.82871 D=-0.4618 E=-0.8870
G=-0.7350 H= 0.3827 K=-0.5597 HT= -7.6

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT STANLEY	18.34	271.3	4 19	2	7 43	3		12 9 SCP
ARGENTINE I.	19.87	227.8	4 37	2	8 19	5		12 13 SCP
SOUTH POLE	34.03	180.0	6 49	1	11 57	-16		8 6 PP
BYRD STATION	35.65	197.4	7 4	3	13 3	25		7 31
SANTA LUCIA	37.25	289.2	7 15	0	12 51	-12	7 35	8 35 PP
HERMANUS	38.43	75.6			13 16	-5		9 14 PPP
MAWSON	40.18	143.6	7 40	1				
GRAHAMSTOWN	43.28	81.5	8 5	0				
ANTOFAGASTA	45.01	298.1						14 53
KIMBERLEY	45.80	75.7	7 59	-26				13 14
SCOTT BASE	45.97	184.2	8 28A	2				
WINDHOEK	46.80	62.9	8 33K	0				
MIRNY	49.78	153.2	8 49	-7				
PRETORIA	50.01	76.5	9 58	60				
LA PAZ	50.10	305.5	8 59K	0	16 5	-5		
CAPE HALLETT	51.24	186.9	9 7K	0	16 22	-4	11	0 PP
WILKES	53.82	160.5	9 28A	2				

BULAWAYO	54.77	72.7	9	33A	-1					
LUANDA	56.92	50.3	9	50A	1					
HUANCAYO	57.35	300.6	9	54	2	18	24	36		
BROKEN HILL	59.41	68.9	10	9	3					
TANANARIVE	66.19	88.6	10	55A	4				11	39
LWIRO	69.97	62.2	11	16K	1	20	22	-3		
MBOUR	70.81	10.8	11	19	-1	20	29	-6		
BOGOTA	71.50	310.2	11	21	-3	20	31	-12	14	13 PP
FUQUENE	72.12	310.9	11	26K	-2				14	28 PP
TRINIDAD	72.27	324.9	11	29	0					
CHINCHINA	72.48	308.9	11	26A	-4	20	44	-10	14	15 PP
GRENADA	73.69	325.0	11	35	-2					
CARACAS	74.03	319.5	11	18	-21	20	40	-32		
ST. VINCENT	74.60	325.8	11	49	7					
DOMINICA	76.64	326.4	11	50	-4					
SAN JUAN	81.05	323.1	12	16	-2				12	39
CHATEAU	83.02	197.8	12	24A	-4					
TAMANRASSET	83.45	30.4	12	32K	1	22	47	-5	15	43 PP
KARAPIRO	84.26	198.1	12	33A	-2				12	59
ADDIS ABABA	84.65	65.3	12	41	4					
MELBOURNE	86.17	174.0	12	43	-1					
MUNDARING	86.95	149.8	12	47	-1	24	2	36		
CANBERRA	88.85	177.1	12	57A	0				16	28 PP
RIVERVIEW	90.37	178.9	13	4K	0	23	48	-10		
MALAGA	94.57	18.4	13	24A	0				17	8 PP
ALGIERS UNI.	96.14	24.2	13	31	0	23	58	-9	17	23 PP
SETIF	96.16	26.2	13	29	-2				17	17 PP
BRISBANE	96.80	180.3	14	33	59				24	17
TOLEDO	97.71	18.0	13	38	0	24	6	-9	14	39 PP
HELWAN	99.15	48.8	13	47	3	25	20	57		
TORTOSA	99.47	21.2	13	43	-3	25	56	92		
MESSINA	100.84	33.2				24	32	1	17	36 PP
BAGNERES	101.57	20.3	13	55	0				17	57 PP
ROME	103.37	29.5							18	19 PP
WASHINGTON	103.59	322.3	18	16	777				18	39 PP
MONACO	103.78	25.3							18	22 PP
CHARTERS TS.	103.88	174.0	14	5	0				18	19 PP
ISOLA	104.12	24.9							18	26 PP
PALISADES	104.46	325.5	14	9	1	24	29	-19	18	7 PP
KSARA	104.50	50.2	14	5	-3				18	24 PP
CLERMONT-FD.	104.76	21.6							18	29 PP
HALIFAX	104.90	334.2	18	31	777					
MORGANTOWN	105.25	320.6							18	31 PP
PENNSYLVANIA	105.57	322.6				25	21	28	18	34 PP
PAVIA	105.57	26.0							17	50 PP
BESANCON	106.78	23.1							18	44 PP
TRIESTE	107.19	29.0							18	48 PP
SOFIA	107.42	36.8							17	51 PP
PARIS	107.54	20.3							18	47 PP
LJUBLJANA	107.77	29.3							18	50 PP
RAVENSBURG	108.11	25.4							18	51 PP
ST. LOUIS 1	108.33	312.8	18	30	777	24	50	-15	18	51 PP
BELGRADE	108.38	33.8	18	27A	777				18	55 PP
STRASBOURG	108.43	23.8				24	54	-11	18	46 PP
FLORISSANT	108.52	312.8				24	51	-15	18	53 PP
SHIRAZ	108.87	65.0				24	55	-12	18	39 PP
STUTTGART	108.96	24.8	14	33	777				18	52 PP
OTTAWA	108.99	326.2	19	1	777					
SEVEN FALLS	109.11	330.3	19	1	777					
SHAWINIGAN	109.14	328.7	19	2K	777					
DOURBES	109.19	21.2				25	4	-5	18	59 PP
HEIDELBERG	109.42	24.2							18	54 PP
UCCLE	109.80	20.9				25	45	34	19	4 PP
BRATISLAVA	110.42	30.1	18	43	9				19	10 PP
LAWRENCE	110.72	309.5							18	27 PP
DE BILT	111.20	20.9							19	20 PP
PRUHONICE	111.38	27.7							19	15 PP
COLLMBERG	112.20	26.1	19	6	29				19	22 PP
TUCSON	112.64	294.2	18	49	11				19	47 PP
KRAKOW	112.92	31.0	19	8	29				29	2 PS
TEHERAN	113.22	60.3							19	27 PP
SIMFEROPOL	113.24	42.8							19	12 PP
LWOW	113.95	33.7							19	35 PP
PORT MORESBY	114.54	174.2							19	39 PP
WARSAW	115.18	30.6				25	32	0	19	49 PP
COPENHAGEN	116.10	23.9							19	50 PP
QUETTA	116.88	75.4	18	47	1	25	31	-8	19	51 PP
MAKHACH-KALA	117.16	52.8							20	1 PP

BOULDER CITY	117.62	293.9	18 47	-1			
PASADENA	117.93	290.2	18 44	-4		29 5	SKS
RAPID CITY	118.35	307.5	18 49	0		20 6	PP
FLAMING GRGE	118.75	301.2	18 49	-1	25 32 -13	20 3	PP
RABAUL	119.86	179.6	18 50	-2		21 6	
RUTH	120.19	296.1				20 24	
EUREKA	120.88	295.7	18 47	-7		19 50	PP
UPPSALA	121.07	24.7	18 52	-3		22 17	
VINEYARD	121.61	289.8	18 51	-5			
LAHORE	121.97	80.1	18 55	-1			
LICK	122.19	290.1	18 57A	0			
RENO	122.88	293.1	19 0	2			
BERKELEY	122.91	290.0	18 59A	1		19 22	
BOZEMAN	123.14	303.7	18 59	0			
HELSINKI	123.18	28.3	18 56	-3		22 22	SKP
SKALSTUGAN	123.28	20.0	18 58	-1		22 21	
MOSCOW	123.38	37.9				20 31	PP
NURMIJARVI	123.39	27.9	18 57	-2		22 21	SKP
BUTTE	124.11	303.0	18 58	-3			
STALINABAD	124.23	70.5	19 0	-1			
PULKOVO	124.33	31.3				20 51	PP
MINERAL	124.40	292.5	19 1A	0			
SHASTA	125.07	292.2	19 1	-1			
CHATRA	125.51	94.1	19 4A	1			
SCORESBY SD.	126.39	2.3	19 4A	-1		21 7	PP
HUNGRY HORSE	126.49	304.1	19 4	-1		20 58	PP
SHILLONG	127.13	99.2	19 15A	9			
NAMANGAN	127.51	70.4	19 5	-2			
ANDIJAN	127.72	71.1	19 8	1			
KIRUNA	128.64	21.1	19 7	-2		22 16	
SODANKYLA	129.59	24.0	19 9	-2		21 16	PP
LHASA	129.83	95.2				22 24	
VICTORIA	131.10	298.6				22 26	SKP
APATITY	131.35	26.6	19 12K	-2	26 9 -14	21 32	PP
MANILA	132.13	137.1				22 50	PP
KUNMING	132.66	109.8				22 33	
SVERDLOVSK	133.02	48.7	19 16	-2			
THULE	134.84	347.4	19 19	-2		21 54	PP
HONG KONG	135.99	124.2				22 43	PP
CANTON	136.29	122.7				22 46	
NORD	137.64	2.4	19 16	-10		22 9	PP
CHENGTU	137.74	106.4				22 48	
RESOLUTE	137.88	338.5	19 12	-14		22 11	
LANCHOW	141.73	100.8	19 34	1		23 0	
SIAN	143.14	107.8	19 36	0		23 3	
KHEYS	144.13	16.2	19 36	-1		29 34	SKKS
NANKING	146.41	121.6	19 44	3		23 11	
PAOTOW	148.37	101.3	19 49	4			
COLLEGE	150.46	311.6	19 43	-5		24 52	PKS
PEKING	151.30	108.7	19 50	1			
MATUSIRO	158.13	147.8	19 59	1		23 20	PP
TIKSI	161.54	23.7	19 55	-7			
YAKUTSK	166.94	53.9	20 4	-3			
Y.-SAKHLINSK	169.04	142.4	20 8	0			
UGLEGORSK	170.51	133.8	19 58	-11			
PETROPAVLOVK	175.24	231.4	20 9	-2			

JULY 2 12.H 44.M 22.S EPICENTRE 41.32 131.96 DEPTH= 522.KM

A=-0.50363 B= 0.56015 C= 0.65771 D= 0.7436 E= 0.6686
G=-0.4397 H= 0.4891 K=-0.7533 HT= -2.2

DEPTH OF FOCUS= 0.077R

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
VLADIVOSTOK	1.80	358.6	1	9	2	2	3	3				
WAZIMA	5.49	134.2	1	34	0	2	52	4				
CHANGCHUN	5.51	299.3	1	36K	2	2	49	1				
AIKAWA	5.87	122.1	1	35	-2							
TOYAMA	6.16	136.8				2	55	-4			2	6
SUTTSU	6.33	73.7	1	41	-1	3	2	0				
AKITA	6.41	101.8	1	42K	0	3	4	1				
HAMADA	6.41	179.2	1	44	2	3	5	2				
NIIGATA	6.44	119.5	1	43K	0	3	5	1			3	40

TAKADA	6.45	128.7	1	40	-3					
MORI	6.49	80.2	1	44	1	3	5	0		
SAKATA	6.50	109.2	1	46	3	3	7	2		
TSURUGA	6.51	149.0	1	44	1	3	7	2		
HAKODATE	6.62	82.8	1	43	-2	3	5	-2		
AOMORI	6.69	91.4	1	45	0	3	7	-1		
NAGANO	6.72	131.7	1	46K	1					
MURORAN	6.81	78.6	1	47	1	3	10	-1		
MATUSIRO	6.82	132.4	1	45	-1	3	11	0	13	48 SCS
MATUMOTO	6.90	135.2	1	49	2					
HIKONE	6.92	149.4	1	44	-3	3	9	-3		
HIROSIMA	6.95	176.8	1	48	0	3	13	0		
KYOTO	6.95	153.5	1	49	1	3	15	2		
GIHU	7.01	145.9	1	47	-1	3	15	1		
ABUYAMA	7.04	155.0	1	49K	0					
KOBE	7.10	158.0	1	50	1	3	15	-1		
YAMAGATA	7.15	112.6	1	47	-3	3	15	-2		
OIWAKE	7.16	131.9	1	58	8					
TAKAMATU	7.18	166.0	1	51	1	3	16	-1		
SAPPORO	7.19	72.8	1	50A	0	3	15	-2		
MORIOKA	7.20	99.9	1	50	0	3	17	-1		
OSAKA	7.23	155.9	1	52	1	3	7	-11	3	19
TOMAKOMAI	7.29	76.5				3	18	-1	2	59
HATINOHE	7.29	93.0	1	49	-2	3	12	-7		
NAGOYA	7.29	145.7	1	52	1				2	22
NARA	7.30	154.0	1	51	0	3	20	1		
SUMOTO	7.35	160.5	1	52K	0	3	20	0	3	51
MIZUSAWA	7.35	104.3	1	51	-1	3	17	-3		
KAMEYAMA	7.37	149.7	1	51	-1	3	20	-1		
IIDA	7.40	139.6	1	52	0	3	24	3		
MAEBASI	7.41	129.2	1	50K	-2				4	5
HUKUSIMA	7.48	115.7	1	52A	-1	3	30	7		
TU	7.52	150.0	1	55	2					
TOKUSIMA	7.53	163.1	1	55	1	3	26	3		
SENDAI	7.53	110.9	1	51K	-3	3	20	-3	2	13
KOHU	7.65	135.3	1	53	-2	3	26	0		
SHIRAKAWA	7.66	120.5	1	54	-1	3	23	-3		
TITIBU	7.71	131.4	1	54	-1					
ISINOMAKI	7.76	108.8	1	53K	-3	3	21	-7		
KUMAGAYA	7.76	129.3	1	54	-2	3	26	-2		
UTUNOMIYA	7.79	125.1	1	56	0	3	24	-4		
MIYAKO	7.81	99.0	1	54	-2	3	23	-6		
HUKUOKA	7.82	189.7	1	58	1	3	32	3		
KOTI	7.85	170.3	1	57K	0	3	28	-1		
HUNATU	7.89	135.2	1	54K	-3	3	30	0	2	56
OWASE	7.98	153.7	2	8	10	3	42	10		
HAMAMATU	8.00	143.6	1	58	0	3	33	1		
OOITA	8.08	182.0	2	1	2	3	35	1		
URAKAWA	8.14	80.6	1	59	-1	3	31	-4		
TUKUBASAN	8.14	126.0	1	56K	-4	3	30	-5		
SAGA	8.16	189.8				3	32	-3	2	38
KAKIOKA	8.19	125.7	1	56	-4	3	29	-7		
ONAHAMA	8.20	119.2	1	58K	-2	3	31	-5		
MUROTO	8.24	166.9	2	4	3	3	36	-1		
MITO	8.27	123.8	1	58A	-3	3	33	-4		
MISIMA	8.28	136.1	1	58K	-3	3	34	-3		
TOKYO C.M.O.	8.30	130.2	2	3	2	3	38	0		
OMAESAKI	8.33	141.6	2	1	-1	3	38	0		
AJIRO	8.41	135.8	2	1	-2	3	37	-3		
SIOMISAKI	8.42	157.7	2	3	0	3	39	-1		
YOKOHAMA	8.43	131.8	2	1	-2	3	38	-2		
OBIHIRO	8.51	75.4	2	3	-1	3	37	-5		
KUMAMOTO	8.54	187.2	2	4	0	3	46	4		
HIROO	8.54	79.8	2	4	0	3	39	-3		
SIMIDU	8.56	174.3	2	3	-1	3	41	-2		
NAGASAKI	8.73	191.6	2	6A	0	3	50	4	3	24
OSIMA	8.77	135.8	2	6	0					
MERA	8.90	133.3	2	6	-2					
TYOSI	8.93	125.9	2	6A	-2	3	44	-5		
MIYAZAKI	9.39	182.8	2	14	1	3	59	1		
KUSIRO	9.39	75.7	2	12	-1	3	52	-6		
ABASHIRI	9.47	69.3	2	10	-3	3	59	-1		
Y.-SAKHLINSK	9.60	50.0	2	15	0	4	2	0		
KAGOSIMA	9.79	187.1							4	9
NEMURO	10.29	74.2	2	21	-1	4	12	-3		
UGLEGORSK	10.54	39.2	2	26	2	4	23	3		
YAKUSIMA	10.91	186.7							4	39
PEKING	12.06	269.1	2	41K	1	4	47	-2		

KURILSK	12.24	66.1	2	43	1	4	54	2					
ZO-SE	13.39	223.8	2	54A	0	5	14	0					
NANKING	14.03	233.0	3	1A	1	5	29	4					
OKHA	14.29	27.4				5	33	3					
PAOTOW	16.58	274.7	3	28	2	6	20	8					
SEVERO-KUR.	19.13	52.6	3	52	2								
SIAN	19.50	256.2	3	54K	0								
YAKUTSK	20.78	357.0	4	7	1	7	22	-1				14	20 SCS
PETROPAVLOVK	21.46	47.9	4	11	-1							14	26 SCS
IRKUTSK	21.73	309.6	4	15	1								
LANCHOW	22.53	265.7	4	22	0	7	51	-1					
CANTON	23.96	226.4				8	30	15					
HONG KONG	24.16	223.7				8	14	-4				10	57
CHENGTU	24.89	253.7	4	42	-1	8	25	-5					
KUNMING	29.12	245.4	5	19	-1								
GUAM	29.91	154.4	5	26	-1							6	48
TIKSI	30.43	358.1	5	30	-1	9	52	-4					
LHASA	35.00	263.8	6	12K	2	11	6	0					
SEMIPALATNSK	36.48	302.3	6	22	0								
SHILLONG	36.60	257.3	6	21	-2								
CHATRA	39.48	262.8	6	47A	0								
FRUNSE	41.88	291.9	7	6	0								
TASHKENT	46.13	291.8	7	40	1	13	44	-2					
KHEYS	46.92	347.5										17	38 SS
SVERDLOVSK	47.00	314.6	7	46	0	13	58	-1					
COLLEGE	49.51	33.6	8	5	1				10	0		9	35 PCP
QUETTA	52.80	279.8	8	28K	0	15	17	0	10	11			
APATITY	55.64	332.6	8	47K	-1	15	53	-1					
SODANKYLA	58.03	333.9	9	4	-1								
MOSCOW	59.32	319.0	9	11	-2								
KIRUNA	59.76	335.9	9	15	-1				11	32			
RESOLUTE	60.19	12.9	9	18A	-1								
TIFLIS	62.35	302.4	9	32	-1								
CHARTERS TS.	62.52	164.8	9	32	-2								
GORIS	62.54	299.6	9	36	1								
NURMIJARVI	62.57	327.8	9	33	-2								
HELSINKI	62.64	327.4	9	34	-1								
SHIRAZ	63.65	287.3	9	40A	-2	17	33	-2	10	1			
SKALSTUGAN	65.08	334.6	9	50	-1							12	16
UPPSALA	65.73	329.7	9	53	-2							12	27
SIMFEROPOL	67.04	310.2	10	1	-2	18	13	-2					
ALBERNI	67.41	43.7	10	6	1								
VICTORIA	68.60	43.7	10	9	-3								
GOTEBORG	69.34	330.2	10	16	-1								
CORVALLIS	71.15	46.9	10	30	3								
HUNGRY HORSE	73.41	39.5	10	42	2								
COLLMBERG	73.56	325.1	10	41K	0							12	21
PRUHONICE	73.83	323.4	10	43	0							11	28
BRATISLAVA	73.94	320.8	10	28	-15							13	38 PP
SHASTA	74.17	49.5	10	46	1								
JERUSALEM	74.37	298.6	10	46	0								
JENA	74.44	325.5	10	45	-1								
PLAUEN	74.52	324.9	10	44	-3								
MINERAL	74.86	49.4	10	50A	2								
BUTTE	75.76	40.5	10	55	2								
BERKELEY	76.12	51.7	10	57A	2								
RENO	76.42	49.1	10	59	2								
LJUBLJANA	76.69	320.6	10	57K	-1								
BOZEMAN	76.75	39.9	11	1	2								
HEIDELBERG	76.81	325.9	11	0	1								
LICK	76.84	51.7	10	56A	-3								
STUTTGART	77.05	325.2	11	0	0							11	19
TUBINGEN	77.32	325.1	11	2	0								
VINEYARD	77.39	52.0	11	4K	2								
UCCLE	77.49	329.0	11	14	11	20	8	-3					
EBINGEN	77.63	324.9	11	4	0								
RAVENSBURG	77.65	324.3	11	3	-1								
STRASBOURG	77.84	325.8	11	5	0								
CANBERRA	77.85	165.8	11	6	1								
DOURBES	77.95	328.4	11	6	1								
FRESNO	78.31	51.1	11	8	1								
EUREKA	78.61	47.0	11	10	1				13	7		14	12 PP
KEW	78.69	331.8	11	9	0								
BESANCON	79.63	325.9	11	15	1								
PARIS	79.81	328.8	11	16	1								
FOLINIERE	80.97	330.4	11	22	1								
FLAMING GRGE	81.05	42.3	11	23	1	20	48	1					
ISOLA	81.57	323.4	11	24	0								

RAPID CITY	81.62	36.7	11	26	2						
MONACO	81.75	322.9	11	24	-1						
TUCSON	86.71	49.0	11	52	3						
LAWRENCE	89.25	34.9	12	3	2						
BREBEUF	90.59	17.7								15	11
ST. LOUIS 1	91.61	31.7	12	13A	1						
TAMANRASSET	99.19	311.2	12	51	4					16	34 PP
SOUTH POLE	131.13	180.0	18	2	-11						
LA PAZ	149.81	40.9	18	53	8						

JULY 3 3.H 19.M 18.S EPICENTRE 51.93-173.65 DEPTH= 0.KM

A=-0.61536 B=-0.06844 C= 0.78527 D=-0.1105 E= 0.9939
G=-0.7805 H=-0.0868 K=-0.6192 HT= -6.1

SE= 2.55

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PETROPAVLOVK	16.87	284.6	4	2	3							
COLLEGE	18.55	35.8	4	20	0	8	6	21				
MAGADAN	21.19	305.0	4	54	4	8	49	8				
Y.-SAKHLINSK	28.44	277.6	5	58	-1	10	46	1				
TIKSI	31.76	329.5	6	28	0							
CORVALLIS	33.74	82.2	6	45	0							
SHASTA	36.42	87.2	7	12	4							
MATUSIRO	37.03	264.8	7	13	0	12	57	-3			8	37 PP
MINERAL	37.12	87.1	7	17A	3							
HUNGRY HORSE	37.45	71.2	7	16	-1							
BERKELEY	38.21	90.9	7	27	4	13	15	-3			16	12
RENO	38.70	86.9	7	28K	1							
LICK	38.92	91.0	7	31K	2							
VINEYARD	39.46	91.5	7	47	13							
FRESNO	40.42	90.3	7	44	2							
BOZEMAN	40.57	73.2	7	44	1							
CHANGCHUN	40.63	283.5	7	42	-1							
EUREKA	41.11	84.1	7	46	-1							
RUTH	41.87	83.7	7	35	-19	14	8	-4			9	13 PP
SALT LAKE C.	42.86	79.8	8	1	-1							
PASADENA	43.14	91.9	7	54	-10	14	30	-1			17	48 SS
THULE	43.59	19.3	8	6	-2							
BOULDER CITY	44.00	87.3	8	10	-1							
FLAMING GRGE	44.26	77.9	8	12	-1							
KHEYS	44.63	349.4	8	16	0							
RAPID CITY	46.08	70.5	8	27	-1							
NORD	46.14	4.6	8	28	0							
PEKING	48.37	284.9	8	45	-1	15	47	1				
TUCSON	48.96	88.1	8	49	-1							
TUCSON TELE.	48.96	87.9	8	49	-1							
ZO-SE	51.19	272.6	9	7	0							
NANKING	52.02	275.3	9	13	0	16	40	3				
LAWRENCE	53.92	70.9	9	25	-3							
FLORISSANT	56.86	67.9	9	47	-2	17	37	-5				
ST. LOUIS 1	57.05	68.0	9	47K	-3	17	37	-7				
APATITY	59.12	348.2	10	11	6							
SODANKYLA	60.04	351.1	10	9	-2						10	56 PCP
KIRUNA	60.09	353.9	10	10	-2							
OTTAWA	60.19	53.5	10	11	-1							
SHAWINIGAN	60.82	50.9	10	15	-1							
BREBEUF	61.16	52.2	10	17K	-2							
CANTON	61.78	272.0	10	24	1							
HONG KONG	61.85	270.7	10	27	4	18	52	6				
CHENGTU	61.99	284.7	10	23	-1							
MORGANTOWN	62.10	60.7	10	24K	-1							
PENNSYLVANIA	62.37	58.5	10	25	-2	18	51	-2				
SVERDLOVSK	62.79	329.9	10	10	-20							
PALISADES	64.28	55.9	10	38	-1	19	15	-2			12	47 PP
WESTON	64.57	53.3	10	39	-2							
SKALSTUGAN	64.73	357.1	11	1	19							
COLUMBIA	65.57	65.7	10	47	-1							
HALIFAX	66.54	47.0	10	53	-1							
KUNMING	66.80	281.4	10	54	-2							
NURMIJARVI	66.95	350.3	10	54	-3						11	22 PCP
PULKOVO	66.98	347.1	11	0	3							
UPPSALA	68.20	353.9	11	5	0							
MOSCOW	69.62	341.7	11	8	-5							
LHASA	70.33	293.0	11	19A	1							

ANDIJAN	71.37	312.9	11 25	1				
NHATRANG	72.55	267.6	11 30	-1				
SHILLONG	72.94	289.6	11 34	1				
CHATRA	74.67	293.8	11 45A	2				
CHITTAGONG	75.42	287.5	11 46	-2			14 38	PP
HALLE	76.83	356.4	11 56	0				
COLLMBERG	76.99	355.7	11 56	0			13 17	
JENA	77.42	356.6	11 58	-1			12 27	
UCCLE	77.63	1.3	12 17	17	22 29	38		
PLAUEN	77.84	356.2	11 58	-3				
LAHORE	77.84	305.9	12 1	0				
PRUHONICE	78.23	354.6	12 4K	1				
JERSEY	79.01	5.6	12 10	2				
STUTTGART	79.64	358.0	12 11	0				
CHARTERS TS.	79.80	217.9	12 10	-2				
STRASBOURG	79.86	359.0	12 12	0			12 58	
SIMFEROPOL	80.57	340.4	12 16	0				
TIFLIS	80.93	331.9	12 28	10				
QUETTA	82.55	310.5	12 27A	1	22 45	2	12 34	PCP
ISOLA	84.27	359.5	12 36	1				
SOFIA	84.60	347.5	12 38	1				
MONACO	84.71	359.2	12 37	0				
SAN JUAN	86.04	65.2	12 49	5				
SHIRAZ	89.24	321.1	12 59	0				
KARAPIRO	89.99	188.5	13 0	-3				
KSARA	90.77	335.8	13 8K	2				
SOUTH POLE	141.75	180.0	19 52	18				
BULAWAYO	143.82	322.9	19 35K	-2				
MAWSON	148.89	218.2	19 48	2				
PRETORIA	149.05	319.3	20 26	40				
KIMBERLEY	153.07	322.2	20 1	9				

JULY 3 20.H 20.M 46.S EPICENTRE 50.28-177.10 DEPTH= 0.KM

A=-0.64070 B=-0.03242 C= 0.76711 D=-0.0505 E= 0.9987
G=-0.7661 H=-0.0388 K=-0.6415 HT= -5.5

SE= 2.21

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	15.28	289.7	3 39	1	6 34	5		3 48 PP
MAGADAN	20.45	309.2	4 43	2				
COLLEGE	21.16	35.4	4 48K	-1	8 40	0		
SITKA	25.33	58.3	5 30A	0	9 1	-53		
NEMURO	26.26	269.2	5 37	-1	10 15	6		12 18
Y.-SAKHLINSK	26.52	278.6	5 41	0				10 18
ABASHIRI	26.77	271.5	5 41	-2				
KUSIRO	27.18	269.4	5 45	-2	10 26	1		
WAKKANAI	27.82	276.0	5 51	-1	11 10	35		
OBIHIRO	27.98	270.2	5 55	1				
HIROO	28.22	268.9	6 3	7				
URAKAWA	28.63	269.1	5 57	-3	10 44	-4		
SAPPORO	29.10	271.9	6 3K	-1	10 52	-3		8 59
TOMAKOMAI	29.16	270.9	6 15	10				6 48
MURORAN	29.70	270.8	6 9	0				
SUTTSU	29.95	272.2	6 12	0	11 10	1		12 10
MORI	30.08	270.7	6 12	-1	11 11	0		
HAKODATE	30.10	270.1	6 12K	-1				
HATINOHE	30.28	267.3	6 14	-1	11 21	7		
MIYAKO	30.49	265.5	6 16	0	11 20	2		
AOMORI	30.61	268.4	6 16	-1	11 20	1		
YAKUTSK	30.93	312.7	6 19	-1	11 22	-3		7 32 PP
MORIOKA	30.97	266.3	6 20	-1	11 24	-1		6 44 PP
MIZUSAWA	31.32	265.4	6 24	0	11 21	-10		
ISINOMAKI	31.60	264.1	6 26K	0				9 38
AKITA	31.64	267.2	6 27K	0	11 42	6		13 32
SENDAI	31.96	264.2	6 29	0	11 36	-5		
TIKSI	32.11	331.1	6 30	-1	11 42	-1		7 45 PP
SAKATA	32.28	266.1	6 38	6				
YAMAGATA	32.32	264.7	6 32	-1				
KIPAPA	32.50	145.5	6 34	0				9 21
HUKUSIMA	32.54	263.8	6 34A	0	11 14	-36		
HONOLULU	32.58	145.7	6 33A	-2	11 55	5		7 41
ONAHAMA	32.75	262.3	6 36	0				13 41
SHIRAKAWA	33.08	263.1	6 39	0				

NIIGATA	33.35	265.3	6	41	0	11	57	-5	15 32	SS
MITO	33.37	261.8	6	41K	-1	12	26	23	7 59	PP
KAKIOKA	33.64	261.9	6	44	0					
TUKUBASAN	33.70	261.9	6	43K	-2	12	5	-3	7 50	PP
AIKAWA	33.80	266.1	6	45	0				7 4	
KUMAGAYA	34.20	262.5	6	50	1	12	16	1	14 58	
HONGO	34.23	261.5	6	49	0	12	19	3	7 27	PP
MAEBASI	34.25	263.1	6	49K	0	12	46	30	8 46	
TOKYO C.M.O.	34.26	261.5	6	50K	1	12	20	4	8 6	
TAKADA	34.34	264.8	6	51	1					
YOKOHAMA	34.48	261.3	6	51	0				13 54	
TITIBU	34.50	262.5	6	52	1					
OIWAKE	34.62	263.5	6	53	1	12	25	3	17 15	
NAGANO	34.64	264.2	6	53K	0	12	23	1		
MERA	34.69	260.4	6	50	-3	12	32	9		
MATUSIRO	34.71	264.1	6	53	0	12	23	0	8 5	PP
KOHU	35.02	262.6	6	59	3	12	32	4	15 7	
MATUMOTO	35.04	263.9	6	57	1					
AJIRO	35.07	261.2	6	57	1	12	25	-4	15 30	
OSIMA	35.07	260.6	6	56	0	12	33	4		
VLADIVOSTOK	35.11	278.3	6	56	-1	12	25	-4	8 23	PP
MISIMA	35.12	261.5	6	55	-2				17 22	
TOYAMA	35.26	265.1							8 11	
SHIZUOKA	35.56	261.8	7	1	0	12	38	1		
IIDA	35.58	263.0	6	59	-2					
OMAESAKI	35.91	261.4	7	4	1	12	43	1		
HAMAMATU	36.15	262.0	7	7	1				9 5	
CORVALLIS	36.16	77.8	7	6K	0					
HUKUI	36.27	265.1	7	8	1					
GIHU	36.33	263.8	7	5	-2	12	52	4	8 24	
NAGOYA	36.35	263.3	7	7	0	12	44	-5		
HIKONE	36.74	264.0	7	16	6	13	3	8		
KAMEYAMA	36.87	263.3	7	12	0				13 25	
KYOTO	37.23	264.2	7	15	0	12	57	-5		
NARA	37.38	263.6	7	14	-2					
ABUYAMA	37.43	264.1	7	17K	1					
TOYOOKA	37.49	265.6	7	16	-1	13	9	3	8 43	PP
OWASE	37.53	262.5	7	18	1	13	11	4		
ARCATA	37.56	83.6	7	19	2					
OSAKA	37.59	263.9	7	18K	0	13	17	9		
KOBE	37.80	264.2	7	20	1	13	15	4	8 48	PP
BANFF	37.97	64.1	7	34K	13					
SUMOTO	38.18	264.0	7	21K	-2	13	22	5	8 45	PP
SIOMISAKI	38.21	262.2	7	24	1	12	26	-51		
HIMEJI	38.41	264.6	7	22	-2					
YONAGO	38.50	266.7	7	27	2	13	27	6	8 54	PP
SHASTA	38.74	82.7	7	29	2					
TAKAMATU	38.75	264.7	7	28	1	13	26	1		
UKIAH	39.08	85.3	7	30	0					
MUROTO	39.35	263.3	7	31	-1	13	43	9	16 46	SS
MINERAL	39.43	82.6	7	35K	2				9 41	
KOTI	39.57	264.2	7	35	1	13	36	-2	9 10	PP
HAMADA	39.65	267.0	7	35K	0	13	40	1	16 23	SS
HIROSIMA	39.75	266.1	7	31	-5	13	48	8		
MATUYAMA	39.86	265.2	7	37K	0	13	50	8	9 9	
HUNGRY HORSE	40.07	67.5	7	39K	1	13	43	-2	9 8	PP
SAN FRANCSCO	40.36	86.5	7	41K	0					
BERKELEY	40.42	86.2	7	41K	0	13	53	3	9 44	
SIMIDU	40.43	263.8	7	40	-1	13	50	0	9 19	
BRANNER	40.74	86.7	7	45K	1					
SIMONOSEKI	40.98	266.8	7	48	2					
OOITA	41.00	265.4	7	48K	2	14	2	3		
RENO	41.02	82.4	7	47K	1	14	2	3		
LICK	41.13	86.4	7	48K	1					
HUKUOKA	41.56	266.8	7	50K	-1	14	12	5		
VINEYARD	41.65	87.0	7	52K	1					
SAGA	41.83	266.5	7	53	0				15 13	
KUMAMOTO	41.85	265.7	7	53	0					
MIYAZAKI	41.98	264.1	7	57	3	14	24	10		
BUTTE	42.06	69.9	7	54K	-1	14	14	-1		
NAGASAKI	42.43	266.3	7	58K	0	14	27	7		
FRESNO	42.65	85.8	8	0	1					
KAGOSIMA	42.76	264.4	8	0	0	14	33	8		
BOZEMAN	43.16	69.5	8	3K	-1	14	25	-6		
TOMIE	43.21	267.1	8	5	1	14	38	6		
EUREKA	43.49	80.0	8	7K	1	13	41	-55	9 44	PP
YAKUSIMA	43.54	263.3	8	6	-1					
RUTH	44.26	79.6	8	14K	1				14 48	
PASADENA	45.32	87.6	8	21K	0	15	2	0	10 9	PP

SALT LAKE C.	45.34	75.9	8	21K	0	14	59	-3				
BOULDER CITY	46.31	83.2	8	29K	0	15	23	7			18	26
PEKING	46.68	284.2	8	32K	0	15	22	0			10	25 PP
FLAMING GRGE	46.77	74.2	8	32	0	15	22	-1			10	4 PCP
IRKUTSK	46.90	304.4	8	33	-1	15	23	-2			10	25 PP
GLEN CANYON	47.76	79.9	8	40	0						10	10 PCP
NORD	47.94	3.8	8	42	0							
GUAM	48.07	233.9	8	27	-16						10	20 PP
RAPID CITY	48.70	67.2	8	47K	-1	16	1	11			39	28 PKPPKP
ZO-SE	49.08	271.4	8	50K	-1	15	57	2			10	46 PP
NANKING	49.98	274.1	8	56K	-2	16	5	-3			10	47 PP
PAOTOW	50.13	288.5	8	59	0							
TUCSON	51.24	84.2	9	7K	0	16	28	3			16	52
TUCSON TELE.	51.25	84.0	9	7K	0							
WUHAN	53.70	275.7	9	25K	0	16	59	0			11	32 PP
HWALIEN	53.71	264.4	9	27	2							
SIAN	54.80	283.0	9	33K	-1							
CHIHUAHUA	56.70	84.1	9	54	7	17	48	9			19	50 SCS
LANCHOW	56.77	288.0	9	48K	0						11	58 PP
SCORESBY SD.	58.21	9.6	9	57K	-1						18	7 PS
FAYETTEVILLE	59.07	69.6	10	1	-3	18	14	4	10	50	19	51
FLORISSANT	59.52	64.9	10	4K	-3	18	10	-6				
CANTON	59.64	270.2	10	7K	-1	18	19	1			12	27 PP
HONG KONG	59.67	269.0	10	6K	-2	18	20	2			12	17 PP
ST. LOUIS 1	59.71	64.9	10	5K	-3	18	12	-6				
BAGUIO CITY	59.90	259.2	10	7	-3	18	26	5				
SEMIPALATNSK	60.03	313.9	10	9	-2	18	22	-1			12	25 PP
APATITY	60.26	347.0	10	11	-1	18	20	-6			12	20 PP
CHENGTU	60.28	283.2	10	11	-1	18	25	-1			12	26 PP
RABAUL	60.38	215.9	10	11	-2	18	26	-1				
MANILA	60.90	257.5	10	4	-12	18	4	-30				
SODANKYLA	61.31	349.8	10	18	-1	18	38	-1			12	36 PP
KIRUNA	61.48	352.5	10	8	-12						39	30 PKPPKP
CLEVELAND	62.65	57.3	10	28K	0							
OTTAWA	62.92	50.9	10	29K	-1							
SVERDLOVSK	63.09	328.6	10	30	-1	19	3	1			12	53 PP
SHAWINIGAN	63.54	48.3	10	33K	-1							
BREBEUF	63.89	49.6	10	44	8	19	9	-2				
SEVEN FALLS	64.05	46.8	10	35K	-2							
REYKJAVIK	64.29	11.8	10	39K	0							
MORGANTOWN	64.81	57.9	10	42K	0	19	22	-1				
KUNMING	64.96	279.7	10	42K	-1	19	25	0			13	5 PP
PENNSYLVANIA	65.09	55.7	10	43	-1	19	24	-2			39	20 PKPPKP
SIDA	65.09	10.1	10	47	3							
SKALSTUGAN	66.24	355.4	10	51	-1						39	27 PKPPKP
WASHINGTON	66.89	56.7	10	54A	-2	19	50	2			13	27 PP
PALISADES	67.01	53.2	10	56K	0	19	51	1			13	31 PP
PORT MORESBY	67.09	218.7	10	56	-1	19	49	-2			21	5
WESTON	67.30	50.6	10	56K	-2	19	52	-1				
TACUBAYA	67.66	86.3	10	55K	-6	19	49	-8			23	46
PULKOVO	68.07	345.4	11	2	-1	19	53	-9			20	29 PS
NURMIJARVI	68.17	348.6	11	2	-2	20	2	-2			39	18 PKPPKP
FRUNSE	68.19	311.2	11	4	0						13	31 PP
SUVA	68.24	184.6				20	8	4				
COLUMBIA	68.25	62.8	11	2K	-2	19	39	-25				
HELSINKI	68.46	348.3	11	5	-1	20	6	-1			21	2 SCS
TOCKLAI	68.77	286.5	11	14	7							
LHASA	68.94	291.2	11	11K	2	20	19	6			13	43 PP
HALIFAX	69.25	44.5	11	10	0							
UPPSALA	69.57	352.1	11	2	-10	20	19	-1			39	13 PKPPKP
BERGEN	69.65	358.7	11	13	0	20	22	1			24	59 SS
VERA CRUZ	69.76	84.1	11	18	4	20	18	-4				
NHATRANG	70.28	265.4	11	16	-1	20	36	8				
MOSCOW	70.47	340.0	11	18	0	20	31	0			15	37 PPP
OAXACA	70.96	86.2	11	22	1	20	30	-6				
SHILLONG	71.40	287.7	11	15K	-9	20	33	-9			13	56 PP
TASHKENT	71.88	313.4	11	26	0	20	49	2			14	7 PP
GOTEBORG	72.12	354.9	11	25	-3							
MERIDA	72.60	78.1	11	32A	1	20	59	4			21	26 PS
ABERDEEN	72.83	2.8	11	32	0	20	58	0			14	16 PP
CHATRA	73.31	291.8	11	36	1	21	1	-2				
NOUMEA	73.72	195.9	11	36	-1	21	13	5				
CHITTAGONG	73.80	285.5	11	39K	1	21	12	3			14	26 PP
COPENHAGEN	74.11	354.4	11	40	1	21	16	4			14	26 PP
DUZHANBE	74.29	312.0	11	39	-2						21	16
COMITAN	74.50	83.2				21	25	8				
DURHAM	75.25	2.7	11	47A	1	21	27	2			14	37 PP
DEHRA DUN	75.93	300.5	11	51	1	21	39	7			14	41 PP

WARSAK DAM	76.53	307.3	11	52	-1						
WARSAW	76.71	348.7	11	55K	1	21	39	-2	14	49	PP
LAHORE	77.00	303.8	11	55K	-1	21	48	4			
CHARTERS TS.	77.18	215.1	11	55	-2				19	12	
WITTEVEEN	77.22	357.7	11	59K	2						
POTSDAM	77.35	353.6	11	57	-1	21	49	1	14	53	PP
DE BILT	77.97	358.6	12	4K	3	22	1	6	27	14	SS
MUNSTER	78.04	357.0	12	2	0	22	0	5			
HALLE	78.30	354.2	12	3	0	21	55	-3	14	44	PP
AGRA	78.40	298.4	12	3K	-1	22	1	2	15	2	PP
COLLMBERG	78.43	353.5	12	4	0	21	58	-2	15	5	PP
KEW	78.59	2.1	12	4K	-1	22	3	2	15	2	PP
LWOW	78.65	346.2	12	6	1	22	1	-1	15	1	PP
JENA	78.89	354.4	12	6	0	22	2	-2	15	14	PP
CHORZOW	78.87	349.6	12	7	1	21	58	-6			
JENA	78.89	354.4	12	6	0	22	2	-2	15	14	PP
KRAKOW	78.99	348.9	12	7	0	22	5	-1	12	26	
BENSBERG	79.07	357.2	12	7K	0	22	10	4			
RACIBORZ	79.16	350.0	12	8	0	22	2	-5	15	13	PP
UCCLE	79.29	359.1	12	8	0	22	8	-1			
PLAUEN	79.29	354.0	12	6	-3	22	6	-3			
SONNEBERG	79.46	354.6	12	9	0	22	12	1	15	6	PP
ASHKABAD	79.50	318.5	12	11	1				22	25	SCS
PRAGUE	79.54	352.5	12	10A	0	22	12	1	15	16	PP
PRUHONICE	79.62	352.4	12	1A	-9	22	14	2	23	9	PS
CHEB	79.69	353.8	12	10	-1	22	14	1	23	2	PS
SKALNATE PL.	79.80	348.5	12	10	-1	22	30	16	15	15	PP
DOURBES	79.98	358.9	12	13	1	22	11	-5			
HEIDELBERG	80.57	356.1	12	16K	1				15	22	PP
JERSEY	80.82	3.3	12	20	3	22	28	3			
VIENNA-H.	81.16	350.9	12	19A	1	22	25	-3	15	21	PP
BRATISLAVA	81.17	350.4	12	19A	0				15	34	PP
STUTTGART	81.17	355.7	12	19K	0	22	29	1	15	27	PP
FOLINIERE	81.28	2.3	12	6	-13						
PARIS	81.29	0.3	12	21	2				15	27	PP
TIFLIS	81.31	329.6	12	20	1	22	33	3	15	31	PP
BACAU	81.32	343.5	12	21	2	22	41	11			
SIMFEROPOL	81.34	338.1	12	20	1	22	30	0	15	30	PP
HURBANOVO	81.34	349.6	12	14	-5	22	38	8	15	29	PP
TUBINGEN	81.42	355.9	12	20K	0						
STRASBOURG	81.43	356.7	12	20	0	22	33	2			
EBINGEN	81.78	355.9	12	22K	0						
BRISBANE	81.81	206.8	12	22	0	22	36	1			
QUETTA	81.91	308.1	12	23K	1	22	38	2	15	29	PP
KECSKEMET	82.09	348.5	12	26	3	22	42	4			
FOCSANI	82.10	343.1	12	25	2	22	43	5	15	25	PP
RAVENSBURG	82.15	355.4	12	23K	-1						
GORIS	82.79	327.6	12	29	2				15	44	PP
BESANCON	82.81	357.9	12	28	1	22	44	-1			
CAMPULUNG	82.90	344.4	12	30A	2	22	47	1	15	45	PP
NEUCHATEL	83.03	357.2	12	29	1				22	49	SCS
TIMISOARA	83.04	347.2	12	29	1	22	59	12			
CHUR	83.08	355.4	12	29K	1				22	50	*SS
TOLMEZZO	83.30	353.0	12	32	2	22	52	2	15	22	PP
LJUBLJANA	83.52	351.9	12	31K	0	22	45	-7	15	45	PP
BUCHAREST	83.54	343.5	12	31K	0	22	56	4	15	44	PP
MEDAN	83.56	267.8	12	31A	0				19	53	
ZAGREB	83.61	350.8	12	33K	2	22	54	1	14	28	
BELGRADE	84.06	347.5	12	34A	1	22	57	-1	15	52	PP
TEHERAN	84.25	322.2	12	36K	2	23	6	7			
CLERMONT-FD.	84.33	359.8	12	47K	12	23	6	6			
OROPA	84.38	356.4	12	33	-2	23	6	5			
PAVIA	84.76	355.5	12	39K	2	23	8	3	13	31	
BOLOGNA	85.31	354.0				24	0	50	13	44	
CHIAVARI	85.61	355.4							15	24	PP
SOFIA	85.69	345.0	12	37	-5	23	11	-3	16	6	PP
ISOLA	85.85	357.0	12	43	1				16	7	PP
LEMBANG	85.91	254.3	12	41K	-2	23	14	-2			
PRATO	85.95	354.1	12	42	-1	23	14	-2			
ONERAHI	86.01	186.9	12	44	1						
MONACO	86.28	356.7	12	44	-1				15	46	PP
BAGNERES	87.00	2.0	12	47	-1	23	30	4			
POONA	87.50	296.1	12	14	-36	22	23	-68			
ANGRA DO HO.	87.56	23.2	12	57	6	23	51	20			
BOMBAY	87.79	297.1	12	50	-2	23	36	2	16	19	PP
ROME	87.81	352.9	12	53K	1	23	28	-6	16	31	PP
BALBOA HTS.	87.97	78.5	12	53K	0	23	37	2			
MADRAS	88.06	287.9	12	49K	-4	23	28	-8	16	6	PP

KARAPIRO	88.08	185.8	12	52K	-1						
RIVERVIEW	88.34	206.0	12	56A	2	23	41	2		23	22 SKS
SERRA PILAR	88.41	8.7	12	24A	-31					15	38 PP
SAN JUAN	88.72	62.5	12	57K	1						
TARANTO	88.75	349.1	12	1	-55	23	41	-2			
PONTA DELGDA	88.81	22.3	12	58K	1				13 10	16	21 PP
SHIRAZ	89.09	318.5	12	58A	0	23	48	2		16	27 PP
TORTOSA	89.25	1.8	13	0	1	23	35	-12			
CHATEAU	89.34	185.7	12	56	-3						
COIMBRA	89.35	8.7	12	59K	0	23	48	0		23	31 SKS
CUGLIERI	89.78	355.7								24	34 PS
TOLEDO	90.01	5.3	13	1K	-1	23	42	-12		16	40 PP
ATHENS	90.22	343.7	13	1K	-2	23	46	-10		23	33 SKS
CANBERRA	90.35	207.1	13	4	0				13 12	16	43 PP
LISBON	90.74	9.4	13	49A	43	24	14	13			
MESSINA	91.19	350.1	12	43	-25					15	21
KSARA	91.32	333.0	13	8K	0	24	12	6		16	48 PP
COBB RIVER	91.42	187.7	13	7	-2						
WELLINGTON	91.46	186.1	13	10	1	24	1	-6		23	33 SKS
ALICANTE	91.69	2.7	13	6	-4	23	49	-20		16	44 PP
GRANADA	92.72	5.2	13	22	7	24	25	7		16	43 PP
ALMERIA	93.11	4.3	13	16A	-1					17	6 PP
MALAGA	93.13	5.9	13	15K	-2					16	59 PP
ALGIERS UNI	93.32	359.9	13	16K	-2	23	37	-46		17	1 PP
JERUSALEM	93.42	332.9	13	18	0	24	6	-18			
CHINCHINA	93.51	78.0	13	18K	0	23	51	-34		24	27 SKKS
SETIF	93.86	358.0	13	19	-1					16	22
MELBOURNE	93.89	209.2	13	29	9	24	33	5		23	51 SKS
CARACAS	94.51	67.8				24	18	-16		12	58
BOGOTA	94.75	77.0	13	26	2	24	36	0		17	16 PP
ROXBURGH	96.11	189.6				24	3	-4		24	46 S
HELWAN	96.31	335.4	13	30K	-1					17	23 PP
TRINIDAD	97.62	63.3	13	36	-1						
MUNDARING	100.86	232.6	13	55	3					25	26
PERTH	101.04	232.9								33	1 SS
HUANCAYO	106.69	88.8	18	47	777	24	57	-1			
TAMANRASSET	107.23	357.5	17	44	777	25	7	7		18	49 PP
ADDIS ABABA	113.20	321.0	18	19	-20					19	39 PP
MBOUR	113.29	21.0				25	27	2		19	30 PP
LA PAZ	114.62	86.3	18	35	-7					19	39 PP
CAPE HALLETT	122.62	184.6	18	57A	0	25	58	0		30	31 PS
SANTA LUCIA	124.94	102.0	18	57	-5					20	58 PP
LWIRO	127.34	326.7	19	8K	1						
SCOTT BASE	128.26	184.3	19	10	2					21	31 PP
WILKES	128.57	209.5	19	28	19					21	31 PP
BYRD STATION	134.06	168.2	19	3	-16					22	47 SKP
LUANDA	137.81	344.7	19	28A	2					22	13 PP
BROKEN HILL	138.66	320.7	19	22	-6						
SOUTH POLE	140.09	180.0	19	22	-8					23	4 SKP
PORT STANLEY	142.70	116.3	19	35	0						
ARGENTINE I.	143.19	139.6	19	32	-4						
BULAWAYO	143.67	316.5	19	34K	-2						
MAWSON	146.26	216.7	19	40	-1						
LCO. MARQUES	146.69	305.7	19	45K	3					23	8
WINDHOEK	150.18	332.9	19	48	1						
PIETERMZBURG	150.77	304.6	19	55	7						
KIMBERLEY	152.85	314.2	19	22	-29						
GRAHAMSTOWN	155.69	305.2	19	27	-28					19	54
HERMANUS	160.14	316.8	20	49	48					24	28 PP

JULY 3 22.H 52.M 24.S EPICENTRE 50.28-177.19 DEPTH= 0.KM

A=-0.64079 B=-0.03148 C= 0.76707 D=-0.0491 E= 0.9988
G=-0.7661 H=-0.0376 K=-0.6416 HT= -5.5

SE= 1.55

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	15.23	289.7	3	38	0							
MAGADAN	20.41	309.3	4	41	0							
COLLEGE	21.19	35.4	4	48	-1	8	47	6				
KURILSK	23.88	271.4	5	18	2							
SITKA	25.38	58.3	5	32	2							
Y.-SAKHLINSK	26.46	278.6	5	39	-1							
TIKSI	32.09	331.2	6	30	-1							

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TUKUBASAN	33.65	261.9	6	44K	0					
MATUSIRO	34.65	264.0	6	53	0				9	26 PCP
ABUYAMA	37.37	264.0	7	17K	1					
SHASTA	38.79	82.6	7	30K	2					
MINERAL	39.48	82.6	7	35A	1					
HUNGRY HORSE	40.12	67.5	7	40	1					
RESOLUTE	40.33	24.0	7	40	-1					
BERKELEY	40.48	86.2	7	43A	1					
RENO	41.08	82.4	7	49A	2					
VINEYARD	41.71	86.9	7	53A	1					
BUTTE	42.11	69.8	7	55	0					
FRESNO	42.71	85.7	8	1	1					
EUREKA	43.55	79.9	8	7	0				9	54 PP
PASADENA	45.37	87.5	8	22K	0					
SALT LAKE C.	45.39	75.8	8	21	-1					
KHEYS	45.84	349.2	8	25	-1	15	9	-1		
BOULDER CITY	46.36	83.1	8	30	0					
PEKING	46.63	284.1	8	32K	0	15	24	3	10	27 PP
FLAMING GRGE	46.82	74.2	8	33	0				10	6
ZO-SE	49.02	271.3	8	50K	0					
NANKING	49.93	274.0	8	57K	0					
PAOTOW	50.08	288.5	8	59	0	16	14	4		
TUCSON	51.29	84.1	9	8	0					
SIAN	54.75	283.0	9	33K	-1					
LAWRENCE	56.59	67.6	9	45	-2					
LANCHOW	56.72	287.9	9	47K	-1					
SCORESBY SD.	58.22	9.5	9	59	1					
CANTON	59.58	270.2	10	7	-1					
HONG KONG	59.62	268.9	10	8	0					
ST. LOUIS 1	59.76	64.9	10	6	-3					
CHENGTU	60.23	283.1	10	11	-1	18	25	0	12	25 PP
APATITY	60.25	347.0	10	7	-5	18	16	-10		
SODANKYLA	61.30	349.7	10	18	-2					
KIRUNA	61.47	352.5	10	19	-2					
BREBEUF	63.93	49.6	10	35A	-2					
REYKJAVIK	64.30	11.7	10	39	0					
MORGANTOWN	64.86	57.8	10	43A	0					
KUNMING	64.91	279.6	10	42K	-1					
SIDA	65.11	10.0	10	45	0					
PENNSYLVANIA	65.14	55.7	10	44	-1					
SKALSTUGAN	66.24	355.4	10	51	-1					
PALISADES	67.05	53.1	10	57	0					
PORT MORESBY	67.05	218.7	10	56	-1					
WESTON	67.35	50.6	10	59	0					
PULKOVO	68.06	345.4	11	2	-1	20	0	-3		
NURMIJARVI	68.16	348.6	11	3	-1					
COLUMBIA	68.30	62.7	11	4	-1					
HELSINKI	68.45	348.3	11	5	-1					
LHASA	68.89	291.1	11	10K	1	20	20	8		
UPPSALA	69.57	352.1	11	12	-1					
BERGEN	69.66	358.7	11	14	1					
MOSCOW	70.45	340.0	11	18	0					
SHILLONG	71.35	287.6	11	22A	-2					
GOTEBORG	72.12	354.8	11	27	-1					
CHATRA	73.26	291.8	11	36K	1					
CHITTAGONG	73.75	285.4	11	39	1				14	26 PP
COPENHAGEN	74.10	354.3	11	35	-5					
STALINABAD	74.25	311.9	11	40	-1					
DURHAM	75.26	2.6	11	46K	0	21	27	2	12	9 PCP
WARSAW	76.70	348.6	11	57A	2	21	44	3	12	5 PCP
LAHORE	76.95	303.8	11	55	-1					
CHARTERS TS.	77.15	215.0	11	55	-2					
POTSDAM	77.35	353.6	11	59	1					
MUNSTER	78.04	357.0	12	3	1					
HALLE	78.30	354.2	12	4	1	21	42	-16		
COLLMBERG	78.43	353.5	12	4K	0				15	13 PP
KEW	78.59	2.0	12	5K	0					
LWOW	78.64	346.2	12	6K	1				14	43
JENA	78.89	354.4	12	6	-1				12	55
KRAKOW	78.98	348.9	12	7	0					
BENSBERG	79.07	357.2	12	8K	0				13	11
UCCLE	79.29	359.0	12	9	0					
PLAUEN	79.29	353.9	12	6	-3					
SONNEBERG	79.46	354.5	12	9	-1					
PRUHONICE	79.61	352.3	12	11K	0					
CHEB	79.68	353.8	12	13	2					
SKALNATE PL.	79.80	348.5	12	10	-2					
DOURBES	79.99	358.8	12	14	1					

KISHINEV	80.51	342.3	12 15	0				
HEIDELBERG	80.57	356.1	12 16	0				
BRATISLAVA	81.16	350.4	12 20A	1				
STUTTGART	81.17	355.7	12 19	0				
TIFLIS	81.28	329.6	12 20	1				
FOLINIERE	81.29	2.2	12 20	1				
PARIS	81.29	0.2	12 21	2				
SIMFEROPOL	81.32	338.1	12 20	0				
TUBINGEN	81.42	355.8	12 20	0				
STRASBOURG	81.43	356.7	12 21	1			13 56	
EBINGEN	81.78	355.8	12 23	1				
QUETTA	81.87	308.1	12 23K	0	22 36	0	15 28	PP
FOCSANI	82.09	343.0	12 31	7				
BESANCON	82.81	357.8	12 28	1				
CAMPULUNG	82.89	344.4	12 31	3				
TOLMEZZO	83.30	352.9	12 34	4			13 32	
LJUBLJANA	83.52	351.8	12 31K	0			13 4	
BUCHAREST	83.53	343.4	12 31K	0				
TEHERAN	84.22	322.2	12 37	2	23 11	11		
CLERMONT-FD.	84.33	359.8	12 37	2			13 44	
SOFIA	85.68	345.0	12 42	0				
ISOLA	85.85	356.9	12 44	1				
MONACO	86.28	356.6	12 47	2				
BAGNERES	87.00	2.0	12 46	-2			16 31	
KARAPIRO	88.07	185.7	12 52	-2				
SAN JUAN	88.77	62.4	12 58	1				
SHIRAZ	89.06	318.4	12 58A	0	24 1	15	23 49	SKS
KSARA	91.30	333.0	13 9A	0				
JERUSALEM	93.40	332.8	13 18	0			16 54	PP
CAPE HALLETT	122.61	184.5	18 58	0				
LWIRO	127.31	326.6	19 9A	2			21 8	
BYRD STATION	134.06	168.2	19 15	-5				
BROKEN HILL	138.63	320.6	19 30	2				
SOUTH POLE	140.09	180.0	19 21	-10			19 58	
BULAWAYO	143.64	316.4	19 35K	-2				
MAWSON	146.22	216.7					21 41	
WINDHOEK	150.16	332.7	19 54	6				
KIMBERLEY	152.81	314.0	19 58	6				
GRAHAMSTOWN	155.65	305.1					20 24	PKP2

JULY 4 4.H 9.M 25.S EPICENTRE 36.30 141.30 DEPTH= 57.KM

A=-0.63045 B= 0.50501 C= 0.58948 D= 0.6252 E= 0.7805
G=-0.4601 H= 0.3685 K=-0.8078 HT= -0.3

DEPTH OF FOCUS= 0.004R

SE= 4.26

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MITO	0.68	276.6	0 13A	-3	0 28	1		
TYOSI	0.69	212.4	0 12A	-4	0 25	-2		
ONAHAMA	0.72	333.3	0 12K	-4	0 26	-2		
KAKIOKA	0.91	265.6	0 16	-2	0 32	1		
TUKUBASAN	0.98	265.4	0 17	-2				
UTUNOMIYA	1.18	282.4	0 20	-1	0 43	6		
SHIRAKAWA	1.19	313.4	0 20	-2	0 41	3		
HONGO	1.38	245.0	0 24	0				
TOKYO C.M.O.	1.41	244.1	0 26K	2	0 47	4		
KUMAGAYA	1.56	264.9	0 26	-1	0 58	12		
HUKUSIMA	1.59	335.4	0 25A	-2	0 50	3		
YOKOHAMA	1.60	237.5	0 26	-1			1 36	
MAEBASI	1.81	273.7	0 30A	0	0 57	5		
TITIBU	1.83	260.5	0 29	-1				
MERA	1.83	221.4	0 28	-2				
SENDAI	1.99	350.8	0 30	-2	0 53	-3		
YAMAGATA	2.09	338.9	0 32	-2	0 58	-1		
ISINOMAKI	2.12	0.3	0 30A	-4	1 1	1		
AJIRO	2.19	235.7	0 30	-5	1 3	2		
OSIMA	2.19	226.3	0 32	-3	1 11	9		
HUNATU	2.21	249.4	0 38	2	1 17	15		
OIWAKE	2.22	271.5	0 40	4				
MISIMA	2.25	239.0	0 34	-2	1 4	1		
KOHU	2.31	254.9	0 38	1	1 23	18		
NIIGATA	2.42	312.5	0 48	10	1 20	13	1 34	
MATUSIRO	2.51	276.3	0 40	0			1 30	

NAGANO	2.53	279.2	0	43A	3	1	29	19			
TAKADA	2.58	288.8	0	41	0	1	22	11			
MATUMOTO	2.69	269.8	0	43	1	1	20	6			
SHIZUOKA	2.71	241.5	0	43	0	1	23	8			
MIZUSAWA	2.82	357.2	0	52	8	1	21	4			
SAKATA	2.84	336.1	1	0	16						
IIDA	2.93	255.5	0	47	1	1	38	18			
AIKAWA	2.98	306.0	0	47	1	1	37	16			
OMAESAKI	3.04	236.9	0	47	0	1	31	8			
TAKAYAMA	3.28	268.5	0	52	1						
HAMAMATU	3.32	242.6	0	56	5	2	3	33			
TOYAMA	3.33	278.0	1	25	34	2	10	40			
MIYAKO	3.38	8.7	0	56	4	1	34	3			
MORIOKA	3.39	358.2	0	51	-1	1	33	1			
HATIDYOZIMA	3.43	201.8	0	56	3						
AKITA	3.54	344.8	1	16	22	2	3	28			
WAZIMA	3.69	288.2	1	2	6						
NAGOYA	3.70	253.5	1	3	6	1	57	17			4 57
HUKUI	4.11	268.0	1	16	14						
KAMEYAMA	4.20	251.2	1	15	11	2	16	24			
HATINOHE	4.22	2.3	1	10	6	1	57	4			
HIKONE	4.24	257.4	1	4	0	2	21	28			
TSURUGA	4.30	262.8	1	5	0	2	4	10			
AOMORI	4.53	355.0				1	55	-5			
KYOTO	4.72	255.9	1	22	11	2	24	19			
OWASE	4.74	243.4	1	27	16						
NARA	4.75	251.7	1	10	-1						
ABUYAMA	4.89	254.6	1	13K	0						
OSAKA	4.99	252.4	1	54	39						2 31
KOBE	5.25	253.8	1	53	35						
TOYOOKA	5.32	263.5									2 5
SIOMISAKI	5.37	239.6									2 24
HAKODATE	5.51	355.8	1	27	5	2	32	7			
SUMOTO	5.58	251.3	1	22	-1						2 54
MORI	5.82	354.6	1	32	6	2	46	14			
TOKUSIMA	5.94	249.9	1	30	2	2	57	22			
URAKAWA	5.95	10.6	1	27	-1	2	31	-5			
MURORAN	6.01	357.7	1	40	11						2 58
HIROO	6.17	14.1	1	27	-4	2	28	-13			
TAKAMATU	6.25	253.7	1	39	7	3	20	37			
TOMAKOMAI	6.32	1.8									2 56
SUTTSU	6.54	353.0									3 11
SAPPORO	6.76	0.3	1	49	10	2	59	3			
KOTI	6.95	249.0	1	5	-37	3	34	34			
KUSIRO	7.08	18.8	1	30	-14	2	51	-13			
ASAHIGAWA	7.51	5.9				3	5	-9			
HAMADA	7.65	262.2									3 30
NEMURO	7.75	23.8				3	4	-16			
OOITA	8.54	251.8									4 24
HUKUOKA	9.37	256.3									4 55
CHANGCHUN	14.36	306.5	3	20	-2	6	22	22			
NANKING	19.10	263.7	4	18	-3						
PEKING	20.09	288.3	4	29	-3	8	31	22			
GUAM	22.96	171.4	5	7	7						
MAGADAN	24.07	11.9	5	7	-4						
YAKUTSK	26.74	347.9	5	34	-2						
CHENGTU	31.48	270.6	6	16	-3						
KUNMING	34.77	262.3	6	45	-2						
TIKSI	35.98	353.3	6	54	-4						
LHASA	42.30	275.9	7	48	-2						
COLLEGE	49.76	31.9	8	46	-3						
STALINABAD	56.22	295.9	9	44	7						
CHARTERS TS.	56.28	174.4	9	32	-5						
QUETTA	61.09	287.7	10	11	0						
RESOLUTE	63.33	14.3	10	31A	5						
SODANKYLA	65.60	337.3	10	38	-2						
KIRUNA	67.17	339.3	10	47	-3						
MOSCOW	67.79	323.6	10	53	-1						
NURMIJARVI	70.55	332.0	11	9	-2						
SHASTA	71.61	52.8	11	15	-2						
CANBERRA	71.62	173.4	11	15	-3						
MINERAL	72.31	52.8	11	28A	6						
UPPSALA	73.57	334.0	11	22	-7						
EUREKA	76.37	51.0	11	44	-1						
GOTEBORG	77.15	334.8	11	20	-29						
PASADENA	78.05	56.5	11	54	0						
BOULDER CITY	79.18	53.3	12	8	7						
FLAMING GRGE	79.49	46.7	11	59	-3						
RAPID CITY	80.91	41.2	12	7	-3						

COLLMBERG	81.69	330.1	12	12	-2				13	0	
PRUHONICE	82.06	328.5	12	14A	-2						
JENA	82.55	330.6	12	17	-1						
TUCSON	84.08	54.2	12	33	7						
TUCSON TELE.	84.10	54.0	12	33	7						
FORT FRANCE	124.99	26.8							20	1	
BYRD STATION	127.08	167.5	18	57	-1						
LA PAZ	147.28	60.7	19	35	0						

JULY 4 4.H 28.M 35.S EPICENTRE 5.81-131.19 DEPTH= 0.KM

A=-0.40888 B=-0.46714 C= 0.78396 D=-0.7525 E= 0.6586
G=-0.5163 H=-0.5899 K=-0.6208 HT= -6.1

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
ALBERNI	4.80	119.6	1	12	-3							
SITKA	5.77	337.0	1	25	-4							
VICTORIA	5.98	120.4	1	28	-4							
CORVALLIS	8.95	140.9	2	13A	0							
HUNGRY HORSE	11.56	100.7	2	50	1	5	0	0				
ARCATA	11.98	153.1	2	58	3							
SHASTA	12.66	147.9	3	6A	2							
MINERAL	13.24	146.2	3	13A	1							
BUTTE	13.53	108.0	3	13	-2	6	31	43				
UKIAH	13.85	153.2	3	20	0							
BOZEMAN	14.62	106.9	3	29	-1							
BERKELEY	15.30	152.2	3	39A	0	6	16	-14			7	1
COLLEGE	15.65	333.1	3	42	-1	6	45	7				
EUREKA	16.25	133.4	3	51	0							
VINEYARD	16.59	151.4	3	56A	1							
RUTH	16.90	131.8	4	0	1							
FRESNO	17.08	147.3	4	3	2						4	31
SALT LAKE C.	17.28	122.1	4	4	0	7	38	22				
FLAMING GRGE	18.49	117.5	4	17	-2						10	5
BOULDER CITY	19.66	137.2	4	32	-1	7	29	-40				
PASADENA	20.01	146.9	4	37A	0	8	25	8				
RAPID CITY	20.19	101.5	4	37	-2	8	39	18				
TUCSON TELE.	24.54	134.5	5	24	2							
TUCSON	24.57	134.8	5	24	2	10	3	22				
RESOLUTE	27.28	20.1	5	44	-4	10	25	-1				
LAWRENCE	28.01	103.0	5	53	-1							
CHIHUAHUA	29.79	131.3	6	9	-1	11	11	4			10	53
FAYETTEVILLE	30.53	106.3	6	17	0	11	21	3				
FLORISSANT	31.10	98.5	6	22A	0	11	24	-3				
ST. LOUIS !	31.28	98.6	6	22A	-1	11	27	-3				
TERRE HAUTE	32.60	94.9	6	25	-10	11	55	4				
MAZATLAN	34.37	136.9									17	37
CLEVELAND	34.99	87.2	6	53K	-3	12	26	-2				
OTTAWA	36.46	77.6	7	7	-1							
KIPAPA	36.79	224.6	7	9	-2						8	40 PP
HONOLULU	36.93	224.6	7	10	-2	12	50	-8			8	24
MORGANTOWN	37.05	88.5	7	12	-1							
PENNSYLVANIA	37.65	85.4	7	19	1	13	10	1			8	43 PP
SHAWINIGAN	37.66	74.2	7	19	1							
BREBEUF	37.68	76.2	7	17	-1	13	11	2				
GUADALAJARA	37.90	134.5	7	21	1	13	25	12			16	25
SEVEN FALLS	38.53	72.4	7	23	-3							
WASHINGTON	39.27	87.3	7	28	-4						8	56
GEORGETOWN	39.27	87.3	7	31	-1							
COLUMBIA	39.34	96.4	7	36	-1	13	42	-1				
PALISADES	39.97	82.4	7	38A	0	13	42	-2			9	9 PP
FORDHAM	40.08	82.6	7	39	0						16	11
WESTON	40.77	78.9	7	42	-2	13	55	-1			16	37 SS
TACUBAYA	40.90	130.2	7	48K	3	13	55	-3			9	30 PP
PETROPAVLOVK	41.23	300.4	7	47	-1						14	5
MAGADAN	42.24	312.2	7	55	-1						9	35 PP
NORD	42.48	11.4	7	58	0							
VERA CRUZ	42.57	126.6	7	57	-2	14	25	3			10	3 PPP
OAXACA	44.11	129.0				14	53	8			16	37
HALIFAX	44.13	71.5	8	11	-1							
MERIDA	44.54	117.8	8	22A	7	14	58	7			10	7 PP
TIKSI	44.80	333.7	8	16	-1	14	56	1			10	11 PP
COMITAN	47.08	124.2	8	39	4	15	45	18			10	33 PP

KHEYS	47.72	358.0	8	39	-1	15	37	1	10	31 PP
SCORESBY SD.	47.97	25.3	8	41	-1	15	44	4	10	24 PP
SAN SALVADOR	50.75	122.9				15	55	-24		
REYKJAVIK	52.09	31.7	9	14	0					
Y.-SAKHLINSK	53.08	301.4	9	18	-3					
KIRUNA	58.80	12.2	10	0	-2					
BALBOA HTS.	59.87	116.4	10	10	0	18	24	3		
SODANKYLA	59.97	9.7	10	8	-2				12	25 PP
SAN JUAN	60.39	97.9	10	12	-1					
APATITY	60.40	6.7	10	13	0	18	24	-3	12	21 PP
VLADIVOSTOK	61.36	304.1	10	17	-3				12	42 PP
SKALSTUGAN	61.45	17.6	10	18	-2				39	39 PKPPKP
TUKUBASAN	61.80	293.5	10	19A	-4				12	35 PP
MATUSIRO	62.64	294.9	10	25	-3	18	59	3	14	40 PPP
BERGEN	62.81	22.6	10	35	6	19	1	3		
CHANGCHUN	64.14	308.6	10	35A	-3	19	12	-3	12	59 PP
EDINBURGH	64.36	29.5							26	25
ABUYAMA	65.33	295.4	10	42A	-4	20	32	63		
CHINCHINA	65.35	115.3	10	44A	-2	19	37	8		
DOMINICA	65.64	96.2	10	47	-1					
DURHAM	65.82	29.3	10	48	-1	19	46	11	13	32 PP
UPPSALA	65.88	16.6	10	47	-2					
CARACAS	65.98	104.1	10	56K	6	20	5	28		
IRKUTSK	66.27	326.4	10	50	-2	19	32	-9	11	22 PCP
NURMIJARVI	66.36	12.8	10	51	-1	19	45	3		
BOGOTA	66.51	114.1	10	52	-1	19	49	5		
HELSINKI	66.73	12.7	11	0	5	19	50	4		
GOTEBORG	66.76	20.5	10	51	-4					
ST. VINCENT	67.35	97.6	10	59	0					
PULKOVO	67.77	10.0	10	59	-2				15	10 PPP
COPENHAGEN	68.72	21.1	11	6	-1	20	16	6	13	28 PP
KEW	69.05	30.4	11	8	-1	20	11	-3	24	43 SS
TRINIDAD	69.22	99.4	11	7	-3					
PONTA DELGDA	69.75	54.5	11	19	5			11 29	13	52 PP
WITTEVEEN	69.90	25.7	11	25	10					
DE BILT	70.13	26.9	11	15	-1	20	36	9	14	7 PP
JERSEY	70.45	32.7	11	32	14	20	46	15		
MUNSTER	70.92	25.5	11	20	-1				14	4
UCCLE	71.05	28.0	11	20	-2	20	38	0		
SVERDLOVSK	71.29	353.2	11	21	-2	20	40	0	13	56 PP
FOLINIERE	71.34	32.0	11	23	0					
PEKING	71.41	311.6	11	22A	-2	20	43	1	13	56 PP
BENSBERG	71.71	26.3	11	25	0	20	50	5		
DOURBES	71.75	28.2	11	25	-1	20	47	1		
POTSDAM	71.91	22.1	11	27	0	20	51	3	13	29
PARIS	72.26	30.1	11	28	-1	20	53	2		
MOSCOW	72.43	6.6	11	29	-1				15	55 PPP
HALLE	72.46	23.2	11	30	0	20	58	4	14	16 PP
JENA	72.89	23.6	11	31	-1	21	1	2	14	14 PP
COLLMBERG	72.90	22.6	11	31	-2	21	0	1	14	18 PP
SONNEBERG	73.30	24.1	11	40	5	21	7	4	12	6
PLAUEN	73.44	23.4	11	32	-4					
HEIDELBERG	73.55	26.0	11	35	-1					
PAOTOW	73.72	315.9	11	35	-2	21	10	2		
WARSAW	73.72	17.4	11	38	1	21	0	-8	14	21 PP
CHEB	73.87	23.5	11	39	1	21	14	4	25	37 SS
STRASBOURG	74.03	27.0	11	39	0	21	25	14		
STUTTGART	74.27	25.9	11	39	-2	21	22	8	14	36 PP
PRAGUE	74.38	22.2	11	43A	2	21	20	5	14	32 PP
TUBINGEN	74.43	26.2	11	41	0					
PRUHONICE	74.49	22.2	11	41	-1	21	23	6	14	30 PP
BESANCON	74.71	28.7	11	44	1					
SEMIPALATNSK	74.73	339.8	11	44	1				21	20
EBINGEN	74.73	26.4	11	43	0					
SERRA PILAR	74.87	41.2	11	27K	-17	21	39	18	24	26 PP
CLERMONT-FD.	75.15	31.2	11	46	0	21	29	5		
CHORZOW	75.17	19.3	12	3	17					
RACIBORZ	75.21	19.8	11	48	2					
NEUCHATEL	75.22	28.2	11	47	1					
RAVENSBURG	75.27	26.1	11	45	-1					
KRAKOW	75.59	18.7	11	47	-1				14	35 PP
COIMBRA	75.72	41.7	11	49A	0	21	30	0		
GUAM	75.89	273.8	11	47	-3	21	26	-6		
ZO-SE	76.01	302.6	11	49	-1	21	35	2		
CHUR	76.10	26.6	11	52	1	21	41	7		
SKALNATE PL.	76.48	18.8	11	53	0				14	41 PP
NANKING	76.49	304.9	11	51A	-2	21	41	2	14	50 PP
VIENNA-H.	76.53	21.6	11	50	-3	21	38	-1		

BAGNERES	76.53	34.5	11	53	0	21	59	20			
LWOW	76.58	16.2	11	53	-1				14	52	PP
BRATISLAVA	76.77	21.2	11	54	-1	21	48	6	15	45	PP
OROPA	76.77	28.1	11	59	4	21	59	17			
HURBANOVO	77.30	20.6	12	7	9	21	57	10	15	1	PP
TOLMEZZO	77.45	24.5	12	11	13				13	12	
PAVIA	77.52	27.5	12	2	3	22	3	13	31	39	SSS
TOLEDO	77.75	38.9	12	OK	0	21	56	4	15	3	PP
ISOLA	77.81	29.4	12	1	1				12	15	PCP
BUDAPEST	77.85	20.2	12	8	7	21	56	3			
LJUBLJANA	78.15	23.6	12	1	-1				14	52	PP
MONACO	78.33	29.3	12	5	2						
CHIAVARI	78.35	27.8	11	40	-23				14	54	PP
TORTOSA	78.63	35.3	12	3	-2	22	0	-2			
BARCELONA	78.68	33.9				22	12	10			
ZAGREB	78.72	22.7	12	6	0	22	5	2	12	42	
BOLOGNA	78.75	26.4				21	55	-8			
PRATO	79.26	26.8	12	17	9	22	10	2			
SIAN	79.46	313.1	12	8A	-1	22	11	0			
HUANCAYO	79.74	124.6	12	13	2	22	24	11			
WUHAN	79.85	306.9	12	11	-1	22	18	3			
TIMISOARA	79.95	19.2	12	15	3						
LANCHOW	80.16	317.6	12	11A	-2	22	21	3			
BACAU	80.21	15.1	12	22	8	22	30	12			
GRANADA	80.26	39.9	12	31A	17	22	31	12	15	31	PP
MALAGA	80.33	40.7	12	16K	2	22	10	-10	15	21	PP
ALICANTE	80.44	37.2	12	11	-4	22	15	-6	22	34	SCS
TAIPEI	80.65	298.6				22	36	13			
BELGRADE	80.68	20.0	12	15K	-1	22	42	19	15	22	
ALMERIA	80.99	39.3	12	23K	5						
FOCSANI	81.10	15.1	12	26	8	22	32	4			
CAMPULUNG	81.15	16.7				22	44	16			
HWALIEN	81.44	297.9	12	28	8						
ROME	81.48	26.6	12	24A	4	22	36	4	15	45	PP
CUGLIERI	81.91	30.0	13	5	43	23	45	69			
BUCHAREST	82.16	16.2	12	23	-1	22	48	9	15	31	PP
SUVA	82.31	227.6				22	54	14	23	35	PS
SIMFEROPOL	82.79	10.5	12	28K	1				12	31	PCP
FRUNSE	83.11	341.2	12	28	-1				22	49	
ALGIERS UNI.	83.14	35.4	12	29	0	22	51	2	15	39	PP
SOFIA	83.31	18.6	12	30	0	22	54	4	12	54	15 44 PP
TARANTO	84.07	23.7	12	33	-1	22	38	-20			
SETIF	84.48	33.9	12	36	0				15	46	PP
CHENGTU	84.69	314.7	12	35	-2	23	3	-1			
TASHKENT	85.55	344.7	12	40	-1	23	13	1			
MESSINA	85.77	25.7	12	46	4						
CANTON	86.57	303.6				23	11	-11			
TIFLIS	86.78	3.0	12	50	3				23	28	
HONG KONG	86.78	302.5	12	49	2	23	20	-4	16	21	PP
LA PAZ	87.22	121.1	12	48	-1	24	35	67			
ATHENS	87.94	19.6	12	52	-1	23	19	-16	16	20	PP
BAGUIO CITY	88.06	294.2	12	51	-2	23	29	-7			
DUZHANBE	88.32	344.5	12	54	0				23	29	
GORIS	89.04	1.9	13	0	2				24	0	
MANILA	89.18	292.8	13	0	1	23	50	3			
KUNMING	90.02	312.9	13	1	-2	23	55	1	16	3	PP
ASHKABAD	90.22	352.5	13	7	4				23	42	SKKS
LHASA	90.83	324.2	13	7	1	24	8	6	16	49	PP
NOUMEA	91.66	235.2	13	14	4				22	52	
PORT MORESBY	92.19	257.7	13	10	-3	24	19	5	16	39	PP
WARSAK DAM	92.25	341.2	13	15	2						
TEHERAN	92.79	357.9	13	19	4	23	55	-24			
MBOUR	93.06	62.3	13	23	7	24	34	13			
KSARA	93.98	10.8	13	28	7	24	31	2	17	3	PP
SHILLONG	94.19	321.8	13	28	6	23	55	-36			
DEHRA DUN	94.28	334.9	13	37	15	24	39	7	17	14	PP
CHATRA	94.76	326.2	13	32	8	24	2	-34			
JERUSALEM	95.92	11.6	13	28	-2	24	52	46			
TAMANRASSET	96.62	39.6	13	35	2	24	56	46	17	29	PP
QUETTA	96.82	344.2	13	37A	3	24	14	3	17	32	PP
HELWAN	97.23	15.2	13	37	1	25	1	48			
SHIRAZ	98.83	356.7	13	48	5				17	49	PKS
SANTA LUCIA	100.07	132.3	13	45	-3	24	26	-1	17	53	PP
AUCKLAND	100.12	221.2							32	38	SS
BRISBANE	103.03	242.3				23	43	-58	18	12	PP
BOMBAY	106.53	336.3							26	19	
RIVERVIEW	108.90	239.3	18	36A	777				34	20	SS
ROXBURGH	109.59	220.0							28	34	PS
MADRAS	109.96	327.3							28	46	

KODAIKANAL	113.44	329.0					35 13	
ADDIS ABABA	118.79	11.3					20 14	PP
LWIRO	127.84	25.7	19 8	0				
CAPE HALLETT	130.35	200.0	19 13	1			21 31	PP
BYRD STATION	131.75	177.3	19 14	-1			21 41	PP
SCOTT BASE	134.79	195.3	19 29	8			21 47	PP
SOUTH POLE	141.62	180.0	19 28	-5			22 42	PP
WILKES	146.72	220.4	19 45	3			33 28	SKSP
TANANARIVE	147.16	2.2	19 31	-12			19 56	PKP2
KIMBERLEY	150.81	47.1	19 50	2				
HAWSON	162.72	198.3	20 3	0			21 0	

JULY 4 13.H 10.M 11.S EPICENTRE 52.29-130.19 DEPTH= 0.KM

A=-0.39632 B=-0.46921 C= 0.78916 D=-0.7639 E= 0.6453
G=-0.5092 H=-0.6029 K=-0.6142 HT= -6.3

SE= 4.20

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ALBERNI	4.56	129.5	1 6	-6				
VICTORIA	5.74	128.5	1 26	-2	2 52	16		
CORVALLIS	8.97	146.7	2 9	-5				
BANFF	9.16	91.3	2 39	23	5 19	78		
HUNGRY HORSE	11.05	104.5	2 44	2	4 48	0		
ARCATA	12.16	157.5	2 54	-3				
SHASTA	12.77	152.2	3 1	-5				
MINERAL	13.33	150.3	3 9A	-4				
BOZEMAN	14.18	110.3	3 27	3	7 26	83		
RENO	14.64	146.5	3 26A	-4				
BERKELEY	15.46	155.8	3 34A	-7	6 21	-13		
SAN FRANCSCO	15.50	156.5	3 36	-5				
COLLEGE	15.52	331.1	3 38	-4	6 54	19		
EUREKA	16.15	136.9	3 46	-4	6 42	-8		
VINEYARD	16.74	154.7	3 52	-5				4 19
RUTH	16.78	135.1	3 55	-3				
SALT LAKE C.	17.03	125.3	3 59	-2	7 42	32		
FRESNO	17.17	150.6	3 57	-6				
FLAMING GRGE	18.18	120.5	4 14	-1				5 0
BOULDER CITY	19.62	140.2	4 28	-4	8 37	29		
RAPID CITY	19.69	103.9	4 33	0	8 23	13		
PASADENA	20.09	149.8	4 32A	-6	8 25	6		7 0
GLEN CANYON	20.15	132.2	4 37	-2				5 24
TUCSON TELE.	24.45	137.0	5 19	-2				
TUCSON	24.48	137.3	5 20	-2	9 56	16		
RESOLUTE	26.61	20.1	5 42	0	10 21	5		
LAWRENCE	27.53	105.0	5 49	-1				
CHIHUAHUA	29.66	133.5			10 43	-22		13 45
FAYETTEVILLE	30.08	108.2	6 10	-3				15 55
FLORISSANT	30.56	100.2	6 16	-1	11 15	-4		
ST. LOUIS 1	30.75	100.3	6 17	-2	11 24	2		
CLEVELAND	34.35	88.6	6 52A	2	12 36	18		
MORGANTOWN	36.42	90.0	7 7	-1				
SHAWINIGAN	36.93	75.4	7 14	2				
BREBEUF	36.97	77.4	7 17	4				
HONOLULU	37.71	225.5	8 23	64	13 5	-5		12 16
SEVEN FALLS	37.79	73.5	7 19	-1				
WASHINGTON	38.63	88.7	7 26	-1				
PALISADES	39.29	83.7			13 46	12		9 14 PP
CHAPEL HILL	39.31	93.9	7 30	-2				20 47
COLUMBIA	39.38	97.9	7 31	-2	13 39	4		
WESTON	40.07	80.1	9 4	85				
TACUBAYA	40.75	131.9	7 44	0	13 39	-17		8 9
PETROPAVLOVK	41.52	300.4	7 43	-8				
MAGADAN	42.38	312.1	7 52	-5				
MERIDA	44.22	119.4			15 13	26		
TIKSI	44.65	333.7	8 10	-6				
KHEYS	47.25	358.2	8 34	-3				
SCORESBY SD.	47.26	25.8	8 43	6	15 40	10		19 12 SS
YAKUTSK	49.83	322.6	8 51	-6	16 4	-2		
Y.-SAKHLINSK	53.36	301.6	9 16	-7				
KIRUNA	58.20	12.7	9 56	-2				
SAN JUAN	59.84	99.0	10 9	-1				
APATITY	59.85	7.2	10 13	3	18 24	3		
SKALSTUGAN	60.80	18.2	10 8	-8				

MATUSIRO	63.00	295.4	10	26	-5	19	3	2	17	24
CHANGCHUN	64.33	309.0	10	32	-8	19	12	-5	12	53 PP
UPPSALA	65.24	17.2	10	46	1					
CARACAS	65.50	105.2	11	1	14	19	45	13		
NURMIJARVI	65.75	13.3	10	49	0					
GOTEBORG	66.09	21.1	10	58	7					
HELSINKI	66.12	13.3	10	49	-2					
IRKUTSK	66.21	326.9	10	46	-6					
PULKOVO	67.19	10.6	10	57	-1	19	51	-1		
COPENHAGEN	68.05	21.8	11	6	3	20	1	-1		
KEW	68.32	31.1				20	9	3		
DE BILT	69.42	27.6				20	32	13		
JERSEY	69.70	33.4	11	23	10					
MUNSTER	70.21	26.2	11	15	-2				14	34
UCCLE	70.33	28.7	11	32	15				13	59 PP
FOLINIERE	70.60	32.7	11	18	-1					
BENSBERG	71.00	26.9	11	22	1					
DOURBES	71.03	28.9	11	23	1	20	44	6		
PARIS	71.52	30.8	11	25	0					
PEKING	71.55	312.1	11	17	-8	20	39	-5		
HALLE	71.77	23.8	11	27	1	21	4	18		
MOSCOW	71.87	7.2	11	27	0	20	52	5		
JENA	72.20	24.3	11	29	0				13	23
COLLMBERG	72.21	23.3	11	27	-2				14	18 PP
PLAUEN	72.75	24.1	11	29	-3					
WARSAW	73.07	18.0	11	39	5	21	10	9		
STRASBOURG	73.31	27.7	11	37	2	21	13	9		
STUTTGART	73.57	26.6	11	37	0	21	14	8	26	0 SS
PRAGUE	73.69	22.9							12	45
PRUHONICE	73.81	22.8	11	38	0	21	13	4	14	25 PP
SERRA PILAR	74.09	42.0	11	32A	-8				11	49 PCP
KRAKOW	74.93	19.4	11	45	0	21	36	14		
BAGNERES	75.78	35.2	11	53	4				13	3 PCP
LWOW	75.94	16.9	11	52	2	21	38	5		
ZO-SE	76.27	303.2	11	45	-7	21	32	-4		
NANKING	76.72	305.5	11	47	-8	21	37	-4		
PAVIA	76.80	28.2								
TOLEDO	76.98	39.6	11	56	0	21	44	0	31	18 SSS
ISOLA	77.08	30.1	11	58	1					
GRANADA	79.49	40.7	12	19A	9				15	48 PP
HUANCAYO	79.50	125.6	12	5	-5					
MALAGA	79.56	41.5	12	12K	2	22	2	-10	15	12 PP
SIAN	79.58	313.7	12	5	-5	22	8	-4		
LANCHOW	80.22	318.3	12	8	-6	22	14	-5		
ROME	80.77	27.3				22	17	-7	27	29 SS
ALMATA	81.97	340.3	12	23	0	22	40	3		
SIMFEROPOL	82.20	11.2	12	25	1	22	43	4		
ALGIERS UNI.	82.39	36.2	12	25	0	22	43	2	15	37 PP
SOFIA	82.65	19.4	12	27	1					
SOTCHI	84.11	7.4	12	31	-3					
CHENGTU	84.79	315.4	12	31	-6	22	59	-6		
ANDIJAN	85.28	343.0	12	39	-1					
TIFLIS	86.26	3.8	12	38	-7					
LA PAZ	86.94	121.9	12	45	-3	23	15	-11		
HONG KONG	87.04	303.3	12	52	3	23	12	-15		
STALINABAD	88.01	345.2	12	51	-2					
KUNMING	90.14	313.7	12	56	-7	23	50	-6	23	27 SKS
LHASA	90.79	325.0	13	3	-3					
KSARA	93.39	11.6	13	9	-9	24	15	-9	15	56 PP
JERUSALEM	95.31	12.4	13	28	1					
TAMANRASSET	95.85	40.4	13	21	-9	23	52	-14	17	22 PP
SANTA LUCIA	99.94	133.0							26	49 PS
BYRD STATION	132.20	177.5	19	25	9					
SOUTH POLE	142.11	180.0	19	25	-9					
BULAWAYO	143.91	35.2							19	35 PKP2
KIMBERLEY	150.03	48.1							19	54 PKP2
MAWSON	163.38	197.6	19	52	-12					

JULY 4 21.H 29.M 31.S EPICENTRE -43.16 -74.10 DEPTH= 103.KM

A= 0.20039 B=-0.70372 C=-0.68163 D=-0.9618 E=-0.2739
G=-0.1867 H= 0.6556 K=-0.7317 HT= -2.9

DEPTH OF FOCUS= 0.011R

SE= 3.95

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SANTA LUCIA	10.08	16.8	2 17	-6	4 29	14		4 49 SS
PORT STANLEY	13.89	133.6	3 13	0				
LA PAZ	27.06	12.7	5 37	2	10 22	19		
HUANCAYO	31.02	357.7	6 13A	3				7 41
BYRD STATION	40.47	191.0	7 32	2				8 29
SOUTH POLE	47.03	180.0	8 24	1				8 47
BOGOTA	47.56	0.0	8 31	4	15 26	13		
CHINCHINA	47.93	358.0	8 32	2				
FUQUENE	48.41	0.5	8 35	2				
SCOTT BASE	53.79	193.3	9 23	9				
CARACAS	53.80	8.8						11 13
GRENADA	56.10	14.6	9 31	0				
CAPE HALLETT	56.49	199.3	9 35A	2	16 59	-16		
SAN JUAN	61.68	8.6	10 7	-2				
MAWSON	64.88	163.2	10 31	1				
MIRNY	70.17	174.6	11 4	1				
GRAHAMSTOWN	74.98	121.6	11 32	0				
WINDHOEK	75.77	107.6	11 37	1				
KIMBERLEY	76.88	117.0	11 54	12				
COLUMBIA	77.05	354.1	11 44	1				
MBOUR	77.49	56.5	11 56	10	21 40	13		
CHAPEL HILL	78.84	355.9	11 54	1				
FAYETTEVILLE	80.98	343.6	12 6K	1				
TUCSON	82.24	329.2	12 15	4				
TUCSON TELE.	82.28	329.4	12 15	4				
MORGANTOWN	82.58	355.5	12 15A	2				
ST. LOUIS 1	82.73	347.3	12 14K	0				
FLORISSANT	82.91	347.3						12 30
PALISADES	83.79	0.1						22 32
LAWRENCE	83.97	343.6	12 21	1				22 46
BULAWAYO	85.30	113.1	12 28K	2				
GLEN CANYON	86.74	330.8	12 38	5				
PASADENA	86.84	324.7	12 38	4				
BOULDER CITY	87.07	328.0	12 39	4				13 3
OTTAWA	88.19	358.9	12 42	2				
BREBEUF	88.28	0.3	12 43A	2				
BROKEN HILL	89.16	109.0	12 49A	4				
SHAWINIGAN	89.34	0.9	12 49	3				
FLAMING GRGE	89.56	334.0	12 50	3				
FRESNO	89.76	324.9	12 52	4				
SALT LAKE C.	90.23	332.3	12 53	3				
EUREKA	90.57	328.9	12 56	4				
LICK	91.03	324.0	12 59A	5				29 58 PKKP
RENO	92.12	326.4	13 4	5				
BOZEMAN	94.36	335.0	13 12	3				
BANGUI	94.96	88.7	13 14	2				
BUTTE	95.14	334.2	13 15	2				
LWIRO	97.86	100.5	13 32	7				
TAMANRASSET	98.09	66.5	13 31	5	24 14	21		17 23 PP
COLLMBERG	120.49	46.7	18 52	13				19 37
SIMFEROPOL	129.97	61.7						22 22 PKS
KIRUNA	130.74	30.0	19 2	3				
PULKOVO	132.86	42.0	19 5	2				
MOSCOW	135.67	48.8	19 11	3				
SHIRAZ	135.68	89.5	19 17K	9				22 47 SKP
TIFLIS	135.78	70.0	19 13	5				
QUETTA	146.48	99.7	19 34	6				19 43 PKP2
SVERDLOVSK	148.48	48.3	19 40	9				
MANILA	148.76	209.3	19 41	10				
TIKSI	149.32	346.0	19 33	1				
STALINABAD	151.71	86.6	19 56	20				
WARSAK DAM	151.80	97.3						19 56 PKP2
LAHORE	152.52	104.4	19 48	11				
MATUSIRO	154.43	266.0	19 51	12				23 54 PP
YAKUTSK	156.45	331.5	19 55	13				
SHILLONG	159.03	142.3	19 49	4				

JULY 5 5.H 7.M 56.S EPICENTRE 51.50-178.27 DEPTH= 0.KM

A=-0.62480 B=-0.01892 C= 0.78055 D=-0.0303 E= 0.9995
G=-0.7802 H=-0.0236 K=-0.6251 HT= -6.0

SE= 2.38

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	14.21	285.2	3	33	8							
MAGADAN	19.12	306.9	4	42	15	8	39	41				
COLLEGE	20.62	37.9	4	42	-1	8	38	8				
Y.-SAKHLINSK	25.64	275.4	5	33	0							
YAKUTSK	29.57	311.1	6	26	17							
TIKSI	30.69	330.3	6	17	-2							
MATUSIRO	34.13	261.3	6	48	-1	12	15	0			8	1 PP
VICTORIA	34.68	72.8	6	56A	3							
PENTICTON	36.58	69.7	7	10K	1							
CORVALLIS	36.64	78.7	7	15K	5							
ABUYAMA	36.85	261.5	7	12A	0							
CHANGCHUN	37.92	281.2	7	19	-2							
SHASTA	39.32	83.4	7	35K	3							
RESOLUTE	39.50	24.5	7	33	-1						9	40
MINERAL	40.01	83.3	7	40K	2							
HUNGRY HORSE	40.29	68.3	7	42	1						9	45 PCP
BERKELEY	41.08	86.8	7	48	1							
RENO	41.60	83.0	7	53	2							
LICK	41.80	87.0	7	51A	-2							
VINEYARD	42.33	87.5	8	0	3							
BUTTE	42.34	70.5	7	59	2							
FRESNO	43.30	86.3									8	7
BOZEMAN	43.43	70.1	8	8	2							
EUREKA	44.01	80.5	8	12	1						9	56 PP
KHEYS	44.51	348.8	8	15	0							
PEKING	45.69	282.3	8	24	0	15	6	-2				
SALT LAKE C.	45.76	76.3	8	26	1							
PASADENA	46.00	87.9	8	27	0	15	16	4			18	40 SS
BOULDER CITY	46.90	83.5	8	34	0							
FLAMING GRGE	47.15	74.6	8	36	0							
GUAM	48.22	231.7	8	40	-4							
GLEN CANYON	48.27	80.2	8	46	1							
RAPID CITY	48.91	67.5	8	50	0	15	52	-2				
PAOTOW	49.06	286.8	8	52	1							
NANKING	49.18	272.2	8	51A	-1							
TUCSON	51.85	84.3	9	13	1							
TUCSON TELE.	51.86	84.1	9	13	1							
SIAN	53.82	281.4	9	26A	-1							
LANCHOW	55.70	286.4	9	40	-1							
LAWRENCE	56.76	67.7	9	47	-1							
APATITY	58.91	346.4	10	0	-3						10	50 PCP
CHENGTU	59.30	281.7	10	4	-2							
FAYETTEVILLE	59.33	69.5	10	5A	-1							
FLORISSANT	59.67	64.8	10	7	-1	18	13	-5				
ST. LOUIS 1	59.86	64.8	10	8	-2	18	16	-5				
KIRUNA	60.17	351.9	10	9	-3						10	54
SHAWINIGAN	63.28	48.1	10	33	0							
BREBEUF	63.66	49.4	10	33K	-2							
KUNMING	64.04	278.2	10	36	-2							
SKALSTUGAN	64.96	354.8	11	4	20							
NURMIJARVI	66.83	347.9	10	53	-3						11	22 PCP
PALISADES	66.86	52.9	10	53	-3	19	49	1			24	53 SS
HELSINKI	67.12	347.6	10	56	-2							
LHASA	67.82	289.9	11	3A	1	20	0	0				
UPPSALA	68.26	351.4	11	3	-2							
COLUMBIA	68.34	62.5	11	4	-1							
SHILLONG	70.34	286.4	11	15A	-3							
CHATRA	72.18	290.7	11	29A	0							
DURHAM	74.06	2.0	11	46K	6							
COLLMBERG	77.13	352.8	11	56	-1							
JENA	77.61	353.6	11	58	-2							
CHARTERS TS.	77.76	213.9	11	59	-2							
UCCLE	78.05	358.3	12	5	3							
PRUHONICE	78.31	351.6	12	12	8							
TIFLIS	79.89	328.7	12	12	0							
STUTTGART	79.90	354.9	12	11	-1							
FOLINIERE	80.09	1.5	12	13	0							
QUETTA	80.59	307.2	12	16	0							
SHIRAZ	87.70	317.5	12	50K	-2							
SAN JUAN	88.80	61.6	12	58	1							
CAPE HALLETT	123.77	184.2	19	0	0							
LWIRO	125.92	325.8	19	6K	2							
BYRD STATION	135.40	167.7	19	20	-2							
BROKEN HILL	137.25	320.1	19	27	1							
SOUTH POLE	141.31	180.0	19	25	-8						23	4 SKP

BULAWAYO	142.28	316.0	19	31A	-4						
MAWSON	146.78	217.8	19	42	0				20	6	
PRETORIA	147.35	311.9	19	46	3						

JULY 5 5.H 45.M 26.S EPICENTRE -38.58 -73.65 DEPTH= 0.KM

A= 0.22059 B=-0.75210 C=-0.62104 D=-0.9596 E=-0.2814
G=-0.1748 H= 0.5959 K=-0.7838 HT= -1.2

SE= 1.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	5.68	26.4	1	24A	-3	2	30	-4					
PORT STANLEY	17.16	145.0	4	1	-1								
LA PAZ	22.53	13.9	5	3A	1	9	13	8					
HUANCAYO	26.46	356.3	5	42	2	10	34	21					
BOGOTA	42.98	359.4	8	4	2	14	33	5			17	35	SS
CHINCHINA	43.37	357.1	8	5	0	14	33	-1					
FUQUENE	43.83	359.9	8	10	1						9	55	PP
BYRD STATION	45.03	190.2	8	19	0						9	59	PCP
GRENADA	51.58	14.9	9	10	0								
SOUTH POLE	51.61	180.0	9	9	-1						10	8	PCP
SCOTT BASE	58.34	192.5	9	58	-1								
CAPE HALLETT	60.94	198.3	10	16K	-1	18	40	6			20	3	SCS
MIRNY	74.70	174.5	11	41	-2								
MBOUR	74.70	57.1	11	42	-1	21	30	11					
WILKES	75.36	181.7				21	25	-1					
WASHINGTON	77.17	357.3	11	56	-1						13	2	
ST. LOUIS 1	78.34	346.8	12	1A	-2	21	54	-4					
TUCSON	78.50	328.5	12	4	0								
FLORISSANT	78.52	346.7	12	1A	-3	21	54	-6					
TUCSON TELE.	78.53	328.6	12	4	0								
KIMBERLEY	78.68	117.6	12	8	3								
PALISADES	79.21	359.8	12	7	-1	22	49	41			22	7	SKS
GLEN CANYON	82.92	330.3	12	28	0								
PASADENA	83.31	324.2	12	34	5	22	54	4			28	40	SS
SHAWINIGAN	84.75	0.6	12	37	0								
FLAMING GRGE	85.60	333.7	12	40	-1								
SALT LAKE C.	86.34	331.9	12	43	-2								
RAPID CITY	86.51	339.1	12	46	1								
BULAWAYO	86.78	113.1	12	48K	1								
EUREKA	86.83	328.5	12	47	0								
BERKELEY	88.25	323.6				23	44	6					
BROKEN HILL	90.31	108.7	13	7	3								
BUTTE	91.17	334.0	13	7	-1								
HUNGRY HORSE	93.69	334.3	13	19	0								
TAMANRASSET	95.92	65.7	13	31	2	24	7	1			17	27	PP
MALAGA	98.43	49.4	13	41	0						16	42	PP
ALGIERS UNI.	103.03	53.3									18	14	PP
KEW	110.12	39.7									28	42	PS
KIRUNA	126.57	28.1	19	4	-1								
NURMIJARVI	126.57	37.6	19	5	0								
SHIRAZ	135.10	84.6	19	22	1						22	46	
TIKSI	144.94	347.8	19	36	-3								
SVERDLOVSK	145.05	43.4	19	38	-1								
QUETTA	146.63	92.5	19	45	4								
STALINABAD	150.76	78.1	19	54	6								
YAKUTSK	152.49	336.1	19	56	5								
MATUSIRO	154.72	275.4	19	55	1						30	45	SKKS

JULY 5 21.H 15.M 11.S EPICENTRE -7.85 -71.81 DEPTH= 546.KM

A= 0.30930 B=-0.94124 C=-0.13564 D=-0.9500 E=-0.3122
G=-0.0423 H= 0.1289 K=-0.9908 HT= 6.8

DEPTH OF FOCUS= 0.081R

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
HUANCAYO	5.43	219.4	1	34	0	2	49	1				
LA PAZ	9.32	157.7	2	10	-1	3	54	-3				
BOGOTA	12.59	349.6	2	46	2	5	3	6				

CHINCHINA	13.29	343.3	2	52A	0	5	15	5		5	21 *SS
TRINIDAD	21.10	29.6	4	7	0					7	39
GRENADA	22.16	27.0	4	16	-1					7	43
ST. VINCENT	23.36	26.7	4	26	-1						
BARBADOS	24.10	30.3	4	38	4					8	10
SAN JUAN	26.66	12.1	4	55	-2	8	51	-3	6 10	7	24
MORGANTOWN	47.83	351.5	7	49A	0						
ST. LOUIS 1	49.32	341.0	7	58K	-3	14	21	-5			
FLORISSANT	49.51	340.9				14	24	-5			
LAWRENCE	51.42	336.6	8	15	-1						
HALIFAX	52.75	7.4	8	24A	-1						
OTTAWA	53.12	356.6	8	27A	-1						
BREBEUF	53.13	358.4	8	27K	-1					10	36 PP
SEVEN FALLS	54.73	0.8	8	38	-1						
MBOUR	58.71	68.0	9	6	-1						
RAPID CITY	58.97	334.0	9	9	1	16	46	13	10 54		
FLAMING GRGE	59.58	327.6	9	12	0	16	43	2	10 59	18	5
PASADENA	60.58	316.4	9	21	2						
EUREKA	62.34	322.5	9	32	1	17	13	-2	11 19	12	5 PP
HUNGRY HORSE	67.15	330.9	10	2	1	18	15	3	11 51	38	21 PKPPKP
BYRD STATION	75.53	187.7	10	50	1				12 43		
TOLEDO	78.35	46.7	11	5K	0				13 1	23	38 *SS
RELIZANE	80.48	51.8	11	16	0						
TAMANRASSET	81.47	65.6	11	23K	2				13 18	11	31 PCP
SOUTH POLE	82.20	180.0	11	23	-1				13 17	13	39
BAGNERES	82.38	44.7	11	25	0						
RESOLUTE	83.60	354.0	11	31	0						
FOLINIERE	83.79	39.1	11	32	0						
THULE	84.15	0.8	11	34	0						
SETIF	84.40	52.4	11	36	1						
KEW	84.78	36.6	11	36	-1						
PARIS	85.67	39.7	11	41	-1						
DOURBES	87.35	38.8	11	50	1						
UCCLE	87.39	38.1	11	56	6						
ISOLA	87.50	45.0	11	50	0						
MONACO	87.67	45.5	11	49	-2						
BASLE	88.63	41.8	11	56A	1						
STRASBOURG	88.99	40.8	11	56	-1						
EBINGEN	89.69	41.3	11	59	-1						
HEIDELBERG	89.78	40.1	12	1	0						
STUTTGART	90.01	40.8	12	1	-1				14 10		
CAPE HALLETT	90.74	195.7	12	6	1						
COLLEGE	91.17	335.5	12	7	0				14 4		
COLLMBERG	92.83	38.8	12	15	0						
NORD	92.92	6.9	12	14	-1						
LJUBLJANA	93.05	44.1	12	16	0						
GOTEBORG	93.26	32.3	12	18	1						
PRUHONICE	93.61	40.2	12	19A	1						
SKALSTUGAN	94.34	26.5	12	22	0						
KIRUNA	98.06	22.5	12	38	-1						
NURMIJARVI	99.97	29.9	12	47	0						
CANBERRA	122.36	219.2	17	55	2						
SHIRAZ	123.58	59.6	17	56	1					20	1 PP
CHARTERS TS.	133.38	232.9	18	16	2						
QUETTA	135.48	54.5	18	20	2						
MUNDARING	139.67	190.6	18	19	-6						
MATSUIRO	140.47	320.7	18	19	-8						
CHATRA	152.53	44.0	18	48	2						
SHILLONG	156.49	39.5	18	53K	2					19	25
CHITTAGONG	158.63	45.7	18	37	-17						

JULY 6 5.H 16.M 48.S EPICENTRE 36.50 70.66 DEPTH= 207.KM

A= 0.26685 B= 0.76034 C= 0.59218 D= 0.9436 E=-0.3312
G= 0.1961 H= 0.5588 K=-0.8058 HT= -0.4

DEPTH OF FOCUS= 0.027R

SE= 1.53

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KHOROG	1.20	35.1	0	33	1	0	58	1				
KULYAB	1.58	332.8	0	36	0	1	2	-1				
OBI-GARM	2.33	341.2	0	44	1							
GARM	2.52	353.6	0	45	0	1	18	-2				
DUZHANBE	2.56	324.6	0	45	0	1	18	-3				

WARSAK DAM	2.59	163.5	0	46	0						
DZERGETAL	2.76	9.2	0	47	-1	1	22	-3			
FERGANA	3.98	12.4	1	3	1	1	47	-4			
SAMARKAND	4.30	318.6	1	6	0	1	51	-7			
ANDIJAN	4.45	17.0	1	8	0	1	58	-3			
NAMANGAN	4.55	9.7	1	9	0	2	0	-3		1	56 *SP
TASHKENT	4.94	347.8	1	14	0	2	9	-3		1	59 *SP
LAHORE	5.80	147.3	1	23K	-2						
TCHIMKENT	5.85	352.3	1	26	0	2	30	-3			
NARYN	6.45	38.6	1	32	-2	2	42	-5			
QUETTA	7.02	207.3	1	40K	-1	2	58	-2		2	24 *SP
FRUNSE	7.02	24.5	1	41	0	2	59	-1		2	30
RYBACHE	7.32	34.0	1	45	0	3	8	1		2	35 *SP
FABRICHNAYA	7.97	32.0	1	53	-1						
ALMATA-2	8.50	35.2	2	0	0					2	51 *SP
DEHRA DUN	8.72	132.8	2	7	4	3	38	-2		2	14 PP
KURMENTY	8.75	39.8	2	3	-1						
ASHKABAD	9.93	282.1	2	18	-1					3	41
AGRA	11.24	144.1	2	33	-3	4	27	-11			
KIZYL-ARVAT	11.69	287.7	2	40	-1	4	51	2			
KARACHI	12.04	196.0	2	43K	-3						
SEMIPALATNSK	15.52	23.5	3	28	-1	6	17	2		4	21
TEHERAN	15.60	272.9	3	32K	2	6	23	6			
SHIRAZ	16.66	251.0	3	43A	0	6	46	6		4	20
CHATRA	17.02	119.8	3	47A	0	6	48	0		6	33
BOMBAY	17.63	173.2	3	54	0					7	15 SS
POONA	18.12	170.2	3	59	0	7	16	5		7	26 SS
LHASA	18.38	106.0	4	3A	2	7	20	4		5	1 *SP
MAKHACH-KALA	18.92	297.1	4	12	5	7	30	4		4	32
HYDERABAD	20.20	158.0	4	20	0	7	53	3			
TIFLIS	20.70	292.5	4	28	3					5	3 PP
SHILLONG	21.14	115.1	4	30A	1	8	10	3		5	33 *SP
SVERDLOVSK	21.43	344.8	4	34	2					9	6 SS
CHITTAGONG	23.13	121.7	4	51K	2	8	46	5	5 32	5	35 PP
MADRAS	24.91	157.5	5	5	0	9	11	0		10	0 SS
LANCHOW	26.68	81.0	5	22A	0						
CHENGTU	28.30	92.1	5	36	0	10	7	1		6	47 *SP
KSARA	28.47	275.0	5	40	2	10	14	6	6 22	6	46 PP
SIMFEROPOL	28.76	298.5	5	40A	0	10	14	1		15	57 SCS
MOSCOW	29.48	321.2	5	47	0	10	24	0	6 27	11	54
JERUSALEM	29.60	271.3	5	47	-1	10	25	-1			
KUNMING	29.66	103.4	5	48A	0	10	27	0		6	53 PP
PAOTOW	30.89	70.3	6	0	1						
SIAN	31.14	82.6	6	2A	1						
HELWAN	33.40	270.1	6	21	0					7	39 PP
BUCHAREST	34.47	297.3	6	31K	1					17	28 *SSS
PULKOVO	34.76	324.9	6	32	0	11	46	0		16	26 SCS
PEKING	35.61	70.2	6	40A	1	12	0	0		7	49 *SP
LWOW	35.94	306.7	6	43	1						
SOFIA	36.61	294.6	6	49	1						
WUHAN	36.84	86.3	6	50	0	12	18	0		8	28 PP
ATHENS	37.10	286.8	6	51A	-1				7 32		
HELSINKI	37.41	323.9	6	56	2	12	29	2			
APATITY	37.52	337.6	6	56	1	12	29	1	7 39	8	4 PP
NURMIJARVI	37.67	324.4	6	58	1	12	31	0			
WARSAW	38.01	310.4	7	0A	1	12	38	2		9	6 PPP
SKALNATE PL.	38.39	305.5	7	7	4	12	48	6	7 30	8	18 PP
BELGRADE	38.46	298.5							7 48	8	39 PP
KRAKOW	38.60	306.9	7	5A	1	12	45	0			
CANTON	39.07	97.9	7	9A	1	12	53	1			
SODANKYLA	39.62	335.1	7	13	0	13	3	3		8	48 PP
NANKING	39.68	81.9	7	14A	1	13	1	0		8	23 *SP
RACIBORZ	39.72	306.9	7	16	2					8	49 PP
ADDIS ABABA	39.81	234.6	7	17	3					8	51 PP
HONG KONG	40.12	98.4	7	17A	0	13	9	2		8	26 *SP
BRATISLAVA	40.51	304.0	7	20	0	12	50	-23	8 5	8	44 *SP
UPPSALA	40.90	322.0	7	23	0				8 10	13	36
VIENNA-H.	40.99	304.2	7	25	1					16	30
CHANGCHUN	41.75	62.4	7	30A	0	13	30	-1		8	37 *SP
ZO-SE	41.94	82.2	7	32A	0	13	36	2		8	43 *SP
KIRUNA	41.97	334.1	7	32	0					12	51
PRUHONICE	42.07	306.9	7	34	1	13	40	4		9	16 PP
PRAGUE	42.14	307.0	7	34	1	13	42	5			
NHATRANG	42.21	114.9	7	33	-1						
LJUBLJANA	42.47	301.1	7	37A	1				8 22	9	21 PP
POTSDAM	42.89	310.5	7	41	2	13	46	-2	8 24	9	37 PP
COLLMBERG	42.98	308.9	7	40A	0				8 27	9	29 PP
TRIESTE	43.06	300.6	7	42	1	13	51	1	8 27	9	29 PP

COPENHAGEN	43.24	315.4	7	43A	1	13	55	2	8	28	15	14	*SS
MESSINA	43.30	289.5	8	4	21	13	54	0			8	24	
TOLMEZZO	43.45	301.8	7	44	0				8	31	10	6	PPP
PLAUEN	43.57	307.8	7	44	-1						12	57	
GOTEBORG	43.57	318.3	7	42	-3								
HALLE	43.63	309.3	7	45	0						9	42	PP
JENA	43.90	308.5	7	47	-1	14	2	0	8	32	9	15	PP
SKALSTUGAN	44.06	326.8	7	49	0						9	33	
YAKUTSK	44.14	35.5	7	48	-1	14	4	-2					
KHEYS	44.51	357.1	7	55	3						17	24	SS
ROME	44.67	295.5				14	16	3	8	44	16	33	SS
RAVENSBURG	45.54	304.2	8	0	-1								
STUTTGART	45.62	305.7	8	2	1	14	29	2	8	47	9	1	*SP
TUBINGEN	45.79	305.3	8	2	0								
TIKSI	45.88	22.1	8	0	-3	14	29	-2					
HEIDELBERG	45.90	306.6	8	4	1								
EBINGEN	45.91	304.9	8	4	1								
MUNSTER	46.27	310.3	8	7	1								
PAVIA	46.32	300.7	8	8	1	14	40	3	8	55			
STRASBOURG	46.64	305.6	8	9	0	14	44	3					
BENSBERG	46.67	308.9	8	9	0						9	12	
BASLE	46.95	304.2	8	5	-6								
BERGEN	47.09	322.0	8	12	-1								
DE BILT	47.75	310.7	8	12	-6	15	4	7					
MONACO	47.85	299.2	8	18	-1								
ISFJORD	47.89	346.4	8	20	1								
ISOLA	48.01	299.9	8	20	0				9	5			
BESANCON	48.07	304.1	8	20	0						9	39	
BAGUIO CITY	48.37	100.8	8	22	0								
DOURBES	48.42	308.1	8	23	0	15	9	3					
UCCLE	48.46	309.1	8	22	-1	15	16	9					
MANILA	49.76	102.3	8	36	3	15	23	-2					
PARIS	50.03	306.8	8	35	0	15	26	-3					
ABERDEEN	51.19	318.1									13	55	
KEW	51.22	310.7	8	44	0	15	44	-1			17	8	*SS
DURHAM	51.31	315.0	8	45K	0	15	49	3					
SETIF	51.61	290.4	8	45K	-2	15	52	2			10	52	PP
FOLINIERE	51.95	307.3	8	49	0								
UGLEGORSK	52.04	52.2	8	50A	0	17	26	90					
Y.-SAKHLINSK	53.01	54.6									12	13	
BAGNERES	53.13	300.3	8	56	-2				9	44			
MATUSIRO	53.21	68.3	8	57	-2	17	28	76			13	38	SCP
NORD	53.75	349.5	9	2A	-1	16	23	4			10	18	PCP
MAGADAN	54.56	38.0	9	8	-1						16	34	
TUKUBASAN	54.74	68.0	9	8A	-2						10	8	PCP
LWIRO	54.79	234.7	9	10	0								
RELIZANE	55.43	291.7	9	13	-2						11	15	PP
SCORESBY SD.	56.95	336.4	9	27A	1	17	11	9	10	17	10	37	*SP
TOLEDO	57.20	298.0	9	26A	-1	17	2	-3	10	13	10	37	*SP
ALMERIA	57.24	294.1	9	27A	-1	17	6	1	10	14			
TAMANRASSET	57.27	275.5	9	27A	-1	17	7	1			10	13	PCP
BANGUI	57.37	249.0	9	27	-2						9	41	PCP
SIDA	57.42	328.2	9	29	0				10	16	10	38	*SP
MALAGA	58.70	294.7	9	34K	-4	17	25	1	10	21	13	13	PP
REYKJAVIK	58.91	329.2	9	40A	1								
TANANARIVE	59.29	205.6	9	44A	2				10	32	11	49	PP
PETROPAVLOVK	60.73	43.8	9	49A	-3				10	32	17	31	
THULE	64.42	350.1	10	15	-1				11	22	12	35	PP
BROKEN HILL	64.43	226.2	10	15K	-1								
RESOLUTE	68.69	355.9	10	42A	-1	19	28	0			11	52	
BULAWAYO	68.93	222.4	10	44K	0								
PRETORIA	73.73	219.4	11	26	13								
COLLEGE	74.57	16.0	11	17	-1								
KIMBERLEY	77.92	220.1	11	38A	2								
MBOUR	79.72	280.3	12	9	23	21	31	1					
MUNDARING	80.35	142.0	11	47	-2								
GRAHAMSTOWN	80.74	216.2	11	51A	0								
SITKA	84.26	13.9	12	10	1								
PORT MORESBY	84.85	105.6	12	12	0								
RABAUL	85.67	98.4	12	16	0								
CHARTERS TS.	90.79	114.4	12	39	-2								
OTTAWA	93.01	337.0	12	51	0								
PENTICTON	94.07	6.7	12	56K	0								
VICTORIA	94.43	9.3	12	58	1								
HUNGRY HORSE	95.43	3.1	13	2	0						16	18	PP
PALISADES	96.30	333.8	13	1	-5	24	13	52			17	1	PP
BUTTE	97.81	2.3	13	13	0								
BOZEMAN	98.20	1.2	13	16	2								

RAPID CITY	99.61	355.5	13 22	1			17 19	PP
CANBERRA	101.98	125.0	13 29	-2				
RIVERVIEW	102.55	122.7					18 34	
FLAMING GRGE	102.95	0.0	13 37	1	23 55	1	17 44	
FLORISSANT	103.06	344.9			23 53	-1	24 59	S
ST. LOUIS 1	103.18	344.7			23 51	-4	25 0	S
EUREKA	104.15	5.3	13 42	1			17 57	PP
BERKELEY	105.05	10.6	13 43	777				
LICK	105.66	10.2	13 51	777				
PASADENA	109.24	7.7	18 38	777				
TUCSON TELE.	111.51	1.3					17 41	PP
TUCSON	111.60	1.4					17 41	PP
SOUTH POLE	126.31	180.0	18 30	-8			21 24	SKP
SCOTT BASE	126.64	164.8	18 38	-1				
BYRD STATION	136.17	177.03	18 44	-14			22 13	SKP
LA PAZ	138.48	287.6	19 4	3			22 16	PP
HUANCAYO	140.92	299.8	19 9	4				
ARGENTINE I.	140.96	208.2	19 2	-4			22 20	PP

JULY 7 21.H 41.M 0.S EPICENTRE -38.62 -73.58 DEPTH= 0.KM

A= 0.22148 B=-0.75135 C=-0.62163 D=-0.9592 E=-0.2827
G=-0.1758 H= 0.5963 K=-0.7833 HT= -1.2

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	5.69	25.6	1	23	-4	2	31	-4				
PORT STANLEY	17.09	145.0	4	3	2							
LA PAZ	22.55	13.7	5	4	1	9	10	4				
HUANCAYO	26.51	356.2	5	40K	-1						6	20 PP
BOGOTA	43.03	359.3	8	7	4	14	47	18				
CHINCHINA	43.41	357.0	8	5	-1							
FUQUENE	43.87	359.8	8	12	3							
BYRD STATION	45.00	190.2	8	18	-1						8	55
SOUTH POLE	51.56	180.0	9	8	-2						9	35
SAN JUAN	57.13	8.4	9	49	-1							
CAPE HALLETT	60.91	198.3	10	15K	-2	18	15	-19				
MAWSON	69.11	163.6	11	7	-3							
FAYETTEVILLE	76.75	343.0	11	52	-2							
ST. LOUIS 1	78.40	346.8	11	59	-5							
TUCSON TELE.	78.60	328.6	12	3	-2							
PALISADES	79.25	359.7				22	4	-4			27	28 SS
LAWRENCE	79.74	343.0	12	8	-3							
GLEN CANYON	82.99	330.2	12	30	2							
PASADENA	83.38	324.1	12	34	4							
BOULDER CITY	83.45	327.4	12	31	1							
OTTAWA	83.66	358.5	12	31	0							
BREBEUF	83.74	360.0	12	34	2							
SHAWINIGAN	84.80	0.6	12	35	-2							
SEVEN FALLS	85.40	1.9	12	41	1							
FLAMING GRGE	85.66	333.6	12	40	-1							
RAPID CITY	86.57	339.1	12	48	2							
BULAWAYO	86.71	113.1	12	46A	-1							
EUREKA	86.90	328.5	12	46	-2							
BERKELEY	88.32	323.5	12	58	4							
UKIAH	89.78	323.7	13	5	4							
BROKEN HILL	90.24	108.7	13	5A	2							
BUTTE	91.24	334.0	13	7	-1							
HUNGRY HORSE	93.76	334.3	13	17	-3							
BANGUI	94.42	87.9	13	26	3							
TAMANRASSET	95.89	65.7	13	28	-1						17	34 PP
NURMIJARVI	126.56	37.6	19	3	-2							
KIRUNA	126.58	28.1	19	7	2							
SODANKYLA	128.82	29.3	19	8	-1							
MOSCOW	132.29	45.5	19	14	-2							
TIKSI	145.00	347.8	19	35	-4							
SVERDLOVSK	145.04	43.4	19	37	-2							
QUETTA	146.56	92.5	19	43	2						23	23 PP
YAKUTSK	152.56	336.1	20	0	9							
MATUSIRO	154.79	275.2	19	55	1						34	34 SKSP

JULY 8 12.H 51.M 27.S EPICENTRE 30.47 130.64 DEPTH= 73.KM

A=-0.56233 B= 0.65511 C= 0.50459 D= 0.7588 E= 0.6513
G=-0.3287 H= 0.3829 K=-0.8634 HT= 1.7

DEPTH OF FOCUS= 0.006R

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
YAKUSIMA	0.12	259.7	0	9A	-3	0	15	-6				
KAGOSIMA	1.10	355.9	0	22K	1	0	38	2				
MIYAZAKI	1.59	24.6	0	28K	1	0	48	0				
UNZENDAKE	2.28	351.6	0	37K	0	1	7	3				
KUMAMOTO	2.34	1.2	0	39K	1	1	8	2				
NAGASAKI	2.34	344.1	0	38K	0	1	4	-2				
ASOSAN	2.45	8.5	0	40	1	1	10	2				
TOMIE	2.67	323.7	0	42K	0	1	6	-8				
SAGA	2.78	354.1	0	45K	1	1	20	3				
OOITA	2.87	16.6	0	46K	1	1	17	-2				
SIMIDU	3.04	40.2	0	45K	-2	1	16	-7				
HUKUOKA	3.11	356.0	0	51K	3	1	29	4				
UWAZIMA	3.19	30.1	0	48K	-2	1	18	-9			1	50
SIMONOSEKI	3.48	4.0	0	55A	2	1	35	1				
MATUYAMA	3.82	27.8	0	58	0	1	48	6			2	30
ITUHARA	3.89	343.1	1	0	1	1	47	3				
KOTI	3.93	37.9	0	57K	-3	1	39	-6			1	28
MUROTO	4.09	46.5	1	1	-1	1	45	-4			2	21
HIROSIMA	4.17	20.8	1	2K	-1	1	50	-1				
HAMADA	4.58	14.9	1	8	-1	2	0	-1				
TAKAMATU	4.80	36.0	1	16	4	2	13	6				
TOKUSIMA	4.90	41.9	1	12K	-1							
OKAYAMA	5.03	32.5	1	14K	-1	2	7	-5				
SIOMISAKI	5.27	54.4	1	17A	-1	2	16	-3				
SUMOTO	5.28	42.0	1	17K	-2	2	15	-4			2	46
WAKAYAMA	5.36	44.5	1	17K	-3	2	30	9				
YONAGO	5.44	24.0	1	20A	-1	2	20	-3				
KOBE	5.68	41.2	1	23K	-1	2	28	-1				
TOTTORI	5.84	29.7	1	27A	1	2	34	1				
OSAKA	5.86	43.5	1	25K	-2	2	49	16				
OWASE	5.92	51.2	1	25K	-2	2	28	-7			3	23
ABUYAMA	6.04	42.2	1	27K	-2							
NARA	6.06	44.9	1	28	-1	2	51	13				
SAIGO	6.14	20.8	1	39	9	2	57	17				
TOYOOKA	6.14	33.7	1	31K	1	2	38	-2				
KYOTO	6.24	42.1	1	31K	-1						3	16
MAIZURU	6.38	37.4	1	34K	0	2	45	-1				
TU	6.51	48.1	1	37	2							
KAMEYAMA	6.57	46.9	1	35K	-1	3	4	13				
HIKONE	6.72	43.1	1	39K	1	2	49	-5				
TSURUGA	6.88	40.0	2	40A	59						3	59
NAGOYA	7.09	47.0	1	43	-1	3	7	4				
GIHU	7.12	44.7	1	43K	-1	3	9	5				
HUKUI	7.27	38.6	1	46	0	3	10	2			3	45
HAMAMATU	7.32	52.8	1	47K	0						2	27
OMAESAKI	7.61	55.3	1	49K	-2	3	24	8			3	52
KANAZAWA	7.85	38.1	1	52	-2							
IIDA	7.86	48.3	1	55	1						4	11
TAKAYAMA	7.91	42.6	1	54	-1							
SHIZUOKA	7.93	53.5	1	58	3							
ZO-SE	8.16	276.8	2	0A	2	3	38	8				
HATIDYOZIMA	8.22	69.1	2	1	2							
TOYAMA	8.27	39.6	2	2K	2						4	34
TORISIMA	8.34	87.5	1	58	-3							
MATUMOTO	8.41	44.8	2	2	0							
KOHU	8.42	50.0	2	1	-1						4	35
AJIRO	8.46	55.1	2	2	0						3	1
HUMATU	8.47	51.6	2	0K	-2	3	46	9				
OSIMA	8.52	57.5	2	4K	1							
WAZIMA	8.63	35.4	2	4K	-1							
MATUSIRO	8.75	44.2	2	5	-1	3	48	4			4	33
OIWAKE	8.82	46.4	2	4	-3							
NAGANO	8.83	43.6	2	7	0							
MERA	8.92	57.8	2	7	-2							
TITIBU	8.95	49.9	2	9	0							
YOKOHAMA	9.04	54.5	2	10K	0						5	37
TAKADA	9.15	41.7	2	11	-1							
MAEBASI	9.19	47.8	2	11K	-1						5	9
TOKYO C.M.O.	9.24	53.4	2	13K	0	3	59	3			3	9
KUMAGAYA	9.24	49.9	2	14	1						5	7

HONGO	9.27	53.3	2	14	1	4	30	33		
TUKUBASAN	9.77	51.6	2	18K	-2	4	26	17		
UTUNOMIYA	9.80	49.4	2	18	-3				2	54
AIKAWA	9.81	37.9	2	21	0					
KAKIOKA	9.83	51.7	2	19	-2				2	36
TYOSI	10.03	55.9	2	30	6					
HITO	10.10	51.7	2	24A	-1				5	28
NIIGATA	10.18	40.9	2	27	1				4	21
NANKING	10.27	281.9	2	28A	1	4	29	8	2	45 *SP
SHIRAKAWA	10.36	47.7	2	28	0					
ONAHAMA	10.71	50.2	2	31	-2					
HUKUSIMA	10.91	45.7	2	36	0					
YAMAGATA	11.15	43.3	2	38	-1					
SAKATA	11.30	39.5	2	45	4					
SENDAI	11.50	44.7	2	43	0					
ISINOMAKI	11.85	45.1	2	48	0					
AKITA	12.04	37.4	2	51	0					
MIZUSAWA	12.19	42.1	2	53	0					
MORIOKA	12.60	40.2	2	59	1					
VLADIVOSTOK	12.66	4.2	3	2	3	5	29	10		
MIYAKO	13.02	42.3	3	3	-1					
AOMORI	13.20	35.8	3	8	2					
HATINOHE	13.38	38.5	3	8	0	5	43	7		
WUHAN	13.87	274.3	3	16	1	5	56	9		
HAKODATE	13.94	33.0	3	18	2					
CHANGCHUN	13.99	343.8	3	19	3	6	2	12	3	40 *SP
MORI	14.08	31.8	3	20	2	6	4	12	5	3
MURORAN	14.44	32.2	3	25	3					
SUTTSU	14.50	29.3	3	25	2	6	13	11		
TOMAKOMAI	14.96	32.8	3	32	3					
URAKAWA	15.20	36.6	3	7	-25					
SAPPORO	15.20	31.3	3	29	-3					
HIROO	15.57	37.4	3	38	1					
OBIHIRO	15.97	35.5	3	45	3					
KUSIRO	16.63	37.6	3	46	-4	6	49	-2		
BAGUIO CITY	16.74	215.6	3	50	-1	7	2	8		
HONG KONG	16.84	245.0	3	50	-3	7	1	5	4	13 PP
CANTON	17.10	248.7	3	56	0	7	8	6	4	15 *SP
WAKKANAI	17.25	27.0							3	58
MANILA	18.02	211.3	4	11	4	7	11	-12		
SIAN	18.73	287.3	4	15A	0					
Y.-SAKHLINSK	18.98	26.1	4	15	-3	7	40	-4	4	37 PP
PAOTOW	19.53	306.7	4	25	1					
GUAM	21.35	139.4	4	45	2	8	38	7		
CHENGTU	22.92	277.3	4	59	0	9	5	6	5	19 *SP
LANCHOW	23.06	291.1	5	1A	1	9	8	6	5	22 *SP
KUNMING	25.22	264.6				9	52	14		
NHATRANG	26.90	232.1	5	56	20					
IRKUTSK	29.12	325.9	5	56A	0					
PETROPAVLOVK	30.39	34.1	6	7	-1				6	30
YAKUTSK	31.56	359.2	6	16	-2					
MAGADAN	32.11	19.3	6	23	0	11	33	4		
LHASA	34.17	278.8	6	42	2					
SHILLONG	34.46	271.5	6	42A	-1					
CHATRA	38.15	275.6	7	15	1					
RABAUL	40.16	145.4	7	31	0					
TIKSI	41.22	359.1	7	37	-2	13	47	-1	9	16 PP
SEMIPALATNSK	42.27	312.9	7	47	-1					
LEMBANG	43.16	214.6	7	55K	0	14	17	1		
FRUNSE	45.83	301.7	8	17	0					
LAHORE	47.81	286.5	8	32	0					
WARSAK DAM	49.51	290.4	8	48	3					
TASHKENT	49.94	300.3	8	48	-1				10	46 PP
DUZHANBE	50.78	296.8	8	56	1					
CHARTERS TS.	52.47	161.4	9	8	0				15	17
SVERDLOVSK	54.29	320.5	9	20	-1					
QUETTA	54.29	287.1	9	22A	1				11	23 PP
KHEYS	57.31	349.3	9	41	-2	17	30	-2	10	34 PCP
ASHKABAD	58.90	298.4	9	55	1	17	58	6		
COLLEGE	59.30	29.4	9	56	-1	18	1	3		
BRISBANE	61.30	157.5	10	11A	1				14	45
MUNDARING	63.59	193.7	10	13	-13					
TEHERAN	64.89	298.0	10	34	0					
ISFJORD	65.68	348.3	10	37	-2					
SHIRAZ	66.23	291.4	10	42K	-1				39	31 PKPPKP
RIVERVIEW	66.83	161.5	10	49	3				20	47
NORD	66.91	355.0	10	45	-2					
MOSCOW	67.02	322.1	10	48	0					

SITKA	67.09	36.3	10 49	1			11 8	
SODANKYLA	67.40	336.0	10 49	-1		11 17		
TIFLIS	67.58	306.1	10 51	0				
CANBERRA	67.69	163.8	10 52	0		11 9		
PULKOVO	69.09	327.8	10 59	-1				
MELBOURNE	69.26	167.9	11 2	0			11 19	PCP
KIRUNA	69.29	337.6	11 0	-2				
AFIAMALU	70.79	119.8	11 9	-2				
RESOLUTE	70.99	11.6	11 9A	-3				
NURMIJARVI	71.28	329.9	11 11	-3		11 38		
HELSINKI	71.31	329.5	11 13	-1				
THULE	72.70	4.6	11 21	-1		11 47		
SIMFEROPOL	73.40	312.6	11 25A	-1	20 53 5			
SKALSTUGAN	74.47	335.9	11 30	-2				
UPPSALA	74.62	331.2	11 31	-2				
LWOW	77.02	320.4	11 46	-1				
KSARA	77.30	301.7	11 50A	1				
WARSAW	77.32	323.6	11 48	-1	21 26 -5		21 42	SKS
VICTORIA	77.33	40.9	11 50A	1				
SCORESBY SD.	77.43	350.9	11 49A	0				
GOTEBORG	78.27	331.2	11 53	-1				
JERUSALEM	78.76	300.2	11 57	0			14 59	PP
KRAKOW	79.11	322.1	11 58	0			12 5	PCP
COPENHAGEN	79.35	329.5	11 59A	-1				
CORVALLIS	79.50	44.3	12 2A	1				
KARAPIRO	79.94	145.5	12 4	1		12 21		
CHATEAU	80.93	146.3	12 9	1		12 27		
POTSDAM	81.16	326.6	12 8	-1				
SOFIA	81.28	314.6	12 11	1				
COLLMBERG	81.88	325.8	12 12A	-1			15 21	PP
PRUHONICE	81.94	324.2	12 13A	0		13 1	15 23	PP
PRAGUE	81.95	324.3	12 15	2				
VIENNA-H.	82.06	322.0	12 15	1			15 24	PP
SHASTA	82.17	47.2	12 16A	1				
HALLE	82.26	326.4	12 14	-1		12 42	15 26	PP
HUNGRY HORSE	82.56	37.5	12 18	1				
JENA	82.80	326.1	12 19	1			15 30	PP
PLAUEN	82.81	325.5	12 15	-3				
MINERAL	82.87	47.2	12 19A	1				
SONNEBERG	83.34	325.9	12 21	0				
ATHENS	83.65	310.5	12 20K	-2				
WITTEVEEN	83.79	329.6	12 23	0				
BERKELEY	83.83	49.5	12 24A	1				
MUNSTER	83.95	328.6	12 23	-1				
LJUBLJANA	84.41	321.1	12 26A	0			12 48	
RENO	84.46	47.1	12 27	1				
LICK	84.53	49.7	12 27A	0				
BUTTE	84.79	38.7	12 29	1				
BENSBERG	84.85	328.0	12 28A	0			15 46	PP
TOLMEZZO	85.00	322.0	12 29	0				
VINEYARD	85.03	50.1	12 31K	2				
HEIDELBERG	85.19	326.2	12 29	-1				
STUTTGART	85.35	325.5	12 30A	-1			15 52	PP
TUBINGEN	85.61	325.4	12 31	-1				
BOZEMAN	85.83	38.2	12 35	2				
RAVENSBURG	85.85	324.6	12 33	0				
EBINGEN	85.90	325.2	12 32	-1				
FRESNO	86.06	49.3	12 35	1				
STRASBOURG	86.21	326.0	12 34	-1				
UCCLE	86.23	329.2	12 34	-1				
DOURBES	86.62	328.6	12 37	0				
EUREKA	86.89	45.3	12 39	1		13 15	16 5	PP
RUTH	87.65	45.1	12 44	2				
PARIS	88.51	328.7	12 44	-2				
SALT LAKE C.	88.55	42.4	12 48	2				
PASADENA	88.67	50.7	12 47	0				
ISOLA	89.61	323.2	12 35	-16			16 26	PP
BOULDER CITY	89.75	47.6	12 53	1				
FLAMING GRGE	89.85	41.0	12 53	1				
JERSEY	90.22	331.2	12 52	-2				
RAPID CITY	90.99	35.6	12 59	1				
GLEN CANYON	91.15	45.1	12 59	1				
TUCSON	94.67	48.3	13 16	2				
TUCSON TELE.	94.68	48.2	13 16	2				
SETIF	96.10	318.4	13 21	0			17 14	PP
MIRNY	100.88	194.4	13 37	-6				
BREBEUF	101.24	17.1	13 44K	0				
TAMANRASSET	105.32	308.5					18 5	PP

CAPE HALLETT	106.08	168.3	14	16	777							
KIMBERLEY	116.66	250.9	18	38A	2							
SOUTH POLE	120.30	180.0	18	43	0						19	47 PP
BYRD STATION	123.23	168.7	18	51	2						20	47 PP
HUANCAYO	149.76	58.3	19	42	5							
LA PAZ	157.91	55.2	19	53A	5						20	29 PKP2

JULY 9 0.H 42.M 30.S EPICENTRE 25.64 125.54 DEPTH= 0.KM

A=-0.52469 B= 0.73450 C= 0.43036 D= 0.8137 E= 0.5813
G=-0.2502 H= 0.3502 K=-0.9027 HT= 3.2

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
ILAN	3.54	256.6	1	2	4	1	44	3				
TAIPEI	3.69	261.4	1	6	6	1	49	4				
HWALIEN	3.93	245.8	1	5	2	1	40	-11				
HSINCHU	4.22	259.5	1	12	5	2	19	21				
TAICHUNG	4.66	252.4	1	16	3	2	10	1				
ALISHAN	4.80	244.9	1	19	3	2	12	-1				
TAITUNG	4.93	235.2	1	12	-5	2	12	-4				
TAWU	5.36	233.3	1	28	5							
TAINAN	5.52	242.7	1	31	5	2	46	15				
KAOHSIUNG	5.68	239.1	1	13	-15							
HENGCHUN	5.69	231.4	1	29	1							
ZO-SE	6.66	325.8	1	40	-2							
NANKING	8.72	318.7	2	16	6	4	9	18				
BAGUIO CITY	10.28	207.7	2	31	-1	4	34	5				
WUHAN	10.85	299.2	2	40	0							
HONG KONG	10.92	254.6	2	40	-1	4	37	-8				
MATUSIRO	15.34	41.9	3	46	6	6	55	24				
PEKING	16.35	333.6	3	55A	2	7	5	10				
SIAN	16.75	304.7	3	58A	0							
CHANGCHUN	18.15	359.5	4	20	5	7	50	14				
VLADIVOSTOK	18.20	15.1	4	22	6	7	50	13				
PAOTOW	19.72	322.9	4	35	1							
NHATRANG	20.38	232.1	4	42	1	8	28	3				
KUNMING	20.61	273.5	4	43	-1	8	37	7				
GUAM	21.74	120.3	6	57	122	8	58	6				
Y.-SAKHLINSK	25.32	28.2	5	29	-1							
SHILLONG	30.32	277.3	6	16	0						23	3
LHASA	30.75	285.4	6	19	0							
CHITTAGONG	30.93	271.1	6	57	36							
IRKUTSK	31.06	334.5	6	21	-1							
LEMBANG	36.68	210.8	6	10	-61							
PETROPAVLOVK	36.90	33.3	7	12	0							
PORT MORESBY	40.69	146.1	7	47	3	13	55	0				
DEHRA DUN	41.96	287.6									9	50
SEMIPALATNSK	42.52	317.7	7	56	-3						9	37 PP
FRUNSE	44.76	305.8	8	17	0						10	6 PP
LAHORE	45.02	289.8	8	18	-1							
TIKSI	46.06	1.5	8	31	3							
WARSAK DAM	47.12	293.5	8	32	-4							
TASHKENT	48.65	303.4	8	46	-2						10	43 PP
DUZHANBE	49.08	299.8	8	52	1						18	38
CHARTERS TS.	49.72	154.2	9	3	7							
QUETTA	51.49	289.2	9	8K	-2	16	23	-6			18	59 SCS
SVERDLOVSK	55.26	322.7	9	34	-3							
ASHKABAD	57.30	300.0	9	52	0						18	4 PS
KHEYS	61.23	350.0	10	1	-8							
SHIRAZ	63.81	291.9	10	34K	-2						13	10 PP
CANBERRA	64.57	158.9	10	43	2							
COLLEGE	65.69	27.9	10	48	-1							
GORIS	66.21	303.8	10	50	-2							
APATITY	67.38	335.4	10	57	-2	19	53	-2				
MOSCOW	68.07	322.5	11	1	-3							
SODANKYLA	69.96	336.0	11	13	-2							
PULKOVO	70.75	327.7	11	17	-3						11	33 PCP
KIRUNA	72.01	337.3	11	24	-4							
NURMIJARVI	73.16	329.5	11	31	-4							
SIMFEROPOL	73.31	312.2									11	53 PCP
KSARA	75.94	300.9	12	1	10							
RESOLUTE	76.57	10.2	11	51	-3							
UPPSALA	76.62	330.4	11	52	-2							

SKALSTUGAN	76.97	335.0	12	5	9					12	9 PCP
JERUSALEM	77.22	299.2	11	52	-6					15	24 PP
WARSAW	78.46	322.6	12	4	-1					23	32
COPENHAGEN	81.13	328.2	12	20	1	22	36	8			
SCORESBY SD.	81.41	349.5	12	16	-4	22	46	15			
PRUHONICE	83.11	322.6	12	34	5					13	3
COLLMBERG	83.24	324.3	12	30	0					15	46
HALLE	83.68	324.8								13	36
JENA	84.19	324.5	12	54	19						
CORVALLIS	86.09	41.9	12	48	4						
STUTTGART	86.65	323.5	12	45	-2						
DURHAM	87.99	332.5	12	7	-46	21	59	-97			
SHASTA	88.76	44.8	12	59	2						
HUNGRY HORSE	89.10	35.1	13	1	2						
BUTTE	91.35	36.3	13	8	-1						
EUREKA	93.48	43.0	13	20	1					17	13 PP
FLAMING GRGE	96.44	38.6	13	34	2						
PALISADES	111.27	15.7				25	38	20		19	21 PP
HUANCAYO	156.11	59.4								20	17 PKP2

JULY 9 22.H 42.M 50.S EPICENTRE 40.62 20.64 DEPTH= 0.KM

A= 0.71229 B= 0.26833 C= 0.64857 D= 0.3525 E=-0.9358
G= 0.6069 H= 0.2286 K=-0.7612 HT= -1.9

SE= 3.24

	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	
TARANTO	2.59	267.7	0	54	11	1	12	-4					
SOFIA	2.89	43.3	0	48	0	1	19	-5			0	55	PG
ATHENS	3.57	137.0	0	55	-2	1	39	-2					
BELGRADE	4.20	358.1	1	7K	1	2	30	33			1	24	PG
MESSINA	4.63	240.1	1	18	6	2	21	14					
TIMISOARA	5.14	4.5	1	26	6	2	36	15			2	46	SG
BUCHAREST	5.54	45.0	1	52K	27	3	8	37			2	42	PG
ZAGREB	6.21	328.3	1	35	0						3	20	SG
ROME	6.28	284.4	1	0	-36	2	50	0					
BUDAPEST	6.95	350.9									3	37	SG
LJUBLJANA	7.02	322.6	1	45A	-1	3	14	6			2	17	PG
TRIESTE	7.1	317.2	1	46	-1	3	8	-2			2	23	PGPG
HURBANOVO	7.45	347.2									4	10	
BRATISLAVA	7.96	342.6	1	59	0	3	23	-8			2	12	PG
TOLMEZZO	8.00	318.7	1	58	-2						2	33	
VIENNA-H.	8.21	339.6	2	0	-3						4	17	SG
KRAKOW	9.44	357.2	2	20	0						4	19	SS
LWOW	9.50	13.4	2	27	6						5	56	
CHUR	10.16	311.4	2	31	1						4	23	
PRUHONICE	10.29	337.4	2	31A	-1						5	35	SG
PRAGUE	10.40	337.3									4	3	
RAVENSBURG	10.66	315.8	2	34	-3								
ISOLA	10.66	293.9	2	40	3						2	56	PPP
SIMFEROPOL	10.81	62.0	2	39	0								
CHEB	11.09	331.2	2	57	14								
EBINGEN	11.25	316.0	2	41	-4	4	55	3			5	16	SS
TUBINGEN	11.42	317.6	2	44	-3								
STUTTGART	11.47	319.0	2	44	-4	4	52	-6			5	12	SS
PLAUEN	11.51	331.8									6	23	SG
NEUCHATEL	11.76	307.3	2	52	0								
SONNEBERG	11.78	329.0	3	14	22						6	54	
COLLMBERG	11.92	336.2	3	0	6	4	53	-16			6	32	SG
JENA	12.08	331.6				5	29	16			3	59	PG
HEIDELBERG	12.16	320.2	2	54	-3								
HALLE	12.43	334.0				5	22	1			6	10	SSS
SETIF	12.74	254.6	3	9	4						3	25	PP
POTSDAM	12.85	338.7				5	54	23			7	28	
KSARA	13.90	114.4	3	23	3								
JERUSALEM	14.70	122.3	3	30	-1	6	12	-3					
DOURBES	14.70	315.5	3	32	1	6	15	0					
UCCLE	15.23	317.3				6	3	-25			3	31	PP
FOLINIERE	17.04	305.6	4	1	0								
GOTEBORG	17.98	344.8	4	19	6								
KEW	18.08	313.9	4	19	5								
MOSCOW	18.81	30.8	4	24	1								
UPPSALA	19.34	355.4	4	27	-2								
HELSINKI	19.75	6.4	4	31	-3								
NURMIJARVI	20.07	5.8	4	34	-3								

PULKOVO	20.10	14.3	4 34	-4	8 22	3	
DURHAM	20.47	321.2	4 45	4			
TAMANRASSET	21.90	220.2	4 55	-1			5 23 PP
SKALSTUGAN	23.52	350.6	5 1	-1			
TEHERAN	24.59	91.5	5 26	4			
SODANKYLA	27.00	5.1	5 43	-2			
KIRUNA	27.26	359.8	5 45	-2			
APATITY	27.88	10.5	5 52	-1			
SHIRAZ	28.13	102.8	5 53	-2			12 49
NORD	43.07	352.5	8 1	-2			
RESOLUTE	57.45	343.5	9 50	-3			
COLLEGE	74.45	354.9	11 41	0			
HUNGRY HORSE	82.75	331.4	12 26	-1			

JULY 10 0.H 5.M 30.S EPICENTRE 0.50 98.24 DEPTH= 73.KM

A=-0.14331 B= 0.98964 C= 0.00861 D= 0.9897 E= 0.1433
G=-0.0012 H= 0.0085 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.006R

SE= 3.08

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MEDAN	3.09	8.2	0 48	0				5 16
DJAKARTA	10.84	127.8	2 27	-7	4 24	-11		
LEMBANG	11.86	128.0	2 43K	-5				
PORT BLAIR	12.38	333.9	3 0	5	5 32	20		
MADRAS	21.79	305.5	4 48A	1	8 44	6		5 17 PP
CHITTAGONG	22.61	344.4	4 55	0	9 2	9		5 26 PP
VIZIANAGRAM	22.76	321.1	4 56K	-1	9 4	8		
KODAIKANAL	22.81	295.8	5 2A	5	9 5	8		5 32 PP
KUNMING	24.86	9.7	5 19A	2				
SHILLONG	25.67	346.6	5 25A	0	9 59	14		6 7 PP
HYDERABAD	25.74	311.9	5 24A	-1	9 55	9		6 4 PP
TOCKLAI	26.31	353.0	5 31	1				
MANILA	26.61	57.0	5 34	1	10 4	3		
HONG KONG	26.65	34.5	5 35A	1	10 16	15		6 17 PP
CANTON	26.83	32.1	5 38	3				
BAGUIO CITY	27.12	53.2	5 39	1	10 41	32		
CHATRA	28.26	338.8	5 49	1	10 38	11		
LHASA	29.78	347.3	6 3A	1	10 57	5		
POONA	29.91	308.2	6 2	-1	10 58	4		7 16 PPP
BOMBAY	30.93	307.7	6 12	0	11 12	2		7 11 PP
TAINAN	30.93	42.1	6 16	4				
TAITUNG	31.40	43.6	6 18	2				7 26
HWALIEN	32.53	42.5	6 24	-2				
AGRA	32.84	325.4	6 27A	-2	11 40	0		7 55 PPP
WUHAN	33.65	25.9	6 36A	0				
SIAN	35.04	15.5	6 49A	2				
DEHRA DUN	35.33	328.9			12 22	4		8 5 PP
LANCHOW	35.75	7.8	6 54A	0	12 31	6		
PERTH	36.31	154.3	7 10	12	12 48	15		15 21
MUNDARING	36.50	153.8	6 58	-2	12 36	0		
NANKING	36.90	29.7	7 5A	2				
LAHORE	38.28	326.0	7 13A	-2				
PAOTOW	41.31	13.6	7 43	3				
WARSAK DAM	41.67	325.9	7 43	0				
QUETTA	41.91	317.7	7 44	-1	13 57	0		9 27 PP
PEKING	42.61	20.4	7 53	3	14 19	12		9 37 PP
DUZHANBE	46.54	327.9	8 20	-2	15 5	1		
ALMATA	46.65	338.6	8 24	1	15 13	7		10 15 PP
FRUNSE	47.17	336.3	8 28	1	15 20	7		10 19 PP
GUAM	47.81	72.3	8 26	-6	15 33	11		9 34 PCP
TASHKENT	48.34	330.8	8 35	-1	15 34	5		10 31 PP
ABUYAMA	48.80	41.5	8 40A	1				
CHANGCHUN	49.43	25.7	8 44	0	15 54	9		10 40 PP
PORT MORESBY	49.68	102.7	8 46	0	15 55	7		18 57
MATUSIRO	51.52	41.4	9 0	0	16 38	25		11 11 PP
IRKUTSK	51.84	4.7	9 4A	1	16 28	10		18 51 SCS
VLADIVOSTOK	52.03	31.0	9 5	1	16 26	6		11 10 PP
SEMIPALATNSK	52.03	345.5	9 4	0	16 27	7		16 44 PS
SHIRAZ	52.27	308.0	9 3K	-3	16 24	0		10 4 PCP
ASHKABAD	52.28	320.1	9 6	0	16 29	5		9 44
TUKUBASAN	52.61	42.8	9 7A	-1	16 39	11	9 19	20 35 SS

TANANARIVE	53.35	245.9	9	15	1				9	32	
RABAUL	54.09	95.5	9	15	-4					9	30
TEHERAN	55.85	314.2	9	30A	-2	17	18	6			
MELBOURNE	57.49	136.9	9	45	1	17	46	12		19	27 SCS
CANBERRA	59.18	132.5	9	56A	1	18	4	8			
BRISBANE	59.21	122.5	9	57	1	18	5	9			
ADDIS ABABA	59.79	280.1	10	0	0	18	14	10			
RIVERVIEW	60.18	130.1	10	2A	0	18	16	7	10	13	10 41 PCP
Y.-SAKHLINSK	60.37	33.5	10	3	-1						
GORIS	61.13	315.9	10	7	-2	18	21	0			12 24 PP
FORT NELSON	61.65	140.9				18	38	11			
TIFLIS	63.15	317.6	10	22	0	18	49	3			14 20 PPP
SVERDLOVSK	63.73	338.0	10	25	-1	18	57	4			12 52 PP
YAKUTSK	65.81	15.7	10	39	-1	19	25	6			13 4 PP
KSARA	66.98	306.7	10	47A	0	19	39	6			19 57 PS
JERUSALEM	66.99	304.5	10	45	-2						13 1 PP
WILKES	67.27	174.7	10	50	1				11	0	
KOUMAC	67.82	112.4	10	54	2						
LWIRO	69.48	267.4	11	1	-1	20	10	7			
HELWAN	69.82	301.7	11	2	-2	20	9	2			
BROKEN HILL	70.56	254.6	11	7K	-2						
PIETERMZBURG	71.08	238.5	11	19	7						
BULAWAYO	71.09	248.6	11	11K	-1						
MAGADAN	71.52	25.2	11	16	1						20 58 PS
SIMFEROPOL	71.58	317.7	11	13A	-2	20	29	2			13 54 PP
PETROPAVLOVK	72.23	33.5	11	21	2	20	46	11			13 59 PP
MAWSON	72.27	193.5	11	18	-1						
MOSCOW	73.46	329.1	11	24	-2	20	49	1			21 7
TIKSI	73.68	9.7	11	27	0						14 10 PP
KLYUCHI	74.74	30.9	11	34	0						21 11
GRAHAMSTOWN	75.01	235.4	11	36	1						
KIMBERLEY	75.77	240.3	11	55	16						
BUCHAREST	76.95	315.6	11	45A	-1	21	45	18			21 30 SKS
ROXBURGH	77.17	137.0				21	36	7			26 30 SS
KAIMATA	77.99	133.7	12	8	16						
SOFIA	78.60	313.4	11	53	-2	21	44	-1			15 0 PP
PULKOVO	78.60	331.4	11	54	-1	22	0	15			14 54 PP
GEBBIES PASS	79.11	134.6	12	10	12						
LWOW	79.47	320.7	12	0	0	21	57	3			14 56 PP
APATITY	80.13	339.3	12	3A	0	22	4	3			
WELLINGTON	80.22	131.9				22	9	7			
KARAPIRO	80.30	128.5	12	7	3						
CHATEAU	80.48	129.8	12	8	3						15 7 PP
TIMISOARA	80.59	316.2	11	54	-12	22	11	5			
BELGRADE	80.99	315.2	12	9A	1						14 46
HERMANUS	81.21	235.2				22	18	6			23 10 PS
HELSINKI	81.29	331.0	12	10	0	22	15	2			
NURMIJARVI	81.53	331.3	12	9	-2	22	16	1			
WARSAW	81.79	322.7	12	12A	0	22	21	3			12 20 PCP
KRAKOW	82.11	320.4	12	14	0	22	24	3			22 43 SCS
KHEYS	82.31	353.9	12	15	0						15 29 PP
BUDAPEST	82.35	317.8	12	17	2	22	25	1			
SODANKYLA	82.53	338.3	12	15	-1	22	30	5			
HURBANOVO	82.95	318.1	12	4	-14	22	20	-10			17 4 PPP
RACIBORZ	83.22	320.3	12	12	-7	22	39	7			23 43
BRATISLAVA	83.71	318.3	12	22K	0	22	41	4			28 4 SS
MESSINA	83.94	308.2	12	26	3						
VIENNA-H.	84.21	318.3	12	25	1	23	1	19			12 33 PCP
ZAGREB	84.24	315.9	12	24A	-1	23	41	59			
UPPSALA	84.85	330.0	12	27	-1						12 51
KIRUNA	84.95	338.1	12	28	0						
CAPE HALLETT	85.04	163.0	12	30	1	22	53	3			15 53 PP
LUANDA	85.14	261.1	12	39A	10	22	54	3			13 2
LJUBLJANA	85.28	316.0	12	30	0	23	10	17			15 44 PP
PRUHONICE	85.55	319.9	12	31A	0	23	1	6			24 6 PS
PRAGWE	85.64	320.0	12	32	0	23	1	5			24 5 PS
TRIESTE	85.79	315.6	12	33	1	23	18	20			23 0 SKS
SCOTT BASE	86.03	168.6	12	34	1						15 49 PP
TOLMEZZO	86.34	316.3	12	35	0	23	15	12			
ROME	86.51	311.8	12	35A	-1	23	6	2			15 49 PP
COLLMBERG	86.63	321.2	12	36A	0	23	9	3			13 55
POTSDAM	86.65	322.3	12	36	-1	23	10	4			15 46 PP
CHEB	86.96	319.9	12	35	-3	23	14	5			
PLAUEN	87.12	320.4	12	46	7	23	10	0			
COPENHAGEN	87.21	325.6	12	40A	1	23	35	24			16 5 PP
HALLE	87.30	321.4	12	40	0	23	18	6			23 13 SKS
JENA	87.50	320.8	12	40	-1	23	14	0			16 0 PP
GOTEBORG	87.58	327.6	12	42	1						
PRATO	87.59	313.7	12	47	6	23	17	2			

SONNEBERG	87.73	320.2	12	41	-1					
SKALSTUGAN	87.75	333.5	12	42	0					
ISFJORD	88.39	348.0	12	46	1					
RAVENSBURG	88.70	317.6	12	46	0					
CHUR	88.76	316.7	12	36	-11	23	27	1		
STUTTGART	88.94	318.6	12	47	0	23	31	4	16 19	PP
PAVIA	88.99	315.0	12	48	0	22	36	-52	16 20	PP
TUBINGEN	89.08	318.3	12	46	-2					
EBINGEN	89.14	318.0	12	46	-2					
HEIDELBERG	89.31	319.2	12	48	-1					
STRASBOURG	89.94	318.4	12	52A	0	24	0	23		
MUNSTER	90.00	321.8	12	53	1				13 18	
BASLE	90.08	317.3	12	54A	1	23	59	21		
MONACO	90.25	313.5	13	5	11					
BENSBERG	90.29	320.8	12	54A	0	23	47	7		
SOUTH POLE	90.49	180.0	12	55	0	23	18	-23	16 38	PP
ISOLA	90.51	314.0	12	56K	1	23	48	6		
NEUCHATEL	90.52	316.8	12	55	0	23	41	-1		
WITTEVEEN	90.56	322.6	13	0	5					
BERGEN	91.03	330.3				23	52	6		
BESANCON	91.18	317.1	12	58	0				16 56	PP
DE BILT	91.50	322.0	13	2	3	23	58	8	16 40	PP
DOURBES	91.97	320.0	13	3	1	23	35	-19		
SETIF	92.01	306.1	13	3	1	23	54	-1	16 34	PP
UCCLE	92.09	320.7	13	1	-1	24	0	5		
TAMANRASSET	92.32	292.7	13	4	1	24	6	8	16 41	PP
NORD	93.06	352.3	13	6	-1	23	36	-28		
CLERMONT-FD.	93.23	315.7	13	7	0	24	8	3		
PARIS	93.43	318.8	13	5	-3	24	11	4		
ALGIERS UNI.	93.87	306.7	13	3	-7				16 49	PP
KEW	94.96	321.6	13	15	0	24	23	3	17 8	PP
ABERDEEN	95.20	327.4				24	36	52	17 8	PP
DURHAM	95.27	325.0	13	20	3	24	13	29	17 10	PP
BAGNERES	95.58	313.2	13	19	1	24	45	59		
RELIZANE	95.96	305.9	13	15	-5				13 31	
JERSEY	96.39	319.5							17 1	
BYRD STATION	98.42	173.8	13	32	1				17 32	PP
TOLEDO	99.11	310.4	13	45	11	24	28	23	25 3	S
GRANADA	99.13	307.7				25	4	59	18 9	PP
SCORESBY SD.	99.26	342.9	13	37	2	24	13	8	17 38	PP
COLLEGE	99.53	23.3	13	36	0	24	12	5	17 24	PP
RESOLUTE	104.51	3.6	13	58	0				24 34	
CORVALLIS	121.93	33.9	18	51	5					
HUNGRY HORSE	123.89	25.4	18	52	2				20 40	PP
SHASTA	124.85	37.1	18	54	2				20 43	PP
UKIAH	125.27	39.1	19	7	15				19 52	
MINERAL	125.54	37.0	18	55A	2				19 49	
BERKELEY	126.62	39.8							20 52	PP
RENO	127.12	36.7	19	0	4					
BOZEMAN	127.26	25.5	19	0	4					
LICK	127.33	40.0	19	0A	4				20 58	PP
VINEYARD	127.85	40.4	18	42K	-15					
FRESNO	128.85	39.4	18	59	0					
SALT LAKE C.	130.66	30.1	19	6	3					
PASADENA	131.50	41.1	19	7	3	26	23	18	21 27	PP
SEVEN FALLS	131.62	350.0	19	6	2					
RAPID CITY	131.67	20.7	19	7	2				22 30	PKS
FLMAING GRGE	131.73	28.1	19	8	3				21 31	PP
SHAWINIGAN	132.49	351.6	19	10	4					
GLEN CANYON	133.60	33.4	19	12	4				25 1	
BREBEUF	133.64	352.1	19	10	2					
WESTON	136.29	348.8	19	14	1				21 50	PP
TUCSON	137.39	37.5	19	13	-2				21 50	PP
TUCSON TELE.	137.40	37.3	19	13	-2					
PALISADES	138.08	351.1	19	2	-14	26	8	-10	22 0	PP
CLEVELAND	138.22	359.7	19	15	-2				22 8	PP
PENNSYLVANIA	138.75	355.5							22 12	PP
MORGANTOWN	140.03	357.8	19	23	3				22 15	PP
FLORISSANT	140.10	10.5	19	17	-3				22 17	PP
ST. LOUIS 1	140.28	10.4	19	22	2				23 0	PKS
WASHINGTON	140.56	354.2	19	16	-5				22 23	PP
CHAPEL HILL	143.68	356.3	19	26	0				21 1	
SANTA LUCIA	145.60	196.6	19	36K	6				23 3	PKS
COLUMBIA	145.68	358.9	19	32	2					
TACUBAYA	153.85	39.9	20	8	26				23 59	PP
MERIDA	157.34	19.4	20	24	37					
LA PAZ	159.18	219.5	19	57A	8				30 58	SKKS
CARACAS	161.64	306.9	20	0	8				24 58	PP

HUANCAYO	166.87	208.8	20	2	5					25	0 PP
FUQUENE	170.03	306.6	20	3	4					25	7 PP
BOGOTA	170.79	303.6	19	59	0	26	44	-9		31	54 SKKS
CHINCHINA	171.81	311.6	20	3	3					25	17 PP

JULY 10 13.H 39.M 58.S EPICENTRE 12.26 -86.70 DEPTH= 136.KM

A= 0.05634 B=-0.97586 C= 0.21100 D=-0.9983 E=-0.0576
G= 0.0122 H=-0.2107 K=-0.9775 HT= 6.2

DEPTH OF FOCUS= 0.016R

SE= 1.53

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTIAGO MA.	2.12	305.4	0	33	-3	1	0	-4				
SAN SALVADOR	2.82	300.3	0	42K	-3	1	13	-7				
MERIDA	9.08	342.4				3	47	-2				
VERA CRUZ	11.40	308.4				5	2	18			5	42
SAN JUAN	20.75	70.4	4	32	1							
COLUMBIA	22.25	12.5	4	47	1							
HUANCAYO	26.66	154.6	5	29K	2				5	54		
WASHINGTON	27.88	16.2	5	40	1	10	8	-2				
MORGANTOWN	27.91	11.2	5	40K	1							
PENNSYLVANIA	29.47	13.7	5	54	1	10	42	6				
TUCSON TELE.	29.76	316.0	5	56	1				6	22	6	27 *SP
TUCSON	29.78	315.8	5	56	0				6	22	6	27 *SP
PALISADES	30.76	19.1	5	38	-26	11	0	4	6	2	7	10 PP
WESTON	32.86	21.2	6	23	1							
GLEN CANYON	33.23	322.0	6	27	1							
OTTAWA	34.33	13.8	6	35	0							
FLAMING GRGE	34.82	329.2	6	39	0				7	7		
BREBEUF	34.95	16.1	6	40A	0						8	5 PP
PASADENA	35.97	312.5	7	16	27							
SALT LAKE C.	35.98	326.7	6	50	1				7	17		
SHAWINIGAN	36.15	16.4	6	51A	1							
SEVEN FALLS	37.23	18.0	6	59	0							
EUREKA	37.48	321.5	7	2	0				7	30	7	40 *SP
RENO	39.92	318.8	7	38	16							
LICK	40.00	314.7	7	24A	2				7	50		
MINERAL	41.52	318.7	7	34	-1				8	2		
HUNGRY HORSE	42.57	333.1	7	43	0						8	55 PP
RESOLUTE	62.57	357.6	10	8	-3	18	26	0				
COLLEGE	66.90	336.0	10	38	-1				11	5		
STUTTGART	84.78	41.4	12	18	-2				12	47	16	59
KIRUNA	85.07	21.3	12	19	-2							
COLLMBERG	86.51	38.3	12	26	-2							
UPPSALA	86.56	29.3	12	26	-2							
TAMANRASSET	87.34	67.4	12	31	-1						17	29
LJUBLJANA	88.91	43.1									16	28 PP
KRAKOW	91.09	38.2									16	26 PP
BYRD STATION	93.70	185.4	13	3	1							
MATUSIRO	115.63	320.9									20	43 PP
BROKEN HILL	117.07	100.1	18	7	-21							
BULAWAYO	117.70	106.4	18	28	-2							
CANBERRA	124.89	235.4	18	46	2							
CHARTERS TS.	128.72	254.1	18	53	2							
ADELAIDE	133.15	233.3	19	3	4							

JULY 11 11.H 55.M 10.S EPICENTRE -15.84-171.68 DEPTH= 0.KM

A=-0.95235 B=-0.13934 C=-0.27132 D=-0.1448 E= 0.9895
G= 0.2685 H= 0.0393 K=-0.9625 HT= 5.6

SE= 2.62

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
AFIAMALU	1.93	357.0	0	36K	2	1	1	2				
SUVA	9.74	255.0	2	23	-1							
KOUMAC	23.31	254.8				9	21	2			6	15
ONERAHI	23.43	209.5	5	11	0	9	26	4			9	56
KARAPIRO	24.73	204.7	5	22	-2	9	51	7				

TUAI	24.89	201.1	5 30	5						
CHATEAU	25.82	203.2	5 31	-3	10 13	11				
WELLINGTON	27.93	202.2	5 59	5	10 45	8				
COBB RIVER	28.54	205.2	6 3	4	10 53	6				
KAIMATA	30.28	205.2	6 19	4	11 35	21			11 20	
GEBBIES PASS	30.80	202.5	6 25	6	11 45	22				
BRISBANE	34.87	244.7	6 49	-6	12 2	-24				
RABAUL	37.36	284.2	7 12	-4					9 45	
RIVERVIEW	37.93	234.9	7 18A	-3	13 8	-5			9 4	PPP
HONOLULU	39.24	20.2	7 36	4	14 3	30			10 38	
KIPAPA	39.38	20.3	7 36	3					7 55	
CANBERRA	40.09	233.6	7 35	-4	13 34	-12			16 30	SS
CHARTERS TS.	40.16	257.5	7 36	-3	13 32	-15				
PORT MORESBY	40.63	274.0	7 42	-1	13 55	1	8 12		9 46	PCP
MELBOURNE	43.96	231.6	8 8K	-2	14 37	-5				
GUAM	52.01	301.7	9 11	-2					10 22	
CAPE HALLETT	57.45	186.5	9 52A	-1	17 52	3			10 45	PCP
SCOTT BASE	62.95	185.0	10 28A	-2	19 1	1			12 50	PP
MUNDARING	66.78	241.7	10 52	-3						
BYRD STATION	68.27	171.5	11 3	-1					13 18	PP
MATUSIRO	70.35	319.0	11 17	0	20 22	-7	12 7		39 16	PKPPKP
BRANNER	70.52	40.0	11 21K	3						
SAN FRANCSCO	70.57	39.5	11 22K	3						
VINEYARD	70.60	40.9	11 22K	3						
BERKELEY	70.75	39.5	11 22K	2	20 45	11			21 13	
LICK	70.80	40.3	11 22K	2					13 59	PP
UKIAH	70.98	38.0	11 24	3					39 18	PKPPKP
ABUYAMA	71.06	316.2	11 23K	1						
PASADENA	71.15	44.8	11 24K	2	21 15	36			25 2	SS
SHASTA	72.48	37.2	11 32K	2						
MINERAL	72.72	37.9	11 33K	2					14 23	PP
MANILA	73.02	291.1	11 38	5	21 12	12				
PETROPAVLOVK	73.20	341.8	11 34	0	21 7	5				
RENO	73.29	39.4	11 37K	2						
BAGUIO CITY	74.12	292.6	11 39	-1	21 20	8				
SOUTH POLE	74.26	180.0	11 38	-2					14 23	PP
BOULDER CITY	74.44	44.8	11 44	3						
CORVALLIS	74.51	33.7	11 44K	2						
Y.-SAKHLINSK	74.76	329.6	11 43	0						
TUCSON	75.33	49.9	11 49	2					14 33	PP
TUCSON TELE.	75.46	49.9	11 49	2						
EUREKA	75.65	41.3	11 51	3	21 37	8			14 40	PP
RUTH	76.14	42.0	11 53	2						
UGLEGORSK	76.52	330.8	11 53	0						
VICTORIA	77.09	30.6	11 59K	2						
GLEN CANYON	77.18	45.4	12 0	3						
MIRNY	77.71	204.1	11 57	-3						
SITKA	78.67	19.3	12 7	2						
SALT LAKE C.	78.99	42.0	12 8	1						
LEMBANG	79.26	265.9	12 8K	0						
TACUBAYA	79.40	66.3	12 12	3	22 10	0				
ZO-SE	79.56	306.5	12 11K	1	22 21	9			15 8	
DJAKARTA	80.18	266.3							12 45	
FLAMING GRGE	80.67	42.8	12 8	-8	22 31	8			15 20	PP
MAGADAN	81.07	341.7	12 19	1						
BUTTE	81.39	37.2	12 21	1						
NANKING	81.82	306.5	12 23K	1	22 43	8				
HUNGRY HORSE	81.87	34.7	12 24	2						
HONG KONG	81.89	295.9	12 24K	2	22 41	5			15 30	PP
BOZEMAN	82.09	38.1	12 26	3						
COLLEGE	82.50	10.0	12 26	1	22 50	8			31 1	
CHANGCHUN	82.60	319.4	12 27K	1	22 57	14			15 28	
BANFF	82.71	31.8	12 44	17						
ARGENTINE I.	82.83	156.1	12 25	-2						
CANTON	82.89	296.3	12 29K	1	22 54	8			15 36	
RAPID CITY	86.19	42.2	11 46	-58						
PEKING	86.98	313.0	12 49K	1	23 36	10			16 9	
MAWSON	87.90	198.2	12 51	-1						
FAYETTEVILLE	89.44	52.3	13 0K	0	23 56	7			13 16	PP
LAWRENCE	89.65	49.3	13 2	1						
YAKUTSK	90.16	336.3	13 3	0						
SANTA LUCIA	90.30	124.8	13 5K	1	23 50	-7			29 51	SS
SIAN	90.31	305.5	13 5K	1						
MEDAN	90.62	273.5	13 6A	1					13 42	
KUNMING	92.71	295.2	13 17K	2						
CHENGTU	93.18	300.8	13 18	1	24 30	8			16 59	
LANCHOW	94.83	306.0	13 26K	1						
LA PAZ	98.03	109.6	13 36	-3	25 26	69				
IRKUTSK	98.76	321.8	13 42	0						

RESOLUTE	101.71	15.3	13 56	0			
WASHINGTON	103.30	53.1	14 7	4		18 7	PP
PALISADES	106.01	51.3	14 7	777		18 32	PP
KHEYS	111.70	352.3	19 19	43			
NAMANGAN	120.28	308.4	18 54	1			
QUETTA	124.72	295.9	19 4K	2		37 59	SS
APATITY	125.82	348.4	19 5A	1		20 56	PP
SODANKYLA	127.14	351.2	19 8	2		21 5	PP
SKALSTUGAN	132.24	357.6	19 17	1			
PULKOVO	133.28	344.9	19 8	-10			
NURMIJARVI	133.85	348.9	19 19	0		22 48	PKS
MOSCOW	134.31	337.2	19 21	1			
UPPSALA	135.54	353.3	19 22	0			
TEHERAN	136.87	305.6	19 18	-6			
MAKHACH-KALA	137.05	317.1	19 25	0			
SHIRAZ	137.24	296.6	19 26	1		23 35	PKS
BULAWAYO	139.06	209.8	18 44K	-45			
TIFLIS	139.40	316.9	19 24	-5			
COPENHAGEN	140.12	356.4	19 27	-3		22 26	PP
DURHAM	140.40	9.0	19 18K	-13		23 9	PKS
WARSAW	142.32	347.2	19 32A	-2		23 13	PKS
POTSDAM	143.36	355.1	19 33	-3		22 51	PP
SIMFEROPOL	143.75	328.5	19 34	-3			
LWOW	143.79	342.7	19 36K	-1			
KEW	143.79	9.2	19 35	-2			
BROKEN HILL	143.91	214.5	19 38K	1			
MUNSTER	143.96	0.7	19 37	0			
HALLE	144.31	356.1	19 39	1		22 57	PKS
COLLMBERG	144.43	355.0	19 38K	0		23 0	PP
KRAKOW	144.61	347.1	19 39	1		22 54	PP
JENA	144.90	356.4	19 39	0		22 56	PP
RACIBORZ	144.93	348.9	19 42	3		20 13	
BENSBERG	144.96	1.3	19 40	1		22 45	PP
UCCLE	144.99	4.4	19 39	0		22 59	PP
PLAUEN	145.30	355.7	19 38	-1			
SKALNATE PL.	145.36	346.2	19 40	0		23 13	PKS
SONNEBERG	145.47	356.8	19 41	1		20 6	
PRAGUE	145.51	353.0	19 43	3			
PRUHONICE	145.58	352.9	19 41K	1		23 1	PP
BACAU	145.67	337.1	19 41	1			
DOURBES	145.70	4.3	19 42	2	26 58 10		
FOCSANI	146.28	335.9	20 3	22			
FOLINIERE	146.38	10.5	19 45	4			
HEIDELBERG	146.53	359.5	19 43	1		20 10	
PARIS	146.78	7.0	19 45	3		23 13	PP
BRATISLAVA	146.96	349.2	19 46	4		23 25	PKS
VIENNA-H.	147.01	350.1	19 45	3		20 30	
STUTTGART	147.16	358.8	19 44	1		23 15	PP
STRASBOURG	147.35	0.7	19 47	4		21 11	
TUBINGEN	147.40	359.1	19 44	1			
CAMPULUNG	147.47	337.8	19 51	8			
EBINGEN	147.75	359.2	19 46	2			
BUCHAREST	147.78	335.8	19 46A	2			
TIMISOARA	148.28	342.7	19 52	8		20 40	
BASLE	148.40	1.0	19 52	7			
BESANCON	148.63	3.1	19 48	3			
NEUCHATEL	148.91	1.8	19 52	7			
CHUR	149.07	358.4	19 51	5			
TOLMEZZO	149.28	353.6	19 50	4			
BELGRADE	149.35	342.9	19 48K	2		21 21	
KSARA	149.40	310.8	19 49	3		23 25	PP
LJUBLJANA	149.44	351.5	19 48K	2		23 28	PP
ADDIS ABABA	149.53	260.8	19 51	5		23 26	PP
CLERMONT-FD.	149.85	7.3	19 51	4	25 49 -64		
TRIESTE	149.94	352.4	19 50	3		23 30	PP
SOFIA	150.30	337.3	19 49	1		20 8	
PAVIA	150.75	358.8	19 52	4		23 33	PP
JERUSALEM	150.84	307.8	19 51	3		23 33	PKS
SERRA PILAR	150.85	26.8	19 44A	-4		19 59	PKP2
ISOLA	151.74	1.9	19 59K	9			
MONACO	152.20	1.4	19 59	9			
LISBON	152.52	30.6	19 54	3		23 49	PP
LWIRO	152.93	230.2	19 52	1			
TOLEDO	153.73	21.9	19 55K	2	20 15	23 40	PP
ROME	153.79	353.0	19 53K	0		24 0	PP
HELWAN	154.68	307.4	19 55	1		23 54	PP
MBOUR	155.54	90.0	19 57	2		24 1	PP
GRANADA	156.26	24.2	19 59K	3		24 8	PP

MALAGA	156.33	26.2	19 58A	2		24 4	PP
MESSINA	156.84	345.4	19 57	0		25 1	
ALMERIA	156.99	22.6	19 59K	2		24 10	PP
ALGIERS UNI.	158.64	11.7	20 1	2		24 16	PP
RELIZANE	158.99	17.9	20 2	3		24 19	
SETIF	159.56	6.8	20 2	2		24 22	PP
BANGUI	164.76	222.7	20 0	-5		24 48	
TAMANRASSET	172.61	20.6	20 14K	4		25 29	PP

JULY 13 2.H 30.M 35.S EPICENTRE 42.71 143.22 DEPTH= 129.KM

A=-0.59034 B= 0.44129 C= 0.67585 D= 0.5987 E= 0.8010
G=-0.5413 H= 0.4046 K=-0.7370 HT= -2.7

DEPTH OF FOCUS= 0.015R

SE= 2.33

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
OBIHIRO	0.21	355.7	0 18K	0	0 29	-4		
HIROO	0.44	170.4	0 18A	-2	0 29	-6		
URAKAWA	0.65	210.3	0 20A	-1	0 36	-1		
KUSIRO	0.91	72.5	0 21K	-1	0 37	-3		
TOMAKOMAI	1.21	266.7	0 26	1	0 45	0		
SAPPORO	1.42	285.2	0 27K	0	0 46	-3		
ABASHIRI	1.52	30.2	0 29A	0	0 54	3		
MURORAN	1.70	257.4	0 31A	0	0 52	-2		
NEMURO	1.84	69.6	0 32	0	0 53	-4		
HAKODATE	2.04	244.6	0 34A	-1	0 59	-2		
MORI	2.06	253.6	0 36	1	1 1	0		
SUTTSU	2.20	273.3	0 41	4	1 3	-2		1 28
HATINOHE	2.52	210.7	0 39A	-2	1 8	-4		
AOMORI	2.63	224.8	0 41	-1	1 12	-3		
MIYAKO	3.20	197.6	0 48	-2	1 23	-5		
MORIOKA	3.38	207.9	0 50A	-2	1 27	-5		
AKITA	3.81	219.3	0 58A	0	1 42	0		1 28
MIZUSAWA	3.91	204.6	1 0	1	1 41	-4		
Y.-SAKHLINSK	4.32	355.4	1 5	0	1 54	-1		
ISINOMAKI	4.52	199.3	1 6A	-1	1 55	-4		
SAKATA	4.60	215.2	1 12	4	2 2	1		
SENDAI	4.78	202.5	1 9	-2	2 2	-4		
YAMAGATA	4.97	207.1	1 12	-1	2 6	-4		
HUKUSIMA	5.39	203.9	1 18	-1	2 17	-3		
NIIGATA	5.75	215.0	1 28	4	2 28	-1		
ONAHAMA	6.03	198.0	1 43	15	2 29	-7		
AIKAWA	6.03	220.7	1 29	1				
SHIRAKAWA	6.04	203.4	1 28	0	2 31	-5		
UGLEGORSK	6.42	353.2	1 37	4	2 44	-1		
MITO	6.67	199.5	1 34A	-2	2 46	-5		
UTUNOMIYA	6.68	203.9	1 36	0	2 46	-6		
KAKIOKA	6.89	201.0	1 37	-2	2 51	-6		
TUKUBASAN	6.92	201.4	1 37K	-3				
MAEBASI	7.07	208.3	1 40	-2	3 5	4		
NAGANO	7.17	214.3	1 45	2				
KUMAGAYA	7.20	205.7	1 48	5	3 0	-4		
TYOSI	7.22	195.5	1 40	-4	2 52	-13		
MATUSIRO	7.28	213.7	1 44	-1	3 4	-2		3 22
OIWAKE	7.32	211.1	1 51	6				
TITIBU	7.45	206.9			3 7	-3		
TOKYO C.M.O.	7.52	202.1			3 6	-6		
TOYAMA	7.59	219.7	2 8	19				
KOHU	7.91	208.7	1 56	3	3 19	-2		
HUNATU	7.99	207.1			3 13	-11		2 30
MERA	8.22	199.9						3 15
MISIMA	8.28	205.1	2 2	4	3 23	-7		
AJIRO	8.30	204.1			3 26	-5		2 39
OSIMA	8.48	202.0	1 59	-2	3 26	-9		
SHIZUOKA	8.60	207.5						3 32
GIHU	8.86	216.6	2 17	11				
NAGOYA	8.97	214.9	2 7	0				
HAMAMATU	9.06	210.1						3 42
HIKONE	9.20	218.4	2 12	2				
OSAKA	10.04	219.3						4 56
MAGADAN	17.50	12.9	3 57	0				
YAKUTSK	20.94	342.1	4 31	-2				

COLLEGE	43.60	35.3	7 53	1	8 21	8 31 *SP
NORD	55.48	356.5	9 21A	-2		
RESOLUTE	56.77	15.7	9 30A	-2		
APATITY	58.12	334.8	9 39	-3		
SODANKYLA	60.30	336.5	9 56	-1		
QUETTA	60.69	285.3	9 58	-1		
KIRUNA	61.72	338.8	10 5	-1		
CHARTERS TS.	62.55	176.8	10 13	1		
CORVALLIS	63.85	52.6	10 21A	1		
PULKOVO	64.04	328.8	10 19	-3		
BANFF	64.24	43.3	10 39K	16		
NURMIJARVI	65.61	331.5	10 30	-2		
SCORESBY SD.	66.61	354.6	10 40	2		
SHASTA	66.66	55.7	10 39A	1		
HUNGRY HORSE	66.73	45.1	10 39	0		
SKALSTUGAN	67.15	338.5	10 40	-1		
MINERAL	67.35	55.6	10 43A	0		
UPPSALA	68.48	333.8	10 48	-2		
SHIRAZ	71.05	293.0	11 5	0		
EUREKA	71.28	53.4	11 7	0	11 38	11 49 *SP
GOTEBORG	71.98	334.9	11 9	-2		
PASADENA	73.37	58.8	11 21	2		
FLAMING GRGE	74.09	48.8	11 24	1	11 55	
KRAKOW	75.18	326.1	11 29	0		
GLEN CANYON	75.52	53.0	11 32	1		
LARAMIE	75.90	46.4	11 35	2		12 5
COLLMBERG	76.86	330.5	11 39A	0		14 33 PP
HALLE	77.08	331.2	11 37	-3		
PRUHONICE	77.36	328.9	11 42A	0		14 28 PP
JENA	77.68	331.0	11 43	0		12 36
TUCSON	79.20	56.0	11 54	2		
TUCSON TELE.	79.21	55.9	11 54	2		
STUTTGART	80.30	331.1	11 59	1		
FOLINIERE	83.47	336.8	12 15	1		
BREBEUF	86.24	25.0	12 28K	0		
TAMANRASSET	104.06	320.2				17 59

JULY 13 7.H 56.M 0.S EPICENTRE -54.49 1.78 DEPTH= 0.KM
A= 0.58309 B= 0.01816 C=-0.81221 D= 0.0311 E=-0.9995
G=-0.8118 H=-0.0253 K=-0.5834 HT= -7.0

SE= 4.07

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HERMANUS	23.50	38.4						9 56 SS
GRAHAMSTOWN	27.44	49.6	5 57	7				
KIMBERLEY	30.66	42.3	6 15	-4				
MAWSON	30.88	139.2	6 19	-2	11 30	6		
ARGENTINE I.	33.24	224.6	6 43	2				
WINDHOEK	33.90	26.0	6 46	-1				
PRETORIA	34.70	44.8	6 49	-5				
PORT STANLEY	35.00	249.5	6 58	2				
SOUTH POLE	35.69	180.0	7 1	-1	12 39	0		8 21 PP
BULAWAYO	39.90	41.4	7 33	-5				
BYRD STATION	41.68	193.0	7 54	2	14 7	-3		9 28 PP
MIRNY	42.32	143.5	7 55	-3	14 17	-2		
BROKEN HILL	45.06	37.9	8 27	7				
SCOTT BASE	47.59	175.7	8 35	-5	15 46	11		10 35 PP
WILKES	48.13	149.1	8 43	-1	15 47	4	9 10	10 44 PP
TANANARIVE	49.68	62.8	8 58	2				9 21
CAPE HALLETT	53.23	175.6	9 22K	-1	17 0	7		11 25 PP
SANTA LUCIA	53.65	261.8	9 35	9	17 0	1		20 36 SS
LWIRO	56.57	33.0	9 46A	-1				23 50
LA PAZ	65.07	276.5	10 45	0				
MBOUR	70.44	340.7			20 32	1		21 2 PS
ADDIS ABABA	70.51	39.1	11 25	6				
HUANCAYO	72.80	273.4	11 26K	-7	21 8	10		
TAMANRASSET	77.02	3.5	11 54	-3	21 49	4		14 50 PP
MUNDARING	77.12	127.5	11 59	2				
ROXBURGH	79.84	171.1			22 26	11		27 4 SS
MELBOURNE	82.75	151.4	12 28	1				
WELLINGTON	84.41	174.7			23 4	2		
BOGOTA	85.58	284.2	12 44	2	23 12	-1		29 7 SS
FUQUENE	86.08	285.0	12 49	5				

CANBERRA	86.19	153.7	12	48	3	23	27	8			
CARACAS	86.49	293.3	12	45	-1	23	21	-1			
CHATEAU	86.52	175.1	12	49	3						
CHINCHINA	86.74	283.1	12	48	0	23	19	-5	29	9	SS
KARAPIRO	87.79	175.1	12	52	-1				13	30	
HELWAN	87.80	25.4	12	53	0	23	48	13			
RIVERVIEW	88.15	154.9							29	36	SS
SETIF	90.38	2.9	12	51	-14						
JERUSALEM	90.63	28.0	13	3	-3				16	52	PP
ALGIERS UNI.	90.90	1.0	12	59	-8				16	19	PP
MALAGA	91.00	355.0	13	9	1				16	53	PP
GRANADA	91.42	355.7	13	48A	38						
KSARA	92.74	27.9	13	16	0						
MESSINA	93.08	10.8	13	6	-11	24	6	-16	16	46	PP
TOLEDO	94.14	355.5	13	24	2	24	9	-22	17	4	PP
BRISBANE	94.70	154.4	13	24	-1	24	1	-35			
ROME	96.46	8.0	13	36	3						
PAVIA	99.50	5.3							18	18	PP
BUCHAREST	100.69	17.5							25	24	
GORIS	101.12	33.6							16	4	
QUETTA	101.19	53.2				24	27	-6	17	7	
TIFLIS	102.66	31.6							15	50	
SIMFEROPOL	102.82	22.9							18	14	PP
STRASBOURG	102.82	4.1				24	46	5	18	18	PP
PARIS	102.93	0.5							19	0	
STUTTGART	103.08	5.1	14	6	3				18	15	PP
DOURBES	104.25	1.9				24	36	-11	20	23	PPP
MAKHACH-KALA	104.63	32.9							18	17	PP
PRUHONICE	104.65	8.5							18	18	PP
UCCLE	104.94	1.7				24	42	-9	18	15	PP
LWOW	105.61	14.8							18	34	PP
COLLMBERG	105.84	7.3							18	23	PP
DE BILT	106.26	2.2							19	0	PP
DURHAM	108.93	357.9							18	42	PP
STALINABAD	109.00	49.7							19	47	PP
ABERDEEN	111.35	357.7							28	40	PS
ANDIJAN	112.38	50.8	19	0	22						
MOSCOW	113.72	21.2							19	33	PP
PALISADES	114.95	306.0							19	43	PP
PULKOVO	116.18	15.6							19	47	PP
HONG KONG	120.81	94.4	18	58	3				20	5	PP
ST. LOUIS 1	121.41	293.5	19	2	6	26	10	15			
KIRUNA	122.80	8.3	19	2	4						
APATITY	124.00	14.1	19	4	3						
LAWRENCE	124.36	290.4							19	1	
SCORESBY SD.	125.83	350.4	19	9	5				21	6	PP
TUCSON	128.42	273.3	19	15	6						
TUCSON TELE.	128.42	273.5	19	13	4				21	17	PP
LARAMIE	131.70	285.6	19	23	7						
GLEN CANYON	132.20	277.1	19	26	9						
RAPID CITY	132.20	290.0	19	19	2						
FLAMING GRGE	133.61	282.6	19	23	4				21	47	PP
PASADENA	134.06	269.2	19	30	10	26	24	-6	22	2	PP
NORD	136.22	356.1	19	24	0						
EUREKA	136.43	276.4	19	19	-5				21	1	PP
BOZEMAN	137.55	286.8	19	34	8						
KHEYS	138.42	11.9	19	20	-8						
BUTTE	138.61	286.2	19	33	5				22	7	
RENO	138.70	273.5	19	38	9						
BERKELEY	139.02	269.7	19	38	9				22	25	PP
MINERAL	140.28	273.1	19	35A	4				22	34	
HUNGRY HORSE	140.76	288.3	19	33	1				22	34	PP
SHASTA	140.96	272.9	19	33	0						
ABUYAMA	142.58	102.4	19	43K	8						
RESOLUTE	143.23	333.8	19	34	-2						
PENTICTON	144.40	286.4	19	34	-4						
HATUSIRO	145.27	103.0	19	39	-1				30	0	SKKS
TUKUBASAN	146.11	105.3	19	38	-3				23	10	PP
VICTORIA	146.13	282.9	19	44	3						
YAKUTSK	152.29	53.1	20	1	10						
Y.-SAKHLINSK	154.46	90.8							20	17	PKP2
UGLEGORSK	155.10	86.1	20	3	8						
COLLEGE	161.68	316.6	20	2	-1				24	31	PP
PETROPAVLOVK	166.25	86.7	20	16	9						

JULY 13 10.H 20.M 31.S EPICENTRE 40.52 23.61 DEPTH= 0.KM

A= 0.69849 B= 0.30537 C= 0.64719 D= 0.4006 E=-0.9163
G= 0.5930 H= 0.2593 K=-0.7623 HT= -1.9

SE= 3.84

	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	
SOFIA	2.19	354.5	0	38	0	1	8	2			0	44	PG
ATHENS	2.55	178.1	0	44	1	1	15	0			0	48	PG
ISTANBUL KA.	4.18	80.7	1	7	1								
BUCHAREST	4.31	24.4	1	7A	-1	2	12	12			1	49	PG
TARANTO	4.85	271.5	1	17	1						2	8	
BELGRADE	4.89	332.5	1	24A	8	2	40	25			1	38	PG
TIMISOARA	5.51	342.3	1	45	20	2	42	12			2	8	PG
REGGIO CALA.	6.63	251.2									2	9	
MESSINA	6.66	252.2	1	39	-3	2	49	-10			3	15	S*
ZAGREB	7.69	316.0	1	57	1	4	0	35			6	5	
BUDAPEST	7.70	336.1									2	20	
ROME	8.51	282.9									3	25	
LJUBLJANA	8.63	312.8	2	7A	-2	3	46	-2			4	48	SG
TRIESTE	8.85	308.6	2	13	1						4	45	SGSG
SIMFEROPOL	8.91	56.8	2	19	6								
BRATISLAVA	8.96	330.8	2	11	-3	3	42	-14					
VIENNA-H.	9.30	328.6	2	15	-3						5	5	SGSG
LWOW	9.30	1.7	2	23	5	4	12	7					
TOLMEZZO	9.68	310.8	2	26	2								
PRATO	9.87	294.0									3	54	
KRAKOW	9.87	346.0	2	23	-3						5	25	SG
RACIBORZ	10.29	340.1									3	10	
PRUHONICE	11.40	329.0	2	43	-4	5	1	4					
PRAGUE	11.52	329.0									4	6	
PAVIA	11.58	298.5									4	47	
CHUR	11.99	306.5	2	57	2						6	45	
HELWAN	12.35	147.0	2	59	-1	5	19	-1					
RAVENSBURG	12.39	310.5	3	1	1						6	51	
CHEB	12.39	324.2									5	57	
PLAUEN	12.79	325.0	3	17	11								
EBINGEN	12.97	311.0	3	6	-2								
COLLMBERG	13.05	329.2	3	5	-4						3	17	PP
TUBINGEN	13.09	312.5	3	9	-1								
STUTTGART	13.11	313.7	3	7	-3						7	25	SG
JENA	13.36	325.2	3	23	10	5	53	9			5	21	
BASLE	13.48	306.6	3	16	1						7	18	
HALLE	13.63	327.6				5	56	6			3	30	PP
NEUCHATEL	13.66	303.8									6	57	
HEIDELBERG	13.76	315.1	3	17	-2						7	44	
STRASBOURG	13.86	310.8	3	26	6								
POTSDAM	13.89	332.1									8	9	
BESANCON	14.37	303.7	3	33	6								
SETIF	14.92	259.0	3	32	-2								
BENSBERG	15.48	317.9	3	45	4								
MUNSTER	15.88	321.5									8	34	
DOURBES	16.41	312.0	3	49	-4	6	56	0					
COPENHAGEN	16.87	337.8				7	15	9					
UCCLE	16.89	313.9	3	48	-11	6	52	-15					
PARIS	17.12	306.0	4	6	4						8	4	
BAGNERES	17.67	286.0	4	23	14								
MOSCOW	17.81	26.6	4	7	-4								
MAKHACH-KALA	17.98	74.3	4	17	4								
FOLINIERE	18.97	303.8	4	7	-18								
UPPSALA	19.71	351.0	4	36	2								
PULKOVO	19.72	10.1	4	32	-2	8	10	-1					
KEW	19.82	311.5	4	34	-1	8	14	1					
NURMIJARVI	20.02	1.5	4	35	-2								
DURHAM	22.00	318.8	5	1A	4	9	32	36					
TAMANRASSET	23.37	226.3	5	10	-1	9	28	7			5	46	PP
SKALSTUGAN	24.05	347.5	5	15	-3								
SHIRAZ	25.91	105.7	5	37	2								
SODANKYLA	26.95	2.6	5	42	-3								
KIRUNA	27.42	357.4	5	46	-3								
APATITY	27.62	8.1	4	54	-57								
QUETTA	36.50	92.5	7	11	2								
KHEYS	42.13	7.9									14	59	
CHATRA	53.57	84.0	9	24	-1								
RESOLUTE	58.19	344.0	9	55	-3								
SHAWINIGAN	65.81	311.2	10	47	-2								
COLLEGE	74.73	356.2	11	42	-1								
LAWRENCE	83.19	316.6									12	29	

HUNGRY HORSE	83.89	333.1	12 31	-2							
LARAMIE	86.41	324.2	12 45	0							
FLAMING GRGE	88.37	326.3	12 53	-2							
SOUTH POLE	130.33	180.0								20 57	
KARAPIRO	158.13	92.3	20 34	35							

JULY 13 13.H 1.M 1.S EPICENTRE 40.56 23.37 DEPTH= 0.KM

A= 0.69933 B= 0.30224 C= 0.64775 D= 0.3967 E=-0.9179
G= 0.5946 H= 0.2570 K=-0.7618 HT= -1.9

SE= 3.17

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SOFIA	2.14	359.2	0 38	1	1 8	3		0 45	PG
ATHENS	2.60	173.9	0 45	1	1 18	1		0 49	PG
BUCHAREST	4.35	26.7	1 9	0	2 15	14		1 39	PG
ISTANBUL KA.	4.35	81.5	1 7	-2					
TARANTO	4.67	270.8	1 13	0	2 4	-5			
BELGRADE	4.77	334.1	1 17A	2	2 17	6		1 34	PG
TIMISOARA	5.42	343.8	1 32	8	2 37	9		1 45	PG
REGGIO CALA.	6.47	250.1	1 43	4	2 55	1			
MESSINA	6.50	251.2	1 39	0	2 57	2		3 49	S*
KECSKMET	6.89	338.5	2 20	36				3 52	SG
ZAGREB	7.53	316.7	1 51	-3				2 29	PG
KISHINEV	7.56	29.6	1 55	1					
BUDAPEST	7.59	337.1	2 1	7	3 20	-2			
HURBANOVO	8.19	334.8			2 59	-38		2 37	PG
ROME	8.32	282.8	2 5	1	3 30	-10		4 3	S*
LJUBLJANA	8.47	313.3	2 7	0	3 47	3		2 45	PGPG
TRIESTE	8.68	309.0	2 9	-1	3 43	-6		2 47	PGPG
BRATISLAVA	8.83	331.5	2 9A	-3	3 42	-11		2 42	PG
SKALNATE PL.	8.90	346.6	2 9	-4	3 45	-10		4 39	SG
SIMFEROPOL	9.04	57.5	2 14	0					
VIENNA-H.	9.17	329.2	2 16	0	4 22	21			
LWOW	9.27	2.6	2 23	5	4 5	1			
TOLMEZZO	9.52	311.2	2 22	1	4 14	4		2 50	P*
PRATO	9.69	294.0	2 37	14	3 16	-58			
BOLOGNA	9.72	297.8						2 50	
KRAKOW	9.79	346.8	2 23	-2				4 26	SS
RACIBORZ	10.19	340.8						2 46	PPP
CHORZOW	10.20	343.9			4 41	14			
PRUHONICE	11.27	329.6	2 45	0	4 59	6			
PRAGUE	11.39	329.5	2 49	2	4 59	3			
PAVIA	11.40	298.6			4 49	-7			
WARSAW	11.78	352.9	2 53	1				2 56	PP
CHUR	11.82	306.7	2 54	1				6 43	
KSARA	12.03	120.1	2 56	1	5 8	-3			
RAVENSBURG	12.22	310.7	2 56	-2				5 47	
MONACO	12.25	290.2	3 9	11					
CHEB	12.25	324.6	2 55	-3					
OROPA	12.34	299.3						8 2	
HELWAN	12.49	146.2	2 59	-3	5 20	-3			
PLAUEN	12.65	325.4	3 13	9	5 53	26			
EBINGEN	12.80	311.3	3 5	-1				5 47	
COLLMBERG	12.92	329.6	3 6	-1	5 28	-5		3 17	PP
TUBINGEN	12.93	312.8	3 9	2					
STUTTGART	12.94	314.0	3 7	-1	5 27	-7		5 46	
JERUSALEM	12.97	128.8	3 10	2	5 42	8			
SONNEBERG	13.00	323.1	3 7	-1	5 45	10			
JENA	13.22	325.6	3 8	-3	5 57	17		4 49	
BASLE	13.31	306.8	3 11	-2				6 1	SSS
NEUCHATEL	13.49	303.9	3 14	-1				7 11	
HALLE	13.49	328.0	3 15	0	5 52	5		3 25	PP
HEIDELBERG	13.60	315.4	3 14	-2				5 33	
STRASBOURG	13.69	311.0	3 17	-1	5 59	7			
POTSDAM	13.77	332.6	3 19	0	6 0	7			
BESANCON	14.19	303.8	3 24	0					
SETIF	14.75	258.6	3 31	-1				3 45	PP
BENSBERG	15.33	318.1	3 43	4	6 20	-10			
CLERMONT-FD.	15.65	296.1	3 47	4	6 54	16			
MUNSTER	15.73	321.7	3 27	-17					
TIFLIS	16.18	78.9	3 52	2					
DOURBES	16.24	312.2	3 48	-3	6 46	-6			
ALGIERS UNI.	16.31	263.1	3 52	0	6 58	5			

WITTEVEEN	16.73	322.7	4	5	8							
UCCLE	16.73	314.1	3	51	-6						4	4 PP
COPENHAGEN	16.76	338.1	3	58	1	7	8	4				
PARIS	16.95	306.1	4	10	10	7	13	5				
DE BILT	17.00	318.8	4	7	7	7	24	15				
TORTOSA	17.35	278.3	4	13	8						9	35
BAGNERES	17.48	285.9	4	10	4							
GORIS	17.61	86.0	4	11	3	7	19	-4				
MOSCOW	17.85	27.0	4	7	-4							
MAKHACH-KALA	18.15	74.4	4	17	2							
RELIZANE	18.56	262.3	4	18	-2						4	33 PP
GOTEBORG	18.65	340.6	4	23	2							
FOLINIERE	18.79	303.8	4	24	1							
UPPSALA	19.64	351.4	4	31	-2						4	54
KEW	19.65	311.6	4	36K	3	8	12	3				
PULKOVO	19.72	10.5	4	37	4	8	6	-5				
JERSEY	19.93	304.1									12	39
NURMIJARVI	19.99	1.9	4	34	-3	8	12	-5				
ALMERIA	20.48	267.9	4	40A	-2							
TOLEDO	20.92	277.1	4	46	0	8	49	13			5	3 PP
GRANADA	21.24	269.6	4	51A	1	9	50	68				
DURHAM	21.85	318.9	4	54	-2	8	48	-5				
MALAGA	21.99	268.9	4	55A	-2	8	53	-3			5	17 PP
TEHERAN	22.51	93.3	5	2	0	9	15	10				
BERGEN	22.80	336.6	5	6	1	9	9	-2				
TAMANRASSET	23.27	225.7	5	11	1	9	26	7				
ABERDEEN	23.38	323.8	5	10	-1	9	28	7			10	5 SS
SKALSTUGAN	23.97	347.8	5	16	-1							
SERRA PILAR	24.13	281.9	5	14K	-4	9	27	-7			5	49 PP
SHIRAZ	26.10	105.5	5	22	-15	10	3	-4	6	6	11	31 *SS
SODANKYLA	26.92	2.8	5	42	-2							
KIRUNA	27.37	357.6	5	47	-2						14	43
APATITY	27.60	8.3	5	48	-3	10	23	-9			6	29 PP
ADDIS ABABA	34.26	152.2	6	52	3	12	33	17				
STALINABAD	34.76	78.2	6	55	1							
NAMANGAN	36.21	73.1	7	7	1							
QUETTA	36.69	92.4	7	10	0	12	53	-1			8	34 PP
ANDIJAN	36.78	73.3	7	11	0							
SCORESBY SD.	37.80	337.0	7	21	1						8	55 PP
WARSAK DAM	38.50	84.0	7	34	9							
KHEYS	42.12	8.0	7	49	-6							
LWIRO	42.90	172.0	8	1	-1							
NORD	43.41	352.1	8	4K	-2							
THULE	51.38	342.4	9	8	0							
CHATRA	53.74	83.8	9	25K	-1							
BROKEN HILL	54.93	174.0	9	25	-10							
LHASA	55.20	78.7	9	40	3							
SHILLONG	57.98	82.4	9	52K	-4							
RESOLUTE	58.10	344.0	9	55	-2							
BULAWAYO	60.58	174.3	10	15	1							
HALIFAX	61.17	305.5	10	17A	-1							
LANCHOW	61.19	65.8	10	18	-1							
WINDHOEK	63.08	186.5	10	31K	0							
CHENGTU	64.18	70.8	10	37	-1							
SEVEN FALLS	64.21	310.9	10	38	-1							
SHAWINIGAN	65.64	311.1	10	47	-1							
SIAN	65.68	65.0	10	47	-1							
KUNMING	66.37	76.5	10	51	-2							
BREBEUF	66.72	310.5	10	55	0							
PEKING	67.27	56.3	10	56	-2							
OTTAWA	67.98	311.4	11	3	0							
KIMBERLEY	68.97	178.7	11	9A	0							
PALISADES	69.49	306.7										
MORGANTOWN	73.98	308.6	11	41A	2							
COLLEGE	74.68	356.1	11	42	-1							
FLORISSANT	80.53	313.5	12	16	1							
ST. LOUIS 1	80.57	313.3	12	15	0							
MATUSIRO	82.75	47.5	12	26	-1	22	44	-1				
RAPID CITY	83.00	324.3	12	28	0							
LAWRENCE	83.04	316.4	12	30	2							
HUNGRY HORSE	83.77	333.0	12	31	-1							
FAYETTEVILLE	84.59	313.8	12	36K	0							
BOZEMAN	84.96	329.8	12	39	1							
FLAMING GRGE	88.24	326.2	12	53	-1							
EUREKA	92.13	329.7	13	12	0							
GLEN CANYON	92.48	325.4	12	42	-32							
SOUTH POLE	130.37	180.0	19	6	-6							
BYRD STATION	138.06	189.1	19	20	-7							
CAPE HALLETT	144.27	163.4	19	36	-2							

											13	32
											22	35 SKP

AFIAMALU	150.32	30.8	19	55	7														
KARAPIRO	158.32	92.1	20	33	34														

JULY 13 16.H 23.M 58.S EPICENTRE 17.45 -94.60 DEPTH= 119.KM

A=-0.07653 B=-0.95148 C= 0.29804 D=-0.9968 E= 0.0802
G=-0.0239 H=-0.2971 K=-0.9546 HT= 5.3

DEPTH OF FOCUS= 0.014R

SE= 2.58

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
OAXACA	2.12	258.7	0	34A	-2	0	58	-5					
VERA CRUZ	2.27	320.3	0	38	0	1	6	0					
COMITAN	2.65	116.4	0	36	-7	1	6	-9					
PUEBLA	3.77	295.2	1	2	4	1	44	2					
TACUBAYA	4.78	294.6	1	11	-1	2	5	-2			1	47	
MERIDA	5.85	52.7	1	28A	2	2	35	2					
SAN SALVADOR	6.41	125.0	1	36	2						3	19	
SANTIAGO MA.	7.10	122.8									2	18	
LEON	7.61	299.8									3	5	
GUADALAJARA	8.85	292.7									2	38	
MANZANILLO	9.38	281.3				4	8	10					
CHIHUAHUA	15.33	318.6				6	40	22			7	2	SS
FAYETTEVILLE	18.57	1.0	4	11A	1	7	34	4	4	38			
COLUMBIA	20.48	33.8	4	32	1	8	16	8					
TUCSON TELE.	20.78	318.5	4	35	1				5	0	10	26	
TUCSON	20.79	318.1	4	36	2				4	59	5	34	
LAWRENCE	21.45	358.6	4	40	0								
ST. LOUIS 1	21.45	9.4	4	41A	1	8	35	9					
FLORISSANT	21.59	9.0	4	41K	-1	8	37	9					
CHINCHINA	22.34	121.5	4	52	3								
BOGOTA	23.81	120.0	5	2	-1	9	18	11					
MORGANTOWN	25.50	27.0	5	21K	2	10	19	44					
LARAMIE	25.59	340.6	5	21	1								
CLEVELAND	26.45	22.4	6	1K	33								
FLAMING GRGE	26.65	334.4	5	32	2				6	0			
PASADENA	26.86	312.8	5	32	0								
RAPID CITY	27.52	346.5	5	30	-8				6	8			
CARACAS	27.70	100.8	5	55	16	10	50	39					
EUREKA	28.75	324.1	5	49	0				6	17			
FRESNO	29.41	315.9	6	22	27								
LICK	30.95	315.2	6	8K	0								
BOZEMAN	31.30	337.5	6	13	2				6	41			
WESTON	31.80	33.8	6	54	38								
OTTAWA	32.02	25.5	6	17A	-1								
BUTTE	32.17	336.2	6	45	26								
BREBEUF	33.00	27.5	6	25A	-1	11	37	2					
SHAWINIGAN	34.18	27.2	6	36	0								
HUNGRY HORSE	34.66	337.0	6	41	1				7	9			
HUANCAYO	34.95	145.7	6	43K	0						7	25	*SP
SEVEN FALLS	35.48	28.3	7	17	30								
CORVALLIS	36.21	324.5	6	53A	0								
HALIFAX	37.54	37.1	7	37	32								
BANFF	37.55	338.3	7	22	17				7	50			
PENTICTON	37.69	333.1	7	1	-5				7	35			
VICTORIA	38.86	329.3	7	14	-2								
LA PAZ	42.64	140.9	7	48	1								
RESOLUTE	57.24	359.9	9	38	0	17	24	2			10	7	
COLLEGE	59.10	336.5	9	49	-2				10	19	11	9	
SCORESBY SD.	67.89	20.3	11	19	31								
NORD	71.09	8.7	11	7	-1				11	39			
ISFJORD	76.74	11.7	12	15	35								
DURHAM	77.66	36.3	11	37	-8	21	11	-15					
KHEYS	81.09	4.4									12	37	
SKALSTUGAN	81.80	25.6	12	9	1				12	45			
KIRUNA	82.97	20.3	12	14	1				12	48			
SODANKYLA	85.22	19.4	12	24	-1				12	59			
UPPSALA	85.70	27.9	12	59	32								
STUTTGART	85.87	40.1	12	28	0				13	4			
COLLMBERG	87.09	36.8	12	38	4				13	21	13	34	*SP
SETIF	87.64	52.9	12	35	-2				13	20			
NURMIJARVI	88.39	25.6	12	40	0								
LJUBLJANA	90.22	41.2									17	21	

ROME	90.63	45.5				23	43	9			
TAMANRASSET	92.29	65.4	13	0	2				13	27	
YAKUTSK	93.40	340.7									13 35
CHARTERS TS.	122.59	257.0	18	42	0						
SHIRAZ	123.44	34.5	18	43	-1						
QUETTA	129.42	20.8	18	56	1				19	30	

JULY 13 20.H 27.M 49.S EPICENTRE 34.31 139.06 DEPTH= 0.KM

A=-0.62523 B= 0.54244 C= 0.56111 D= 0.6553 E= 0.7553
G=-0.4238 H= 0.3677 K=-0.8277 HT= 0.4

SE= 2.77

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NAGATURO	0.33	329.4	0	9	-3	0	14	-5				
OSIMA	0.53	30.3	0	12K	-2	0	21	-3				
AJIRO	0.74	2.8	0	15	-2	0	24	-5				
OMAESAKI	0.75	292.8	0	17A	0	0	31	1				
MISIMA	0.81	353.9	0	16	-2	0	28	-3				
SHIZUOKA	0.85	320.7	0	18A	-1	0	27	-5				
MERA	0.88	46.3	0	16K	-3	0	28	-5				
HAMAMATU	1.18	290.6	0	23A	-1	0	40	-1				
HUNATU	1.21	348.9	0	23A	-1	0	42	1				
YOKOHAMA	1.22	23.5	0	23K	-1	0	42	0				
HATIDYOZIMA	1.41	121.1	0	26	-1						0	40
KOHU	1.41	343.4	0	26K	-1	0	46	-1				
TOKYO C.M.O.	1.48	22.5	0	27K	-1	0	48	0				
HONGO	1.51	22.6	0	26	-2	0	49	0				
IIDA	1.57	320.5	0	29	0	0	50	-1				
TITIBU	1.66	0.7	0	31	0	0	55	2				
KUMAGAYA	1.85	8.1	0	33	0	0	55	-3				
NAGOYA	1.92	297.1	0	34A	0	0	59	0				
TYOSI	2.04	45.9	0	33	-3	1	3	1				
OIWAKE	2.06	348.5	0	37	1	1	6	3				
MAEBASI	2.08	0.3	0	37K	0	1	6	2				
TUKUBASAN	2.09	23.9	0	34K	-3							
KAKIOKA	2.12	25.4	0	35K	-2	1	7	2				
MATUMOTO	2.13	335.6	0	40A	3	1	13	8				
TU	2.13	281.2	0	40	3	1	4	-1				
GIHU	2.17	300.6	0	38A	0	1	7	1				
MATUSIRO	2.33	343.0	0	38	-2	1	13	3				
UTUNOMIYA	2.33	16.4	0	39	-1	1	9	-1				
TAKAYAMA	2.36	321.6	0	41	1	1	21	10				
MITO	2.36	28.9	0	39K	-2	1	6	-5				
OWASE	2.38	265.0	0	39	-2	1	8	-3				
NAGANO	2.45	343.7	0	43K	1	1	19	6				
HIKONE	2.50	293.3	0	42	-1	1	13	-1				
NARA	2.69	278.7	0	44	-1	1	16	-3				
TSURUGA	2.79	299.4	0	47	0	1	26	4				
TOYAMA	2.82	328.1	0	50	3							
KYOTO	2.83	285.4	0	47	0	1	21	-2				
TAKADA	2.86	347.0	0	46	-2	1	28	5				
SIOMISAKI	2.87	253.5	0	46	-2	1	23	0				
HUKUI	2.89	307.6	0	49	1	1	27	3			2	59
ABUYAMA	2.93	281.9	0	47A	-2	1	23	-2				
OSAKA	2.93	277.6	0	47A	-2	1	29	4				
SHIRAKAWA	2.96	18.3	0	48	-1	1	29	3				
KANAZAWA	2.96	319.1	0	52	3							
ONAHAMA	3.03	29.2	0	50	0	1	33	5				
WAKAYAMA	3.22	269.6	0	52	-1	1	30	-2			1	46
KOBE	3.22	277.6	0	52	-1	1	30	-3				
MAIZURU	3.23	292.0	0	55	2	1	34	1				
SUMOTO	3.43	271.6	0	55K	-1	1	35	-3				
WAZIMA	3.53	330.8	1	14	17						1	55
NIIGATA	3.60	359.9	0	59	1	1	42	0			1	57
HUKUSIMA	3.62	18.1	0	57	-1							
TOYOOKA	3.69	290.4	0	59	0	1	49	5				
AIKAWA	3.76	350.2	0	59	-1	1	57	11			4	50
YAMAGATA	4.07	14.5	1	5	0							
TAKAMATU	4.14	271.5	1	5	-1	1	54	-2				
MUROTO	4.20	256.7	1	7	0	2	0	3			2	47
SENDAI	4.22	20.1	1	12	5	2	15	17				
ISINOMAKI	4.50	23.3	1	9A	-2	1	52	-13				
SAKATA	4.62	7.5	1	12	-1							

KOTI	4.66	262.1	1	12	-1	2	11	2			
YONAGO	4.82	285.0				2	38	25	3	24	
SAIGO	5.05	293.5	1	33	14	2	45	26			
MIZUSAWA	5.09	18.5	1	26	7	2	18	-2			
MATUYAMA	5.23	266.6	1	20	-1	2	35	12			
SIMIDU	5.31	255.0	1	22	0				3	6	
AKITA	5.46	8.5	1	30	5	2	33	4	3	5	
MORIOKA	5.64	16.8	1	24	-3	2	42	9	3	17	
HAMADA	5.79	277.8	1	29	0	2	38	1	3	15	
MIYAKO	5.82	22.8							2	12	
ODITA	6.29	262.2	1	35	-1	3	11	21	2	18	
HATINOHE	6.51	16.9	1	42	3	3	10	15			
AOMORI	6.64	11.4	1	48	7						
MIYAZAKI	6.84	251.7	1	44	0				4	33	
KUMAMOTO	7.13	260.3	1	47	-1				3	49	
HUKUOKA	7.25	266.6	1	48	-2				3	52	
KAGOSIMA	7.65	251.4	1	57	2				4	39	
NAGASAKI	7.82	260.9							3	1	
MORI	7.87	8.3	2	8	10				4	9	
YAKUSIMA	8.20	244.3	2	3	0						
TOMAKOMAI	8.54	12.6							3	32	
SAPPORO	8.93	10.9	2	17	4				4	20	
Y.-SAKHLINSK	12.99	11.2	3	17	8						
CHANGCHUN	14.28	315.8	3	27	1						
UGLEGORSK	14.92	7.7	3	26	-8						
ZO-SE	15.39	262.9	3	38	-2	6	33	1	6	49	SS
NANKING	17.12	268.1	4	2	0	7	16	4	7	35	SS
PEKING	19.09	294.1	4	27	0	8	4	7			
WUHAN	21.00	266.4	4	47A	0	8	45	8			
PETROPAVLOVK	23.33	30.8	5	10	-1						
BAGUIO CITY	24.34	227.5	5	27	7	9	39	1			
HONG KONG	24.89	247.8	5	31	5	9	57	10			
CANTON	25.11	250.3	5	29A	1	9	55	4			
MAGADAN	26.41	13.5	5	39	-1						
YAKUTSK	28.36	350.7	5	55	-3						
LANCHOW	28.75	283.7	5	58	-3						
KUNMING	32.70	263.6	6	34	-2	11	53	0			
ANDIJAN	52.14	297.9	9	19	5	16	42	4			
COLLEGE	52.41	31.0	9	14	-2						
NAMANGAN	52.59	298.4	9	30	12						
KHEYS	54.92	348.6							19	17	
STALINABAD	55.44	296.4	9	37	-2						
QUETTA	59.94	287.8	10	10	0						
SODANKYLA	66.72	337.1	10	55	0						
MOSCOW	68.29	323.4	11	12	7						
KIRUNA	68.37	339.0	11	3	-2						
MAKHACH-KALA	68.62	308.0							10	26	
PULKOVO	69.55	329.2							13	6	
SHIRAZ	71.35	293.5	11	20	-4						
NURMIJARVI	71.43	331.6	11	24	0						
SKALSTUGAN	73.73	338.1	11	37	-1						
SHASTA	74.28	51.4	11	39	-2						
UPPSALA	74.54	333.5	11	42	0						
MINERAL	74.98	51.3	11	47	2						
HUNGRY HORSE	75.09	41.3	11	45	0						
EUREKA	79.06	49.6	12	6	-2						
FLAMING GRGE	82.20	45.3	12	27	3						
COLLMBERG	82.48	329.2	12	27	1				12	55	
PRUHONICE	82.77	327.6	12	33	6				13	3	
STUTTGART	85.96	329.4	12	48	5						
UCCLE	86.32	333.1	12	42	-3						
BROKEN HILL	114.90	269.1							26	34	
SOUTH POLE	124.13	180.0	18	57	-4						
BYRD STATION	125.53	167.9	18	59	-4						
LA PAZ	149.85	60.8	19	58	11						

JULY 14 10.H 27.M 14.S EPICENTRE 4.81 127.62 DEPTH= 120.KM

A=-0.60832 B= 0.78930 C= 0.08334 D= 0.7921 E= 0.6104
G=-0.0509 H= 0.0660 K=-0.9965 HT= 7.0

DEPTH OF FOCUS= 0.014R

SE= 2.94

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

MANILA	11.72	327.1	3 5	20	5 19	26		
BAGUIO CITY	13.45	329.6	3 6	-1	5 32	-2		
HENGCHUN	18.34	339.3	4 14	6				
GUAM	18.95	61.9	4 16	2	7 58	20		
KAOHSIUNG	19.08	338.8	4 38	22				
HWALIEN	19.90	343.7	4 33	9				
ILAN	20.63	344.7	4 38	6	7 19	-51		
TAIPEI	20.94	344.3	4 46	11	8 22	6		
HONG KONG	21.72	324.4	4 40K	-3	8 30	0		5 7 PP
CANTON	22.81	324.1	4 53	0	8 54	4		
LEMBANG	23.07	240.1	4 53A	-3	8 59	5		
DJAKARTA	23.46	242.5	4 56	-3	9 6	5		
RABAUL	26.11	109.7	5 20	-5				
ZO-SE	26.84	347.7	5 31A	0	9 59	2		
NANKING	28.34	344.0	5 45A	0				
WUHAN	28.39	335.8	5 45	0	10 24	2		
MEDAN	28.89	268.7	5 48K	-2				6 18
CHARTERS TS.	30.79	144.1	6 5	-2	10 44	-16		
ABUYAMA	30.80	12.8	6 5K	-2				
KUNMING	31.27	312.7	6 11	0	11 9	2		7 12 PP
MATUSIRO	33.04	15.7	6 23	-3	11 32	-3		9 8 PCP
TUKUBASAN	33.30	18.6	6 24K	-4				7 56 PP
CHENGTU	33.99	321.9	6 34A	0	11 48	-2		
SIAN	34.05	331.7	6 34A	-1	11 55	-4		
PORT BLAIR	35.18	283.4	6 50	6				11 4
PEKING	36.55	345.2	6 56A	0	12 29	0		
LANCHOW	38.02	327.9	6 59A	-9				
MUNDARING	38.16	195.8	7 9	0	12 57	4		
TOCKLAI	38.20	308.3	7 14K	4	13 1	7		
PERTH	38.24	196.3	7 13	3				15 44 SS
CHITTAGONG	38.77	300.1	7 7	-7	13 1	-1		8 37 PP
CHANGCHUN	38.91	357.3	7 13	-3	13 3	-2		
SHILLONG	39.99	304.8	7 24K	-1	13 21	0		
BRISBANE	40.19	144.1	7 27K	1	13 27	3		
CALCUTTA	41.82	298.7	7 36	-4	13 46	-2		9 6 PP
LHASA	42.47	309.8	7 46	1	14 0	3		
KURILSK	43.97	20.6	7 57	0				
Y.-SAKHLINSK	44.02	14.9	7 56	-1				
CHATRA	44.36	304.0	8 0A	0	14 24	-1		
RIVERVIEW	44.41	151.6	8 8A	7	14 37	12		
CANBERRA	44.69	154.9	8 2A	-1			8 8	8 10 *SP
MELBOURNE	45.39	160.6	8 9K	1	14 48	8		
UGLEGORSK	45.79	13.2	8 14	2	14 50	5		
MADRAS	47.50	283.2	8 24	-1	15 16	7		10 20 PP
KODAIKANAL	49.97	279.3			15 50	6		
IRKUTSK	51.08	341.8	8 53	1	16 9	10		
AGRA	52.17	300.8	8 59A	-2	16 14	0		14 6 PCS
DEHRA DUN	53.08	304.6	9 6	-1	16 29	3		19 46 SS
POONA	54.19	289.3	9 14	-1	16 44	3		11 16 PP
PETROPAVLOVK	54.39	22.5	9 16	-1				
BOMBAY	55.20	289.6						10 8
LAHORE	56.50	304.8	9 31A	-1	17 14	2		
YAKUTSK	57.10	1.2	9 34	-2				
MAGADAN	57.43	13.8	9 38	-1				
WARSAK DAM	59.44	306.8	9 53	0	17 54	4		
ANDIJAN	60.94	314.4	10 3	0				
KARAPIRO	61.50	138.1	10 6	-1			10 27	
NAMANGAN	61.52	314.5	10 8	1	18 23	6		
CHATEAU	62.19	139.3	10 11	0			10 30	
QUETTA	62.33	301.5	10 12	0	18 32	5		12 19 PP
STALINABAD	62.88	311.1	10 14	-2	18 38	4		
AFIAMALU	62.93	108.2	10 36	20				
WILKES	72.05	187.2	11 12A	-1	20 30	6		11 38 PCP
HONOLULU	73.63	69.3	11 24	2				
KIPAPA	73.70	69.2	11 24	1				
SHIRAZ	74.69	299.3	11 28K	0	20 57	4		11 49 PCP
MIRNY	75.41	193.6	11 32	0	21 8	7		
TEHERAN	76.03	305.5	11 37A	1	21 14	6		
MAKHACH-KALA	79.51	312.7	11 56	1	21 50	5		
GORIS	80.24	309.1	12 1	2	22 1	8		
TIFLIS	81.46	311.3	12 8	3				
CAPE HALLETT	81.67	167.9	12 7K	0	22 17	10		22 46 SKS
KHEYS	81.99	351.1	12 9	1	22 12	1		
TANANARIVE	82.20	250.3	12 13K	4			12 30	
COLLEGE	83.36	25.3	12 15	0	22 52	28		28 2 SS
MAWSON	85.07	200.4	12 24	0				
SCOTT BASE	85.28	172.3	12 25	0	22 46	3		
MOSCOW	86.05	325.5	12 29	0			12 52	

APATITY	87.19	337.4	12	33K	-1	22	52	-10		16	10 PP
ADDIS ABABA	88.12	278.8	12	42	3	23	14	4		16	18 PP
KSARA	88.80	303.7	12	43	1	23	11	-6	13 2	16	6 PP
SIMFEROPOL	89.11	314.9	12	44	1	23	30	10			
JERUSALEM	89.54	301.7	12	48	3	24	3	40			
PULKOVO	89.55	329.9	12	45	0	23	26	2			
SODANKYLA	89.81	337.7	12	45	-1	23	26	0		16	19 PP
ISFJORD	90.16	349.0	12	48	0						
KIRUNA	91.99	338.7	12	55	-2						
HELSINKI	92.12	330.8	12	56	-1	23	45	-1			
NURMIJARVI	92.19	331.1	12	57	0	23	48	1			
SOUTH POLE	94.78	180.0	13	8	-1					17	40
BUCHAREST	94.85	315.2	13	11K	1	23	49	-21			
LWOW	95.06	320.8	13	12	1					31	5
UPPSALA	95.74	331.5	13	12	-2					13	37
WARSAW	96.28	323.6	13	16A	0	23	59	19		19	20 PPP
RESOLUTE	96.60	10.4	13	17	-1						
SKALSTUGAN	96.68	336.0	13	16	-2						
SOFIA	97.18	313.9	13	21	1				13 45		
KRAKOW	97.56	321.7	13	23	1	23	50	3			
BYRD STATION	98.60	170.6	13	30	3					17	29 PP
RACIBORZ	98.61	322.1	13	28	1						
LWIRO	98.97	268.5								16	48
COPENHAGEN	99.87	328.6	13	29	-3					17	49 PP
BRATISLAVA	99.90	320.5	13	31	-2	24	1	2		17	34 PP
BROKEN HILL	100.03	256.2	13	34	1						
CORVALLIS	100.05	43.3	13	36	3						
BULAWAYO	100.09	250.5	13	34	1						
POTSDAM	100.83	325.4	13	36	-1					17	47 PP
PRUHONICE	100.86	322.8	13	38	1	24	24	21		25	15 S
COLLMBERG	101.29	324.4	13	40K	1					17	50 PP
HALLE	101.82	324.9	13	42	1	24	43	35	14 12	17	30 PP
SHASTA	101.82	46.9	13	42	1						
PLAUEN	102.09	323.9	13	42	0						
SCORESBY SD.	102.14	350.0	13	44	1	24	21	12		18	1 PP
JENA	102.26	324.4	13	43	0					17	49 PP
LJUBLJANA	102.27	319.0	13	42	-1					17	58 PP
MINERAL	102.50	47.0	13	45K	1						
SONNEBERG	102.70	324.0	14	16	31						
BERKELEY	102.73	49.6	13	48	3	24	24	12			
TRIESTE	102.91	318.8	13	46	0	25	29	76		18	6 PP
TOLMEZZO	103.12	319.8								17	29
LICK	103.35	50.0	13	50A	2						
MUNSTER	104.05	326.5			*					18	8 PP
RENO	104.06	47.4								17	17
STUTTGART	104.51	323.0	13	54	1					18	10 PP
HUNGRY HORSE	104.69	37.4	13	56	2					17	34
BENSBERG	104.76	325.7	17	42	777					18	16 PP
ROME	105.11	315.6								18	17 PP
DE BILT	105.32	327.3								27	26 PS
PAVIA	106.07	319.7								18	26 PP
UCCLE	106.41	326.4	14	3	777	25	20	51			
BUTTE	106.58	39.1	14	4	777						
DOURBES	106.62	325.7				24	41	11		18	29 PP
EUREKA	106.87	46.4	14	5	777					18	14
PASADENA	107.00	52.3	18	0	777	24	40	9		18	32 PP
DURHAM	107.28	331.9								18	32 PP
BOZEMAN	107.69	39.0	18	30	777						
MONACO	107.81	318.8	18	16	777						
PARIS	108.46	325.3	14	29	777					19	0 PP
FOLINIERE	110.14	326.3								18	57 PP
FLAMING GRGE	110.90	42.9	14	24	777					18	59 PP
SETIF	112.38	312.3	18	5	-17					19	11 PP
BAGNERES	112.80	320.9								19	16 PP
RAPID CITY	113.32	37.5	18	26	2					19	17
TUCSON TELE.	113.48	51.8	18	28	4					19	20
TORTOSA	113.71	318.6								19	20 PP
ALGIERS UNI.	113.85	313.7				26	53	114		19	50 PP
RELIZANE	116.11	313.7								19	57 PP
TAMANRASSET	117.17	298.5	18	21	-10					19	39 PP
GRANADA	118.32	317.0								30	27 PS
MALAGA	119.10	316.9								19	49 PP
FAYETTEVILLE	123.55	40.4	18	46K	E						
SHAWINIGAN	125.76	17.2	18	50	2						
SEVEN FALLS	125.78	15.5	18	50A	2						
OTTAWA	125.84	20.1	18	51A	3						
PENNSYLVANIA	128.95	24.8	18	57	3					21	5 PP
MORGANTOWN	129.00	27.4	18	58	4					22	13 PKS

HALIFAX	129.77	10.4	18 58	2				
WESTON	129.97	18.3	18 59	3				
PALISADES	130.32	21.4	18 51	-6	26 17	25	21 11	PP
WASHINGTON	130.87	25.5	18 51	-7			21 59	
COLUMBIA	132.85	32.9					17 26	
MBOUR	140.04	299.0	19 19	4			22 37	PP
SAN JUAN	153.27	30.1	19 47	11			20 51	
CHINCHINA	154.83	67.6	19 43	5			30 27	SKKS
HUANCAYO	156.20	109.0	19 47A	7			20 13	PKP2
FUQUENE	156.36	64.7	19 43A	3			20 9	PKP2
BOGOTA	156.39	66.9	19 47	7			22 22	
CARACAS	158.99	43.6	19 57K	13			20 33	PKP2
LA PAZ	160.67	128.1	19 51	6			20 31	PKP2
TRINIDAD	162.21	30.3	19 51	4				

JULY 14 18.H 39.M 36.S EPICENTRE 7.25 38.45 DEPTH= 0.KM

A= 0.77699 B= 0.61689 C= 0.12543 D= 0.6218 E=-0.7832
G= 0.0982 H= 0.0780 K=-0.9921 HT= 6.8

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
ADDIS ABABA	1.79	10.2	0 29	-4				
LWIRO	13.48	225.9	3 14K	-1	6 17	30		
BROKEN HILL	23.73	204.7	5 16	1				11 36
JERUSALEM	24.59	353.4	5 26	3	9 41	-1		
SHIRAZ	25.92	29.0	5 33A	-3				15 40 SCS
KSARA	26.54	355.2	5 52	10				11 11
BULAWAYO	28.89	199.4						14 25
LUANDA	29.79	237.9						15 36
TEHERAN	30.73	20.9	5 52	-27	11 29	7		
TIFLIS	34.78	8.3	6 54	-1				
QUETTA	35.14	45.9	6 57	-1	12 36	5		
TAMANRASSET	35.23	299.6	6 59	1				8 24 PP
MAKHACH-KALA	36.46	11.2			13 3	12		
MESSINA	37.13	329.5						13 22
SOFIA	37.74	341.7	7 16	-4				
SIMFEROPOL	37.74	355.0	7 20	0	13 15	4		
KIMBERLEY	38.14	199.6	7 24	-1				
WARSAK DAM	40.51	44.3	7 43	0				
ROME	41.47	330.4						14 18
STALINABAD	41.48	36.7	7 55	4				
SETIF	41.72	318.5	7 49	-4				9 32 PP
DEHRA DUN	43.62	53.0						17 51
TRIESTE	43.81	335.0	8 11	1				
LJUBLJANA	43.81	335.9	8 9	-1				
BRATISLAVA	44.62	339.7	8 17A	1				
TOLMEZZO	44.71	335.0	8 16	-1				10 4 PP
NAMANGAN	44.74	36.1	8 20	3				
ANDIJAN	45.01	36.8	8 22	3				
MONACO	45.35	328.3	8 23	1				
PRUHONICE	47.05	339.1	8 36	1				
STUTTGART	48.15	334.3	8 46	2				
MOSCOW	48.35	359.4	8 46	0				
BESANCON	48.54	330.8	8 47	0				
STRASBOURG	48.67	333.2	8 49	1				
COLLMBERG	48.70	339.0	8 48	0				10 43 PP
HEIDELBERG	48.87	334.5	8 50	0				
JENA	48.91	337.7	8 50	0				10 46 PP
BAGNERES	49.01	323.0	8 52	1				
POTSDAM	49.57	339.8	8 54	-1				
TOLEDO	49.99	317.3	8 59	1				
UCCLE	51.81	333.1	9 15	3	16 39	5		
SHILLONG	54.00	63.7	9 24	-4				
NURMIJARVI	54.14	351.6	9 26	-3				
GOTEBORG	54.36	342.9	9 32	1				
UPPSALA	54.80	347.3	9 34	0				
MEDAN	60.04	90.0	10 13A	2				
SODANKYLA	60.56	354.8	10 10	-5				
KIRUNA	61.70	352.3	10 21	-2				
SCORESBY SD.	73.57	342.3	11 39	2				
MAWSON	76.68	170.6	11 53	-2				
YAKUTSK	84.25	28.3	12 35	0				
RESOLUTE	93.45	348.8			24 30	5		

JULY 14 22.H 11.M 8.S EPICENTRE 35.84 69.95 DEPTH= 90.KM

A= 0.27855 B= 0.76325 C= 0.58298 D= 0.9394 E=-0.3428
G= 0.1999 H= 0.5476 K=-0.8125 HT= -0.2

DEPTH OF FOCUS= 0.009R

SE= 2.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KHOROG	2.07	37.4	0	36	2	1	1	2					
WARSAK DAM	2.26	144.0	0	36	-1	1	2	-2					
OBI-GARM	2.86	356.1	0	46	1	1	18	-1					
DUZHANBE	2.88	341.3	0	48	3	1	22	3					
GARM	3.16	4.9	0	49	0	1	23	-3					
DZERGETAL	3.52	16.4	0	56	2	1	35	0					
MURGAB	4.06	50.4	1	3	1								
SAMARKAND	4.49	329.2	1	4	-4	1	51	-8					
FERGANA	4.75	17.1	1	14	3	2	5	-1			2	25	
ANDIJAN	5.25	20.5	1	19	1	2	17	-1			1	56	
NAMANGAN	5.30	14.2	1	19	0	2	16	-3					
LAHORE	5.70	134.4	1	22K	-2	2	25	-3			1	47	*SP
TASHKENT	5.49	354.7	1	20	-1	2	17	-7			1	56	
QUETTA	6.18	204.9	1	31K	0	2	40	-1			2	5	*SP
TCHIMKENT	6.45	357.7	1	33	-2						2	17	
BAIRAM-ALI	6.53	287.9	1	32	-4								
NARYN	7.31	38.5	1	45	-1						3	11	
FRUNSE	7.86	26.0	1	54	0						3	18	
RYBACHE	8.18	34.4	1	57	-1	3	24	-6			2	30	
DEHRA DUN	8.75	126.7	2	6	0	3	40	-4			2	19	PPP
FABRICHNAYA	8.83	32.6	2	7	0						3	27	
ALMATA	9.17	33.9	2	12	0	3	53	-1			5	6	
PRZHEVALSK	9.32	42.2	2	14	0	3	57	-1			4	52	
ALMATA-2	9.37	35.4	2	15	1						2	33	
ASHKABAD	9.53	286.2									2	13	
KURMENTY	9.62	39.5	2	16	-2								
AGRA	11.08	139.4	2	32K	-5	4	29	-11					
KARACHI	11.26	193.7	2	40	0	4	34	-10					
KIZYL-ARVAT	11.37	291.2									4	32	
SEHORE	14.06	152.0	3	4	-13	5	33	-18			3	16	PP
TEHERAN	15.07	275.0	3	32	2	6	33	19					
SHIRAZ	15.90	252.1	3	41K	1	6	45	12					
SEMIPALATNSK	16.35	24.0									3	48	
BOMBAY	17.07	170.7				7	34	34			9	31	
CHATRA	17.22	116.7	3	55	-1	6	52	-11					
POONA	17.59	167.7	4	0	-1	7	33	22			4	39	PP
LHASA	18.77	103.3	4	18	3	7	31	-7					
GORIS	19.04	288.1	4	19A	1						7	53	
HYDERABAD	19.83	155.4	4	27K	1						8	17	
VIZIANAGRAM	21.32	142.4									8	26	
SHILLONG	21.41	112.5	4	43A	1	8	26	-3					
TOCKLAI	23.01	106.3	5	0	2								
CHITTAGONG	23.29	119.3	5	2	1	9	6	3	5	26	5	41	PP
MADRAS	24.54	155.4	5	16	3	9	36	12			5	56	PP
LANCHOW	27.35	79.5	5	37	-2								
KSARA	27.96	275.9	6	10	25								
CHENGTU	28.86	90.5	5	52	-1	10	37	2					
JERUSALEM	29.05	272.1	6	3	9						7	1	PP
IRKUTSK	29.30	45.1	5	56	-1								
MOSCOW	29.64	322.3	5	55	-5	11	20	33			6	28	*SP
KUNMING	30.08	101.7	6	4	1	10	56	2					
BUCHAREST	34.26	298.1									11	0	
PULKOVO	34.97	325.7	6	45	-1	12	9	-1	7	15	15	4	SSS
LWOW	35.88	307.4	6	55	1								
PEKING	36.38	69.2	6	58	0								
HELSINKI	37.61	324.6	7	8	0								
NURMIJARVI	37.87	325.1	7	10	0								
APATITY	37.90	338.2	7	10	0	12	56	1					
KRAKOW	38.54	307.5	7	17	1						8	46	
CANTON	39.55	96.6	7	26	2	13	23	3					
SODANKYLA	39.98	335.6	7	27	-1						9	28	PCP
BRATISLAVA	40.40	304.6	7	32	1				7	51	9	31	PP
HONG KONG	40.61	97.1	7	34	1	13	28	-8	8	6	13	38	*SS
UPPSALA	41.07	322.5	7	36	-1						9	42	
PRUHONICE	42.01	307.4	7	46	2	14	1	5			8	16	*SP

KIRUNA	42.31	334.6	7 45	-2				
LJUBLJANA	42.32	301.6	7 48K	1			8 17	
ZO-SE	42.60	81.1	7 50	1	14 7 2			
COLLMBERG	42.95	309.4	7 53	1			9 17	PP
TOLMEZZO	43.31	302.3	7 57	2	14 15 0		10 32	PPP
HALLE	43.60	309.8	7 57	0		8 27	9 44	PP
GOTEBORG	43.68	318.8	7 59	1				
JENA	43.86	309.0	8 0	1		8 29	10 9	PPP
SONNEBERG	44.14	308.2	8 1	-1		8 31		
SKALSTUGAN	44.29	327.2	8 2	-1				
YAKUTSK	45.01	35.2	8 7	-2	14 7 -33			
KHEYS	45.13	357.3	8 11	1			9 8	
STUTTGART	45.54	306.1	8 13	0		8 42	9 17	
ISFJORD	48.39	346.6	8 38	3				
UCCLE	48.43	309.4	8 35	0				
MANILA	50.19	101.2	8 22	-27				
SETIF	51.30	290.6	8 55	-2		9 26		
BAGNERES	52.97	300.5	9 10	0				
MATUSIRO	53.99	67.6	9 16	-1	16 45 0			
NORD	54.29	349.6	9 18	-2				
RELIZANE	55.14	291.9	9 26	0		9 51		
TAMANRASSET	56.76	275.5	9 37	0		10 0		
TOLEDO	57.00	298.1	9 38	-1		10 8		
TANANARIVE	58.45	205.0	9 52A	3		10 31		
BROKEN HILL	63.57	225.8	10 14K	-10				
THULE	64.96	350.0	10 34	1				
BULAWAYO	68.06	222.0	10 52K	0				
RESOLUTE	69.30	355.7	10 58	-2				
PRETORIA	72.87	219.0	11 21	0				
COLLEGE	75.35	15.7	11 34	-2		11 57		
GRAHAMSTOWN	79.88	215.7	12 1	0			12 25	
CHARTERS TS.	91.05	114.0	12 55	-1			19 49	
HUNGRY HORSE	96.11	2.7					17 9	PP
FLAMING GRGE	103.60	359.5					18 7	PP
EUREKA	104.85	4.7	17 58	777				
SOUTH POLE	125.66	180.0	18 55	3			19 28	
BYRD STATION	135.55	177.7	19 11	1			22 35	SKP

JULY 15 5.H 2.M 9.S EPICENTRE -12.24 45.42 DEPTH= 37.KM

A= 0.68615 B= 0.69631 C=-0.21059 D= 0.7123 E=-0.7019
G=-0.1478 H=-0.1500 K=-0.9776 HT= 6.2

DEPTH OF FOCUS= 0.001R

SE= 1.91

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TANANARIVE	6.95	163.1	1 41K	-1	2 52	-8		
BROKEN HILL	16.64	260.5	3 51	0				6 46
BULAWAYO	17.94	241.9	4 8A	0				
LWIRO	19.23	299.8	4 27A	4	7 28	-25		
PRETORIA	21.09	228.0	4 40	-3				
ADDIS ABABA	22.14	342.3	4 56	3	9 6	16		
PIETERMZBURG	22.23	216.6	4 55A	1				
KIMBERLEY	25.30	226.4	5 21	-3				
WINDHOEK	28.86	245.3	6 10	13				
HERMANUS	32.47	222.8			11 51	11		
KODAIKANAL	38.88	56.3						18 32
HYDERABAD	43.97	48.5						14 36
JERUSALEM	44.84	347.6	8 13	1				9 54 PP
KSARA	46.69	349.1	8 31	4				
QUETTA	46.99	25.8	8 29	0	15 18	1		10 3 PCP
TEHERAN	48.05	6.5	8 39	2	15 34	2		
WARSAK DAM	52.27	27.6	9 6	-3				
TAMANRASSET	52.33	311.6	9 12K	2				10 23
TIFLIS	53.69	359.4	9 20	0				
STALINABAD	55.05	22.3	9 38	8				
MAWSON	56.50	172.1	9 12	-28				
CHITTAGONG	57.01	53.1	9 59	15				
NAMANGAN	58.25	23.2	9 51	-2				
SOFIA	58.30	341.0	9 54	1				
SHILLONG	58.81	49.9	9 54K	-3				
LHASA	60.55	45.6	10 8	-1	18 23	3		
SETIF	61.20	323.6	10 13	0				12 34 PP

LEMBANG	61.47	91.2	10	15	0						
TRIESTE	64.31	335.9	10	34	0					12	59 PP
LJUBLJANA	64.34	336.6	10	33K	-1						
BRATISLAVA	65.19	339.5	10	37A	-2					13	1 PP
TOLMEZZO	65.22	335.9	10	40	1					11	35
VIENNA-H.	65.51	339.1	10	38	-3						
MONACO	65.58	330.7	10	41	-1						
KRAKOW	65.93	342.3	10	43	-1					11	28 PCP
ALMERIA	66.42	319.5	10	48A	1						
RACIBORZ	66.48	341.3	10	45	-2					11	23 PCP
KUNMING	67.07	55.9	10	51K	0	19	44	3			
GRANADA	67.34	319.2	10	58K	5						
WARSAW	67.57	344.0	10	55	1						
MALAGA	67.58	318.4	11	54	60						
PRUHONICE	67.61	339.0	10	53K	-2						
RAVENSBURG	67.71	334.8	10	54	-1						
EBINGEN	68.30	334.7	10	57	-2						
BASLE	68.39	333.4	11	2	3						
STUTTGART	68.63	335.2	11	0	-1						
BAGNERES	68.85	326.1	11	3	1						
BESANCON	68.89	332.4	11	2	-1						
PLAUEN	68.89	337.9	11	1	-2						
STRASBOURG	69.11	334.3	11	4	0						
SONNEBERG	69.16	337.3	11	3	-1						
TOLEDO	69.25	321.3	11	5K	0					13	35 PP
COLLMBERG	69.26	338.9	11	4K	-1					11	29 PCP
HEIDELBERG	69.35	335.3	11	4	-1						
JENA	69.47	337.9	11	4	-2					13	18
HALLE	69.80	338.4	11	7	-1						
POTSDAM	70.13	339.6	11	10	0						
CHENGTU	70.60	51.2	11	12	-1	20	23	0			
BENSBERG	71.19	335.6	11	17	0						
DOURBES	71.62	333.7	11	20	1						
MUNSTER	71.80	336.5	11	20	0						
LISBON	71.81	317.9	11	23A	3						
PULKOVO	72.79	352.1	11	25	-1	20	50	2			
SERRA PILAR	72.79	320.2	11	23K	-3				11	31	
FOLINIERE	73.01	330.2	11	28	1						
LANCHOW	73.04	46.2	11	28K	0						
HELSINKI	74.00	349.5	11	32	-1						
NURMIJARVI	74.38	349.5	11	34	-1						
KEW	74.79	332.3	11	36	-2						
GOTEBORG	74.91	342.2	11	38	0						
CANTON	75.15	62.0	11	41	1	21	19	5			
UPPSALA	75.24	345.9	11	39	-1						
SOUTH POLE	77.84	180.0	11	56	1						
WUHAN	78.82	55.3	12	0K	0	21	58	4			
MANILA	79.55	72.5								13	29
SKALSTUGAN	79.76	345.6	12	4	-1						
APATITY	80.05	355.4	12	6	-1	22	7	0		13	11
SODANKYLA	80.56	352.7	12	10	0					12	18 PCP
IRKUTSK	81.71	32.1	12	16	0						
KIRUNA	81.87	350.7	12	16	0						
NANKING	82.73	55.1	12	21K	0						
PEKING	83.54	46.8	12	26K	1	22	47	4			
SCOTT BASE	84.37	169.5	12	31	2						
ZO-SE	84.37	56.7	12	30	1	22	55	4			
ARGENTINE I.	87.00	203.4	12	43	1						
BYRD STATION	87.55	182.6	12	47	2						
CAPE HALLETT	88.28	166.5	12	51	3						
CHARTERS TS.	95.79	111.9	13	23	0						
YAKUTSK	98.04	28.3								15	12
MATUSIRO	99.39	54.6	13	39	0						
COLLEGE	126.64	7.0	18	59	0					20	51 PP
AFIAMALU	134.90	124.0	19	21	6						
RAPID CITY	138.37	325.6	19	24	3						
HUNGRY HORSE	140.13	338.6	19	19	-5					22	16 PP
BOZEMAN	141.13	333.5	19	30	4						
FLAMING GRGE	143.87	326.8	19	42	11						
SALT LAKE C.	145.27	329.0	19	35	2						
CORVALLIS	146.35	345.4	19	39A	4						
EUREKA	148.25	332.0	19	42	4						
SHASTA	149.69	341.5	19	34K	-7						
RENO	149.82	336.9	19	45A	4						
TUCSON TELE.	150.33	316.2	19	46	4						
TUCSON	150.46	316.2	19	46	4						
FRESNO	152.19	334.0	19	54K	10						
BERKELEY	152.20	338.8	19	54A	10					20	19

LICK	152.44	337.3	19 55K	10
BRANNER	152.57	338.2	19 55A	10
VINEYARD	152.86	336.3	19 56A	11
PASADENA	153.56	328.3	19 57	11

JULY 16 17.H 17.M 49.S EPICENTRE 21.69 142.92 DEPTH= 313.KM

A=-0.74199 B= 0.56070 C= 0.36751 D= 0.6029 E= 0.7978
G=-0.2932 H= 0.2216 K=-0.9300 HT= 4.3

DEPTH OF FOCUS= 0.044R

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
GUAM	8.37	167.8	1 59	0	3 24	-9		
HONGO	14.23	349.5			5 40	-2		
ABUYAMA	14.63	335.4	3 15A	0				
TUKUBASAN	14.68	351.0	3 15K	-1	5 48	-3		
HAEBASI	15.03	347.9	3 20	0	6 8	9		
MATUSIRO	15.35	345.5	3 21	-2	6 3	-2		11 9 SCP
HUKUSIMA	16.14	353.0	3 32	0				
MIZUSAWA	17.45	355.3	3 56	11	6 53	7		
MORIOKA	18.01	355.6	3 52	1	7 0	3		
ZO-SE	21.58	300.2	4 26A	0	7 59	-2	5 15	5 54 *SP
BAGUIO CITY	21.75	259.9	4 28	0				
NANKING	23.83	300.7	4 47	0	8 40	2	5 39	6 16 *SP
Y.-SAKHLINSK	25.27	359.7						5 38
CHANGCHUN	26.47	330.6	5 11	0	9 23	2		
HONG KONG	26.65	276.7	5 13	0			6 16	11 17 *SS
WUHAN	26.89	295.0	5 14	-1			6 10	6 46 *SP
UGLEGORSK	27.34	358.8						6 21
CANTON	27.37	278.6	5 20	1			6 16	6 52 *SP
PEKING	29.18	314.8	5 34	-1	10 3	-1		
PORT MORESBY	31.18	171.9						10 35
SIAN	32.38	300.1	6 3A	0				
PETROPAVLOVK	33.52	17.2	6 14	1				
NHATRANG	33.53	259.2	6 15A	2				6 45
CHENGTU	35.90	292.6	6 32	-1	11 44	-4		8 3 *SP
LANCHOW	36.84	301.5	6 42A	1	12 2	0		
KUNMING	36.94	283.3	6 43A	1	12 5	2	9 48	10 17 *SP
YAKUTSK	41.31	350.6	7 17	-1	13 7	-1		
CHARTERS TS.	41.66	175.3	7 20	0				13 12
IRKUTSK	42.56	325.5	7 28	0				
LEMBANG	44.74	234.6	7 44A	-1				
MEDAN	46.55	253.6	8 0	1				
SHILLONG	46.70	285.2	8 0A	0				
LHASA	47.11	290.8	8 6	3	14 35	4		
BRISBANE	49.72	168.5	8 23	0				9 8
CHATRA	50.75	287.5	8 32A	1				
AFIAMALU	56.81	124.4	9 14	-1				
CANBERRA	56.99	174.1	9 15	-1				
HAWAII V.OB.	57.58	80.2	9 20	0				
MUNDARING	59.17	206.4	9 30	-1				
LAHORE	61.24	294.9	9 42A	-3				
COLLEGE	61.77	27.0	9 47	-1			10 58	11 41
WARSAK DAM	63.17	298.1	9 58	1				
STALINABAD	64.71	303.5	10 9	2				
KARAPIRO	66.77	152.4	10 21	1				
QUETTA	67.73	294.8	10 27A	1				
KHEYS	67.90	349.8	10 27	0				
ISFJORD	76.30	350.5	11 17	0				
RESOLUTE	77.14	13.3	11 21A	0				
APATITY	77.28	338.2	11 21A	-1				
CORVALLIS	77.68	46.9	11 26K	2				
SHASTA	79.58	50.4	11 35	1				
SODANKYLA	79.66	339.3	11 35	0				
MINERAL	80.26	50.5	11 39A	1				
THULE	80.26	7.1	11 37	-1				
BERKELEY	80.63	53.1	11 41K	1				
BRANNER	80.84	53.5	11 37K	-4				
KIRUNA	81.35	341.1	11 43	-1				
TIFLIS	81.65	311.5	11 46	1				
RENO	81.83	50.8	11 48K	2				
HUNGRY HORSE	82.31	41.0	11 49	0			13 6	
FRESNO	82.85	53.4	11 52	1				

NURMIJARVI	84.18	334.0	11	56	-2						
HELSINKI	84.24	333.6	11	58	0						
EUREKA	84.60	49.7	12	1	1	21	59	0	13	8	
PASADENA	85.07	54.3	11	34	-28						
SKALSTUGAN	86.69	340.1	12	9	-1						
UPPSALA	87.36	335.6	12	12	-1						
GLEN CANYON	88.79	50.5							13	28	
RAPID CITY	90.95	41.2	12	30	0						
GOTEBORG	90.99	336.1	12	27	-3						
TUCSON TELE.	91.49	54.3	12	34	1				13	44	
COLLMBERG	95.09	331.1	12	48	-1						16 43 PP
PRUHONICE	95.28	329.4	12	50A	0						
STUTTGART	98.57	331.0									17 8 PP
SOUTH POLE	111.56	180.0	17	58	1						28 53 PKKP
TAMANRASSET	119.36	314.2	18	16	3						19 6
LA PAZ	150.24	85.4	19	14	5						

JULY 16 21.H 19.M 38.S EPICENTRE 65.83-167.04 DEPTH= 0.KM
A=-0.40120 B=-0.09236 C= 0.91132 D=-0.2243 E= 0.9745
G=-0.8881 H=-0.2044 K=-0.4117 HT=-10.7

SE= 1.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	8.08	88.0	1	59	-2	3	40	5					
SITKA	17.33	105.4	4	9	4								
MAGADAN	20.00	271.7				8	26	9					
PETROPAVLOVK	21.31	249.6	4	54	4	8	47	4					
RESOLUTE	24.20	38.1	5	20K	1	9	38	3					
THULE	29.46	28.4	6	7	-1								
UGLEGORSK	30.98	262.4									10	59	
KHEYS	31.65	347.2									7	34	PP
HUNGRY HORSE	32.42	96.3	6	33	-1								
SHASTA	35.45	112.9	7	0	0								
ROZEMAN	35.78	96.3	7	4	1								
MINERAL	36.05	112.3	7	5A	0								
RENO	37.44	111.0	7	20	3								
BERKELEY	37.97	115.0	7	23A	2								
EUREKA	38.98	106.9	7	29	-1						9	43	PCP
FRESNO	39.86	113.1	7	38	1								
RAPID CITY	40.31	90.4	7	40	-1								
FLAMING GRGE	40.39	99.0	7	41	0								
PASADENA	42.79	113.2	8	3	2								
GLEN CANYON	42.89	104.2	8	0	-2								
MATUSIRO	42.98	254.7	8	2	-1	14	29	0			12	2	
IRKUTSK	43.54	296.9	8	6	-1								
APATITY	46.11	349.3	8	27	-1								
KIRUNA	46.51	356.1	8	31	0								
SODANKYLA	46.72	352.8	8	34	2						10	5	PCP
TUCSON TELE.	47.28	106.5	8	36	-1								
TUCSON	47.31	106.7	8	40	3								
ST. LOUIS 1	50.19	83.0	8	57K	-2								
OTTAWA	50.20	66.5	8	58	-2								
SHAWINIGAN	50.33	63.4	9	2	2								
FAYETTEVILLE	50.74	88.2	9	1K	-3								
SKALSTUGAN	50.88	0.4	9	5	0								
BREBEUF	50.91	64.8	9	3K	-2								
MORGANTOWN	53.48	73.7	9	23K	-1								
NURMIJARVI	53.67	352.8	9	25	-1								
HELSINKI	53.99	352.6	9	29	1								
PULKOVO	54.04	349.3	9	28	0								
UPPSALA	54.58	357.1	9	31	-1								
PALISADES	54.64	67.9				17	17	5			20	49	SS
GOTEBORG	56.78	0.6	9	48	0								
ABERDEEN	56.79	9.7									21	32	
MOSCOW	57.33	343.7	9	52	0								
HALLE	63.00	0.7	10	31	0						10	58	
COLLMBERG	63.20	360.0	10	32K	0						11	51	PP
BENSBERG	63.46	4.1	10	35	1								
JENA	63.57	1.0	10	35	0						10	58	
PLAUEN	64.01	0.6	10	37	-1								
SONNEBERG	64.11	1.3	10	38	0								
DOURBES	64.22	6.0	10	39	0								
ANDIJAN	64.32	313.5	10	40	0								

LWOW	64.37	352.1	10	40	0					
PRUHONICE	64.52	358.9	10	42K	1					
HEIDELBERG	65.06	3.1	10	44	0					
FOLINIERE	65.26	9.8	10	46	0					
STUTTGART	65.70	2.7	10	48	0				11	14 PCP
EBINGEN	66.28	2.9	10	52	0					
BRATISLAVA	66.29	357.0	10	54A	2				13	19 PP
LJUBLJANA	68.45	358.8	11	7	1					
TIFLIS	69.98	335.1	11	16	1					
MONACO	70.69	4.2	11	19	-1					
CHATRA	72.00	295.3	11	28	1					
LAHORE	72.18	308.1	11	26	-3					
TOLEDO	73.80	13.6	11	38	0					
QUETTA	75.75	313.7	11	49	0					
AFIAMALU	79.59	184.7	12	3	-7					
SHIRAZ	80.08	325.8	12	13A	0					
TAMANRASSET	91.49	6.9	13	10	0					
SCOTT BASE	144.33	189.2	19	35	-3					
BYRD STATION	148.09	165.9	19	46	2					
SOUTH POLE	155.69	180.0	20	5	10				22	12

JULY 16 22.H 2.M 54.S EPICENTRE 65.74-166.95 DEPTH= 0.KM

A=-0.40254 B=-0.09330 C= 0.91064 D=-0.2258 E= 0.9742
G=-0.8871 H=-0.2056 K=-0.4132 HT=-10.7

SE= 1.19

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COLLEGE	8.05	87.4	1	59	-2	3	46	12			2	38
MAGADAN	20.04	272.1	4	38	0							
RESOLUTE	24.26	38.0	5	21	1	9	38	1				
YAKUTSK	27.07	292.2	5	46	0							
THULE	29.52	28.3	6	10	1							
HUNGRY HORSE	32.37	96.3	6	33	-1						9	20 PCP
SHASTA	35.38	112.9	7	0	0							
MINERAL	35.98	112.3	7	5K	0							
RENO	37.37	110.9	7	19	3							
EUREKA	38.92	106.8	7	29	0						9	40 PCP
FRESNO	39.79	113.1	7	38	1							
FLAMING GRGE	40.34	98.9	7	42	1							
PASADENA	42.72	113.2	8	1	0							
GLEN CANYON	42.83	104.2	8	1	-1							
MATUSIRO	42.99	254.9	8	2	-1						9	20
IRKUTSK	43.61	297.0	8	8	0							
APATITY	46.21	349.3	8	16	-13							
KIRUNA	46.61	356.2	8	32	0							
SODANKYLA	46.82	352.8	8	34	0							
TUCSON TELE.	47.22	106.5	8	37	0							
TUCSON	47.25	106.7	8	37	0							
ST. LOUIS 1	50.16	83.0	8	58	-2							
OTTAWA	50.21	66.4	8	59	-1							
SHAWINIGAN	50.34	63.4	9	4	3							
FAYETTEVILLE	50.71	88.2	9	1K	-3							
BREBEUF	50.92	64.8	9	3	-2							
SKALSTUGAN	50.98	0.4	9	6	0							
MORGANTOWN	53.47	73.7	9	24A	0							
NURMIJARVI	53.77	352.9	9	26	-1							
HELSINKI	54.09	352.7	9	28	-1							
PALISADES	54.64	67.9				17	11	-1			20	42 SS
ABERDEEN	56.88	9.8									12	26
MOSCOW	57.43	343.8	9	52	-1							
POTSDAM	62.21	360.0	10	26	0							
HALLE	63.09	0.8	10	32	0							
COLLMBERG	63.30	0.0	10	32	-1						11	7 PCP
BENSBERG	63.55	4.1	10	34	-1							
JENA	63.66	1.0	10	35	-1							
SONNEBERG	64.21	1.3	10	40	1							
KRAKOW	64.43	355.1	10	40	-1							
LWOW	64.47	352.1	10	41	0							
PRUHONICE	64.61	358.9	10	42A	0						11	9
FOLINIERE	65.35	9.8	10	47	0							
PARIS	65.50	7.7	10	48	1							
STUTTGART	65.79	2.7	10	48	-1							
STRASBOURG	65.95	3.8	10	54	4							

BRATISLAVA	66.39	357.0	10 53	0
TIFLIS	70.08	335.2	11 17	1
MONACO	70.78	4.3	11 20	0
TEHERAN	74.58	328.4	11 44	1
QUETTA	75.84	313.8	11 50	0
SHIRAZ	80.18	325.8	12 14K	0
SCOTT BASE	144.24	189.2	19 36	-2
BYRD STATION	147.99	166.0	19 47	3
SOUTH POLE	155.59	180.0	20 2	6

20 21

JULY 17 5.H 14.M 44.S EPICENTRE 36.84 69.81 DEPTH= 41.KM

A= 0.27694 B= 0.75297 C= 0.59694 D= 0.9385 E=-0.3452
G= 0.2061 H= 0.5602 K=-0.8023 HT= -0.5

DEPTH OF FOCUS= 0.001R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KULYAB	1.06	357.6	0 17	-2	0 33	0			
KHOROG	1.52	64.5	0 23	-3	0 43	-2			
OBI-GARM	1.86	357.4	0 31	0					
DUZHANBE	1.92	334.9	0 32	1	0 59	4			
GARM	2.20	10.1	0 36	1	1 10	8		0 38	
DZERGETAL	2.63	24.9	0 43	1	1 24	11		0 47	
WARSAK DAM	3.17	152.8	0 49	0					
SAMARKAND	3.60	322.7			1 36	-1		1 6	PG
MURGAB	3.61	63.7	0 59	4					
FERGANA	3.86	23.0	0 59	0	1 50	6		2 3	
NAMANGAN	4.39	18.8	1 7	1	2 4	7		2 46	
ANDIJAN	4.39	26.3	1 7	1	2 4	7		1 19	
TASHKENT	4.50	354.9	1 8	0	1 58	-2		2 16	
TCHIMKENT	5.46	358.4			2 22	-2		1 36	P*
LAHORE	6.47	143.3	1 35	-1					
NARYN	6.65	44.5	1 35	-3				3 31	
FRUNSE	7.04	30.3			3 2	-1		2 8	PG
QUETTA	7.05	200.6	1 43	-1	3 9	5			
RYBACHE	7.46	39.3	1 47	-2				3 44	
ALMATA	8.44	38.2	2 1	-2				2 37	
ALMATA-2	8.65	39.7	2 4	-2					
PRZHEVALSK	8.70	47.0	2 4	-3				2 37	
KURMENTY	8.96	44.0	2 7	-3					
ASHKABAD	9.19	280.4	2 8	-5				4 7	
DEHRA DUN	9.46	131.0	2 31	14	4 19	16			
KIZYL-ARVAT	10.94	286.6	2 32	-5				5 46	
AGRA	11.92	141.9	2 47K	-4	4 51	-12			
TEHERAN	14.90	271.3	3 32	2	6 36	22			
SEMIPALATNSK	15.50	25.7						3 33	
SHIRAZ	16.13	248.6	3 47A	1				7 0	
CHATRA	17.78	119.2	4 4K	-2	7 7	-14			
BOMBAY	18.06	170.8	4 13	3				7 39	
MAKHACH-KALA	18.15	296.6	4 11	0				7 36	
POONA	18.58	167.9						7 36	
GORIS	18.64	285.4	4 16	-1				7 54	
LHASA	19.14	105.9	4 22	-1	7 57	6			
TIFLIS	19.94	291.9	4 32	0				4 56	PP
HYDERABAD	20.78	156.2	4 37	-3				8 40	
CALCUTTA	21.47	126.5	4 49	2				11 16	
SHILLONG	21.91	114.6	4 50A	-2	8 53	7		11 50	
CH'TTAGONG	23.89	121.0	5 20	9	9 29	7			
MADRAS	25.49	155.9						9 48	
LANCHOW	27.30	81.3	5 44	1	10 23	5			
KODAIKANAL	27.38	163.4						10 48	
KSARA	27.76	274.0	6 3	16	10 40	14		11 49	
SIMFEROPOL	27.99	298.0	5 50	0				7 40	
MOSCOW	28.79	321.3	5 57	0				6 37	
CHENGTU	29.00	92.2	6 2	4	10 50	5			
KUNMING	30.41	103.2	6 12	1	11 12	4			
PAOTOW	31.42	70.7	6 21	1					
PULKOVO	34.09	325.0	6 42	-1	12 6	1		7 51	PP
LWOW	35.19	306.3	6 55	2				15 16	SSS
PEKING	36.14	70.4						7 16	
APATITY	36.94	337.7	7 6	-1	12 52	3		14 51	SS
NURMIJARVI	36.99	324.3	7 7	-1					

WARSAW	37.27	310.2							15 27	SS
KRAKOW	37.85	306.5	7 14	-1			8 5			
SODANKYLA	39.03	335.1	7 24	-1						
CANTON	39.79	97.7	7 31	0	13 35	3				
UPPSALA	40.21	321.9	7 34	-1					9 8	
HONG KONG	40.85	98.1	7 42	2	13 51	3				
PRUHONICE	41.32	306.5	7 47	3	14 4	9				
KIRUNA	41.36	334.2	7 43	-1						
LJUBLJANA	41.71	300.6	7 49	2						
POTSDAM	42.15	310.2	7 51	0						
COLLMBERG	42.24	308.6	7 52	1			8 29		9 38	PP
TRIESTE	42.30	300.2	7 55	3						
COPENHAGEN	42.52	315.1	7 55	1	14 16	3				
MESSINA	42.54	288.9							14 17	
ZO-SE	42.57	82.1			14 19	5				
GOTEBORG	42.86	318.1	7 57	1						
HALLE	42.88	308.9	7 57	0			8 35			
JENA	43.15	308.1	8 1	2	14 16	-6	8 39		9 43	PP
SKALSTUGAN	43.40	326.7	8 0	-1					9 41	
ROME	43.90	295.0			15 46	73			15 7	
KHEYS	44.13	357.2	8 8	1					9 59	PP
YAKUTSK	44.27	35.8	8 7	-1	14 40	2				
STUTTGART	44.86	305.3	8 14	1	14 55	8	8 54		10 3	PP
STRASBOURG	45.88	305.2	8 16	-5						
DOURBES	47.67	307.7					8 38			
UCCLE	47.71	308.7							11 18	
ABERDEEN	50.48	317.8							17 36	SS
SETIF	50.85	289.8	8 58	-1			9 47			
FOLINIERE	51.20	306.9	9 4	2						
MATUSIRO	53.72	68.3	9 17	-4	16 37	-13			10 0	*SP
TOLEDO	56.44	297.5	9 39	-1					17 38	
ALMERIA	56.47	293.6	9 41A	0						
TAMANRASSET	56.56	274.8	9 41	0					10 38	PCP
GRANADA	57.17	294.4							24 46	
THULE	63.97	349.9	10 29	-3						
RESOLUTE	68.30	355.7	11 0	1	20 2	6				
BULAWAYO	68.72	221.6	11 2K	0						
COLLEGE	74.43	15.7	11 34	-2			12 25		12 48	
CHARTERS TS.	91.56	113.9	13 1	-3						
PALISADES	95.69	333.3							31 37	SS
BYRD STATION	136.54	177.6	19 13	-5						

JULY 17 19.H 42.M 36.S EPICENTRE -10.15 -12.98 DEPTH= 0.KM

A= 0.95940 B=-0.22120 C=-0.17501 D=-0.2247 E=-0.9744
G=-0.1705 H= 0.0393 K=-0.9846 HT= 6.5

SE= 3.53

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
MBOUR	24.69	350.7	5 25	1	9 52	8			
TAMANRASSET	37.41	28.8	7 18	1	13 11	5		8 46	PP
LWIRO	42.23	82.1	7 58	1					
MALAGA	47.31	9.4	8 44	6				10 39	PP
RELIZANE	47.40	15.0	8 35	-3				10 29	PP
ALMERIA	47.78	11.4	8 39K	-2					
GRANADA	47.89	10.1	8 54A	12	15 39	-1		10 18	PCP
ALGIERS UNI.	49.04	17.1	8 50	-1				10 45	PP
SETIF	49.25	19.7	8 52	-1				10 45	PP
ALICANTE	49.64	12.9	8 56	0	16 4	0			
TOLEDO	50.46	8.9	9 1	-1				10 55	PP
BAGNERES	54.30	11.8	9 28	-3				10 35	PCP
MESSINA	54.99	27.4	9 40	4					
MONACO	56.74	17.6	10 0	12					
ROME	56.83	22.5	9 48	-1				23 42	SSS
CARACAS	57.44	289.4			17 59	9			
HELWAN	58.32	45.5	9 59	0				12 36	
BASLE	60.26	15.9						10 14	PP
TRIESTE	60.52	21.3	10 15	0					
TOLMEZZO	60.92	20.3	10 19	2				13 10	
LJUBLJANA	61.14	21.5	10 18	-1					
STRASBOURG	61.28	15.6	10 24	4					
STUTTGART	61.86	16.5	10 22	-2					
DOURBES	61.93	12.7	10 24	0					
JERUSALEM	62.15	45.9	10 26	0					

SOFIA	62.19	29.6	10	26	0					
BOGOTA	62.58	280.6	10	33	4					
BENSBERG	63.32	14.1	10	33	0					
KSARA	63.75	44.4	10	37	1					
BRATISLAVA	63.88	21.9	10	36	-1					
CHINCHINA	64.16	280.6	10	37	-2					
JENA	64.46	17.0	10	39	-2				11	17
PRUHONICE	64.53	19.3	10	40	-1				13	18 PP
LWOW	67.92	24.9	11	3A	0	20	3	2		
WARSAW	68.65	21.7	11	7	-1					
SIMFEROPOL	69.35	33.8	11	2	-10					
SOTCHI	71.74	37.5	11	26	0					
TIFLIS	73.92	41.2	11	40	1					
SHIRAZ	74.38	55.3							11	36 PP
MAWSON	75.30	157.4	11	46	-1					
PALISADES	75.66	316.9				21	34	4		
MAKHACH-KALA	76.28	41.1	11	52	-1					
NURMIJARVI	76.49	18.1	11	53	-1					
PULKOVO	77.78	20.8	12	9	8	21	10	-43		
MOSCOW	77.93	26.6	12	0	-2					
KIRUNA	81.37	12.2	12	20	0					
SODANKYLA	82.41	14.4	12	25	-1					
BYRD STATION	82.91	189.7	12	28	0					
APATITY	84.31	16.2	12	35	-1					
QUETTA	86.48	58.7	12	49A	3	23	30	8		
ST. LOUIS 1	86.48	310.1	12	45	-1					
SCOTT BASE	92.15	179.9	13	13	0					
MATUSIRO	142.99	40.1	19	36	0				23	8 PP
CHARTERS TS.	143.67	145.8	19	35	-2					

JULY 18 0.H 54.M 8.S EPICENTRE 7.22 94.44 DEPTH= 98.KM

A=-0.07677 B= 0.98920 C= 0.12488 D= 0.9970 E= 0.0774
G=-0.0097 H= 0.1245 K=-0.9922 HT= 6.8

DEPTH OF FOCUS= 0.010R

SE= 3.68

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PORT BLAIR	4.73	339.2	0	6	-65	1	14	-51				
MEDAN	5.56	130.4	1	11A	-11							
COLOMBO	14.46	269.6									7	12
MADRAS	15.16	293.4	3	29	-1	6	26	10			3	44 PP
KODAIKANAL	17.03	281.3									7	16
SHILLONG	18.41	352.6	4	18	8	7	54	25				
TOCKLAI	19.42	0.9	4	21	0							
KUNMING	19.49	23.1	4	22	0	8	4	13				
CHATRA	20.69	341.3	4	34	0							
LHASA	22.53	352.3	4	51	-2	8	57	9				
POONA	22.97	301.3	4	55	-2	9	9	13				
BOMBAY	24.01	301.0	5	8	1	9	22	8				
CANTON	24.07	47.0	5	8	1							
CHENGTU	24.98	19.8	5	15	-1	9	39	9				
AGRA	25.20	323.7	5	18	0	9	54	20			9	40
BAGUIO CITY	27.14	68.0	5	42	6							
DEHRA DUN	27.65	328.3									7	29
WUHAN	29.89	36.6	6	0	-1							
LANCHOW	29.95	15.4	5	59	-2							
SIAN	30.04	24.4	5	59	-3							
LAHORE	30.63	324.8	6	11	4							
NANKING	33.54	39.3	6	31	-2							
WARSAK DAM	34.02	324.7	6	40	3							
QUETTA	34.45	315.0	6	39	-1							
ZO-SE	34.49	43.0	6	41	0							
PAOTOW	36.02	20.4	6	54	0							
ANDIJAN	38.76	332.9	7	15	-2							
STALINABAD	38.96	327.3	7	22	4							
NAMANGAN	39.26	332.4	7	20	-1							
MUNDARING	44.17	153.1	7	57	-4							
SHIRAZ	45.24	305.0	8	6K	-3	14	43	2			11	40
MATUSIRO	49.38	47.2	8	40	-2	15	47	7			10	8 PCP
TANANARIVE	53.01	239.9	9	17	8						9	34
MAKHACH-KALA	54.40	318.7									18	33
TIFLIS	55.68	316.3	9	25	-4							
CHARTERS TS.	57.74	119.1	9	46	3							

KSARA	60.00	304.9	10 8	9				
YAKUTSK	60.52	18.2	10 1	-1				
HELWAN	63.15	299.7	10 16	-4				
SIMFEROPOL	64.10	316.7	10 31	5				
CANBERRA	66.51	133.4	10 38	-4			10 41	10 46 *SP
BROKEN HILL	68.87	251.5	10 55	-1				
BULAWAYO	70.18	245.7	11 3	-1				
ATHENS	70.40	307.6	11 0	-6				
PULKOVO	70.92	331.2	11 9	0				
SOFIA	71.26	312.6	11 10	-1				
LWOW	71.90	320.1	11 20	5				
APATITY	72.54	339.4	11 15	-3	20 35	1		
MIRNY	73.59	180.6	11 23	-2				
HELSINKI	73.61	330.8	11 23	-2				
NURMIJARVI	73.85	331.1	11 24	-2				
KRAKOW	74.55	319.9	11 28	-2				11 47
SODANKYLA	74.92	338.2	11 29	-3				
KHEYS	75.27	354.2	11 38	4				
BRATISLAVA	76.21	317.7	11 37A	-3				11 45 PCP
VIENNA-H.	76.70	317.8	11 38	-4				11 48 PCP
UPPSALA	77.17	329.7	11 42	-3				
KIRUNA	77.33	338.0	11 42	-4				
LJUBLJANA	77.84	315.5	11 46K	-3				
MAWSON	77.95	191.8	11 48	-1				
PRUHONICE	78.00	319.5	11 54	5				
TOLMEZZO	78.89	315.8	11 52	-2				
HALLE	79.71	321.0	12 4	5				
GOTEBORG	79.91	327.3	12 4	4				
JENA	79.94	320.4	11 56	-4				
SKALSTUGAN	80.08	333.3	12 3	2				
STUTTGART	81.43	318.2	12 5	-3				
BENSBERG	82.72	320.4	12 19	4				
DOURBES	84.41	319.7	11 52	-31				
UCCLE	84.52	320.4	12 29	5				
SETIF	85.01	305.7	12 30	4				15 42 PP
NORD	85.93	352.1	12 26	-4				
TAMANRASSET	86.25	292.4	12 32	0				15 57 PP
KARAPIRO	87.43	128.6	12 37	-1				
DURHAM	87.62	324.8	12 44	5				
FOLINIERE	87.86	318.7	12 47	7				
RELIZANE	88.97	305.7	12 48	3				
CAPE HALLETT	92.54	162.7	13 6	4				
SCOTT BASE	93.34	168.3	13 6	1				
COLLEGE	94.84	22.3	13 17	5			13 52	17 2 PP
RESOLUTE	98.04	2.5	13 25	-2				
EUREKA	125.67	28.8	18 51	1				19 13
RAPID CITY	126.50	15.8	18 58	6				
TUCSON TELE.	133.93	30.0	19 8	2				
TUCSON	133.94	30.2	19 15	9				
SAN JUAN	148.14	323.2	19 39	8				
TRINIDAD	150.10	306.2	19 42	8				
HUANCAYO	168.83	243.8						21 13 PKP2

JULY 18 1.4 43.M 18.S EPICENTRE -4.99 152.27 DEPTH= 41.KM

A=-0.88187 B= 0.46350 C=-0.08644 D= 0.4652 E= 0.8852
G= 0.0765 H=-0.0402 K=-0.9963 HT= 7.0

DEPTH OF FOCUS= 0.001R

SE= 2.35

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT MORESBY	6.71	229.0	1 39	0	2 59	4		
CHARTERS TS.	16.11	200.8	3 41	-4	6 43	1		
GUAM	19.80	337.9	4 30	0	8 16	11	5 0	
NOUMEA	22.00	142.7	4 49	-3	8 53	5		
BRISBANE	22.28	178.8	4 56	1	8 55	2		
SUVA	28.71	119.2			10 53	13		
RIVERVIEW	28.71	181.9	5 59K	3	10 34	-6	6 19	6 52 PP
CANBERRA	30.33	185.3	6 10	0	10 52	-14	6 53	12 55 SS
MELBOURNE	33.36	190.5	6 45	9	11 54	1	7 24	
AFIAMALU	36.50	106.6	6 49	-14				11 42
MANILA	36.58	302.7	7 8	4				
ONERAHI	36.78	149.3	7 29	23				
BAGUIO CITY	37.88	304.8	7 16	1	13 4	1		

FORT NELSON	38.03	185.9			13	8	3				
KARAPIRO	39.04	150.3	7	28	3	13	28	7			
CHATEAU	40.04	151.5	7	36	3						
WELLINGTON	41.36	154.1							13	20	
GERRIES PASS	42.53	158.1	7	54	1						
TUKURASAN	42.55	345.4	7	51A	-3	13	57	-16	9	35	PCP
ABUYAMA	42.66	339.6	7	56A	2						
ROXBURGH	42.98	162.4				14	18	-1	17	54	SS
MUNDARING	43.11	227.1	7	53	-5	14	19	-2			
MATUSIRO	43.36	343.4	7	57	-3				9	42	PCP
PERTH	43.38	227.3				14	30	5	17	49	
ZO-SE	46.58	322.4	8	26A	0						
NANKING	48.72	321.4	8	44A	2	15	43	2	19	8	SS
WUHAN	50.48	316.8	8	56	0						
VLADIVOSTOK	51.32	340.9	9	2	0						
HONOLULU	55.21	59.9	9	32	1	17	22	12			
HAWAII V.OB.	57.02	63.1	9	42	-2						
CHENGTU	58.15	310.8	9	52	0						
PAOTOW	59.62	323.6	10	2	0						
WILKES	67.73	196.9	10	57	2	19	47	-2			
LHASA	67.98	304.6	10	56	-1						
CAPE HALLETT	68.16	174.2	10	57	-1	19	54	0	24	26	SS
CHATRA	70.37	300.6	11	13K	1						
SCOTT BASE	73.21	176.8	11	27	-2	20	54	2			
MIRNY	73.56	201.0	11	28	-3						
COLLEGE	82.23	21.9	12	15	-3	22	25	-4	13	8	
FRUNSE	84.37	313.8	12	30	1				22	48	SCS
BYRD STATION	84.80	169.9	12	30	-1						
MAWSON	85.19	202.6	12	31	-2				13	1	
ANDIJAN	85.61	311.4	12	36	1				22	59	SCS
DUZHANBE	88.01	308.8	12	48	1				16	52	
TASHKENT	88.01	311.6	12	49	2	23	8	-18	14	12	
QUETTA	88.45	300.3	12	47	-2				13	40	
BERKELEY	89.46	52.1	12	56	2	23	32	-7	24	48	PS
CORVALLIS	89.50	45.3	12	54	0						
SHASTA	89.69	49.3	12	55	0						
VICTORIA	89.93	41.4	12	55A	-1						
VINEYARD	90.03	53.3	13	0	3						
MINERAL	90.25	49.7	12	57	-1						
FRESNO	91.29	53.4	13	3	0						
RENO	91.54	50.6	13	4	0						
PASADENA	92.40	56.1	13	8	0	24	18	13	16	16	PP
EUREKA	94.49	50.9	13	16	-1				14	4	16 57 PP
RANFF	95.23	39.2	13	20K	-1						
BOULDER CITY	95.24	54.4	13	21	0				17	11	PP
RUTH	95.25	51.2	13	29	8						
HUNGRY HORSE	96.16	42.0	13	24	-1				17	15	PP
BUTTE	97.15	44.4	13	28	-1				17	18	PP
SALT LAKE C.	97.68	49.7	13	33	1						
GLEN CANYON	97.88	53.5	13	31	-2						
TUCSON	98.47	58.3	13	38	3						
TUCSON TELE.	98.56	58.2	13	37	1				17	37	PP
RESOLUTE	100.72	14.4	13	43	-3						
RAPID CITY	103.89	45.9	13	59	-1						
MOSCOW	107.84	327.3							18	45	PP
KIRUNA	109.40	342.6	18	25	777						
NURMIJARVI	112.08	335.0	18	50	-1						
SIMFEROPOL	113.25	317.0							19	25	PP
FLORISSANT	114.31	49.6							19	31	PP
ST. LOUIS 1	114.45	49.7							19	29	PP
SCORESBY SD.	114.49	357.9							19	38	PP
KSARA	114.62	304.9	18	40	4	19	35				
SKALSTUGAN	114.75	341.5	18	37	1						
BULAWAYO	119.30	243.7	18	45	0						
KIMBERLEY	119.41	233.1							22	25	PP
COPENHAGEN	120.16	335.0							20	2	PP
BROKEN HILL	121.03	250.0	18	48	0						
SOFIA	121.33	317.8	18	53	4				38	55	
MORGANTOWN	121.75	45.9	18	50	0						
OTTAWA	122.08	38.2	18	50	0						
BELGRADE	122.24	321.2	18	51A	0				21	4	
BRATISLAVA	122.49	326.0	18	42	-9	19	35		20	13	PP
PRUHONICE	122.81	328.9	18	52	0				30	23	PS
PRAGUE	122.82	329.0							20	43	
VIENNA-H.	122.85	326.4	18	52	0				22	18	PKS
COLUMBIA	122.87	52.5	18	53	1						
ATHENS	122.94	312.6	18	49	-3						
LWIRO	123.07	264.1	18	54	-2						

HALLE	123.15	331.5	18	51	-1				20	44 PP
SHAWINIGAN	123.26	35.7	18	52K	-1					
BREBEUF	123.31	37.2	18	52K	-1					
JENA	123.69	331.2	18	53	-1			19 19	20	54 PP
CHER	123.85	330.0	18	58	4					
SEVEN FALLS	124.05	34.3	18	54	0					
ZAGREB	124.43	324.1							19	5 PG
PALISADES	125.34	42.0	18	57	0				20	47 PP
BENSBERG	125.71	333.5	18	59	2				19	30
TOLMEZZO	125.78	326.2	18	47	-11				20	52 PP
DURHAM	126.06	341.6	19	0A	2	25	33 -25	20 37		
HEIDELBERG	126.09	331.3	18	59	1					
STUTTGART	126.24	330.4	18	57	-1			19 30	20	51 PP
WESTON	126.35	39.4	18	58	-1					
TUBINGEN	126.50	330.3	19	0	1					
RAVENSBURG	126.73	329.3	18	59	0					
EBINGEN	126.79	330.0	18	57	-2					
UCCLE	127.05	335.0	18	48	-12					
STRASBOURG	127.10	331.1	18	58	-2				21	9 PP
CHUR	127.38	328.5	19	4	3				19	52 PKS
DOURBES	127.47	334.3	19	3	2					
BOLOGNA	127.88	325.2	18	57	-5					
BASLE	127.92	330.2	19	0	-2					
PAVIA	128.65	327.1							19	41
MESSINA	128.66	316.2							20	45 PP
ROME	128.72	321.9							22	19 PKS
OROPA	129.01	328.2							19	35
PARIS	129.34	334.5	19	8	4					
HALIFAX	129.57	32.9	19	4	-1					
HUANCAYO	129.73	110.0	19	8	3			19 48		
MONACO	130.54	326.7	19	8	1					
FOLINIERE	130.60	336.5	19	9	2					
CLERMONT-FD.	131.33	331.4							20	7
CHINCHINA	132.30	87.8	19	11	1				22	38 PP
GALERAZAMBA	132.60	80.0							22	46 PP
BOGOTA	133.82	88.4	19	19	6				22	48 PP
LA PAZ	134.70	119.0	19	17	2					
BAGNERES	134.76	331.1	19	15	0				22	42 PKS
SETIF	136.53	320.0	19	20	2			20 6	21	39 PP
ALGIERS UNI.	137.63	322.4	19	20	0				22	8 PP
TOLEDO	139.23	331.8	19	17	-6			20 8	22	13 PP
RELIZANE	139.82	323.3	19	21	-3			20 9		
SAN JUAN	140.23	67.2	20	26	61				23	3 PP
CARACAS	140.80	79.6	19	36	10					
MALAGA	141.86	329.0	19	20	-8				22	30 PP
TAMANRASSET	143.35	302.1	19	27	-3			20 22	22	56 PP
ST. KITTS	143.61	67.5	19	32	1					
DOMINICA	145.36	70.3	19	39	5					
GRENADA	145.68	76.0	19	32	-2					
ST. VINCENT	145.93	73.9	19	34	-1				19	58
TRINIDAD	146.19	78.4	19	36	1				23	16
PONTA DELGDA	147.36	357.0	19	43A	6					
BARBADOS	147.54	73.4	19	49	12					
MBOUR	165.89	312.1	20	2	2				24	51 PP

JULY 18 18.H 50.M 36.S EPICENTRE -6.71 51.58 DEPTH= 0.KM

A= 0.61723 B= 0.77816 C=-0.11612 D= 0.7835 E=-0.6214
G=-0.0722 H=-0.0910 K=-0.9932 HT= 6.9

SE= 2.35

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TANANARIVE	12.75	197.5	3	5	0						5	46	SS
ADDIS ABABA	20.19	320.6	4	42	3	R	39	18					
LWIRO	23.13	280.0	5	12A	3								
BROKEN HILL	23.96	249.4	5	18	1								
BULAWAYO	25.97	236.8	5	31K	-5								
WINDHOEK	36.76	241.0	7	11	0								
QUETTA	39.54	21.1	7	34A	0	13	36	-1			9	8	PP
HELWAN	41.25	332.9	7	49	1						8	16	
JERUSALEM	41.34	338.7	7	49	0	13	28	-36					
TEHERAN	42.23	359.8	7	58	2	14	23	6					
KSARA	42.97	340.7	8	5	3	14	44	16			9	48	PP
WARSAK DAM	44.69	23.8	8	17	1								

GORIS	46.23	354.4	8	31	2	15	21	6		
STALINABAD	47.80	18.2	8	41	0	15	40	2		
TIFLIS	48.59	353.2	8	49	2	15	56	7		
MAKHACH-KALA	49.58	356.1	8	56	1	16	8	5		
NAMANGAN	50.92	19.6	9	5	0	16	22	1		
ANDIJAN	50.95	20.3	9	5	0	16	23	1		
ATHENS	51.47	331.8	9	6	-3					
TAMANRASSET	53.74	304.5	9	27	1	16	56	-4		11 27 PP
SIMFEROPOL	53.77	344.7	9	26	0	17	3	3		
SOFIA	55.49	334.9	8	39	-60					
LEMBANG	55.62	93.7	9	51A	11					
MESSINA	55.85	325.9	9	43	2	17	36	8		
SETIF	60.79	318.0	10	15	-1					11 31
LWOW	61.19	340.0	10	18K	-1	18	42	4		
MAWSON	61.28	175.1	10	17	-2				10 26	
LJUBLJANA	62.05	331.6	10	24	-1					12 45 PP
TRIESTE	62.13	330.9	10	26K	1					12 46 PP
BRATISLAVA	62.49	334.7	10	25	-2					12 40 PP
ALGIERS UNI.	62.68	317.4	10	28	-1					
KRAKOW	62.85	337.7	10	30	0					11 2 PCP
VIENNA-H.	62.87	334.3	10	30K	0					
TOLMEZZO	63.02	331.0	10	31	0					12 52
MOSCOW	63.29	351.2	10	32	-1					
RACIBORZ	63.54	336.7	10	47	13					11 10 PCP
RELIZANE	63.86	315.2	10	38	2					
MONACO	64.11	325.9	10	38	0					
WARSAW	64.25	339.7	10	39	0					
PRUHONICE	64.96	334.6	10	43	-1					
MUNDARING	64.98	122.1	10	41	-3					
PRAGUE	65.08	334.6	10	44	0					
RAVENSBURG	65.64	330.3	10	48	0					
ALICANTE	65.89	317.2	10	50	0	19	41	5		13 19 PP
MIRNY	66.14	163.2	10	49	-2					
EBINGEN	66.24	330.3	10	51	-1					
PLAUEN	66.37	333.7	10	51	-2					
TURINGEN	66.42	330.7	10	52	-1					
STUTTGART	66.49	331.0	10	53	0					11 32 PCP
RASLE	66.50	329.1	10	54A	1					13 41
ALMERIA	66.52	314.9	10	54K	0	19	30	-14		13 25 PP
TORTOSA	66.55	319.9	10	46	-8					
COLLMBERG	66.60	334.7	10	54A	0					13 0
SONNERERG	66.72	333.2	10	54	-1					
JENA	66.95	333.8	10	55	-1					12 56
STRASBOURG	67.10	330.1	10	56	-1					11 26 PCP
BESANCON	67.14	328.1	10	57	-1					
HEIDELBERG	67.19	331.2	10	58	0					
HALLE	67.20	334.4	10	58	0					11 31 PCP
POTSDAM	67.38	335.6	10	58	-1					
GRANADA	67.47	314.8	11	7K	7					
CLERMONT-FD.	67.78	325.5	11	3K	1					12 4
MALAGA	67.83	314.0	11	2A	0					
BAGNERES	67.99	321.8	11	3	0					13 32 PP
BENSBERG	68.97	331.7	11	10K	1					
TOLEDO	69.06	317.2	11	9	-1					13 38 PP
DOURBES	69.66	329.9	11	14	1					
HELSINKI	69.91	346.2	11	14	-1					
UCCLE	70.23	330.3	11	16	-1					
NURMIJARVI	70.29	346.2	11	16	-1					
MBOUR	71.13	287.6	11	24	2					
FOLINIERE	71.52	326.6	11	25	0					
UPPSALA	71.60	342.7	11	23	-2					11 38
GOTEBORG	71.76	338.9	11	25	-1					
KEW	72.98	329.0	11	33	0					
APATITY	75.21	352.9	11	45	-1					
DURHAM	75.50	331.4	11	47A	-1					
SODANKYLA	76.03	350.3	11	50	-1					
SKALSTUGAN	76.11	343.0	11	51	0					
KIRUNA	77.57	348.4	11	58	-1					
KHEYS	87.29	1.1	12	50	0					
SCOTT BASE	88.63	168.9	13	3	7					
YAKUTSK	90.35	27.5	13	20	16					
MATUSIRO	91.25	53.5	13	7	-1	24	4	-2		
CAPE HALLETT	92.01	164.4	13	12	0					
CHARTERS TS.	92.09	110.4	13	10	-2					
BYRD STATION	93.26	181.5	13	22	4					
COLLEGE	120.34	9.5	20	19	86					
RAPID CITY	136.73	333.4	19	23	-1					
HUNGRY HORSE	136.74	346.0								21 55 PP

FLAMING GRGE	141.93	336.4	19 33	-1		22 38
RUTH	145.43	341.4	19 43A	3		
EUREKA	145.50	342.9	19 41	1		20 18
SHASTA	145.73	351.8	19 41	1		
MINERAL	145.95	350.7	19 43K	2		
GLEN CANYON	146.19	335.4	19 43	2		
RENO	146.41	347.9	19 46K	5		
BERKELEY	148.48	350.6	19 47	2		
LICK	148.89	349.5	19 52K	6		
TUCSON TELE.	149.63	329.4	19 50	3		
TUCSON	149.76	329.4	19 55	8		20 19
PASADENA	151.10	342.2	19 58	9		

JULY 19 4.H 19.M 13.S EPICENTRE -7.07 -80.60 DEPTH= 0.KM

A= 0.16212 B=-0.97916 C=-0.12232 D=-0.9866 E=-0.1633
G=-0.0200 H= 0.1207 K=-0.9925 HT= 6.9

SE= 2.16

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HUANCAYO	7.17	134.0	1 49	1	3 19	7		
CHINCHINA	12.95	22.7	3 12	4	5 54	20		
BOGOTA	13.32	29.5	3 15	2	6 0	17		
LA PAZ	15.38	128.6	3 41	1	6 45	14		
BALBOA HTS.	15.96	3.7	3 49	2	6 56	11		
GALERAZAMBA	18.51	16.7	4 15	-4	7 48	5		
CARACAS	22.14	38.1	4 32A	-26	8 32	-26		
TRINIDAD	25.99	47.5	5 35	-1				
GRENADA	26.70	44.8	5 40	-2				
SAN JUAN	29.05	29.3	6 7	3				
COLUMBIA	40.85	359.5	7 44	-1				
FAYETTEVILLE	44.79	344.3	8 18A	1	14 55	0		8 44 PCP
ST. LOUIS 1	46.35	349.6	8 29A	0				
MORGANTOWN	46.47	0.7	8 29K	-1				
FLORISSANT	46.53	349.5	8 30	-1	15 14	-5		
LAWRENCE	47.78	344.6	8 41	0				
PALISADES	48.24	6.8			15 37	-7		19 15
PORT STANLEY	48.28	161.2	8 45	1				
TUCSON	48.57	325.3	8 48	1				9 24
TUCSON TELE.	48.58	325.5	8 48	1				10 11
OTTAWA	52.42	4.3	9 13	-3				
GLEN CANYON	52.54	328.7	9 18	1				
BREBEUF	52.71	6.2	9 16K	-2				
LARAMIE	53.32	336.6	9 14	-9				
BOULDER CITY	53.56	325.4	9 25	1				
HALIFAX	53.69	15.0	9 24	-1				
SHAWINIGAN	53.84	6.7	9 25K	-1				
PASADENA	54.27	321.5	9 31	1	17 13	6		21 29 SS
FLAMING GRGE	54.60	333.4	9 32	0				
SEVEN FALLS	54.65	8.2	9 30	-2				
RAPID CITY	54.86	340.2	9 34	0				
SALT LAKE C.	55.61	331.5	9 40	1				
EUREKA	56.71	327.6	9 47	0				10 22
FRESNO	57.00	322.8	9 49	0				
VINEYARD	57.94	321.8	9 58	2				
LICK	58.48	322.1	10 1K	1				11 50 PP
RENO	58.86	325.2	10 5K	3				
BOZEMAN	59.15	335.5	10 5	1				
BERKELEY	59.20	322.2	10 6K	1				
ARGENTINE I.	59.21	172.1	9 10	-55				
BUTTE	60.07	334.8	10 11	0				
MINERAL	60.42	324.8	10 13A	0				
SHASTA	61.11	324.6	10 16A	-2				
HUNGRY HORSE	62.52	335.5	10 27	0				
CORVALLIS	64.17	327.4	10 39K	1				
BANFF	65.34	336.6	10 45	-1				
PENTICTON	65.67	333.1	10 48	0				
MBOUR	66.61	71.1	10 53	-1	19 31	-14		
VICTORIA	66.88	330.6	10 55A	-1				
BYRD STATION	75.22	186.5	11 46	0				11 58
RESOLUTE	82.08	356.2	12 21	-2				
SOUTH POLE	82.97	180.0	12 27	-1				13 0
MALAGA	83.26	51.8	12 30A	1				
THULE	83.67	2.9	12 31	0				
GRANADA	83.99	51.5	12 49A	16				

COLLEGE	86.93	336.8	12 47	-1			
SCOTT BASE	87.79	191.3	12 51	-1			
BAGNERES	88.07	46.4	13 1	8			
CAPE HALLETT	89.04	196.8	12 59	1			
TAMANRASSET	89.15	67.1	12 58K	0			13 46
DURHAM	89.44	34.7	12 58	-2			
KEW	89.46	38.1	12 58	-2			
SETIF	90.91	53.8	13 9	2			
UCCLE	92.24	39.2			23 44 -30		13 55
NORD	93.26	7.6	13 16	-1			
TOLMEZZO	97.56	44.2	13 38	1			18 15
COLLMBERG	97.72	39.2	13 59	21			
TRIESTE	98.05	44.9					17 27 PP
LJUBLJANA	98.60	44.6	13 43	1			14 3
CHARTERS TS.	126.59	238.7	19 6	1			
MATUSIRO	134.06	315.4	19 10	-9			22 45 PKS
QUETTA	141.85	48.8	19 35	2			22 47 PP
PEKING	143.90	337.9	19 33	-4			
LAHORE	146.22	40.6	19 42A	1			
ZO-SE	148.59	322.4	19 46	1			
NANKING	149.27	326.5	19 51	5			
WUHAN	152.67	330.6	19 58	7			
LHASA	156.21	18.3	19 58	2			
CANTON	159.18	321.4	20 39	39			
KUNMING	161.77	350.3	20 6	4			
NHATRANG	169.06	298.6	20 10	2			21 36 PKP2

JULY 19 16.H 3.M 7.S EPICENTRE 13.01 -95.07 DEPTH= 137.KM

A=-0.08605 B=-0.97087 C= 0.22363 D=-0.9961 E= 0.0883
G=-0.0197 H=-0.2228 K=-0.9747 HT= 6.1

DEPTH OF FOCUS= 0.016R

SE= 6.73

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COMITAN	4.30	41.0	0 58	-7	1 18	-37		
OAXACA	4.32	337.8	1 21A	16	2 3	8		
VERA CRUZ	6.24	350.7	1 33K	2	2 25	-17		2 13
SANTIAGO MA.	6.44	85.0	1 26	-8	2 21	-25		
PUEBLA	6.70	333.7			2 49	-4		
TACUBAYA	7.49	328.5	2 1K	13	3 16	4		
MERIDA	9.46	32.7	1 55	-19	3 4	-55		2 34
GUADALAJARA	10.98	315.1						3 59
LUBBOCK	21.39	344.3	4 25	-13			5 1	
FAYETTEVILLE	23.00	1.8	4 32K	-21	8 15	-35	5 10	8 47 PCP
TUCSON	24.00	325.5	5 7	4			5 44	
TUCSON TELE.	24.00	325.8	5 5	2			5 43	
ST. LOUIS 1	25.89	8.7	4 58A	-23	8 54	-45	5 41	
CHAPEL HILL	26.99	29.6	6 12	41				
CARACAS	27.65	92.2	4 44A	-53	10 31	24		
GLEN CANYON	28.08	331.1	5 50	9				6 21
SAN JUAN	28.35	75.4	5 32	-11			6 8	
BOULDER CITY	28.98	325.5	5 50	1			6 31	
LARAMIE	29.66	343.9	6 20	25				
MORGANTOWN	29.69	24.0	6 11	16				
PASADENA	29.72	319.0	6 0	5			6 42	
FLAMING GRGE	30.52	338.3	5 55	-7	12 21	89	6 37	
CLEVELAND	30.73	20.1	6 19	15			6 46	
SALT LAKE C.	31.33	335.0	6 5	-5				
PENNSYLVANIA	31.52	25.4	6 45	34				
HUANCAYO	31.67	141.0	6 31K	18				7 36 *SP
RAPID CITY	31.74	348.8	6 0	-13			6 44	
EUREKA	32.19	328.8	6 16	-1				7 26
FRESNO	32.42	321.2	7 22	63				7 43
PALISADES	33.48	29.7			11 37	-2		12 10 SS
LICK	33.92	320.3	6 37A	5			7 19	7 44
RENO	34.28	324.9	6 37K	2				
BERKELEY	34.63	320.5	6 42A	4				
BOZEMAN	35.27	340.5	6 35	-8			7 19	
MINERAL	35.84	324.3	6 35	-13				
BUTTE	36.09	339.2	6 43	-7			7 26	
OTTAWA	36.23	23.3	6 26	-25				
SHASTA	36.52	324.1	6 30	-24				

BREBEUF	37.15	25.2	6 36	-23			7 57	PP
SHAWINIGAN	38.35	25.0	7 18	9				
HUNGRY HORSE	38.60	339.7	7 3	-8		7 46	12 49	
LA PAZ	39.60	137.0	7 33	13	13 37 25			
CORVALLIS	39.64	328.0	7 19A	-1				
PENTICTON	41.48	335.8	7 29	-6			8 13	
BANFF	41.53	340.6	7 27	-8			8 10	
VICTORIA	42.50	332.1	7 33A	-10				
RESOLUTE	61.66	0.0	10 37	31			17 34	
COLLEGE	62.99	337.6	10 8	-7		10 54	11 39	
NORD	75.52	8.6	12 6	35				
KEW	82.87	38.9				12 46		
MALAGA	82.87	54.1	12 35K	24				
FOLINIERE	83.33	41.6	12 50	37				
SKALSTUGAN	85.99	25.3				13 5	13 24	
KIRUNA	87.27	20.1				13 10	13 31	
BENSBERG	87.56	38.2	13 11	37				
SODANKYLA	89.54	19.2				13 23		
STUTTGART	89.55	39.9	13 20	37		13 44		
UPPSALA	89.82	27.8				13 25		
SETIF	90.67	52.7	13 26	38			13 55	
COLLMBERG	90.90	36.7	13 28K	39		14 1		
NURMIJARVI	92.57	25.5				13 37		
TOLMEZZO	92.75	41.2	13 39	41				
LJUBLJANA	93.85	41.1	13 42	39				
TAMANRASSET	94.54	65.5	12 55	-11		13 46		
NHATRANG	145.24	315.2	19 28	6		20 22		
MUNDARING	145.68	231.5	19 40	18		20 33		

JULY 20 9.H 30.M 38.S EPICENTRE 48.90 157.62 DEPTH= 0.KM

A=-0.61017 B= 0.25120 C= 0.75139 D= 0.3807 E= 0.9247
G=-0.6948 H= 0.2860 K=-0.6599 HT= -5.0

SE= 2.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	PP S	SUPP. M	SUPP. S
SEVERO-KUR.	2.03	331.4	0	39	4	1	2	0				
PETROPAVLOVK	4.17	8.5	1	8	2	1	53	-3				
KLYUCHI	7.69	13.6	1	56	0						3	42
NEMURO	10.04	240.8	2	23	-5	4	8	-15				
Y.-SAKHLINSK	10.18	264.9	2	31	1	4	29	3				
UGLEGORSK	10.23	276.9	2	34	3						4	30
KUSIRO	10.94	242.2	2	37	-4	4	32	-13				
MAGADAN	11.38	342.1	2	48	1	5	0	4			4	10
WAKKANAI	11.40	258.2	2	49	2							
OBIHIRO	11.69	244.6	2	48	-3							
URAKAWA	12.40	242.6	2	58	-2	5	9	-11				
SAPPORO	12.72	248.8	3	5	0						5	52
MORI	13.74	246.7	3	8	-10							
MORIOKA	14.92	238.1	3	29	-5	6	1	-20				
MIZUSAWA	15.34	236.6	3	47	8							
AKITA	15.51	240.3									5	49
ISINOMAKI	15.74	234.4	3	41	-3						6	54
SENDAI	16.08	234.9	3	54	5	7	0	12				
YAMAGATA	16.39	235.9	3	49	-4							
HUKUSIMA	16.69	234.5	4	0	4	7	12	10				
ONAHAMA	17.06	231.8	4	5	4							
MITO	17.72	231.4	4	10A	1	7	39	13				
UTUNOMIYA	17.90	233.0	4	13	1						4	24
KAKIOKA	17.99	231.7	4	9	-4	7	14	-18				
TUKUBASAN	18.04	231.9	4	10	-3						4	24 PP
MAEBASI	18.44	234.2	4	17	-1	7	49	7				
KUMAGAYA	18.47	233.1	4	21	2							
TOKYO C.M.O.	18.63	231.5	4	24A	3	7	55	9				
NAGANO	18.72	236.4	4	24A	2							
VLADIVOSTOK	18.73	261.7	4	19	-3						6	55
OIWAKE	18.77	235.1	4	24	2							
MATUSIRO	18.80	236.1	4	21	-2	7	55	5				
YOKOHAMA	18.88	231.2	4	26	2	7	56	4				
WAZIMA	18.94	240.3	4	25	1	7	55	2				
MERA	19.18	229.8	4	31	4	8	9	10				
TOYAMA	19.25	238.3	4	28	0	8	0	0				
KOHU	19.26	233.7	4	31	3	8	6	6				
HUNATU	19.28	233.0	4	28	0	8	8	7				

MISIMA	19.48	231.9	4	28	-3						
OSIMA	19.53	230.4	4	30	-1						
IIDA	19.77	234.8	4	35	1						
OMAESAKI	20.26	232.3	4	40	1	8	29	7			
HUKUI	20.26	238.6	4	38	-1						
YAKUTSK	20.35	320.6	4	37	-3	8	20	-4			
GIHU	20.43	236.4	4	41K	0				9	25	
NAGOYA	20.49	235.6	4	43	1	8	28	1			
KAMEYAMA	21.01	235.9	4	47	0	8	36	-1			
NARA	21.48	236.7	4	48	-4						
ABUYAMA	21.49	237.4	4	52K	0						
OSAKA	21.67	237.1	4	54K	0	8	36	-14			
SUMOTO	22.24	237.6	5	0K	0				9	4	
TOKUSIMA	22.63	237.6	5	5	2						
CHANGCHUN	22.76	269.4	5	1K	-4	8	59	-11			
HAMADA	23.47	242.9	5	12K	0	9	29	7			
KOTI	23.60	238.4	5	14K	1	9	26	1	6	8	
SIMIDU	24.48	238.0	5	21	0	9	49	9			
ODITA	24.92	240.7	5	27K	1	9	29	-18			
SAGA	25.67	242.6	5	25	-8						
KUMAMOTO	25.75	241.4	5	33	-1						
KAGOSIMA	26.75	239.7	5	45	2				8	39	
PEKING	30.56	268.9	6	16	-1	11	12	-7			
COLLEGE	32.56	40.3	6	35	0	11	50	0	13	52	
ZO-SE	32.70	250.6	6	35K	-1	11	45	-7			
IRKUTSK	33.38	296.4	6	40K	-2				8	0	PPP
NANKING	33.56	254.4	6	42	-1	12	3	-3			
PAOTOW	34.33	274.2	6	50	0	12	18	1			
GUAM	36.91	201.2	7	7	-5						
WUHAN	37.27	256.6	7	14	-1	12	59	-4			
SIAN	38.59	266.2	7	25K	-1	13	20	-3			
SITKA	39.66	52.0	7	52	17						
LANCHOW	40.88	272.4	7	45K	0						
CANTON	43.28	249.7	8	5K	0						
HONG KONG	43.36	248.1	8	5K	0	13	49	-45			
KHEYS	43.68	346.5	8	8	0	14	37	-1	9	47	PP
CHENGTU	44.06	265.9	8	11K	0	15	45	61			
BAGUIO CITY	44.23	236.0	8	11	-1						
MANILA	45.40	234.0	8	26	4	14	44	-19			
RESOLUTE	47.80	20.0	8	41K	0	15	34	-4			
SEMIPALATNSK	47.96	302.8	8	41	-1	15	36	-4	8	55	*SP
KUNMING	48.60	261.3	8	47K	0	15	45	-4			
NORD	49.71	358.9	8	54	-1	16	3	-1			
VICTORIA	49.81	58.7	8	57A	1						
ISFJORD	51.41	351.0	9	9	1						
PENTICTON	51.49	56.1	9	9A	0						
CORVALLIS	52.05	62.9	9	20	7						
BANFF	52.65	52.3	9	16A	-2						
RABAUL	53.10	186.8	9	21	0						
LHASA	53.27	274.6	9	24K	2	16	53	0			
ALMATA	53.75	296.7	9	26	0	17	3	3			
NHATRANG	54.11	244.5	9	28	-1				10	33	PCP
SHASTA	54.88	66.3	9	34	0						
HUNGRY HORSE	55.08	54.4	9	36	0						
FRUNSE	55.38	297.5	9	38	0	17	16	-6			
MINERAL	55.57	66.1	9	40K	1						
APATITY	56.54	337.6	9	44K	-2	15	35	-122			
BERKELEY	56.70	68.9	9	33	-14	17	45	6	9	53	
RENO	57.15	65.9	9	51K	0						
BUTTE	57.28	55.9	9	52	1						
LICK	57.42	69.0	9	53	1						
CHATRA	57.68	274.9	9	54	0	17	53	1			
CHITTAGONG	57.69	267.6	9	37	-17						
SODANKYLA	58.31	339.9	9	58	-1				10	50	PCP
BOZEMAN	58.33	55.5	9	59	0						
PORT MORESBY	58.78	192.1	10	2	0	18	6	0			
KIRUNA	59.24	342.5	10	3	-2						
TASHKENT	59.43	299.0	10	5	-1	18	16	1	18	30	PS
EUREKA	59.48	63.7	10	7	0				11	16	
RUTH	60.23	63.4	10	11	-1				17	26	
SCORESBY SD.	60.93	359.8	10	22A	5	18	35	1			
SALT LAKE C.	61.04	60.2	10	18	1						
DEHRA DUN	61.27	284.1	10	24	5	18	39	0	25	1	SSS
DUZHANBE	61.52	296.9	10	18	-3	18	40	-2			
PASADENA	61.63	69.7	10	21K	0	19	2	19	22	40	SS
FLAMING GRGE	62.33	58.7	10	26	0				13	31	PP
BOULDER CITY	62.46	66.1	10	27	0						
LAHORE	62.80	287.6	10	28K	-1						

WARSAK DAM	62.89	291.4	10	30	0	18	59	0			
AGRA	63.45	281.5	10	33K	-1	19	5	-1			
PULKOVO	63.53	333.3	10	33	-1	19	6	-1		10	41 *SP
RAPID CITY	63.57	52.6	10	35	1					39	20 PKPPKP
GLEN CANYON	63.72	63.3	10	35	0						
LARAMIE	64.20	56.2	10	38	0						
MOSCOW	64.34	327.1	10	38	-1	19	12	-5		12	53 PP
NURMIJARVI	64.50	336.4	10	39	-1						
SKALSTUGAN	64.58	343.6	10	40	-1						
PORT BLAIR	64.84	258.6	10	49	6						
UPPSALA	66.83	339.3	10	54K	-1						
MEDAN	67.27	248.0	10	58A	0						
REYKJAVIK	67.31	359.8	11	0	2						
TUCSON	67.42	66.5	10	59	0					11	14
TUCSON TELE.	67.43	66.4	10	59	0						
SIDA	67.61	357.9	11	7	7				11	19	
ASHKABAD	67.91	302.6	11	3	1	20	2	2		11	11 *SP
QUETTA	68.34	291.3	11	4K	-1	20	6	0		13	33 PP
CHARTERS TS.	69.42	191.4	11	10	-2						
HYDERABAD	70.00	273.8	11	22	7	20	27	2			
GOTEBORG	70.04	341.2	11	16	1						
LUBBOCK	71.76	59.8	11	27	1						
COPENHAGEN	71.79	340.1	11	25	-1	20	46	0		11	42 PCP
TIFLIS	72.15	313.5	11	29	1	20	51	1		14	15 PP
POONA	72.23	277.9	11	28	-1						
BOMBAY	72.63	278.9	11	30	-1	20	57	1			
WARSAW	72.69	333.7	11	31	0	20	57	1		11	40 PCP
TEHERAN	73.33	305.4	11	35K	0	21	2	-2			
LWOW	73.87	330.8	11	37	-1	21	8	-2		11	54 PCP
FLORISSANT	74.00	48.9	11	38K	-1	21	10	-1			
FAYETTEVILLE	74.11	53.1	11	38K	-1	21	7	-5		12	26
ST. LOUIS 1	74.19	48.9	11	38K	-2	21	12	-1			
SIMFEROPOL	74.31	322.0	11	40K	-1	21	12	-3		11	49 PCP
POTSDAM	74.68	338.4	11	39	-4	21	19	0		14	32 PP
KRAKOW	74.94	333.3	11	44	0					11	50 PCP
OTTAWA	75.19	35.8	11	44K	-2						
DURHAM	75.23	347.7	11	44	-2	21	8	-17		14	31 PP
SHAWINIGAN	75.32	33.3	11	46K	0						
RACIBORZ	75.42	334.3	11	51	4					12	5 PCP
SEVEN FALLS	75.52	31.9	11	46	-2						
BACAU	75.70	327.3	11	55	6						
HALLE	75.77	338.7	11	49	0	21	32	1		12	5 PCP
BREBEUF	75.90	34.4	11	48K	-2						
BRISBANE	76.07	184.4	11	52	1	21	31	-3			
JENA	76.38	338.7	11	52	-1	21	34	-3		14	51 PP
PRAGUE	76.46	336.6	11	51	-2	21	39	1		14	40 PP
PRUHONICE	76.51	336.5	11	52	-1	21	41	2		14	43 PP
PLAUEN	76.65	338.1	11	52	-2						
DE BILT	76.67	342.9	12	50	56	21	45	4			
SONNEBERG	76.98	338.7	11	55	-1						
BENSBERG	77.35	341.4	11	58	0	22	15	27			
BRATISLAVA	77.45	334.2	12	0	2	21	51	2		15	0 PP
CAMPULUNG	77.49	327.8	12	8	9						
VIENNA-H.	77.59	334.6	12	0A	1	21	53	2			
BUCHAREST	77.84	326.7	12	0K	-1	21	52	-1			
UCCLE	78.07	343.0	12	1	-1	21	54	-2			
PENNSYLVANIA	78.15	39.7	12	3	1	21	52	-5			
MORGANTOWN	78.22	41.8	12	3A	0						
KEW	78.25	346.1	11	56	-7	21	55	-3			
HEIDELBERG	78.48	339.9	12	4	0						
DOURBES	78.69	342.7	12	6	1	22	1	-1			
STUTTGART	78.94	339.3	12	6	-1	22	3	-2		15	13 PP
TUBINGEN	79.21	339.3	12	8	0						
WESTON	79.43	34.6	12	4	-5						
BELGRADE	79.43	330.5	12	9A	0	22	12	2		15	6
EBINGEN	79.57	339.3	12	10	0						
PALISADES	79.60	37.0	12	10	0	22	10	-2		15	10 PP
RAVENSBURG	79.79	338.7	12	10	-1					12	29
ZAGREB	79.91	333.8	12	15	3	22	16	1			
LJUBLJANA	80.11	334.9	12	12K	-1					12	30
HALIFAX	80.12	28.5	12	13A	0						
TOLMEZZO	80.20	336.0	12	11	-2	22	19	1		15	5 PP
PARIS	80.33	343.6	12	14	0	22	21	1			
SOFIA	80.33	327.6	12	14	0						
BASLE	80.50	339.9	12	15	0						
CHUR	80.68	338.4	12	18	2						
TRIESTE	80.70	335.2	12	15	-1	22	25	2			
FOLINIERE	80.89	345.5	12	18	1						
PAVIA	82.33	338.1	12	28	3	22	42	2			

KSARA	82.69	314.5	12	26K	0	22	46	2		15	45 PP
PRATO	83.05	336.3	12	31	3						
CLERMONT-FD.	83.12	342.3	12	29K	0						
MONACO	84.12	338.8	12	33	-1					12	40 PCP
ATHENS	84.33	325.1	12	34	-1						
ROME	84.51	334.6	12	35K	-1	23	0	-2	12 52	15	39 PP
MELBOURNE	87.08	190.0	12	49K	1						
KARAPIRO	87.91	165.9	12	53	1						
HELWAN	88.11	315.5	12	53	0	23	28	-9			
TOLEDO	90.12	346.0	13	1K	-2	23	58	3			
SETIF	91.74	337.8	13	10	0					16	49 PP
ALGIERS UNI.	91.76	339.8	13	10	0					13	34
GRANADA	92.68	345.1								30	25 SS
MALAGA	93.27	345.6	13	5A	-12	23	50	-33		16	39 PP
TAMANRASSET	104.42	333.5	14	7	-1					18	28 PP
CAPE HALLETT	121.23	175.5	18	55	0						
SCOTT BASE	126.61	177.6	19	5	0					21	37 PP
BULAWAYO	130.35	286.7								21	28
LA PAZ	130.83	65.3	19	16	3						
MAWSON	135.64	213.1	19	21	-1						
BYRD STATION	136.52	165.4	19	10	-14					22	53 SKP
SOUTH POLE	138.71	180.0	19	11	-17					22	16 PP
KIMBERLEY	138.90	281.7	19	33K	5						
ARGENTINE I.	152.67	142.2	19	58	7						

JULY 20 20.H 59.M 12.S EPICENTRE -19.93 169.99 DEPTH= 29.KM

A=-0.92650 B= 0.16348 C=-0.33892 D= 0.1738 E= 0.9848
G= 0.3338 H=-0.0589 K=-0.9408 HT= 4.7

SE= 2.38

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
NOUMEA	4.06	233.9	1	0	-2								
SUVA	8.17	78.9	1	58	-1								
ONERAHI	16.24	167.2	3	52	5								
BRISBANE	17.42	241.5	4	0	-2	7	21	8					
AFIAMALU	18.43	73.9	4	13	-2	7	30	-6			4	44	PP
KARAPIRO	18.57	166.1	4	15	-1								
TUAI	19.79	163.3	4	28	-3								
COBB RIVER	21.21	174.3	4	50	5								
WELLINGTON	21.66	170.2	4	50	0	8	48	5					
RIVERVIEW	21.72	226.6	4	52A	2				5	0	5	17	PP
CHARTERS TS.	22.30	265.5	4	58	2	9	7	12					
KAIMATA	22.55	177.2	5	3	4								
GEBBIES PASS	23.80	175.2	5	11	0								
CANBERRA	24.03	226.0	5	13	0	9	40	15					
PORT MORESBY	24.42	292.1	5	19	2	9	54	22					
ROXBURGH	25.48	181.1				10	0	10					
MELBOURNE	28.11	225.3	5	51K	0	10	52	19					
GUAM	41.46	321.2	7	46	0	13	45	-14			9	29	PP
MUNDARING	49.38	244.6	8	48	-1								
PERTH	49.70	244.6									19	47	SS
HONOLULU	51.51	39.0	8	58	-7						16	32	*SS
CAPE HALLETT	52.39	179.9	9	9	-2	16	38	4			21	18	SS
SCOTT BASE	57.98	180.8	9	49	-3	17	57	8			12	5	PP
MANILA	59.13	301.8	10	6	6	18	18	14					
WILKES	59.80	203.7	10	1	-4	18	12	-1			10	58	PCP
BAGUIO CITY	60.51	303.1	10	9	-1	18	14	-8					
LEMBANG	61.75	272.9	10	17K	-1								
TUKUBASAN	62.60	333.0	10	22A	-2						10	52	PCP
ABUYAMA	63.56	328.7	10	31K	1								
MATUSIRO	63.69	331.8	10	30	-1	18	50	-12			21	48	
BYRD STATION	67.14	169.7	10	50	-3								
NHATRANG	67.81	292.9	10	57K	0				11	48			
HONG KONG	68.80	304.7	11	4K	1	20	12	8			13	43	PP
ZO-SE	69.07	316.3	11	4K	-1	20	13	6			11	41	*SP
CANTON	69.88	305.0	11	3	-7								
SOUTH POLE	70.19	180.0	11	8	-4						11	37	PCP
Y.-SAKHLINSK	71.04	340.6	11	16	-1	20	40	10			11	58	
NANKING	71.25	315.7	11	18K	0	20	37	5	11	41	11	53	*SP
SEVERO-KUR.	71.35	350.7	11	18	-1	20	44	10	12	1			
VLADIVOSTOK	71.86	331.6	11	22	0	20	51	12			21	25	PS
PETROPAVLOVK	73.31	352.9	11	30	0	21	5	9	12	13	14	21	PP
MEDAN	73.75	280.0	11	33A	0								

CHANGCHUN	75.51	328.3	11	43K	0	21	28	8	12	10	12	20 *SP
PEKING	77.92	320.7	11	51K	-6	21	49	2	12	16	12	29 *SP
MAWSON	78.06	202.0	11	55	-2							
KUNMING	79.24	301.7	12	6K	2	22	9	8	12	26	12	40 *SP
MAGADAN	80.74	350.2	12	11	-1						22	22 SCS
CHENGTU	80.91	307.1	12	13K	0	22	25	7	12	35	12	51 *SP
PAOTOW	82.01	318.3	12	20	1	22	41	12				
LANCHOW	83.71	311.8	12	28K	1							
ARGENTINE I.	85.64	160.0	12	34	-3							
BERKELEY	85.71	47.3	12	38K	1	23	19	13				
LICK	85.89	48.0	12	40A	2							
PASADENA	86.91	52.1	12	45	2	23	24	6			15	51 PP
FRESNO	86.92	49.2	12	44A	1							
SHASTA	87.01	44.7	12	44	0							
CHITTAGONG	87.12	294.9	12	45	1	23	13	-7	13	41	16	22 PP
MINERAL	87.36	45.3	12	45K	0							
YAKUTSK	87.73	342.2	12	46	-1						23	20 SCS
RENO	88.19	46.7	12	51	2							
CORVALLIS	88.35	41.0	12	53	3							
BOULDER CITY	90.17	51.6	13	0	1							
COLLEGE	90.50	16.7	12	58	-2	23	38	-13	13	49	16	27 PP
LHASA	90.56	301.3	13	1K	1	23	59	7			23	35 SKS
IRKUTSK	91.67	325.9				24	7	6			23	37 SKS
TUCSON	91.74	56.4	13	7	1							
TUCSON TELE.	91.86	56.3	13	8	2						16	52 PP
CHATRA	92.70	297.4	13	11A	1							
PENTICTON	92.85	38.1	13	12K	1							
HUNGRY HORSE	95.76	40.6	13	24	0						17	16 PP
LARAMIE	98.86	49.4	13	37	-1							
RAPID CITY	101.37	47.2									17	57 PP
FRUNSE	107.12	310.0									18	40 PP
ST. LOUIS 1	109.63	55.0									28	18 PS
RESOLUTE	110.43	16.4	18	28	-1							
DUZHANBE	110.73	304.7									19	5 PP
TASHKENT	110.77	307.7									19	8 PP
NORD	118.21	1.1	18	42	-2							
OTTAWA	120.87	48.4	18	49A	0							
PALISADES	122.33	53.5									20	29 PP
BREBEUF	122.34	48.2	18	51A	-1							
SHAWINIGAN	122.85	46.9	18	53	0							
SHIRAZ	123.00	292.9	18	53A	-1						21	1 PP
SEVEN FALLS	124.11	46.1	18	55A	-1							
WESTON	124.21	51.8	18	56	0						37	48 SS
CARACAS	124.50	90.8				26	55	59			19	30 PP
APATITY	125.12	341.2	18	56K	-2						20	44 PP
SAN JUAN	127.18	81.7	19	2	0							
SODANKYLA	127.21	343.1	19	2	0						20	58 PP
GORIS	128.19	305.0									22	25 PKS
KIRUNA	128.42	345.8	19	3	-1							
SCORESBY SD.	128.95	5.1	19	6A	1						21	16 PP
HALIFAX	129.50	48.1	19	6A	0							
MOSCOW	129.65	327.1	19	6	0						21	15 PP
TRINIDAD	129.74	92.6	19	8	1							
ST. KITTS	130.14	83.8	19	7	0							
PULKOVO	130.94	334.3	19	8	-1	26	1	-13			21	22 PP
ADDIS ABABA	131.70	264.3									20	18
NURMIJARVI	132.64	337.5	19	10	-2							
SKALSTUGAN	133.83	346.4	19	14	0							
UPPSALA	135.50	340.5	19	18	1							
SIMFEROPOL	135.90	314.7	19	19	1						22	0 PP
LWIRO	136.00	244.4	19	22	4							
KSARA	137.14	298.5	19	21	1	26	36	10	19	52	22	16 PP
JERUSALEM	137.90	295.6	19	20	-2						22	14 PP
WARSAW	139.74	330.6	19	26	1							
LWOW	139.75	325.9	19	25	0						22	28 PP
COPENHAGEN	140.52	340.1	19	25	-2						22	27 PP
BUCHAREST	141.36	317.4									21	12
HELWAN	141.40	293.1	19	28	0							
KRAKOW	141.69	328.7	19	22	-7						22	26 PP
RACIBORZ	142.50	330.0	19	32	2							
POTSDAM	142.97	336.5	19	26	-5							
SOFIA	143.94	316.5	19	32	0						20	48
HALLE	144.09	336.5	19	32	-1				20	23	22	53 PP
PRAGUE	144.21	332.9	19	33K	0							
PRUHONICE	144.22	332.7	19	30K	-3				20	22	23	25 PKS
BELGRADE	144.61	321.5	19	34K	0						29	26 SKKS
VIENNA-H.	144.63	329.1	19	34	0						20	46
DURHAM	144.64	351.6	19	28	-6	26	4	-34	20	24		

JENA	144.69	336.2	19 33	-1		20 18	22 51	PP
WITTEVEEN	144.72	342.4	19 34	0				
PLAUEN	144.82	335.3	19 31	-3				
CHEB	145.05	334.6	19 34	0				
SONNEBERG	145.28	336.0	19 34	-1				
ATHENS	145.70	308.9	19 35K	-1				
DE BILT	145.78	343.3	19 38	2				
BENSBERG	146.20	340.4	19 36	0			23 10	PP
ZAGREB	146.48	326.3	19 37	0				
HEIDELBERG	147.00	337.3	19 37	-1				
LJUBLJANA	147.07	327.9	19 38K	0				
UCCLE	147.17	343.1	19 37	-1			23 8	PP
STUTTGART	147.31	336.1	19 38	0		20 32	23 4	SKP
TOLMEZZO	147.55	329.7	19 42	3			20 19	
TUBINGEN	147.59	336.1	19 42K	3				
KEW	147.62	348.7	19 39	0				
TRIESTE	147.73	328.0	19 39	0			19 43	PKP2
DOURBES	147.73	342.3	19 41	2		20 33		
EBINGEN	147.92	335.8	19 38	-1				
RAVENSBURG	147.98	334.7	19 38	-1				
STRASBOURG	148.03	337.5	19 40	1			23 20	PP
CHUR	148.77	333.7	19 44A	3				
BASLE	148.98	336.6	19 45	4				
NEUCHATEL	149.66	336.7	19 47K	5				
BESANCON	149.80	338.1	19 48	6				
FOLINIERE	150.23	347.3	19 22	-21				
PAVIA	150.24	332.1	19 45	2			22 47	PP
PRATO	150.32	328.3	19 48	5				
OROPA	150.40	334.0	19 29	-14				
ROME	150.98	323.9	19 43K	-1			23 24	PP
MESSINA	151.34	314.9	19 44	0	26 37 -10	20 22	23 32	PP
CLERMONT-FD.	152.05	340.2	19 53A	7				
MONACO	152.15	332.3	19 52	6			20 50	
SETIF	158.90	323.4	19 55	0		20 40	20 33	PKP2
TOLEDO	159.47	346.8	19 55	0			24 14	PP
ALGIERS UNI.	159.71	328.5	19 55	-1			24 16	PP
GRANADA	161.93	343.3	20 52K	54	28 50 112		25 18	PP
MALAGA	162.57	344.8	19 58K	0			24 28	PP
TAMANRASSET	165.26	283.8	20 1K	0		21 1	24 48	PP

JULY 20 21.H 38.M 21.S EPICENTRE -38.31 -73.08 DEPTH= 0.KM

A= 0.22899 B=-0.75265 C=-0.61732 D=-0.9567 E=-0.2911
G=-0.1797 H= 0.5906 K=-0.7867 HT= -1.1

SE= 3.68

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	5.25	22.9	1	22A	0	2	37	13			1	38	PPP
ANTOFAGASTA	14.74	9.6	3	52	20	6	58	41					
PORT STANLEY	17.12	146.3	4	8	5								
LA PAZ	22.16	12.7	5	1	2	9	6	7					
HUANCAYO	26.23	355.0	5	38A	-1	10	26	16					
BOGOTA	42.72	358.5	8	2	1	14	24	-1					
CHINCHINA	43.12	356.3	8	2	-2	14	30	-1					
BYRD STATION	45.38	190.2	8	23	1						8	57	
CARACAS	48.89	8.0	8	12	-38								
GRENADA	51.21	14.3	9	9	1								
SOUTH POLE	51.88	180.0	9	11	-2						11	5	PP
SCOTT BASE	58.70	192.4	10	8	6								
CAPE HALLETT	61.34	198.1	10	20	0	19	30	50					
MAWSON	69.30	163.5	11	5	-7								
MBOUR	74.17	56.7	11	43	2	21	23	9					
FAYETTEVILLE	76.56	342.5	11	51A	-3	21	18	-22					
KIMBERLEY	78.41	117.4	11	12K	-52								
TUCSON	78.51	328.0	12	11	6								
TUCSON TELE.	78.54	328.2	11	58	-7								
GLEN CANYON	82.91	329.8	12	34	6								
PASADENA	83.36	323.7	12	30	-1								
OTTAWA	83.36	358.1	12	30K	-1								
BOULDER CITY	83.40	327.1	12	38	7								
SHAWINIGAN	84.48	0.2	12	34	-2								
FLAMING GRGE	85.56	333.3	12	39	-3								
RAPID CITY	86.42	338.8	12	44	-2								
BULAWAYO	86.47	112.8	12	49	3								
BROKEN HILL	89.97	108.3	13	7	4								

HUNGRY HORSE	93.64	334.0	13 18	-2					
TAMANRASSET	95.40	65.3	13 29	1	24 13	9		17 25	PP
ALGIERS UNI.	102.50	53.0						18 17	PP
SETIF	103.64	54.6						18 12	PP
ROME	111.42	53.1						19 19	PP
UCCLE	111.62	41.8	18 47	10					
TRIESTE	114.17	50.1						19 41	PP
LJUBLJANA	114.84	50.1						25 24	
NURMIJARVI	126.08	37.3	19 12	7					
KIRUNA	126.11	28.0						20 47	PP
SODANKYLA	128.36	29.1	19 18	9					
MOSCOW	131.79	45.2						22 42	
TIFLIS	133.21	65.2						21 40	
SHIRAZ	134.63	84.0	19 21	0				21 50	PP
POONA	145.13	115.1	19 55	15					
QUETTA	146.19	91.7	19 45	3				23 21	PP
STALINABAD	150.26	77.4	19 56	8					
WARSAK DAM	151.23	87.7	19 59	9					
YAKUTSK	152.42	336.7	20 5	14					
LAHORE	152.54	94.3	19 53	1					
MATUSIRO	155.15	275.7	20 3	8					

JULY 23 7.H 31.M 42.S EPICENTRE -21.34-179.23 DEPTH= 602.KM

A=-0.93219 B=-0.01248 C=-0.36175 D=-0.0134 E= 0.9999
G= 0.3617 H= 0.0048 K=-0.9323 HT= 4.3

DEPTH OF FOCUS= 0.090R

SE= 1.40

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
AFIAMALU	10.25	45.1	2 22A	0	4 12	-3			
NOUMEA	13.33	263.2	2 53	1	4 26	-44			
KOUMAC	15.42	269.9	3 14	2	5 53	6			
ONERAHI	15.43	199.9	3 15	3	5 56	9			
KARAPIRO	17.14	194.1	3 29	0					
TUAI	17.68	189.3			6 24	-1			
BRISBANE	26.16	251.1	4 48K	-2					
CANBERRA	31.09	236.5	5 32K	0	9 53	-5	7 10	10 56	SCP
CHARTERS TS.	32.26	265.9	6 42K	60	10 10	-6			
PORT MORESBY	34.44	285.0	6 0	0					
MELBOURNE	34.95	234.0	6 4K	-1					
HAWAII V.OB.	46.81	31.7	7 38	-1					
GUAM	49.47	311.2	7 58	-1					
CAPE HALLETT	51.34	184.1	8 12	0				37 35	PKPPKP
SCOTT BASE	56.97	183.5	8 51A	-1				10 45	PP
MUNDARING	57.93	244.9	8 56	-2					
BYRD STATION	64.01	170.4	9 37	-1					
SOUTH POLE	68.79	180.0	10 7	0				10 26	
MIRNY	69.75	205.2						15 0	
BAGUIO CITY	69.93	297.6	10 14	0					
MATUSIRO	70.21	324.6	10 14	-1					
LEMBANG	71.87	269.6	10 23K	-2					
HONG KONG	78.09	299.7	11 0	1				14 5	PP
CANTON	79.14	300.0	11 8K	3					
BERKELEY	79.57	42.4	11 8A	1					
NANKING	79.59	310.3	11 7K	0					
LICK	79.65	43.2	11 9A	2					
PASADENA	80.10	47.5	11 5	-5					
MAWSON	80.39	200.1	11 10	-1					
FRESNO	80.50	44.5	11 12	0					
ARGENTINE I.	80.65	157.2	11 12	-1					
SHASTA	81.22	40.1	11 16A	1					
MINERAL	81.48	40.7	11 17A	0					
WUHAN	81.85	307.1	11 19K	0					
RENO	82.11	42.2	11 21A	1					
CHANGCHUN	82.36	323.0	11 21K	0					
CORVALLIS	83.10	36.6	11 26A	1					
BOULDER CITY	83.39	47.4	11 28	2					
TUCSON	84.34	52.3	11 32	1					
TUCSON TELE.	84.46	52.3	11 33	1				13 43	
VICTORIA	85.52	33.5	11 37A	0					
SALT LAKE C.	87.88	44.6	11 48	0					
PENTICTON	87.99	34.4	11 48	0					
KUNMING	88.71	297.5	11 52K	0					

COLLEGE	89.28	12.9	11	51	-3	14	7				
FLAMING GRGE	89.58	45.3	11	56	0	14	8				
HUNGRY HORSE	90.50	37.3	11	59	-1			15	44	PP	
LANCHOW	92.36	307.8	12	8K	-1						
RAPID CITY	95.08	44.6	12	26	5			16	20	PP	
SHILLONG	97.99	294.2	12	34	0						
QUETTA	120.46	293.2	17	45	1						
APATITY	129.45	344.4						20	28		
SODANKYLA	131.16	347.0	18	1	-4			20	31	SKP	
KIRUNA	131.90	350.1	18	4	-2			20	35	SKP	
MOSCOW	136.07	330.7						20	50		
SKALSTUGAN	137.07	352.5	18	5	-11			20	52	SKP	
NURMIJARVI	137.40	342.8	18	5	-11			20	53	SKP	
GOTEBORG	142.77	350.1	18	22	-5						
LWIRO	143.92	232.9	18	30K	1			33	45		
LWOW	146.14	332.7	18	34	2						
KSARA	146.65	299.4	18	37	4						
JERUSALEM	147.60	296.0	18	39	5						
WITTEVEEN	148.25	353.2	19	40	65						
COLLMBERG	148.60	345.2	18	42K	6	21	3	18	55	PKP2	
HALLE	148.66	346.5	18	40	4						
JENA	149.27	346.6	18	42	5			20	51		
PRUHONICE	149.41	342.4	18	42K	5			21	6		
SONNEBERG	149.87	346.6	18	43	5						
HELWAN	151.23	293.4	18	47K	7						
STUTTGART	151.79	348.0	18	41	1						
FOLINIERE	152.61	1.8	18	50	8						
LJUBLJANA	152.91	338.7	18	50K	8						
ATHENS	154.17	315.0	19	9A	25						
TAMANRASSET	175.36	288.9	19	3	2					24 41	PP

JULY 24 9.H 48.M 55.S EPICENTRE 56.23 164.16 DEPTH= 0.KM

A=-0.53720 B= 0.15237 C= 0.82958 D= 0.2729 E= 0.9620
G=-0.7981 H= 0.2264 K=-0.5584 HT= -7.7

SE= 1.95

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KLYUCHI	1.84	274.0	0	35	2	1	0	3			0	41	*SP
PETROPAVLOVK	4.54	227.1	1	13	1	2	9	3					
SEVERO-KUR.	7.36	224.2	1	51	0						3	13	
MAGADAN	7.86	300.5	1	59	1	3	35	6					
UGLEGORSK	15.15	251.1	3	38	1						6	38	
Y.-SAKHLINSK	16.14	244.2	3	50	0						7	0	
YAKUTSK	18.43	302.5	4	23	5	7	48	6					
VLADIVOSTOK	24.39	251.2	5	17	-4						10	35	SS
COLLEGE	24.54	49.8	5	22	0	9	41	0					
TUKUBASAN	25.80	229.3	5	32K	-2	10	11	9			6	14	PP
MATUSIRO	26.35	232.6	5	39	0	10	13	2			6	14	
CHANGCHUN	27.48	259.7	5	47	-3								
ABUYAMA	28.92	234.5	6	3A	0								
SITKA	32.34	62.8	6	34	1								
PEKING	35.08	263.1	6	55	-2	12	28	-1					
KHEYS	37.54	345.0	7	18	1						8	36	PP
PAOTOW	38.12	269.2	7	23	1								
RESOLUTE	39.51	24.2	7	33	-1	13	11	-26					
VICTORIA	42.96	68.4	8	3K	1								
PENTICTON	44.41	65.3	9	14A	60								
LANCHOW	44.76	269.5				13	17	-97					
CORVALLIS	45.57	72.7	8	25	2								
SEMIPALATNSK	47.52	300.4	8	38	-1	15	32	-2					
HUNGRY HORSE	47.85	63.0	8	39	-2	15	52	14			10	40	
CHENGTU	48.67	264.5	8	18	-30								
SHASTA	48.71	75.9	8	48K	0								
UKIAH	49.37	78.0	9	5	12								
MINERAL	49.39	75.7	8	54K	1								
CANTON	49.59	249.6				16	5	2					
HONG KONG	49.80	248.2	8	57	1	16	8	2			10	52	PP
BUTTE	50.16	64.3	8	59	0								
BERKELEY	50.80	78.4	9	5	1	16	16	-4			20	0	SS
RENO	50.93	75.1	9	6K	1								
BRANNER	51.17	78.7	9	7K	0								
BOZEMAN	51.17	63.7	9	7	0								
APATITY	51.24	338.1	9	6	-1	16	21	-5			20	5	SS

LICK	51.52	78.4	9	10K	1					
BAGUIO CITY	51.59	237.6	9	10	0	16	25	-6		
SVERDLOVSK	51.60	317.0	9	10	0	16	31	0		
VINEYARD	52.09	78.7	9	15K	1					
SODANKYLA	52.73	340.8	9	17	-2					
FRESNO	52.94	77.5	9	21K	1					
KIRUNA	53.37	343.8	9	22	-1					
SCORESBY SD.	53.51	2.6				16	59	2	17	21 PS
KUNMING	53.68	261.1				16	42	-17		
RUTH	53.74	72.0	9	39	13				17	14
ALMATA	54.10	295.8	9	28	-1				10	19 PCP
SALT LAKE C.	54.26	68.5	9	29	-1					
FLAMING GRGE	55.42	66.7	9	38	0					
FRUNSE	55.58	296.9	9	38	-2	17	23	-2		
PASADENA	55.77	78.5	9	42	1	17	28	1	11	51 PP
BOULDER CITY	56.22	74.6	9	43	-1					
LHASA	56.68	274.5	9	47	0	17	37	-2		
GLEN CANYON	57.21	71.4	9	54	3					
SKALSTUGAN	58.56	345.7	9	57	-4					
PULKOVO	58.68	334.7	10	1	-1	18	6	1	13	31 PPP
NURMIJARVI	59.28	338.1	10	4	-2					
TASHKENT	59.35	299.3	10	7	1	18	10	-4	10	37
MOSCOW	60.26	328.4	10	12	0	18	26	0	13	43 PPP
RABAUL	61.03	193.7	10	18	0					
TUCSON TELE.	61.19	74.3	10	19	0					
TUCSON	61.20	74.4	10	20	1					
UPPSALA	61.25	341.5	10	18	-1					
DUZHANBE	61.71	297.6	10	25	3	18	45	1		
CHITTAGONG	61.93	268.6	10	7	-17	18	15	-32	12	19 PP
BERGEN	62.51	348.4	10	27	-1				23	25 SS
DEHRA DUN	63.29	285.0				19	6	2	30	36
GOTEBORG	64.23	343.8	10	37	-2					
LUBBOCK	64.89	66.9	10	43	0					
COPENHAGEN	66.10	342.9	10	52	1	19	39	0	23	36 SS
FLORISSANT	66.34	55.3	10	50	-3	19	29	-13		
ABERDEEN	66.41	351.9							27	12
ST. LOUIS 1	66.53	55.3	10	52K	-2	19	32	-12		
FAYETTEVILLE	66.72	59.7	10	53A	-2				13	23 PP
OTTAWA	66.96	41.5	10	55K	-2					
SHAWINIGAN	67.04	38.9	10	56	-1					
ASHKABAD	67.19	304.4	10	57	-1				15	29 SCP
SEVEN FALLS	67.22	37.4	10	56	-2					
BREBEUF	67.64	40.0	10	58A	-3					
WARSAW	67.71	336.5	11	3	2	19	57	-1		
DURHAM	68.75	351.2				20	8	-3	21	14 SKS
LWOW	69.24	333.6	11	11	0				27	41 SSS
QUETTA	69.25	293.3	11	9	-2	20	14	-3		
WITTEVEEN	69.74	345.7	11	15	1					
TIFLIS	69.82	316.0	11	15	1	20	27	4	13	59 PP
KRAKOW	70.00	336.4	11	15	0	20	29	4		
PENNSYLVANIA	70.05	45.5	11	14	-2	20	19	-7		
MORGANTOWN	70.20	47.6	11	16K	-1					
HALLE	70.20	342.0	11	17	0				14	5 PP
COLLMBERG	70.21	341.2	11	17	0				14	3 PP
RACIBORZ	70.35	337.5	11	18	1					
DE BILT	70.65	346.4	11	23	4	20	35	2		
SIMFEROPOL	70.79	324.9	11	19	-1	20	35	0		
JENA	70.81	342.0	11	20	0	20	32	-3	14	5 PP
GORIS	71.11	313.7	11	22	0	20	39	1	21	3 PS
PRAGUE	71.12	339.9	11	25	3					
PLAUEN	71.14	341.5	11	23	1					
WESTON	71.18	40.2	11	22	0				25	15 SS
PRUHONICE	71.18	339.8	11	23A	0	21	1	22	25	47 SS
SONNEBERG	71.41	342.1	11	23	-1					
PALISADES	71.41	42.7	11	23	-1	20	35	-7	14	9 PP
BENSBERG	71.48	344.9	11	25	1					
HALIFAX	71.78	33.8	11	44	18					
KEW	71.90	349.9	11	27	0					
UCCLE	72.03	346.7	11	27	-1	20	44	-5		
TEHERAN	72.15	308.0	11	29K	1	20	52	2		
DOURBES	72.68	346.4	11	35	4	20	59	2		
HEIDELBERG	72.77	343.5	11	32	0					
STUTTGART	73.29	343.0	11	35	0	21	10	7	16	12 PPP
BUCHAREST	73.68	330.1	11	41K	4				14	15 PP
STRASBOURG	73.71	343.9	11	37	0	21	8	0		
EBINGEN	73.91	343.0	11	39	0					
RAVENSBURG	74.19	342.5	11	40	0					
PARIS	74.21	347.5	11	43	3	21	21	7		
COLUMBIA	74.51	51.5	11	41	-1					

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FOLINIERE	74.58	349.5	11	43	0					
BASLE	74.76	343.8	11	41	-3					
BELGRADE	74.79	334.1				21	22	2	17	31
TOLMEZZO	74.91	339.8	11	48	4				14	59 PP
LJUBLJANA	74.95	338.6	11	44	-1					
BESANCON	75.28	344.8	11	46	-1					
TRIESTE	75.48	339.0				21	21	-7		
PAVIA	76.79	342.1							22	35
CHARTERS TS.	77.52	197.2	11	59	0					
MONACO	78.49	343.0	12	4	0					
ROME	79.34	338.9	11	50	-19	22	6	-4	31	6 SSS
TARANTO	79.66	335.0				21	36	-37		
KSARA	80.12	318.4	12	15	2	22	24	6	14	48 PP
JERUSALEM	82.19	318.0	12	23	-1				14	55 PP
TOLEDO	83.73	350.9	12	27	-5	22	59	4	15	44 PP
BRISBANE	83.85	190.2				23	1	5	36	4
ALICANTE	84.88	347.9	12	39	1	23	8	2		
HELWAN	85.34	320.3	12	41A	1				15	13
SETIF	86.17	342.9	12	47	3				16	6 PP
GRANADA	86.37	350.2	13	44K	59	23	26	6		
MALAGA	86.90	350.8	12	45	-3	23	25	-1	16	9 PP
RIVERVIEW	90.39	190.8							33	41 SSS
TAMANRASSET	99.24	340.1	13	43	-2				17	47 PP
CARACAS	101.23	51.3	13	59	5				26	57 PS
BOGOTA	103.10	60.5							18	12 PP
CAPE HALLETT	128.32	177.6							39	29 SS
BYRD STATION	142.54	163.8	19	32	-3					
MAWSON	143.91	219.7	19	35	-2					
SOUTH POLE	146.06	180.0	19	45	4				20	38

JULY 25 3.H 41.M 10.S EPICENTRE 56.74 163.31 DEPTH= 0.KM

A=-0.52778 B= 0.15820 C= 0.83452 D= 0.2871 E= 0.9579
G=-0.7994 H= 0.2396 K=-0.5510 HT= -7.8

SE= 5.57

	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	
KLYUCHI	1.42	253.6	0	26	-1	0	49	2			0	31	*SP
PETROPAVLOVK	4.60	217.8	0	54	-19	1	40	-28			0	59	*SP
MAGADAN	7.19	298.2	1	54	5						3	48	
SEVERO-KUR.	7.44	218.1	1	34	-19	2	52	-27			3	48	
UGLEGORSK	14.89	248.0	3	24	-10	6	5	-16					
Y.-SAKHLINSK	15.95	241.1	3	36	-12						6	40	
ABASHIRI	17.51	231.4	4	6	-1								
NEMURO	17.53	227.6	4	10	2	7	22	0					
WAKKANAI	17.61	239.1	3	59	-10	7	32	8					
YAKUTSK	17.76	301.2	4	12	1	7	28	1					
KUSIRO	18.31	229.2	4	10	-7	7	47	7					
HIROO	19.34	230.0	4	59	29								
SAPPORO	19.56	235.0	4	19	-13	8	6	-2			8	52	
URAKAWA	19.67	230.8	4	21	-13						9	51	
TOMAKOMAI	19.81	233.8	5	1	26								
SUTTSU	20.28	236.4	4	46	6	8	24	1					
MORI	20.68	234.6	4	43	-1	8	12	-19					
HAKODATE	20.83	233.8	4	35	-11	8	18	-16					
HATINOHE	21.54	230.4	4	36	-17	8	37	-11					
AOMORI	21.62	232.1	4	56	2	8	51	2					
MIYAKO	22.09	228.3	4	44	-15	8	45	-13					
MORIOKA	22.38	229.8	4	45	-17	8	53	-10					
AKITA	22.82	231.6	4	52	-14	8	58	-13					
MIZUSAWA	22.88	229.1	4	55	-12	8	55	-18					
ISINOMAKI	23.39	227.8	4	54	-18	9	12	-10					
SAKATA	23.62	230.9	5	9	-5	9	9	-17					
SENDAI	23.70	228.3	4	55	-20	9	10	-17					
YAMAGATA	23.95	229.2	5	2	-15								
VLADIVOSTOK	24.12	249.0	5	5	-14	9	16	-18			9	50	SS
HUKUSIMA	24.32	228.3	5	7	-14	9	26	-12					
COLLEGE	24.58	50.6	5	24	1	9	47	5			6	7	PP
NIIGATA	24.77	230.9	5	13	-12						10	0	
ONAHAMA	24.83	226.7	5	11	-15	9	27	-19					
SHIRAKAWA	24.96	228.0	5	13	-14								
AIKAWA	25.04	232.2	5	15	-12						13	34	
MITO	25.50	226.7	5	15	-17	9	46	-12					

UTUNOMIYA	25.60	227.9	5	19	-14	9	48	-11	6	7	
KAKIOKA	25.75	227.0	5	18	-16						
TUKUBASAN	25.79	227.1	5	19A	-16	9	40	-22	5	52	PP
TAKADA	25.81	231.1	5	22	-13						
MAEBASI	26.05	229.0	5	21	-16	9	49	-18	14	10	
KUMAGAYA	26.14	228.2	5	30	-8	9	59	-9			
WAZIMA	26.16	233.5	5	37	-1	9	53	-16			
NAGANO	26.19	230.6	5	32	-6	9	53	-16	6	1	
MATUSIRO	26.30	230.5	5	24	-15	9	53	-18			
OIWAKE	26.33	229.7	5	29	-11						
HONGO	26.36	227.1	5	32	-8	10	5	-7			
TOKYO C.M.O.	26.40	227.1	5	26	-14	9	54	-18	6	9	PP
TITIBU	26.41	228.5	5	30	-10						
TOYAMA	26.60	232.2	5	47	5	10	4	-12			
MATUMOTO	26.64	230.5	5	31	-11						
YOKOHAMA	26.65	226.9	5	44	1				6	10	
KOHU	26.89	228.9	5	49	4	10	28	7			
HUNATU	26.95	228.4	5	35	-10	10	0	-22			
MERA	27.03	226.1	5	42	-4	10	43	20			
CHANGCHUN	27.11	257.9	5	35	-12	10	10	-14	6	36	PPP
AJIRO	27.20	227.4	5	35	-13						
MISIMA	27.21	227.7	5	37	-11	10	32	6			
OSIMA	27.34	226.7	5	53	4						
SHIZUOKA	27.56	228.4	5	42	-9	10	21	-10			
GIHU	27.88	231.3	5	34	-20	10	14	-23			
OMAESAKI	27.95	228.3	5	50	-4	10	20	-18			
NAGOYA	27.99	230.8	5	43	-12				13	20	
HIKONE	28.21	232.0	5	48	-9				11	34	
KAMEYAMA	28.48	231.2	5	49	-10	11	1	15	6	57	PP
TOYOOKA	28.63	234.3	6	11	11				10	29	
KYOTO	28.65	232.4	5	38	-23				11	59	
SAIGO	28.75	237.2							8	45	
ABUYAMA	28.85	232.5	5	48A	-14						
NARA	28.90	231.9	5	52	-11						
OSAKA	29.05	232.3	5	58	-6				7	51	
KOBE	29.18	232.9	6	30	25				12	40	
YONAGO	29.37	236.3	7	32	85						
SUMOTO	29.59	232.9							10	51	
SIOMISAKI	29.97	230.7							10	58	
TAKAMATU	29.98	234.1	5	58	-15				14	10	
HAMADA	30.40	237.4	6	18	2				13	39	
HIROSIMA	30.67	236.3							7	57	
MUROTO	30.83	232.8	6	24	4				17	49	
KOTI	30.86	234.0							10	55	
MATUYAMA	30.96	235.3	6	9	-12				14	29	
SIMIDU	31.76	233.9							8	45	
OOITA	31.99	236.2	6	34	4				14	49	
HUKUOKA	32.28	238.2	6	4	-29	11	34	-12			
ASOSAN	32.52	236.6							16	31	
KUMAMOTO	32.76	237.0							8	31	
NAGASAKI	33.22	238.0	6	31	-10	11	50	-11			
IRKUTSK	33.62	287.9	6	39A	-6				7	56	PP
TOMIE	33.83	239.3							11	0	
KAGOSIMA	33.88	236.0							15	52	
PEKING	34.68	261.6	6	43	-11						
YAKUSIMA	34.85	235.0							12	7	
PAOTOW	37.66	267.8	7	16	-3	13	13	4			
ZO-SE	38.79	246.7	7	20K	-8	13	18	-9			
RESOLUTE	39.23	24.3	7	34	2	13	44	11			
NANKING	39.26	250.2	7	23K	-9						
NORD	41.89	360.0	7	59	5	14	25	12			
PENTICTON	44.62	65.2	9	14	58						
KIPAPA	45.26	125.0	8	13	-8						
HONOLULU	45.33	125.1	8	14	-8	14	52	-11			
CORVALLIS	45.87	72.6	8	28	2						
SEMIPALATNSK	46.86	299.5	8	29	-5	15	22	-3	10	22	PP
HUNGRY HORSE	48.03	62.8	8	44	1	16	0	19	14	3	
HAWAII V.OB.	48.25	123.2	8	34	-11	15	32	-12			
CHENGTU	48.26	263.3	8	37	-8	15	41	-4			
SHASTA	49.05	75.7	8	49	-2						
CANTON	49.33	248.4	8	45	-8	15	51	-9			
HONG KONG	49.56	247.0	8	44A	-11	15	50	-13			
MINERAL	49.72	75.5	8	53A	-3						
UKIAH	49.72	77.8	8	55	-1						
APATITY	50.59	337.6	9	3	0	16	23	6	11	5	PP
SVERDLOVSK	50.90	316.3	9	3	-2	16	21	0	11	5	PP
BERKELEY	51.16	78.2	9	3	-4	16	24	-1	20	2	
RENO	51.25	74.9	9	7	-1						
BAGUIO CITY	51.48	236.4	8	56	-14	16	8	-21			

LICK	51.88	78.2	9	10A	-3						
SODANKYLA	52.09	340.3	9	15	1	16	47	9			
VINEYARD	52.45	78.5	9	14	-3						
KIRUNA	52.75	343.3	9	19	0						
MANILA	52.78	234.8	9	15	-4						
SCORESBY SD.	53.02	2.2	9	26	5	17	5	15		11	15 PP
FRESNO	53.29	77.3	9	20	-3						
KUNMING	53.29	260.0	9	14	-9	16	45	-9			
EUREKA	53.33	72.2	9	21	-2					39	2 PKPPKP
ALMATA	53.45	294.9	9	18	-6					10	47
SALT LAKE C.	54.51	68.3	9	32	0						
FRUNSE	54.93	296.0	9	30	-5	17	15	-1		11	40 PP
FLAMING GRGE	55.65	66.5	9	28	-12	19	48	142		14	37
PASADENA	56.13	78.2	9	40K	-4	17	30	-2	9 57	21	32 SS
LHASA	56.18	273.4	9	38	-6	17	29	-4			
RAPID CITY	56.33	59.8	9	44	-1					39	48 PKPPKP
BOULDER CITY	56.54	74.3	8	44	-63					38	46 PKPPKP
GLEN CANYON	57.49	71.1	9	50	-4						
PULKOVO	58.02	334.1	9	57	0	18	2	5		12	10 PP
NURMIJARVI	58.63	337.5	10	0	-2	18	12	7		19	52 SCS
TASHKENT	58.69	298.4	9	56	-6	18	5	-1		13	41 PPP
SHILLONG	58.90	269.8	9	57	-6	18	4	-5			
MOSCOW	59.58	327.8	10	7	-1	18	21	3		10	54 PCP
CHATRA	60.49	274.5	10	9	-5	18	19	-10			
NHATRANG	60.57	245.4	10	3	-12	18	20	-10			
UPPSALA	60.62	340.9	10	17	2						
DUZHANBE	61.06	296.8	10	7	-11					18	37 PS
RABAUL	61.42	192.7	10	8	-13				10 23		
CHITTAGONG	61.48	267.6	9	59	-22	18	6	-36		12	12 PP
TUCSON	61.52	74.1	10	28	7						
BERGEN	61.92	347.8	10	23	-1	18	56	9			
DEHRA DUN	62.71	284.1	10	22	-7	18	36	-21		21	28
GOTEBORG	63.61	343.3	10	35	0						
AGRA	65.24	282.0	10	38A	-8	19	16	-13		13	36 PP
COPENHAGEN	65.47	342.4	10	48	1	19	41	9		23	56 SS
ABERDEEN	65.83	351.4	10	52	2	19	45	9		20	22 PS
FLORISSANT	66.43	54.9	10	52K	-2	19	50	7			
ASHKABAD	66.51	303.6	10	51	-3	19	40	-4			
ST. LOUIS 1	66.63	54.9	10	52	-3	19	47	1			
FAYETTEVILLE	66.87	59.3	10	53K	-3	19	58	9		15	12 PPP
OTTAWA	66.89	41.1	10	56	0						
SHAWINIGAN	66.94	38.5	10	58	1						
WARSAW	67.05	335.9	11	0K	3	19	59	8		13	29 PP
SEVEN FALLS	67.10	36.9	10	59	1						
EDINBURGH	67.16	351.8				20	0	8			
PORT MORESBY	67.25	197.3	10	53	-6	19	34	-19			
BREBEUF	67.55	39.6	11	0	-1	19	59	2			
CLEVELAND	68.00	47.2	11	4K	1	20	4	2			
DURHAM	68.17	350.6	10	56K	-8	20	7	3		13	42 PP
POTSDAM	68.52	340.9	11	8	1	20	18	10		13	41 PP
LWOW	68.57	333.0	11	6	-1	20	14	5		15	28 PPP
QUETTA	68.62	292.5	11	1	-6	20	2	-8		13	34 PP
TIFLIS	69.12	315.2	11	9	-1	20	22	6		13	44 PP
WITTEVEEN	69.13	345.1	11	14	4						
CHORZOW	69.32	336.4				20	21	3			
KRAKOW	69.34	335.7	11	12	0	20	27	9		15	42 PPP
PITTSBURGH	69.51	46.7								20	21
HALLE	69.57	341.4	11	12	-1	20	29	8		13	50 PP
COLLMBERG	69.57	340.6	11	13A	0	20	29	8		15	37 PPP
RACIBORZ	69.69	336.9	11	14	0	20	36	14			
PORT BLAIR	69.69	260.1								34	19
PENNSYLVANIA	70.03	45.1	11	25	9	20	25	-1		12	11
DE BILT	70.04	345.9	11	22K	6	20	40	14		13	56 PP
SIMFEROPOL	70.10	324.2	11	15	-1	20	32	5		15	37 PPP
JENA	70.18	341.4	11	16	-1	20	35	7		13	56 PP
MORGANTOWN	70.20	47.1	11	18K	1						
GORIS	70.41	313.0	11	16	-2	20	37	6		13	58 PP
PRAGUE	70.48	339.3	11	20A	1	20	38	6		15	54 PPP
PRUHONICE	70.54	339.2	11	20	1	20	34	2		14	2 PP
SONNEBERG	70.78	341.5	11	21	1					14	3 PP
BACAU	70.81	329.8	11	23	2	20	45	10			
CHEB	70.85	340.7	11	21	0	20	42	6		26	8 SS
BENSBERG	70.87	344.3	11	23	2					14	6 PP
WESTON	71.09	39.7	11	24	2	20	40	1			
KEW	71.31	349.3	11	24	0	20	48	7		14	15 PP
PALISADES	71.35	42.2	11	26	2	20	43	1		25	33 SS
UCCLE	71.42	346.1	11	24	0	20	48	6			
TEHERAN	71.46	307.2	11	21	-4	20	45	2			

FORDHAM	71.50	42.2	11	24	-1	20	44	1			
FOCSANI	71.52	329.2				20	57	13			
HALIFAX	71.62	33.3	11	37	11						
VIENNA-H.	71.82	337.4	11	24	-3	20	59	12			
WASHINGTON	71.97	45.5	11	37	9	20	49	0			
DOURBES	72.07	345.8	11	30	2	20	56	6			
HEIDELBERG	72.14	342.9	11	28	-1						
CAMPULUNG	72.51	330.5				21	6	11			
STUTTGART	72.66	342.3	11	31	-1	21	1	4	14	15	PP
HYDERABAD	72.81	275.6				20	45	-13	21	34	PPS
TUBINGEN	72.93	342.4	11	35	2						
BUCHAREST	73.00	329.4	11	34A	0	21	8	7			
TIMISOARA	73.06	333.3	11	50	16	22	9	68			
STRASBOURG	73.09	343.3	11	35	1	21	11	9			
EBINGEN	73.28	342.4	11	36	1						
MEDAN	73.30	250.3	11	26	-9				20	50	
AFIAMALU	73.39	154.7	10	38	-58	20	56	-9	15	0	PP
RAVENSBURG	73.56	341.8	11	36	-1						
PARIS	73.61	346.9	11	28	-9	21	16	9			
CHAPEL HILL	73.74	48.5	11	40	2						
JERSEY	73.75	350.1							15	7	
BELGRADE	74.12	333.5	11	43A	3	21	18	5	12	34	PP
BASLE	74.14	343.2	11	42	2	21	23	10			
ZAGREB	74.21	336.9	11	42	1	21	13	-1			
TOLMEZZO	74.26	339.1	11	43	2	21	18	3	14	26	PP
LJUBLJANA	74.30	338.0	11	41A	0				14	29	PP
POONA	74.43	280.0	11	38	-4	21	9	-8			
COLUMBIA	74.56	51.0	11	44	1	21	16	-2			
BOMBAY	74.68	281.0	11	37	-6	21	8	-11			
NEUCHATEL	74.76	343.5	11	45	1						
TRIESTE	74.84	338.4	11	46	2	21	28	7	26	25	SS
MADRAS	75.48	271.5	11	43	-5	21	20	-8	14	33	PP
SUVA	75.68	165.2				21	15	-15			
OROPA	75.93	342.4				22	39	66	12	45	
PAVIA	76.16	341.5	11	55A	3				14	50	PP
BOLOGNA	76.42	339.8				21	49	10			
CLERMONT-FD.	76.52	345.9	10	56A	-58	21	46	6			
CHIAVARI	76.96	341.2				21	41	-3	14	41	
PRATO	77.06	339.8	12	1	4	21	59	14			
MONACO	77.86	342.4	12	3	2						
CHARTERS TS.	77.87	196.4	11	50	-11						
LEMBANG	77.89	237.0	11	43	-19						
TACUBAYA	78.01	73.1	12	27	25				13	30	
ROME	78.69	338.2	12	6	0	22	12	9	15	9	PP
TARANTO	79.00	334.3				22	17	11	13	17	
KODAIKANAL	79.25	272.2				22	3	-6			
KSARA	79.43	317.7	12	6	-4	22	15	4	15	8	PP
COLOMBO	80.67	268.3				22	10	-14			
JERUSALEM	81.50	317.3	12	18	-3	22	35	3			
MESSINA	81.56	334.9	12	19	-2	22	33	0			
TORTOSA	81.73	346.9	12	27	5	22	45	10			
SERRA PILAR	82.26	353.8	12	24A	-1				15	39	PP
TOLEDO	83.15	350.2	12	29	-1	22	57	8	15	45	PP
COIMBRA	83.17	353.6				22	53	4			
BRISBANE	84.27	189.4	12	28	-7	22	44	-16			
ALICANTE	84.28	347.3	12	35	0	23	16	15			
COMITAN	84.31	69.1				22	58	-3	15	50	PP
HELWAN	84.64	319.6	12	35	-2	23	2	-2			
LISBON	84.69	354.1	12	42A	5						
SETIF	85.54	342.2	12	42	0	23	12	-1			
GRANADA	85.78	349.6	12	48A	5	23	27	12	16	33	PP
ALMERIA	85.99	348.6	12	46A	2	23	23	6	16	4	PP
MALAGA	86.32	350.1	12	46A	1	23	24	4	16	13	PP
RELIZANE	86.71	346.0	12	48	1				16	7	PP
RIVERVIEW	90.81	190.1	12	58	-9	23	47	-15	29	57	SS
CANBERRA	92.51	191.7	13	8	-7				13	30	
MELBOURNE	95.48	194.5				24	37	33			
WELLINGTON	98.13	171.3							31	31	SS
TAMANRASSET	98.60	339.3	13	45	3	24	22	2	17	40	PP
ADDIS ABABA	100.28	304.2				24	36	7	32	35	SS
CARACAS	101.27	50.4	13	50	-4	25	41	67			
ROXBURGH	101.98	175.7				24	28	-9	25	34	S
CHINCHINA	102.21	60.8				24	39	1			
BOGOTA	103.25	59.6				24	41	-2	25	31	SKKS
MBOUR	109.15	0.3				24	21	-48	19	6	PP
LWIRO	114.74	308.3							19	43	
BROKEN HILL	125.69	302.3	19	3	-1						
CAPE HALLETT	128.85	177.3	19	26	16				21	8	PP

WILKES	128.98	204.4								20	50 PP
BULAWAYO	130.53	298.5	19	14	1						
SCOTT BASE	134.35	179.0	19	17	-4						
PRETORIA	135.46	294.9								23	29
BYRD STATION	143.17	163.5	19	26	-10						
MAWSON	144.00	219.9	19	29	-9						
SOUTH POLE	146.57	180.0	19	12	-30					20	13
HERMANUS	146.98	297.2								20	5

JULY 25 11.H 12.M 7.S EPICENTRE 53.76 158.81 DEPTH= 134.KM

A=-0.55360 B= 0.21460 C= 0.80465 D= 0.3614 E= 0.9324
G=-0.7503 H= 0.2908 K=-0.5937 HT= -6.8

DEPTH OF FOCUS= 0.016R

SE= 2.25

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	0.75	187.5	0	20	-2	0	35	-4					
KLYUCHI	2.82	24.0	0	49	4	1	21	1					
SEVERO-KUR.	3.52	209.4	0	53	-1	1	33	-3					
MAGADAN	7.29	326.0	1	49	4						3	19	
UGLEGORSK	11.45	252.6	2	43	3	4	53	7					
Y.-SAKHLINSK	12.27	243.2	2	52	1	5	7	2					
NEMURO	13.60	225.2	3	7	-1	5	27	-10			3	48	
ABASHIRI	13.63	230.2	3	9	0						6	3	
WAKKANAI	13.87	239.9	3	14	2	5	43	0					
KUSIRO	14.39	227.3	3	15	-3	5	45	-10			6	25	
OBIHIRO	14.98	229.9	3	23	-3						4	38	
HIROO	15.43	228.2	3	28	-3								
SAPPORO	15.73	234.2	3	33	-2	6	30	5					
URAKAWA	15.77	229.1	3	34	-2	6	19	-7			6	56	
TOMAKOMAI	15.95	232.7	3	41	3						6	32	
SUTTSU	16.47	235.8	3	44	0						15	28	SCS
MURORAN	16.47	233.2	3	42	-2	7	3	21			11	49	
MORI	16.84	233.5	3	46K	-3	7	10	20					
HAKODATE	16.97	232.5	3	49	-1	6	48	-5			15	31	SCS
YAKUTSK	17.40	309.9	3	56	0	7	11	8					
HATINOHE	17.64	228.4	3	40	-18	7	25	17			15	31	SCS
AOMORI	17.74	230.4	3	55	-5	7	24	14			15	33	SCS
MIYAKO	18.17	225.8	4	3	-2	7	15	-4					
MORIOKA	18.47	227.6	4	5	-3	7	17	-9			15	33	SCS
AKITA	18.93	229.7	4	14A	1	7	46	10			15	38	SCS
MIZUSAWA	18.96	226.6	4	14	1	7	40	4					
ISINOMAKI	19.47	225.1	4	17	-1	7	49	3			15	41	SCS
SAKATA	19.72	228.8	4	22	1	8	2	11					
SENDAI	19.78	225.7	4	21	-1	7	56	4			4	34	
YAMAGATA	20.03	226.7	4	22	-2	8	4	7			13	43	
HUKUSIMA	20.40	225.7	4	26	-2	8	11	7					
VLADIVOSTOK	20.66	249.9	4	30	-1	8	13	4			5	3	
NIIGATA	20.88	228.6	4	33	0	8	20	7					
ONAHAMA	20.90	223.7	4	34	1	8	16	3			5	26	
SHIRAKAWA	21.04	225.2	4	34	0	8	22	6					
AIKAWA	21.15	230.2	4	35K	-1	8	21	3			10	15	
MITO	21.57	223.7	4	39	-1	8	30	5			5	6	PP
UTUNOMIYA	21.67	225.1	4	41	0	8	27	0			5	21	
KAKIOKA	21.81	224.0	4	41K	-1	8	29	-1					
TUKUBASAN	21.86	224.2	4	37A	-5	8	29	-1			5	58	PPP
TAKADA	21.91	228.8	4	43	0	8	37	6					
TYOSI	21.98	222.1	4	44	0	8	37	4					
MAEBASI	22.14	226.3	4	44K	-1	8	40	5					
KUMAGAYA	22.22	225.4	4	47	1	8	41	4					
NAGANO	22.29	228.3	4	48A	1	8	43	5			15	48	SCS
WAZIMA	22.30	231.6	4	49K	2	8	37	-1			15	48	SCS
MATUSIRO	22.39	228.1	4	46	-2	8	42	2			15	47	SCS
OIWAKE	22.42	227.2	4	53	5	8	46	6					
HONGO	22.43	224.1	4	49K	1	8	45	5			6	15	
TOKYO C.M.O.	22.46	224.1	4	47K	-1	8	45	4			5	18	PP
TITIBU	22.49	225.7	4	50K	1	8	45	4					
TOYAMA	22.71	230.1	4	51K	0	8	45	0			15	49	SCS
YOKOHAMA	22.72	223.9	4	51	0	8	50	5			14	35	
MATUMOTO	22.74	228.1	4	54	3	8	52	6			15	49	
KOHU	22.97	226.2	4	53	0	8	53	3			15	51	SCS
HUNATU	23.03	225.6	4	56K	2	8	57	6			15	48	SCS
MERA	23.09	223.0	4	57	3	8	46	-6					

KANAZAWA	23.11	230.7	4	56	1						
TAKAYAMA	23.15	229.2	4	58	3						
AJIRO	23.28	224.5	4	59	3	8	58	3			
MISIMA	23.28	224.8	4	57K	1	8	58	3			
OSIMA	23.40	223.6	5	1	4	8	57	0		15	43 SCS
SHIZUOKA	23.64	225.6	5	2	2	9	7	6			
HUKUI	23.69	230.8	4	59	-1	9	6	4		6	59
GIHU	23.99	229.0	5	2	-1	9	6	-1		15	54 SCS
CHANGCHUN	23.99	259.2	5	2K	-1	9	51	44	5 36	11	5 *SS
OMAESAKI	24.03	225.4	5	8A	5	9	11	3			
NAGOYA	24.09	228.3	5	4	0	9	11	2		6	56
TSURUGA	24.10	230.5	5	5	1	9	11	2		10	7
HAMAMATU	24.14	226.5	5	7	2	9	12	2			
HIKONE	24.33	229.6	5	7	1	9	17	4		15	58 SCS
MAIZURU	24.56	231.3	5	12	3	9	15	-2			
KAMEYAMA	24.58	228.7	5	7	-2	9	18	1		6	1 PP
TU	24.68	228.5	5	13	3						
HATIDYOZIMA	24.70	220.9	5	15	5						
KYOTO	24.77	230.2	5	13	2	9	23	3			
TOYOOKA	24.77	232.3	5	12K	1	9	21	1		15	58 SCS
SAIGO	24.95	235.6	5	14	2	9	27	4			
ABUYAMA	24.97	230.2	5	11A	-1						
NARA	25.01	229.6	5	13	0	9	31	7		15	59
TOTTORI	25.09	233.3	5	11	-3	9	30	4			
OSAKA	25.17	230.0	5	16K	2	9	29	2			
KOBE	25.31	230.6	5	17	1	9	25	-4		16	2 SCS
OWASE	25.36	228.2	5	16	0	9	32	2		5	47
YONAGO	25.56	234.5	5	20	2	9	35	2			
WAKAYAMA	25.68	230.1	5	21	2	9	25	-10			
SUMOTO	25.71	230.6	5	20A	1	9	37	1		8	46
HIMEJI	25.81	231.6	5	18	-2	9	31	-7			
SIOMISAKI	26.07	228.1	5	22	-1	9	47	5		10	44
TOKUSIMA	26.09	230.8	5	23	0	9	36	-6		16	1 SCS
TAKAMATU	26.13	231.9	5	23	0	9	45	2		16	5 SCS
HAMADA	26.60	235.7	5	29	1	9	38	-13		10	47
TORISIMA	26.85	217.4	5	33	3						
HIROSIMA	26.86	234.5	5	30	0	9	55	0		16	7 SCS
MUROTO	26.95	230.4	5	32	1	9	53	-3			
KOTI	27.00	231.8	5	29	-2	9	48	-9		16	8 SCS
MATUYAMA	27.12	233.3	5	32	0	10	0	1		11	10
SIMIDU	27.90	231.7	5	40	1	10	12	0		11	27
SIMONOSEKI	27.93	236.1	5	40	0						
OOITA	28.17	234.2	5	41A	-1	10	12	-4			
COLLEGE	28.49	45.9	5	44	-1	10	22	1			
HUKUOKA	28.49	236.4	5	47K	2	10	21	0		16	13 SCS
ASOSAN	28.71	234.6	5	47	0						
SAGA	28.80	236.1	5	50	3	10	31	5			
KUMAMOTO	28.95	235.0	5	50	1	10	28	0			
MIYAZAKI	29.35	233.0	5	54	2	10	38	4			
NAGASAKI	29.43	236.1	5	51K	-2	10	38	2		16	17 SCS
KAGOSIMA	30.05	233.8	6	0	1	10	47	1			
TOMIE	30.07	237.5	5	59K	0	10	36	-10			
YAKUSIMA	31.00	232.7	6	6	-1	10	57	-3		16	24
PEKING	31.69	261.9	6	10K	-3	11	6	-5	6 44	7	33 PPP
IRKUTSK	32.14	289.9	6	15	-2	11	15	-3	6 47	7	41 PPP
PAOTOW	34.98	268.1	6	39	-2						
ZO-SE	35.22	245.2	6	42	-1	12	1	-5	7 17		
NANKING	35.80	249.0	6	45K	-3	12	10	-5	7 23	13	11 *SS
SITKA	36.24	57.5	6	53A	1	12	27	5	7 26	9	19 PCP
KHEYS	39.14	345.2	7	17	1	13	11	6	7 48	8	53 PP
WUHAN	39.31	251.9	7	17	0						
TAIPEI	39.91	238.9	7	11	-11						
TAICHUNG	41.06	239.2	7	40	8						
YUSHAN	41.48	238.3	7	33	-2	13	46	6			
HSINKONG	41.59	237.5	7	39	3	13	42	0			
GUAM	41.72	200.8	7	32	-5	13	34	-10		9	20 PP
TAINAN	42.25	238.7	7	54	13						
TAWU	42.45	237.4	7	47	4						
HENGCHUN	42.82	237.3	7	53	7						
RESOLUTE	42.99	22.0	7	48A	1	14	4	2			
NORD	44.86	359.1	8	3	1	14	29	0		17	46 SS
CHENGTU	45.32	262.0	8	5	-1	14	31	-5	8 40	9	57 PP
ALBERNI	45.60	63.0	8	9	1						
CANTON	45.80	246.3	8	12	2	14	38	-5	9 42	10	0 *SP
KIPAPA	45.92	117.5	8	9A	-2						
HONOLULU	45.98	117.6	8	11A	0	14	50	5			
HONG KONG	45.99	244.8	8	11K	0	14	44	-1		13	27
SEMIPALATNSK	46.08	299.4	8	10	-2	14	42	-5		10	3 PP

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THULE	46.66	13.8	8	15	-2						
VICTORIA	46.79	63.1	8	17	-1						
BAGUIO CITY	47.65	233.5	8	22	-2	15	5	-4			
PENTICTON	48.28	60.1	9	28K	59						
HAWAII V.OB.	49.01	116.1	8	35	0	15	28	0			
BANFF	49.19	56.0	8	36K	0	13	40	-110			
CORVALLIS	49.32	67.1	8	37A	0					10	38
KUNMING	50.20	258.2	8	42	-2	15	43	-1	9 20	10	41 PP
SVERDLOVSK	51.26	315.8	8	51	-1	15	55	-4		10	46 PP
ARCATA	51.31	71.2	8	55	3						
HUNGRY HORSE	51.75	58.0	8	55A	-1	16	3	-2		10	13 PCP
ALMATA	52.34	294.0	8	58	-2					18	27 SCS
APATITY	52.35	336.7	9	0	0	16	13	-1	9 34	10	59 PP
SHASTA	52.38	70.3	9	1	1					39	6 PKPPKP
UKIAH	52.99	72.3	9	4A	-1	16	28	6	9 37	11	4 PP
MINERAL	53.06	70.1	9	10A	5					11	10 PP
TOCKLAI	53.66	266.5	9	16	6						
LHASA	53.74	271.9	9	8	-2	16	30	-2	9 49	10	3 *SP
FRUNSE	53.90	295.1	9	10	-2	16	36	1	9 41	17	23 *SS
SODANKYLA	54.01	339.2	9	11	-1	16	35	-1		10	15 PCP
BUTTE	54.05	59.4	9	12A	-1	16	35	-2		14	0 SCP
SAN FRANCSCO	54.36	73.0	9	14K	-1						
BERKELEY	54.40	72.8	9	15A	0	16	47	6			
RENO	54.62	69.7	9	17A	0					39	10 PKPPKP
BRANNER	54.76	73.1	9	17A	-1						
KIRUNA	54.83	342.0	9	16	-2					16	47
BOZEMAN	55.06	58.8	9	19A	-1	16	53	3	9 49	10	41 PCP
LICK	55.12	72.8	9	20A	0	16	53	2		11	24 PP
VINEYARD	55.69	73.2	9	25A	0						
SCORESBY SD.	56.06	0.3	9	28K	1	17	6	3		11	32 PP
SHILLONG	56.26	267.9	9	26K	-3	17	0	-6		11	34 PP
FRESNO	56.57	72.1	9	30A	-1	17	15	5		39	10 PKPPKP
EUREKA	56.78	67.2	9	32A	0	17	19	6		19	8 SCS
NHATRANG	56.95	242.7	9	31	-2					11	38 PP
RUTH	57.50	66.8	9	50A	13	17	40	18			
RABAUL	58.02	187.8	9	38	-3	17	28	-1	10 13	11	20
SALT LAKE C.	58.09	63.5	9	41A	0	17	7	-23		18	3 *SS
CHATRA	58.11	272.7	9	40K	-2	17	30	0			
CHITTAGONG	58.72	265.5	9	47	1	17	41	3	10 18	12	2 PP
FLAMING GRGE	59.27	61.8	9	49K	-1					19	26 SCS
PASADENA	59.37	73.1	9	49A	-1	17	48	1	10 9	12	3 PP
PULKOVO	59.53	332.6	9	50	-1	17	51	2	10 26	12	3 PP
BOULDER CITY	59.92	69.3	9	55A	1	18	0	6		18	57 *SS
DUZHANBE	60.05	295.2	9	55	0	17	55	0			
RAPID CITY	60.11	55.4	9	56A	1	18	1	5		19	34 SCS
NURMIJARVI	60.36	335.9	9	55	-2						
MOSCOW	60.68	326.3	9	58	-1	18	5	2	10 31	12	6 PP
DEHRA DUN	60.88	282.3	10	1	0	18	3	-3		12	20 PP
GLEN CANYON	60.98	66.3	10	0A	-1	18	12	5		39	20 PKPPKP
WARSAK DAM	61.87	289.8	10	5	-2						
LAHORE	62.11	286.0	9	56K	-13	18	6	-15	10 23		
REYKJAVIK	62.44	0.4	10	13K	2	18	36	10	10 47	11	12 *SP
UPPSALA	62.54	339.1	10	10	-2					13	29
VIK	63.15	358.9	10	17	1	18	42	8			
AGRA	63.28	280.0	10	11K	-6	18	31	-5		12	55 PP
PORT MORESBY	63.69	192.9	10	19	0	18	42	1		10	55 PCP
BERGEN	64.24	345.8	10	23	0	18	48	0			
TUCSON TELE.	64.90	69.2	10	27A	0	19	4	8		20	10 SCS
TUCSON	64.90	69.3	10	27A	0	19	2	6		20	11 SCS
GOTEBORG	65.67	341.2	10	30	-2					12	48
ASHKABAD	65.95	301.6	10	32	-2						
PORT BLAIR	66.58	257.4	10	39	1	19	17	1		13	2 PP
QUETTA	67.31	290.3	10	37K	-5	19	22	-3	11 0	13	2 PP
COPENHAGEN	67.47	340.1	10	43	0	19	32	5	11 19	20	29 *SS
ABERDEEN	68.34	348.9	10	50	1	19	41	4		13	15 PP
WARSAW	68.66	333.7	10	53K	2	19	46	5		13	23 PP
TIFLIS	69.35	313.0	10	54	-1	19	53	4		15	15 PPP
EDINBURGH	69.69	349.3	10	59	2	19	54	1			
LWOW	69.99	330.7	10	59	0	20	0	3	11 34	24	35 SS
FLORISSANT	70.29	50.9	11	0A	-1	19	46	-14	11 35		
CHIHUAHUA	70.30	68.4	11	9	8	20	7	7			
POTSDAM	70.43	338.5	11	1	-1	20	7	5	11 21	15	26 PPP
HYDERABAD	70.46	272.9	11	2K	0	19	59	-3		13	37 PP
GORIS	70.48	310.7	11	1	-1	20	5	2		13	41 PP
ST. LOUIS 1	70.48	50.9	11	0A	-2	20	2	-1	11 32		
DURHAM	70.63	348.1	11	1A	-2	20	3	-1	11 40	13	40 PP
FAYETTEVILLE	70.65	55.2	11	1A	-2	20	5	1	11 25	20	39 *SS
OTTAWA	70.83	37.4	11	2A	-2						
SHAWINIGAN	70.87	34.9	11	3A	-1						

KRAKOW	70.93	333.3	11	5	1	20	10	2					
SIMFEROPOL	70.94	321.8	11	3	-2						13	46	PP
CHORZOW	70.95	334.0	11	6	1	20	10	2	11	20	13	41	PP
SEVEN FALLS	71.02	33.4	11	3A	-2								
TERRE HAUTE	71.19	48.5	11	3	-3	19	58	-13					
WITTEVEEN	71.28	342.6	11	7	0								
RACIBORZ	71.35	334.4	11	10	3	20	16	3			13	40	PP
KARACHI	71.38	286.6	11	6	-1								
COLLMBERG	71.46	338.2	11	6K	-2	20	16	2	11	34	13	45	PP
BREBEUF	71.49	36.0	11	7A	-1	20	14	0					
HALLE	71.50	338.9	11	7	-1	20	18	4			15	36	PPP
SKALNATE PL.	71.63	332.8	11	9	0						11	43	*SP
CLEVELAND	71.93	43.4	11	9A	-1	20	18	-1	11	45	13	55	PP
AFIAMALU	71.94	149.9	11	10	0	20	19	0			13	25	PP
JENA	72.12	338.9	11	12	0	20	22	1	11	33	13	53	PP
DE BILT	72.23	343.3	11	14K	2	20	32	9	11	51	13	49	PP
PRAGUE	72.28	336.8	11	15K	2	20	25	2			13	52	PP
POONA	72.32	277.3	11	13	0	20	18	-6			13	57	PP
PRUHONICE	72.34	336.7	11	13K	0	20	28	4			13	54	PP
PLAUEN	72.40	338.4	11	11	-2	20	25	1			21	4	PS
BOMBAY	72.64	278.3	11	15	0	20	23	-4			13	55	PP
FOCSANI	72.68	326.7	11	20	5	20	33	5					
SONNEBERG	72.72	339.0	11	15	0	20	31	3			21	10	SKKS
CHEB	72.74	338.1	11	15	0	20	19	-9			21	4	PS
MADRAS	72.91	268.7	11	16K	0	20	31	1			14	0	PP
BENSBERG	72.97	341.7	11	16	-1								
HURBANOVO	73.38	333.5	11	18	-1	20	38	3			14	6	PP
PITTSBURGH	73.45	42.9	11	19A	0	20	37	1					
VIENNA-H.	73.51	334.9	11	20K	0	20	45	8			21	18	PS
UCCLE	73.63	343.4	11	19	-1	20	38	0					
KEW	73.69	346.6	11	22K	1	20	42	3	11	59	14	9	PP
CAMPULUNG	73.76	327.9	11	24	3	20	47	7					
KECSKEMET	73.85	332.2	11	25	3	20	38	-3					
PENNSYLVANIA	73.97	41.3	11	22	0	20	41	-1			25	36	SS
LEMBANG	74.07	233.6	11	21	-2	20	43	0					
MORGANTOWN	74.13	43.4	11	23A	0	20	44	0					
HEIDELBERG	74.16	340.2	11	23	0	20	45	1					
BUCHAREST	74.18	326.8	11	23K	-1	20	43	-1			20	23	SKS
DOURBES	74.26	343.1	11	24	0	20	46	1					
CHARTERS TS.	74.34	192.2	11	22A	-2	20	38	-8					
TIMISOARA	74.48	330.7	11	30	5	20	54	6			21	18	PS
STUTTGART	74.64	339.6	11	26K	0	20	53	4	12	3	14	17	PP
TUBINGEN	74.92	339.7	11	27	-1	20	57	5					
WESTON	75.03	36.1	11	28A	0	20	55	1	12	3	21	53	*SS
STRASBOURG	75.13	340.6	11	29	0	20	53	-2					
EBINGEN	75.27	339.7	11	29	-1	21	0	4					
PALISADES	75.30	38.5	11	30	0	20	56	-1	12	5	14	37	PP
FORDHAM	75.45	38.6	11	30	-1								
SHIRAZ	75.46	300.3	11	29	-2	20	56	-2			15	59	PPP
HALIFAX	75.51	29.8	11	31	0								
RAVENSBURG	75.51	339.1	11	31	0	21	4	5					
BELGRADE	75.55	330.8	11	32A	1	21	2	2			14	28	PP
ZAGREB	75.86	334.2	11	35	2	21	6	3	12	6			
PARIS	75.86	344.1	11	35	2	21	1	-2					
WASHINGTON	75.92	41.8	11	29K	-4	20	56	-7			12	8	*SP
LJUBLJANA	76.02	335.2	11	34K	0	21	8	3	12	5	14	17	PP
TOLMEZZO	76.05	336.4	11	36	2	21	12	7			14	34	PP
BASLE	76.17	340.4	11	33K	-2	21	9	3					
JERSEY	76.17	347.2	11	35	0				12	22			
FOLINIERE	76.35	346.1	11	36	0	21	12	4					
CHUR	76.42	338.9	11	38	2	21	13	4					
TRIESTE	76.58	335.6	11	37	0	21	11	0	12	15	22	17	*SS
SOFIA	76.61	327.9	11	36	-1	21	15	4	12	5	14	32	PP
KODAIKANAL	76.71	269.1	11	33	-5	21	8	-4			21	33	SKS
BESANCON	76.75	341.4	11	38	0								
CHAPEL HILL	77.67	44.7	11	42	-1	21	23	1					
OROPA	77.92	339.5	11	47	2	21	28	3			12	38	
COLOMBO	77.93	265.2	11	43	-2						32	13	
PAVIA	78.08	338.6	11	33K	-12	21	13	-14	12	25	25	53	SS
GUADALAJARA	78.09	71.4	11	45	0	21	27	0					
BOLOGNA	78.24	336.9	11	45	-1	21	41	12					
COLUMBIA	78.46	47.2	11	47	-1	21	29	-2					
CLERMONT-FD.	78.70	342.9	11	50K	1	21	49	16					
CHIAVARI	78.87	338.2	11	46	-4	21	33	-2	12	15	14	45	PP
PRATO	78.88	336.8	11	49	-1	21	40	5					
KSARA	79.80	314.8	11	52K	-3	22	0	15	12	48	15	2	PP
ROME	80.42	335.2	11	58K	0	21	56	5	12	27	15	7	PP
ATHENS	80.76	325.6	11	45	-15						23	7	*SS

BRISBANE	80.98	185.4	12	0	-1	21	58	1				
TACUBAYA	81.42	69.0	12	7K	4	22	9	7			15	16 PP
JERUSALEM	81.84	314.2	12	6	0	22	8	2				
MESSINA	83.07	331.7	12	12K	0	22	11	-7	12	37	15	33 PP
REGGIO CALA.	83.14	331.5	12	12K	0	22	14	-5				
VERA CRUZ	83.27	66.8	11	29	-44	21	37	-43			21	59
TORTOSA	83.96	343.6	12	18	2	22	26	-1				
OAXACA	84.69	68.5	12	23	3	22	39	5			12	57
SERRA PILAR	84.86	350.5	12	10K	-11	22	22	-14			15	29 PP
HELWAN	85.13	316.2	12	20K	-2	22	29	-10				
MERIDA	85.30	60.7	12	26	3	22	38	-2				
TOLEDO	85.57	346.9	12	26A	2	22	39	-4	13	5	15	48 PP
COIMBRA	85.77	350.2	12	28	3	22	49	4			15	47 PP
ALICANTE	86.53	343.8	12	31	2	22	42	-10			15	58 PP
LISBON	87.31	350.6	12	35K	2	22	48	-12	13	3	16	4 PP
ALGIERS UNI.	87.43	340.7	12	34	1	22	48	-13	12	57	16	3 PP
RIVERVIEW	87.48	186.4	12	35A	2	23	4	3	13	6	16	7 PP
SETIF	87.50	338.8	12	35A	1	22	48	-13	13	5	16	6 PP
GRANADA	88.16	346.0	12	40A	3	22	53	-14			13	35 PP
ALMERIA	88.31	345.1	12	37K	0	23	13	4	13	14	16	10 PP
MALAGA	88.72	346.6	12	39A	0	23	17	4	13	11	16	9 PP
RELIZANE	88.89	342.5	12	41K	1	23	4	-10	13	7	16	16 PP
CANBERRA	89.12	188.0	12	40	-1	23	20	4	13	17	16	15 PP
MELBOURNE	92.00	190.9	12	56	1	23	46	4	13	31	16	40 PP
KARAPIRO	92.46	166.8	12	55	-2				13	30		
MUNDARING	93.01	215.2	13	0	1	23	15	-36				
PERTH	93.12	215.5	13	35	35	25	12	80				
COBB RIVER	95.22	169.5				24	13	42				
WELLINGTON	95.66	168.0	13	49	38	23	27	-6			17	3 PP
FORT NELSON	96.82	188.5				23	37	-3			24	31 *SS
SAN JUAN	98.45	42.7	13	24K	0	23	53	5	14	3	17	28 PP
ROXBURGH	99.27	172.5				23	51	-1			17	29 PP
ADDIS ABABA	99.68	299.8	13	32	2	24	4	10			17	39 PP
TAMANRASSET	100.35	335.1	13	32A	-1	24	4	7	14	0	17	35 PP
BALBOA HTS.	100.55	58.8	18	15K	281							
CARACAS	105.18	46.9	14	4	777	25	42	82				
CHINCHINA	105.95	57.4	13	59	777	24	27	4			18	21 PP
BOGOTA	107.02	56.2	14	11	777						18	40 PP
MBOUR	112.04	355.6	14	27	-232						19	8 PP
LWIRO	114.38	302.8	14	37	-227							
LOME	117.43	334.7				25	9	0			19	9 PP
TANANARIVE	117.59	275.5	18	35	5						19	52 PP
HUANCAYO	120.47	66.9	18	39	3						20	2 PP
BROKEN HILL	124.88	295.8	15	44	-180						17	46
WILKES	125.22	201.6				25	34	-1			19	53 PP
CAPE HALLETT	126.03	175.7	18	46A	0	25	38	1	19	22	20	43 PP
LUANDA	127.37	315.3	18	52K	3						20	52 PP
LA PAZ	128.03	62.9	18	53	3	25	47	4				
BULAWAYO	129.46	291.6	18	53	0						22	3
MIRNY	129.79	208.4	18	53	-1							
SCOTT BASE	131.44	177.8	18	56	-1	25	59	7			21	16 PP
LCO. MARQUES	131.77	283.1	19	0	3						21	16 PP
PRETORIA	134.14	287.5	18	38	-24						22	21
PIETERMZBURG	135.80	281.9	18	56	-9						22	27
WINDHOEK	137.55	302.0	19	3	-5						22	35
KIMBERLEY	138.37	288.2	18	58	-12							
SANTA LUCIA	139.83	80.0									22	33 PKS
MAWSON	140.06	216.4	19	4	-9							
GRAHAMSTOWN	140.73	281.7	19	7	-7							
BYRD STATION	141.01	164.1	19	3	-12						22	17 PP
SOUTH POLE	143.58	180.0	19	14	-5						22	24 PP
HERMANUS	145.73	287.8	19	27	4						22	34 PP
ARGENTINE I.	155.84	135.4	19	43	6							
PORT STANLEY	157.85	99.6	19	55	15						20	14

JULY 26 3.H 55.M 51.S EPICENTRE 40.31 144.67 DEPTH= 0.KM

A=-0.62384 B= 0.44225 C= 0.64438 D= 0.5783 E= 0.8158
G=-0.5257 H= 0.3727 K=-0.7647 HT= -1.8

SE= 3.19

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MIYAKO	2.17	253.2	0	37A	-1	1	0	-6				
HIROO	2.21	333.2	0	40	1	1	6	-1				

URAKAWA	2.32	322.9	0	42	2	1	10	0			
HATINOHE	2.40	276.3	0	40	-2	1	8	-4			
KUSIRO	2.68	355.8	0	46	0	1	17	-2			
MORIOKA	2.75	258.3	0	47A	0	1	16	-5			
OBIHIRO	2.83	337.6	0	48	0						
MIZUSAWA	2.97	247.8	0	50	0	1	22	-5			
AOMORI	3.00	281.0	0	48	-2	1	24	-3			
NEMURO	3.09	12.4	0	52	1	1	27	-3			
ISINOMAKI	3.20	235.2	0	52A	-1	1	25	-7			
TOMAKOMAI	3.28	316.0	1	4	10	1	33	-1			
HAKODATE	3.31	298.2	0	55A	0	1	30	-5			
HURORAN	3.43	307.1	0	58	2	1	34	-4			
AKITA	3.56	261.9	0	57	-1	1	37	-4			
SENDAI	3.56	236.3	0	57	-1	2	34	52			
MORI	3.57	301.4	1	0	2	1	39	-3			
SAPPORO	3.71	319.1	1	1A	1	1	42	-3			
ABASHIRI	3.72	355.7	1	1	1	1	47	1			
YAMAGATA	3.93	239.8	1	2	-1	1	43	-8			
SAKATA	3.99	250.9	1	7	3	1	49	-3			
HUKUSIMA	4.15	233.3	1	4	-2	1	46	-10			
SUTTSU	4.16	308.2	1	7	0	1	52	-5			
ONAHAMA	4.47	222.5	1	21	10	1	59	-5			
SHIRAKAWA	4.72	228.9	1	14	-1	2	3	-8			
NIIGATA	4.98	243.1	1	24	6	2	21	4			
MITO	5.13	221.4	1	17A	-3	2	10	-11			
UTUNOMIYA	5.32	226.6	1	27	4	2	15	-11			
KAKIOKA	5.39	222.3	1	21	-3	2	13	-15			
TUKUBASAN	5.44	222.8	1	21	-4	2	17	-12			
TYOSI	5.48	214.5	1	24	-1	2	19	-11			
AIKAWA	5.49	247.4	1	25	0						
WAKKANAI	5.56	337.7							2	28	
KUMAGAYA	5.88	226.7	1	30	-1	2	32	-8			
MAEBASI	5.88	230.2	1	30	-1	2	35	-5			
TAKADA	5.95	239.5	1	32	0						
TOKYO C.M.O.	6.04	221.6	1	31	-2	2	34	-10			
OIWAKE	6.24	232.4	1	38	2						
NAGANO	6.24	236.4	1	37	1						
YOKOHAMA	6.28	220.7	1	48	11	2	44	-6			
MATUSIRO	6.31	235.4	1	35	-2	2	51	0	2	46	
MERA	6.61	217.0							2	50	
MATUMOTO	6.65	234.5	1	42	0						
KOHU	6.69	228.1	1	41	-1	2	55	-5			
HUNATU	6.69	226.0	1	41	-1	2	55	-5			
WAZIMA	6.73	246.7	1	43	0						
AJIRO	6.86	221.8	1	47	2	2	55	-10			
TOYAMA	6.87	240.8							2	1	
MISIMA	6.88	223.0	1	54	9	2	57	-8			
OSIMA	6.94	218.9	1	49	3	2	56	-11			
OMAESAKI	7.66	224.0							2	57	
NAGOYA	7.97	232.3	1	58	-2	3	26	-6			
KAMEYAMA	8.49	232.6							2	25	
UGLEGORSK	8.96	349.0	2	14	0	3	59	2			
ABUYAMA	9.03	235.9	2	3K	-12						
VLADIVOSTOK	9.95	290.5	3	28	60						
CHANGCHUN	14.80	290.1	3	35	2						
PETROPAVLOVK	15.89	32.2	3	52	5						
ZO-SE	21.12	251.6				8	54	14			
PEKING	21.74	278.5	4	55	0	8	47	-5			
NANKING	22.40	256.6				9	2	-2			
YAKUTSK	23.56	342.3	5	13	0						
PAOTOW	26.26	282.0	5	39	0	10	10	0			
HONG KONG	31.42	244.3	6	33	8	11	31	-2			
LANCHOW	32.18	275.7	6	31	-1	11	44	-1			
KUNMING	38.02	259.5	7	22	0	13	13	-2			
COLLEGE	44.96	33.9	8	20	1						
NORD	57.94	356.8	9	54	-3						
RESOLUTE	58.79	15.5	10	1K	-2						
APATITY	60.75	335.8	10	14	-2	18	28	-5			
THULE	61.67	8.4	10	19	-4						
QUETTA	62.41	287.3	10	38	11						
SODANKYLA	62.93	337.4	10	30	-1						
KIRUNA	64.35	339.6	10	38	-2				13	0	PP
MOSCOW	66.13	323.7	10	52	0	19	39	-1			
SHASTA	67.13	55.5	10	58K	0						
HUNGRY HORSE	67.66	45.0	11	2	1						
MINERAL	67.82	55.4	11	4K	2						
NURMIJARVI	68.24	332.5	11	5	0						
BERKELEY	68.81	57.9	11	9A	0						

TIFLIS	70.78	308.6	11 20	-1						
UPPSALA	71.11	334.8	11 21	-2						
EUREKA	71.83	53.5	11 27	0						
SHIRAZ	73.01	294.6	11 32	-2						
GOTEBORG	74.62	335.8	11 43	0						
FLAMING GRGE	74.85	49.0	11 45	0						
BUCHAREST	79.20	320.2							12 41	
COLLMBERG	79.49	331.5	12 9	-1					12 20	PCP
PRUHONICE	79.98	329.9	12 13K	0					13 47	
STUTTGART	82.93	332.1	12 27	-1						
JERUSALEM	83.06	306.0	12 28	-1	22 8	-40				
LJUBLJANA	83.16	327.6	12 29	-1					13 50	
TOLMEZZO	83.49	328.6	11 56	-35					13 42	
TRIESTE	83.80	327.8							13 50	
ATHENS	85.18	317.1	10 41A	-119						
PALISADES	91.79	28.2							31 20	
CAPE HALLETT	113.74	171.7	18 15	-26					22 21	PP
BULAWAYO	122.42	270.3							29 27	
SOUTH POLE	130.12	180.0	19 10	-3					13 3	
BYRD STATION	130.39	166.8	19 13	0					12 24	
HUANCAYO	134.97	62.7	19 19	-3						

JULY 26 12.H 36.M 16.S EPICENTRE 40.48 37.20 DEPTH= 0.KM

A= 0.60757 B= 0.46125 C= 0.64660 D= 0.6047 E=-0.7965
G= 0.5150 H= 0.3910 K=-0.7628 HT= -1.9

SE= 2.76

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SOTCHI	3.62	30.3	0 57	-2					
SIMFEROPOL	5.01	334.1	1 19	1					
TIFLIS	5.87	75.3			2 39	0		1 30	PG
ISTANBUL UN.	6.26	277.8						1 40	PG
KSARA	6.73	189.5	1 45	2	3 7	6		3 49	SG
GORIS	7.08	95.0	1 52	5					
MAKHACH-KALA	8.09	68.7	2 5	3	3 49	14			
JERUSALEM	8.83	191.1	2 13	1					
KISHINEV	8.91	320.0	2 11	-2					
BUCHAREST	9.10	299.3	2 19K	3	4 24	24		2 38	
SOFIA	10.63	286.6	2 28	-9				4 25	
ATHENS	10.76	260.9	2 42	4				2 51	PP
HELWAN	11.62	206.2	2 48	-2	5 11	9			
TEHERAN	12.13	108.4	2 57	0					
BELGRADE	13.07	294.9	3 13K	3				6 26	
LWOW	13.16	319.6	3 8	-3					
TARANTO	15.19	276.5	4 4	26					
MOSCOW	15.27	0.9	3 35	-4				7 23	
KRAKOW	15.44	314.0						3 57	PP
HURBANOVO	15.49	304.8	4 4	23					
WARSAW	16.17	322.0	3 53	3				4 1	PP
ZAGREB	16.37	296.0	3 52	-1				9 58	
RACIBORZ	16.42	312.1	3 58	5				4 9	PP
SHIRAZ	16.52	126.1	3 52K	-3	9 33	154		6 11	PCP
VIENNA-H.	16.77	304.5	4 0	2					
MESSINA	16.90	269.3	4 2	2	7 12	5		4 16	PP
LJUBLJANA	17.41	296.2	4 7	1				4 20	PP
TRIESTE	17.88	294.6	4 14	2	8 0	30			
TOLMEZZO	18.50	296.7	4 21	2				5 11	
PRUHONICE	18.51	308.4	4 22	2	8 1	17			
PRAGUE	18.61	308.6	4 20	-1	7 59	13			
ROME	18.65	282.5	4 21K	0	7 54	7		5 3	
PULKOVO	19.79	349.7	4 23	-12	8 16	3			
COLLMBERG	19.93	311.0	4 34K	-2				4 54	PP
POTSDAM	20.35	313.9	4 40	-1	8 32	8		5 16	
HALLE	20.62	310.8	4 43	0				5 2	PP
JENA	20.62	309.0	4 43	-1	8 20	-10		5 57	
RAVENSBURG	21.03	299.5	4 47	-1					
PAVIA	21.04	292.2	4 49	1	8 51	13			
STUTTGART	21.44	302.1	4 51	-1	8 54	8		5 14	PP
NURMIJARVI	21.51	343.0	4 52	-1	8 48	1			
EBINGEN	21.53	300.4	4 52	-1					
TUBINGEN	21.53	301.3	4 52	-1					
HEIDELBERG	21.94	303.5	4 56	-1					
MONACO	22.27	288.2	4 56	-4					

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

COPENHAGEN	22.29	321.3	5 2	1	9	11	9				
SVERDLOVSK	22.34	35.1	4 59	-2	9	3	0				
BASLE	22.35	298.3	5 1	0	9	8	5				
STRASBOURG	22.39	301.0	5 1	0	9	14	11				
UPPSALA	22.93	334.3	5 7	0							
BENSBERG	23.29	306.8	5 12	2						5 36	PP
GOTEBORG	23.65	325.2	5 15	1							
WITTEVEEN	24.12	311.0	5 12	-6							
DOURBES	24.70	303.9	5 25	1	10	1	17				
DE BILT	24.79	308.7	5 29	4	10	2	17				
UCCLE	24.99	305.4	5 25	-2	10	3	14				
SETIF	25.23	270.5	5 30	1							
CLERMONT-FD.	25.31	293.4	5 31	1	10	5	11				
PARIS	25.88	300.4	5 35	0							
NAMANGAN	26.03	77.5	5 39	2							
QUETTA	26.24	103.7	5 37	-2	10	18	8			6 18	PP
APATITY	27.21	356.8	5 48	1	10	30	4			6 3	*SP
SODANKYLA	27.57	351.2	5 50	-1						6 31	
FRUNSE	27.91	72.7	5 55	1							
KEW	28.00	305.8	5 54	-1							
KIRUNA	28.90	346.9	6 2	-1						6 38	
RELIZANE	29.08	272.6	6 2	-2						7 13	PCP
ALMATA	29.54	71.3								6 59	PP
ALMERIA	31.01	276.3	6 18	-3						7 18	PP
TOLEDO	31.32	282.6	6 22A	-2						13 39	
ADDIS ABABA	31.35	177.0	6 25	1						17 44	
TAMANRASSET	32.00	246.2	6 30	0						7 24	PP
MALAGA	32.52	277.0	6 33A	-2						7 39	PP
LWIRO	43.21	192.3	7 22	-42						8 2	
NORD	45.11	350.3	8 19	-1							
SHILLONG	47.47	90.8	8 35	-3							
BROKEN HILL	55.24	190.3	9 36	-1							
YAKUTSK	56.33	34.5	9 45	0							
BULAWAYO	60.83	189.3	10 14A	-2							
RESOLUTE	60.83	346.9	10 19	3							
HALIFAX	69.48	311.5	11 12	0							
KIMBERLEY	69.83	191.6	11 23K	9							
MATUSIRO	74.57	55.1	11 45	2						29 50	
COLLEGE	74.92	2.2	11 44	-1							
PALISADES	77.60	313.7			21	55	4				
BANFF	85.67	343.2	12 43	1							
HUNGRY HORSE	87.96	341.3	12 54	1						16 19	PP
PENTICTON	88.28	345.1	12 54	-1							
RAPID CITY	88.59	332.6	12 56	0							
BOZEMAN	89.65	338.3	13 2	1							
LARAMIE	91.86	332.9	13 12	1							
EUREKA	96.74	339.4	13 34	0						14 0	
MINERAL	97.27	343.8	13 37A	1							
LA PAZ	112.09	266.8	18 22	-15							
SOUTH POLE	130.29	180.0	19 9	-4							
BYRD STATION	139.37	186.1	19 12	-17							

JULY 27 8.H 56.M 13.S EPICENTRE -5.61 103.71 DEPTH= 0.KM

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G= 0.0230 H=-0.0944 K=-0.9953 HT= 7.0

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	
DJAKARTA	3.15	100.4	0	55A	3	1	28	-3					
LEMBANG	4.07	107.5	1	5A	0	1	29	-25					
MEDAN	10.42	331.1	2	55	21						3	45	
NHATRANG	18.54	17.1	4	23	3						4	39	PP
BAGUIO CITY	27.53	37.1	5	52	1	11	11	40					
HONG KONG	29.57	19.9				11	24	20					
SHILLONG	33.06	340.1	6	41A	1								
CHATRA	36.01	334.4	7	7A	2								
PORT MORESBY	43.21	97.7	8	2	-3								
CHARTERS TS.	43.75	113.2	8	6	-3						11	17	
LAHORE	46.38	324.7	8	30	0								
MELBOURNE	49.32	136.5	9	4	11								
QUETTA	50.07	317.5	9	0A	1				9	25	10	38	PP
CANBERRA	51.06	131.7	9	3	-3								
RIVERVIEW	52.10	129.0	9	14A	0				9	35	12	9	

MATUSIRO	52.92	34.9	9	18	-2	17	14	25	21	0	SS
ALMATA	54.36	336.1	9	31	0	17	10	1			
ANDIJAN	54.37	330.9	9	31	0	17	9	0			
NAMANGAN	54.88	330.6	9	36	1	17	14	-2			
FRUNSE	54.97	334.1	9	36	0						
SHIRAZ	60.32	308.7	10	13K	0	18	23	-4	11	10	PCP
WILKES	60.81	176.9				18	23	-10			
MIRNY	61.29	184.9	10	24	4						
UGLEGORSK	63.90	27.0	10	36	-1						
YAKUTSK	70.36	12.7	11	16	-2						
TIFLIS	71.32	317.4	11	24	0	20	42	1			
BULAWAYO	74.12	250.7	11	38	-2						
BROKEN HILL	74.35	256.6	11	27	-15						
LWIRO	74.77	269.2	11	58	14						
JERUSALEM	74.94	304.9	11	45	0				11	57	PCP
KSARA	75.00	307.0	11	47	2						
CAPE HALLETT	77.65	163.3	12	6	6	21	47	-5			
HELWAN	77.67	302.1	11	58	-2						
SCOTT BASE	79.01	168.9	12	12	4						
SIMFEROPOL	79.75	317.4	12	11	-1	22	8	-6			
MOSCOW	81.48	328.5	12	20	-1						
KISHINEV	83.87	318.4	12	33	0						
SOUTH POLE	84.42	180.0	12	32	-4						
BUCHAREST	85.11	315.4	12	39K	0						
ATHENS	85.57	308.7	12	42	0						
PULKOVO	86.55	330.9	12	46	-1						
LWOW	87.63	320.4	12	52	0				23	32	
KHEYS	88.95	353.3	12	57	-1	23	37	-8			
NURMIJARVI	89.48	330.9	13	1	0						
SODANKYLA	90.20	337.8	13	3	-1				16	41	PP
BYRD STATION	91.77	173.1	13	8	-3						
KIRUNA	92.62	337.8	13	14	-1						
UPPSALA	92.84	329.7	13	14	-2						
LJUBLJANA	93.44	315.8	13	20A	1				14	7	
PRUHONICE	93.72	319.7	13	21	1						
COLLMBERG	94.78	321.0	13	25	0				17	27	PP
STUTTGART	97.11	318.3	13	35	-1						
COLLEGE	102.86	24.5	18	8	247						
HUNGRY HORSE	126.68	30.6	19	6	0						
EUREKA	130.87	40.8	19	14	0						
FLAMING GRGE	134.04	35.1	19	20	0				22	47	PP
RAPID CITY	134.99	27.5	19	15	-7				19	37	
FLORISSANT	144.58	19.2	19	38	-1						
PALISADES	144.69	356.9	19	37	-2				42	58	SS
ST. LOUIS 1	144.78	19.1	19	37A	-2						
FAYETTEVILLE	145.50	26.1	19	40	0				19	48	19 54 *SP
MORGANTOWN	145.98	5.1	19	42A	1						
COLUMBIA	151.42	8.3	19	57	7						

JULY 27 10.H 4.M 52.S EPICENTRE -44.68 -76.11 DEPTH= 0.KM

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	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTA LUCIA	12.00	22.5	2	49A	-7	5	5	-6				
PORT STANLEY	14.03	126.5	3	24	1							
BUENOS AIRES	16.87	59.4	4	25	26							
ANTOFAGASTA	21.44	14.4	4	47	-5	8	48	2				
ARGENTINE I.	21.63	166.5	4	41	-13							
LA PAZ	28.89	16.0	6	4	1	10	58	5				
HUANCAYO	32.52	1.4	6	37	2							
BYRD STATION	38.70	191.1	7	28	0							
SOUTH POLE	45.51	180.0	8	22	-1				8	49		
BOGOTA	49.11	2.7	8	52	1	16	1	4				
CHINCHINA	49.42	0.6	8	54K	0	16	3	2				
SCOTT BASE	51.98	193.8	9	12	-1	16	44	8			11	8 PP
CAPE HALLETT	54.58	200.1	9	30A	-3	17	22	11			11	33 PP
GALERAZAMBA	55.20	1.0	9	32	-5							
CARACAS	55.54	11.0	9	40A	0	17	53	29				
TRINIDAD	56.66	17.4	9	47	-1							
DOMINICA	61.17	16.2	10	18	-1							
SAN JUAN	63.41	10.6	10	32	-2							
MAWSON	63.84	163.7	10	35	-2							

MIRNY	68.79	175.3	11	5	-3					
WILKES	69.20	182.9	11	11A	0	20	19	3	13	44 PP
HERMANUS	70.16	118.9				20	31	3	20	45 PS
ROXBURGH	73.19	221.9				21	42	39		
KARAPIRO	75.45	230.8	11	47A	-1					
WINDHOEK	76.67	108.5	11	55	0					
KIMBERLEY	77.47	118.0	11	59A	0					
COLUMBIA	78.43	355.8	12	4	0					
MBOUR	79.53	57.8	12	11	1	22	19	7		
CHAPEL HILL	80.27	357.6	12	14	0					
PIETERMZBURG	80.32	122.1	12	16	1					
LUBBOCK	81.33	338.5	12	20	0					
PRETORIA	81.72	118.0	12	23	1					
FAYETTEVILLE	82.05	345.3	12	32K	8	22	36	-2		
TUCSON	82.83	330.9	12	29	1	22	52	6		
LUANDA	83.38	95.8	12	32A	1					
ST. LOUIS 1	83.91	348.9	12	32	-1	22	54	-3		
MORGANTOWN	84.00	357.0	12	34A	0					
FLORISSANT	84.09	348.8	12	33K	-1	22	58	-1		
LCO. MARQUES	84.31	121.0	12	38	3				23	56 SP
FORT NELSON	84.54	210.5				23	5	2		
LAWRENCE	85.04	345.1	12	38	-1					
PENNSYLVANIA	85.11	358.7	12	39	0					
PALISADES	85.33	1.7	12	42	2	23	15	4	15	55 PP
BULAWAYO	86.01	114.4							12	43 PCP
WESTON	86.78	3.6	12	48	0	23	10	-15		
PASADENA	87.27	326.2	12	50K	0	23	35	6	24	38 PS
GLEN CANYON	87.38	332.3	12	52	1					
BOULDER CITY	87.62	329.5	12	53	1					
LARAMIE	89.59	338.2	13	2	1					
HALIFAX	89.61	8.9	13	4	3					
OTTAWA	89.69	0.3	13	0A	-2					
MELBOURNE	89.88	211.4	13	1	-1					
BROKEN HILL	90.01	110.3	13	5K	2					
FRESNO	90.20	326.3	13	3	-1					
FLAMING GRGE	90.31	335.4	13	5	1					
CANBERRA	90.49	215.4	13	5	0					
RUTH	90.57	330.8	13	19K	13	24	15	15		
VINEYARD	90.81	325.2	13	18	11					
RIVERVIEW	90.85	217.7	13	6K	-1	24	1	-1	23	41 SKS
SHAWINIGAN	90.89	2.3	13	8	1					
SALT LAKE C.	90.92	333.7	13	6	-1					
EUREKA	91.14	330.3	13	9	1				30	30 PKKP
LICK	91.43	325.3	13	11A	1					
SEVEN FALLS	91.53	3.6	13	9	-1					
RAPID CITY	91.61	340.8	13	10	0					
BERKELEY	92.13	325.2	13	14	1	24	21	7	30	44 SS
NOUMEA	92.30	235.3	13	14	0				14	15
RENO	92.61	327.7	13	16	1					
MINERAL	94.00	326.9	13	21	0					
SHASTA	94.61	326.5	13	24	0					
ROME	116.94	56.8							19	53 PP
BOZEMAN	95.14	336.2	13	27	0					
BRISBANE	95.54	222.3	12	58	-30	23	26	-38		
BUTTE	95.90	335.4	13	29	-1					
HUNGRY HORSE	98.43	335.5	13	41	-1				30	39 PKKP
TAMANRASSET	100.01	68.0	13	50	1	24	29	2	17	51 PP
MALAGA	103.72	51.7	18	18	253				18	36 PP
COIMBRA	104.06	46.9	14	6	-1					
GRANADA	104.50	51.9				24	40	-9	18	43 PP
ALMERIA	104.90	52.8	14	12	2				18	31 PP
TOLEDO	106.16	49.7				25	1	5	18	30 PP
ALICANTE	107.08	52.8	14	20	777	26	19	79		
ALGIERS UNI.	108.05	56.0	17	45	777	24	57	-7	18	47 PP
SETIF	109.08	57.8	18	5K	777				19	1 PP
PORT MORESBY	113.52	227.5							19	32 PP
CLERMONT-FD.	114.02	48.8				25	49	20	19	26
MONACO	115.12	52.7							19	47 PP
PARIS	115.63	45.9							19	48 PP
KEW	115.92	42.4				25	38	2	19	48 PP
MESSINA	116.60	61.7				25	27	-11	19	50 PP
PAVIA	116.99	52.3							19	59 PP
DURHAM	117.44	39.0	18	46A	-2	25	38	-3	20	4 PP
DOURBES	117.51	45.8				25	32	-10	19	58 PP
BASLE	117.52	49.4	19	46	58				27	43
UCCLE	117.81	45.0				25	46	3	20	0 PP
DE BILT	119.00	44.2				25	52	5	19	44 PP
STUTTGART	119.18	49.0	18	51	0	25	48	1	20	7 PP

HEIDELBERG	119.24	48.2						20 13	PP
BENSBERG	119.34	46.1						20 11	PP
TRIESTE	119.88	54.0				25 34	-16	20 14	PP
WITTEVEEN	120.16	44.1						20 19	
LJUBLJANA	120.55	54.0						20 19	PP
SCORESBY SD.	121.30	18.6				26 0	5	20 4	PP
JENA	121.62	48.0	18 56	0				20 20	PP
PLAUEN	121.69	48.6						20 26	PP
HALLE	122.13	47.5	19 33	36				30 39	PS
HELWAN	122.20	78.3	18 59	2				20 47	PP
COLLEGE	122.55	331.2	18 56	-2					
COLLMBERG	122.58	48.2	18 58	0				20 34	PP
PRUHONICE	122.71	50.1	18 48	-10				27 38	SKKS
VIENNA-H.	122.81	52.6						20 57	PP
POTSDAM	123.19	47.1						20 39	PP
SOFIA	124.04	61.3	19 4	3					
COPENHAGEN	124.56	43.4				26 10	5	20 40	PP
RACIBORZ	124.78	51.5						20 50	
GOTEBORG	125.34	41.1	19 4	1					
KRAKOW	125.74	52.2	19 36	32				21 0	PP
JERUSALEM	126.03	78.8	19 8	3					
BUCHAREST	126.64	60.8	19 12	6				22 24	PP
ISTANBUL UN.	126.79	65.8	19 1	-5					
WARSAW	127.37	50.2						21 10	
KSARA	127.63	77.1	19 16	8		26 30	16	21 9	PP
LWOW	127.97	54.0	19 9	1				21 17	PP
LEMBANG	128.62	184.7	19 11K	1				21 8	
UPPSALA	128.93	40.4	19 11	1					
DJAKARTA	129.31	183.8						21 21	PP
NORD	129.77	9.5	19 10	-2				22 34	PKS
SIMFEROPOL	131.95	63.6	19 15	-1				21 31	PP
NURMIJARVI	132.45	41.2	19 17	0				22 46	PKS
KIRUNA	132.78	30.9	19 16	-2				21 39	
PULKOVO	134.95	43.3	19 22	0				21 52	PP
SODANKYLA	134.99	32.3	19 21	-1				21 36	PP
SHIRAZ	137.10	92.5	19 22	-3				21 59	PP
APATITY	137.61	32.5	19 24	-2				22 10	PP
TIFLIS	137.64	72.4						22 21	PP
GORIS	137.73	76.1	19 28	1				25 9	PPP
MOSCOW	137.76	50.4	19 26	-1				22 13	PP
TEHERAN	139.53	84.0	19 30	0					
KHEYS	140.60	10.7	19 25	-7		26 24	-16	22 53	PKP
PETROPAVLOVK	143.47	303.5	19 35	-1				22 53	PP
SEVERO-KUR.	144.96	298.9	19 36	-3					
ASHKABAD	145.50	85.0						33 6	SKSP
NHATRANG	147.33	189.7	19 46	3				23 16	PP
QUETTA	147.59	103.8	19 45K	1		26 59	8	19 51	PKP2
MAGADAN	148.35	314.9	19 38	-7					
BAGUIO CITY	148.51	211.8	19 46	1					
SVERDLOVSK	150.57	50.1	19 52	3					
TUKUBASAN	151.37	265.5	19 49K	-1				23 35	PP
MATUSIRO	152.87	264.6	19 54	2				23 39	PP
WARSAK DAM	152.97	102.0						20 7	PKP2
DUZHANBE	153.19	90.8	19 56	4					
LAHORE	153.46	109.5	19 54	1					
UGLEGORSK	153.73	293.3						23 50	PP
ABUYAMA	153.90	259.0	19 30A	-23					
FRUNSE	158.82	84.7	20 1	1				24 16	PP
VLADIVOSTOK	159.79	275.5	20 7	6					
KUNMING	160.46	176.9	20 3	1				24 25	PP
LHASA	161.86	141.5	20 4K	1				24 33	PP
SEMIPALATNSK	163.08	61.8	20 4	0				24 42	
CHANGCHUN	164.63	274.4	20 7	1				24 46	PP
CHENGTU	166.00	180.4	20 8	1				24 51	PP
PEKING	169.80	247.2	20 8K	-1				25 16	PP
LANCHOW	171.38	179.7	20 12	2				25 20	PP
IRKUTSK	172.40	358.0	20 9	-2				25 39	PP
PAOTOW	173.90	230.0	20 12	1					

JULY 29 0.H 24.M 9.S EPICENTRE -19.84 170.00 DEPTH= 0.KM

A=-0.92710 B= 0.16345 C=-0.33731 D= 0.1736 E= 0.9848
G= 0.3322 H=-0.0586 K=-0.9414 HT= 4.7

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 VILA	2.63	322.5	0	46	1	1	8	-10					
NOUMEA	4.12	232.9	1	4	-2								
KOUMAC	5.42	261.4	1	18	-6								
ONERAHI	16.33	167.3	4	0	7	7	7	13					
BRISBANE	17.47	241.3	4	7	0	7	20	-1					
AUCKLAND	17.48	167.1	4	1	-6	7	35	14			13	3	
AFIAMALU	18.40	74.1	4	17A	-1	7	51	9					
KARAPIRO	18.66	166.2	4	21	-1						8	49	PCP
TONGARIRO	19.88	167.3	4	37	1								
CHATEAU	19.88	167.3	4	37	1	8	33	18			9	8	PCP
TUAI	19.89	163.4	4	36	0	8	23	8					
COBB RIVER	21.30	174.3	4	56	5	8	52	9					
WELLINGTON	21.76	170.3	4	57	2	9	1	9					
RIVERVIEW	21.79	226.4	4	57A	1	9	1	8			5	23	PP
CHARTERS TS.	22.32	265.3	5	1	0	9	9	7					
KAIMATA	22.65	177.3	5	6	2	9	23	15					
GEBBIES PASS	23.90	175.3	5	17	1								
CANBERRA	24.10	225.9	5	17	-1	9	39	5	5	39	6	27	PPP
PORT MORESBY	24.39	291.9	5	21	0	9	56	17	5	39			
ROXBURGH	25.58	181.1	5	33	0	10	9	10					
MELBOURNE	28.19	225.2	5	56	0	10	45	3					
FORT NELSON	29.89	214.6				11	2	-7			6	37	
GUAM	41.39	321.1	7	50	0						9	26	
MUNDARING	49.43	244.5	8	57	3								
PERTH	49.75	244.6	9	6	10						20	50	
HONOLULU	51.43	39.1	9	10	1	16	21	-8					
CAPE HALLETT	52.49	179.9	9	15A	-2	16	34	-9			10	52	PP
SCOTT BASE	58.08	180.8	9	54	-4	17	59	1			12	9	PP
MANILA	59.08	301.7	10	12	7	17	42	-29					
WILKES	59.90	203.7	10	10	0	18	21	-1			10	51	PCP
BAGUIO CITY	60.47	303.1	10	12	-2								
LEMBANG	61.76	272.9	10	23K	0	18	48	3					
TUKUBASAN	62.52	333.0	10	26K	-2	18	50	-5			12	52	PP
DJAKARTA	62.71	273.3	10	33	4						15	14	
MATUSIRO	63.61	331.7	10	32	-3	19	2	-7			12	36	
MIRNY	66.81	205.1	10	53	-3	19	41	-7					
BYRD STATION	67.23	169.7	10	56	-3						13	28	PP
NHATRANG	67.78	292.8	11	3A	1						11	15	
KURILSK	67.82	343.3	11	2	0								
HONG KONG	68.75	304.7	11	9K	1	20	15	4			13	34	PP
ZO-SE	69.00	316.2	11	9K	-1	20	17	3					
SOUTH POLE	70.29	180.0	11	14	-3	20	32	3			14	17	PP
UGLEGORSK	72.98	341.2	11	34	0								
PETROPAVLOVK	73.21	352.9	11	34	-1								
CHANGCHUN	75.43	328.3	11	48K	0	21	32	4			14	33	PP
PEKING	77.85	320.6	12	2K	1	22	0	6			15	4	PP
MAWSON	78.15	202.0	11	59	-4								
SIAN	79.16	312.4	12	10K	2	22	13	5					
MAGADAN	80.65	350.2	12	15	-1								
CHENGTU	80.86	307.1	12	18	0	22	29	3					
PAOTOW	81.94	318.2	12	24	1	22	43	6					
LANCHOW	83.65	311.8	12	33K	1	23	0	6					
UKIAH	85.60	45.8	12	40	-2								
BERKELEY	85.64	47.3	12	41	-1	23	18	4			16	28	PP
ARGENTINE I.	85.73	160.0	12	41	-1								
LICK	85.81	48.0	12	43A	0								
FRESNO	86.85	49.2	12	48	0								
PASADENA	86.85	52.1	12	49	1	23	37	12			23	19	SKS
MINERAL	87.29	45.3	12	49A	-1								
YAKUTSK	87.63	342.2	12	50	-2	23	14	-19					
RENO	88.12	46.7	12	55K	1								
SHILLONG	88.28	297.8	12	54K	-1								
BOULDER CITY	90.11	51.6	13	5	2								
VICTORIA	90.18	37.6	13	4K	0								
COLLEGE	90.41	16.7	13	0	-5	23	29	-29			16	43	PP
LHASA	90.52	301.3	13	6K	1								
EUREKA	90.75	48.1	13	7	1								
RUTH	91.34	48.6	13	24K	15	23	58	-9					
TUCSON	91.67	56.4	13	12	1						16	54	PP
TUCSON TELE.	91.79	56.3	13	11	0						16	53	PP
PENTICTON	92.76	38.1	13	19	3								
GLEN CANYON	92.89	51.8	13	18	2								
HUNGRY HORSE	95.68	40.6	13	31	2								
FLAMING GRGE	95.95	48.7	13	30	0	24	12	5			17	22	PP
TACUBAYA	97.11	72.0									17	37	PP
RAPID CITY	101.30	47.2	14	11	16						18	0	PKP

DEHRA DUN	101.37	298.2							15	58
SANTA LUCIA	101.59	131.9							27	3
FAYETTEVILLE	105.96	56.9	18	22	777	25	2	7		
FRUNSE	107.06	310.0	18	46	777					
ANDIJAN	108.32	307.5	18	36	777					
HUANCAYO	108.32	110.5							18	57 PP
NAMANGAN	108.88	307.7	18	51	777					
FLORISSANT	109.48	54.8	14	31	777	24	59	-11	28	27 PS
RESOLUTE	110.33	16.4	14	35	-239				19	7
QUETTA	110.66	295.6	18	29	-6				19	10 PP
TERRE HAUTE	111.88	54.6	16	31	-126	25	41	21		
LA PAZ	112.43	118.2							19	25 PP
KHEYS	112.98	350.5	18	43	4					
CHINCHINA	114.59	93.6	18	44	1				19	40 PP
BOGOTA	115.93	94.6							19	40 PP
GALERAZAMBA	116.72	87.7				25	23	-16		
SVERDLOVSK	116.96	324.4	18	54	7					
NORD	118.11	1.1	18	48	-1				20	3 PP
PENNSYLVANIA	119.26	53.7							20	11 PP
HERMANUS	119.30	207.6							30	2 PS
OTTAWA	120.80	48.4	18	56K	1					
PALISADES	122.26	53.5	18	55	-2				20	31 PP
SHAWINIGAN	122.78	46.9	19	0	2					
SHIRAZ	122.97	293.0	18	59	0				22	59 PP
SEVEN FALLS	124.04	46.0	19	2K	1					
WESTON	124.14	51.8	19	2	1					
CARACAS	124.49	90.7	19	5	3				21	7 PP
APATITY	125.03	341.2	19	1	-2				20	49 PP
BULAWAYO	125.15	225.8	19	5	2					
MAKHACH-KALA	126.90	309.3	19	9	3				22	25 PKS
SODANKYLA	127.11	343.2	19	4	-3				21	0 PP
SAN JUAN	127.16	81.6	19	9	2					
KIRUNA	128.33	345.8	19	7	-2					
SCORESBY SD.	128.85	5.1	19	12	2				21	18 PP
BROKEN HILL	129.08	230.9	19	12	1					
HALIFAX	129.42	48.1	19	12	1					
MOSCOW	129.57	327.2	19	11	0				22	35 PKS
TRINIDAD	129.74	92.5	19	11	-1					
PULKOVO	130.85	334.4	19	11	-3				22	44 PKS
ADDIS ABABA	131.72	264.4	19	20	4				21	41 PP
SOTCHI	132.38	311.4	19	16	-1					
NURMIJARVI	132.55	337.5	19	16	-1				22	42 PKS
UPPSALA	135.41	340.5	19	19	-3					
SIMFEROPOL	135.84	314.8	19	26	3				22	58 PKS
LWIRO	136.05	244.4	19	26	2					
KSARA	137.10	298.6	19	28	3	26	41	6	22	26 PP
WARSAW	139.66	330.7	19	32	2				23	8 PKS
LWOW	139.67	325.9	19	32	2	26	59	20		
COPENHAGEN	140.42	340.2	19	23	-9				22	30 PP
HELWAN	141.37	293.3	19	30	-3					
KRAKOW	141.61	328.8	19	46	12				22	42 PP
ABERDEEN	142.26	353.0				26	25	-18	23	9 PP
RACIBORZ	142.42	330.1	19	32	-3					
POTSDAM	142.89	336.5	19	31	-5					
LUANDA	143.45	220.9	19	37A	0					
SOFIA	143.88	316.6	19	36	-2				22	8 PKS
HALLE	144.01	336.6	19	34	-4				24	16
PRAGUE	144.12	333.0	19	41	3					
PRUHONICE	144.14	332.8	19	43	5				22	54 PP
DURHAM	144.54	351.6	19	39K	0	26	36	-11		
BELGRADE	144.54	321.6	19	37A	-2				22	17
VIENNA-H.	144.55	329.2	19	39K	0				22	42 PP
JENA	144.60	336.3	19	37	-2				22	54 PP
WITTEVEEN	144.63	342.5	19	42	3					
CHEB	144.96	334.7	19	40	1					
SONNEBERG	145.19	336.1	19	40	0				23	0 PP
ATHENS	145.64	309.0	19	39	-2				19	41 PKP2
DE BILT	145.68	343.4	19	44K	3				23	3 PP
BENSBERG	146.11	340.4	19	43	2				23	9 PP
ZAGREB	146.40	326.4	19	45	3					
HEIDELBERG	146.91	337.4	19	43	0					
LJUBLJANA	146.99	328.0	19	44	1				20	2
UCCLE	147.08	343.2	19	44	1				20	30
STUTTGART	147.23	336.2	19	41	-2				23	14 PP
TOLMEZZO	147.47	329.8	19	50	6				20	37
TUBINGEN	147.50	336.2	19	44	0					
DOURBES	147.64	342.3	19	47	3				23	15 PKS
TRIESTE	147.65	328.1	19	46	2				23	30 SKP
EBINGEN	147.83	335.9	19	41	-3					

RAVENSBURG	147.90	334.8	19	41	-3						
STRASBOURG	147.94	337.6	19	45	1					23	19 PP
BASLE	148.89	336.7	19	49	3					23	22 PKS
TARANTO	148.93	317.4	19	26	-20						
PARIS	149.39	343.7	19	46	-1					23	26 PP
BESANCON	149.71	338.2	19	48	1						
FOLINIERE	150.13	347.3	19	51	3						
PAVIA	150.15	332.2	19	50A	2					22	36
PRATO	150.24	328.4	19	59	11					23	34 PP
CHIAVARI	150.75	330.9	20	5	16					30	26 PKKP
ROME	150.91	324.1	19	49	0				19 59	23	34 PP
MESSINA	151.27	315.0	19	47	-3	26	53	-3		23	39 PP
CLERMONT-FD.	151.96	340.2	19	53	2	27	54	57			
MONACO	152.06	332.4	19	50	-1					24	19
TORTOSA	157.24	339.1								20	45 PKP2
SETIF	158.82	323.5	20	0	0					24	10 PP
TOLEDO	159.38	346.9	20	5	5	26	43	-21		24	23 PP
ALGIERS UNI.	159.63	328.6	20	2	1					23	56 PP
ALICANTE	159.79	337.9	19	57	-4	27	1	-4		24	19 PP
RELIZANE	161.63	331.8	19	54	-9					24	10 PP
ALMERIA	161.81	340.3	20	2A	-1					24	31 PP
GRANADA	161.84	343.4	20	12K	9	26	39	-28		24	39 PP
MALAGA	162.48	344.9	20	3K	-1	27	5	-2		24	37 PP
TAMANRASSET	165.24	284.2	20	7	1					24	53 PP
MBOUR	171.41	128.1	20	11	1					25	22 PP

JULY 29 10.H 42.M 45.S EPICENTRE 26.47 90.38 DEPTH= 0.KM

A=-0.00587 B= 0.89637 C= 0.44326 D= 1.0000 E= 0.0065
G=-0.0029 H= 0.4433 K=-0.8964 HT= 2.9

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	
SHILLONG	1.61	123.2	0	34A	4	0	59	8					
CHATRA	2.89	277.9	0	48	0						1	21	
LHASA	3.22	10.4	0	55	2								
TOCKLAI	3.94	84.9	1	0A	-3								
AGRA	11.06	276.2	2	40K	-2	4	40	-8			2	46	PP
DEHRA DUN	11.51	292.3	2	45	-3	4	45	-14			3	0	PPP
SEHORE	12.51	257.7	2	56	-6	5	11	-12			5	24	SS
CHENGTU	12.69	67.6	3	3	-1	5	24	-4					
HYDERABAD	14.25	233.3				6	8	3					
PORT BLAIR	14.88	171.0	3	33	0	6	13	-7					
LAHORE	14.92	293.6	3	26	-8	6	1	-20					
LANCHOW	14.94	47.0	3	32	-2								
MADRAS	16.46	217.5	3	50	-4	6	50	-7			4	2	PP
POONA	17.18	246.0	4	4	1	7	18	5			7	54	SSS
SIAN	17.77	59.7	4	7	-3								
BOMBAY	17.85	248.7				7	31	2					
WARSAK DAM	17.90	299.3	4	13	1								
ALMATA	20.01	330.3	4	35	-2	8	13	-4					
KODAIKANAL	20.24	219.5									8	24	
ANDIJAN	20.63	318.2	4	41	-2	8	23	-7					
FRUNSE	20.79	325.7	4	43	-2	8	32	-1					
QUETTA	20.94	285.6	4	44A	-3	8	19	-17					
CANTON	21.12	94.2	4	49	1	8	44	5					
NAMANGAN	21.19	317.8	4	53	4	8	34	-7					
PAOTOW	21.54	44.3	4	50	-3								
WUHAN	21.62	73.6	4	54	1	8	51	2					
COLOMBO	21.88	209.1									9	3	
HONG KONG	22.06	95.7	4	58	0	8	59	2					
NHATRANG	22.68	125.1	5	9	5	9	20	12					
PEKING	25.35	51.3	5	29	-1	9	58	3					
NANKING	25.36	70.6	5	29	-1	9	58	3					
ZO-SE	27.34	73.0	5	48	0								
IRKUTSK	27.83	18.5	5	57	4								
CHANGCHUN	33.10	49.4	6	38	-1	11	55	-4					
SHIRAZ	33.46	284.3	6	43	0						11	23	
SVERDLOVSK	37.05	333.1	7	7	-6								
MAKHACH-KALA	38.44	306.6	7	34	9								
TIFLIS	40.22	304.1	7	45	5	13	47	-1					
MATUSIRO	41.64	64.0	7	51	0	14	2	-7			9	48	PCP
YAKUTSK	44.13	25.4	8	9	-3								

KSARA	47.24	292.6	8 40	4	15 46	16		10 41	PP
MOSCOW	47.74	322.5	8 40	0	15 28	-9			
SIMFEROPOL	48.26	307.7	8 50	6					
TIKSI	50.00	14.9	9 1	3					
HELWAN	51.67	288.3	9 6	-4				9 50	
PULKOVO	52.50	326.5	9 17	0					
BUCHAREST	53.99	307.1	9 33A	5					
LWOW	55.20	313.7	9 35	-2					
NURMIJARVI	55.42	326.8	9 41	3					
SODANKYLA	55.79	335.2	9 38	-3					
SOFIA	56.14	305.2	9 49	6					
KIRUNA	58.21	335.2	9 55	-3					
UPPSALA	58.88	325.7	9 59	-4				10 59	PCP
PRUHONICE	61.30	314.5	10 19A	0				19 51	
COPENHAGEN	61.87	321.1			18 49	3			
POTSDAM	61.90	317.3	10 28	5					
GOTEBORG	61.92	323.4	10 22	-1					
LJUBLJANA	61.92	310.1	10 22	-2				10 42	PCP
COLLMBERG	62.09	316.1	10 29	4				12 46	PP
TRIESTE	62.52	309.7	10 32	4					
HALLE	62.71	316.4	10 21	-8				12 25	PP
PLAUEN	62.74	315.3	10 31	2					
JENA	63.04	315.9	10 34	3				12 49	
MUNDARING	63.12	155.5	10 29	-2					
STUTTGART	64.90	313.8	10 40	-3				12 52	PP
STRASBOURG	65.92	313.8	10 55	5					
NORD	66.43	351.2	10 49	-4					
MONACO	67.35	308.8	10 51	-8					
UCCLE	67.54	316.8	11 24	24					
DURHAM	69.91	321.9	10 52A	-23				11 34	PCP
KEW	70.18	318.3	11 38	22					
SETIF	71.09	301.6	11 27	5					
CHARTERS TS.	71.27	124.7	11 23	0					
BROKEN HILL	72.60	243.6	11 29	-2					
BULAWAYO	75.72	238.7	11 48	-1					
TAMANRASSET	75.83	288.5	11 54	5	21 38	7		14 45	PP
COLLEGE	78.52	21.7	12 2	-2					
BRISBANE	80.42	127.0	11 55	-20				12 58	
CANBERRA	82.73	135.3	12 27	0					
HUNGRY HORSE	102.38	16.4	14 9	10				18 13	
EUREKA	109.94	21.4	18 53	777				19 15	
PALISADES	111.30	347.3						35 7	
SOUTH POLE	116.31	180.0	18 40	-5				20 53	

JULY 29 14.H 33.M 42.S EPICENTRE 31.93 67.14 DEPTH= 0.KM

A= 0.33040 B= 0.78350 C= 0.52627 D= 0.9214 E=-0.3886
G= 0.2045 H= 0.4849 K=-0.8503 HT= 1.2

SE= 3.13

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
QUETTA	1.75	185.3	0 29K	-3					
WARSAK DAM	4.25	59.7	1 7	0					
LAHORE	6.14	91.6	1 31A	-3	2 39	-7		1 55	*SP
DUZHANBE	6.76	11.0	1 45	2				3 45	
KARACHI	7.07	180.7	1 41K	-6					
ASHKABAD	9.38	312.2	2 20	1				4 25	
DEHRA DUN	9.49	96.9	2 22	1	4 3	-6		2 29	PP
TASHKENT	9.53	9.8	2 20	-1				5 17	
AGRA	10.62	114.0	2 41K	5	4 43	6			
FRUNSE	12.40	26.5	2 59	-1	5 12	-8			
SEHORE	12.40	132.3	2 56	-4	5 9	-11			
SHIRAZ	12.77	263.6	3 2K	-3				7 9	
TEHERAN	13.63	290.5	3 16	-1					
BOMBAY	13.95	157.1			5 42	-16		7 34	
POONA	14.65	154.0	3 32	2	6 12	-2		6 28	SS
HYDERABAD	17.70	142.0	4 14	5	7 22	-3			
CHATRA	18.18	101.1	4 14	-1	7 21	-15		4 25	PP
TIFLIS	20.33	305.0	4 39	-1				8 42	SS
LHASA	20.66	90.1	4 41	-3	8 20	-10			
SEMIPALATNSK	20.87	24.1	4 42	-4	8 27	-8		8 38	
MADRAS	22.32	144.6	5 13	13					
SHILLONG	22.57	100.0	4 59	-4	9 8	2		5 47	PPP
KODAIKANAL	23.62	153.8			9 30	5			
CHITTAGONG	23.90	107.4	5 8	-8					

TOCKLAI	24.60	95.0	5	20	-3				
SVERDLOVSK	25.31	351.6	5	28	-1	9	55	1	
KSARA	26.27	282.6	5	38	0	10	5	-5	6 28 PP
SIMFEROPOL	28.73	306.4	6	3	2	10	47	-3	12 30 SSS
HELWAN	30.71	275.7	6	15	-3	12	0	39	
CHENGTU	31.44	82.4	6	22	-3	11	21	-12	
MOSCOW	31.50	327.8	6	28	3	11	30	-4	7 22 PP
KUNMING	31.91	93.1	6	26	-3				
BUCHAREST	34.24	303.3	6	52A	3				
SIAN	34.91	74.7	6	53	-2				
PAOTOW	35.36	63.6	6	58	-1				
ATHENS	35.85	291.9	6	58	-5				
SOFIA	36.10	300.0	7	8	3				
LWOW	36.58	312.0	7	11	2	12	50	-2	15 48 SSS
PULKOVO	37.02	329.8	7	15	2				8 36 PP
WARSAW	38.97	315.2				13	28	-1	9 22 PPP
KRAKOW	39.22	311.6	7	35	4	13	40	8	
NURMIJARVI	39.86	328.6	7	40	3				9 6 PP
PEKING	40.08	64.2	7	42	4	13	44	-1	9 14 PP
WUHAN	40.32	79.1	7	43	3	13	47	-2	
RACIBORZ	40.33	311.4	7	36	-4				
APATITY	40.75	340.9	7	42	-2	13	47	-8	9 19 PP
VIENNA-H.	41.33	308.4	7	52	3				
CANTON	41.66	90.3	7	49	-2	13	58	-11	
MESSINA	42.24	293.3				14	16	-1	
LJUBLJANA	42.50	305.0	8	1K	3				8 55
SODANKYLA	42.65	338.2	8	2	2				9 38 PP
PRUHONICE	42.66	310.8	8	2K	2				10 4 PPP
HONG KONG	42.67	91.0	8	0	0	14	24	0	9 29 PP
PRAGUE	42.74	310.9	8	3	3				
UPPSALA	42.86	325.6	7	58	-3				
TRIESTE	43.04	304.4	8	7	4				
NANKING	43.45	75.5	8	4	-2	14	27	-8	
COLLMBERG	43.75	312.6	8	12	4				10 4 PP
POTSDAM	43.81	314.2	8	11	2				
ROME	44.16	299.1	8	7	-5	14	42	-3	18 9 SS
HALLE	44.42	312.8	8	15	1	14	50	1	10 5 PP
COPENHAGEN	44.59	318.8	8	19	4	14	56	4	
JENA	44.61	312.0	8	19	4				10 34
SONNEBERG	44.83	311.2	8	21	4				
KIRUNA	44.91	337.0	8	14	-4				10 0 PP
GOTEBORG	45.18	321.6	8	19	-1				
ZO-SE	45.67	76.1	8	21	-3				
STUTTGART	46.06	308.9	8	26	-1				10 2 PP
CHIAVARI	46.25	302.8							15 43
HEIDELBERG	46.42	309.8	8	32	2				
MONACO	47.67	302.1	8	36	-4				
DOURBES	49.07	310.9	8	56	5				
YAKUTSK	49.56	33.4	8	52	-2	15	59	-3	
TIKSI	51.19	21.0	9	3	-4	15	21	-64	
VLADIVOSTOK	51.40	57.9	9	6	-2				
KEW	52.08	312.9							20 36 SS
FOLINIERE	52.49	309.5	9	15	-2				
DURHAM	52.57	317.2	8	59K	-18				
RELIZANE	54.48	293.5							10 1
TAMANRASSET	54.85	276.8	9	29	-5				11 29 PP
TOLEDO	56.83	299.5	9	48	0				
MATUSIRO	57.72	64.3	9	50	-5	17	33	-20	21 47
NORD	57.72	350.0	9	51	-4				
BROKEN HILL	59.16	224.8	10	1	-4				
BULAWAYO	63.58	220.8	10	31	-3				
PRETORIA	68.35	217.6	11	5	0				
COLLEGE	79.73	14.4	12	8	-3				
EUREKA	108.90	2.5	18	11	777				
KARAPIRO	122.31	117.4	18	57	0				
CAPE HALLETT	124.05	158.9	19	3	3				

JULY 29 17.H 31.M 42.S EPICENTRE 40.38 142.17 DEPTH= 50.KM

A=-0.60339 B= 0.46852 C= 0.64530 D= 0.6133 E= 0.7898
G=-0.5097 H= 0.3958 K=-0.7639 HT= -1.8

DEPTH OF FOCUS= 0.003R

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	
HATINOHE	0.51	287.3	0	11K	-2	0	25	3					
MIYAKO	0.74	192.0	0	12A	-3	0	23	-4					
MORIOKA	1.03	228.9	0	19K	1	0	32	0					
AOMORI	1.15	293.0	0	20	0	0	39	4					
MIZUSAWA	1.48	213.1	0	24	-1	0	42	-1					
AKITA	1.72	248.2	0	30K	2								
HAKODATE	1.78	323.7	0	29K	0	0	56	5					
URAKAWA	1.83	14.3	0	32	3	1	0	8					
ISINOMAKI	2.05	199.0	0	31K	-2	0	57	0					
HIROO	2.09	24.1	0	34	1	0	54	-4					
MORI	2.10	325.4	0	37	4	1	3	5					
MURORAN	2.14	335.6	0	36K	2	1	2	3					
TOMAKOMAI	2.29	349.0	0	41	5	1	10	7					
SENDAI	2.33	205.5	0	34K	-2	1	3	-1					
SAKATA	2.33	231.5	0	41	4	1	14	10					
YAMAGATA	2.55	214.2	0	38	-2	1	10	0					
OBIHIRO	2.65	16.6	0	42A	1	1	15	3					
SAPPORO	2.76	347.4	0	44A	1	1	19	4					
SUTTSU	2.82	329.6	0	47	4	1	30	13					
HUKUSIMA	2.94	207.3	0	44A	-1	1	19	-1					
KUSIRO	3.09	32.0	0	46	-1	1	21	-2					
NIIGATA	3.45	225.7	0	54	2	1	36	4					
ONAHAMA	3.57	196.6	0	51K	-3	1	33	-2					
SHIRAKAWA	3.59	205.7	0	53	-1	1	35	-1					
AIKAWA	3.85	233.5	0	57K	-1	1	48	5					
NEMURO	3.90	39.7	0	56K	-3	1	36	-8			1	18	
ABASHIRI	3.96	22.6	0	58	-1	1	45	0					
MITO	4.21	199.0	1	1K	-2	1	56	4					
UTUNOMIYA	4.23	206.0	1	2	-1	1	59	7					
KAKIOKA	4.43	201.3	1	3A	-3	2	3	6					
TUKUBASAN	4.46	202.1	1	2A	-4	2	2	4			8	8	PCP
TAKADA	4.48	224.4	1	6	-1	1	54	-4					
MAEBASI	4.66	212.5	1	9A	0	2	2	-1					
KUMAGAYA	4.76	208.4	1	9A	-2	2	8	3					
TYOSI	4.77	193.0	1	7K	-4	2	8	3					
NAGANO	4.84	221.3	1	14A	2	2	19	12					
MATUSIRO	4.93	220.3	1	12	-1	2	20	10			40	18	PKPPKP
OIWAKE	4.94	216.3	1	16	3	2	13	3					
TITIBU	5.02	210.0	1	13	-1	2	18	6					
HONGO	5.03	202.9	1	12	-2						2	15	
WAKKANAI	5.05	356.1	1	18	3	2	16	3					
TOKYO C.M.O.	5.07	202.9	1	12	-3	2	11	-2					
WAZIMA	5.09	235.6	1	17K	2	2	15	1					
MATUMOTO	5.28	220.0	1	20	2	2	30	12					
YOKOHAMA	5.33	202.8	1	18	-1	2	25	5					
TOYAMA	5.35	228.3	1	22	3	2	30	10					
KOHU	5.50	212.4	1	21	0	2	28	4					
HUNATU	5.56	210.0	1	22K	0	2	27	2					
TAKAYAMA	5.73	224.1	1	24	0	2	37	7					
MERA	5.76	199.6	1	21	-4	2	25	-5					
KANAZAWA	5.79	230.2	1	25A	0	2	35	4					
MISIMA	5.84	206.9	1	23	-3	2	30	-2					
AJIRO	5.85	205.6	1	29	3	2	34	1					
IIDA	5.94	216.6	1	30	3	2	56	21					
OSIMA	6.02	202.5	1	24	-4						2	13	
SHIZUOKA	6.17	210.2	1	29	-1	2	31	-10					
NAGATURO	6.34	205.6	1	37	4	2	48	3					
HUKUI	6.37	229.1	1	35	2	2	54	9					
KURILSK	6.41	39.0	1	33	-1								
GIHU	6.55	222.4	1	36	0	2	52	2					
OMAESAKI	6.57	209.8	1	35	-1	2	55	5			1	54	
NAGOYA	6.63	220.0	1	37A	0	2	53	1					
HAMAMATU	6.66	213.4	1	37	0	3	6	13			2	58	
TSURUGA	6.74	227.5	1	41	3	3	6	11					
HIKONE	6.92	224.4	1	46A	5	3	7	8					
KAMEYAMA	7.14	221.1	1	44A	0	3	9	5					
MAIZURU	7.26	229.7	1	49A	3	3	12	4					
KYOTO	7.39	225.7	1	48A	1	3	17	6					
HATIDYOZIMA	7.51	195.5	1	51	2						2	23	
TOYOOKA	7.56	232.5	1	51A	1	3	19	4					
ABUYAMA	7.59	225.7	1	50A	0								
OSAKA	7.78	224.8	1	52A	-1	3	28	8			2	8	
OWASE	7.89	219.0	1	55	1	3	25	2					
KOBE	7.95	226.5	1	57	2	3	34	9					
TOTTORI	7.97	234.9	1	58A	3	3	32	7					
SAIGO	8.11	241.8	1	58	1	3	32	3					

VLADIVOSTOK	8.15	293.0	1	56	-2	3	28	-2		
WAKAYAMA	8.29	224.5	2	0	0	3	30	-3		
SUMOTO	8.35	226.1	1	59A	-2	3	40	5	2	46
YONAGO	8.54	237.5	2	5	2	3	42	3		
SIOMISAKI	8.61	218.5	2	6	2	3	39	-2		
OKAYAMA	8.68	231.6	2	8K	3	3	54	11	4	48
UGLEGORSK	8.70	359.6	2	5	0				3	53
TOKUSIMA	8.73	226.2	2	7	1	3	47	3		
TAKAMATU	8.85	229.5	2	6	-2	4	4	17		
MUROTO	9.57	224.5	2	18	1	4	6	1	4	45
HAMADA	9.70	238.9	2	21A	2	4	14	6	5	33
KOTI	9.70	228.1	2	18A	-1	4	11	3		
HIROSIMA	9.80	235.3	2	17	-4	4	13	3	2	45
MATUYAMA	9.94	231.9	2	22	0	4	20	6		
TORISIMA	9.99	189.3	2	21	-2	4	38	23		
UWAZIMA	10.50	230.2	2	28A	-2				5	5
SIMIDU	10.59	227.1	2	29	-2	4	49	20		
SIMONOSEKI	11.02	237.9	2	38	1					
OOITA	11.06	233.1	2	38A	0	4	44	3		
HUKUOKA	11.61	238.0	2	46A	1	5	11	17		
ASOSAN	11.62	233.5	2	47	2	5	18	23	6	18
SAGA	11.87	236.9	2	51	2				3	1
KUMAMOTO	11.90	234.3	2	52	3					
ITUHARA	11.97	243.1	2	51	1				5	5
MIYAZAKI	12.11	229.2	2	53	1	5	33	27		
UNZENDAKE	12.24	235.2	2	57	3				5	25
NAGASAKI	12.48	236.1	2	56A	-1	5	33	18		
KAGOSIMA	12.87	230.5	3	2	0	5	54	30		
CHANGCHUN	12.99	290.9	3	2A	-2					
OKHA	13.19	2.0	3	5	-1				3	48
TOMIE	13.26	238.5	3	8A	1	5	55	21		
YAKUSIMA	13.72	227.4	3	10	-3	5	53	8		
SEVERO-KUR.	14.16	38.8	3	15	-4				3	25
PETROPAVLOVK	16.91	36.1	3	56	2				4	6 PP
ZO-SE	19.36	248.0	4	20A	-4				4	41 *SP
PEKING	19.85	277.5	4	25A	-4	7	59	-5	4	47 *SP
MAGADAN	19.95	12.9	4	27	-3	8	4	-3		
YAKUTSK	22.95	344.9	4	58	-2					
KLYUCHI	20.11	31.3	4	29	-3				5	7 PPP
NANKING	20.58	253.6	4	33A	-4	8	12	-7		
TAIPEI	23.07	234.7	5	1	0	9	41	36		
ILAN	23.12	233.9	5	4	2	9	8	2		
HWALIEN	23.79	232.8	5	11	3	9	12	-5		
TAICHUNG	24.24	234.6	5	26	13					
PADTOW	24.38	281.0	5	13K	-1					
WUHAN	24.46	255.0	5	13A	-2	9	27	-2		
YUSHAN	24.56	233.1	5	3	-13	9	50	20		
ALISHAN	24.62	233.4	5	21	5	9	43	12		
TAITUNG	24.99	231.6	5	20	0					
TAINAN	25.37	233.5	5	33	9	9	52	8		
TAWU	25.44	231.4	5	21	-3	9	51	6		
HENGCHUN	25.80	231.2	5	30K	2	10	2	11		
GUAM	26.91	174.5	5	37	-1	10	42	33		
SIAN	27.04	267.6	5	36A	-3					
IRKUTSK	28.39	307.5	5	51A	0	10	29	-4		
HONG KONG	29.76	241.2	6	2A	-1	10	56	1	7	18 PPP
CANTON	29.79	243.4	6	4A	0	10	55	0		
BAGUIO CITY	30.34	224.4	6	8	-1	10	58	-6		
MANILA	31.55	221.7	6	21	2	11	23	0		
TIKSI	32.03	352.1	6	19	-5	11	26	-5		
CHENGTU	32.33	264.7	6	23	-3	11	27	-8	7	34 PPP
KUNMING	36.17	257.3	6	58A	-1	12	32	-3	8	22 PP
NHATRANG	40.33	235.3	7	34A	0	13	40	2		
TOCKLAI	41.30	265.8	7	47K	5					
LHASA	42.70	272.0	7	54A	1	14	11	-2	9	35 PP
SEMIPALATNSK	43.45	304.8	7	58	-1	14	22	-2		
SHILLONG	44.13	266.3	8	4A	-1	14	31	-3	9	50 PP
CHITTAGONG	45.95	262.6	8	20A	1	14	59	-1	10	13 PP
COLLEGE	45.97	33.9	8	19K	0	15	1	1	9	58 PCP
CHATRA	47.06	271.0	8	29	1	15	15	0		
FRUNSE	49.33	296.3	8	45	-1	15	46	-1		
KHEYS	49.50	347.6	8	47	0	15	50	0	10	39 PP
PORT MORESBY	49.74	173.6	8	50	1	15	50	-3	9	42
PORT BLAIR	51.96	250.9	9	5	-1	16	23	-1	11	10 PP
DEHRA DUN	52.23	280.2	9	12	4	16	26	-1	11	9 PP
SVERDLOVSK	53.07	317.1	9	13	-1	16	35	-4		
SITKA	53.50	42.4	9	18	1					
TASHKENT	53.58	296.5	9	16	-2	16	46	0	11	22 PP
MEDAN	53.62	238.6	9	18K	0	16	43	-3		

KIPAPA	53.68	91.8	9	18	0					
HONOLULU	53.69	92.0	9	18	0	16	46	-1		
AGRA	53.88	276.8	9	22A	2	16	49	-1	11	30 PP
LAHORE	54.41	283.5	9	23A	-1	17	0	3		
VIZIANAGRAM	54.78	264.2	9	26	0					
DUZHANBE	55.13	293.7	9	28	-1	17	7	1	11	34 PP
WARSAK DAM	55.27	287.5	9	30	0					
DJAKARTA	56.59	223.5	9	36	-4				15	56
SEHORE	56.73	273.3	9	32	-9					
LEMBANG	56.73	222.3	9	39K	-2	17	27	-1		
NORD	57.76	356.4	9	45	-3	17	42	1		
ISFJORD	57.85	348.9	9	49	1					
HYDERABAD	59.00	267.0	9	55A	-1	17	57	0	12	20 PP
RESOLUTE	59.23	15.1	9	56	-2	18	2	2		
APATITY	59.90	335.1	10	0	-3	18	6	-3	12	12 PP
CHARTERS TS.	60.27	175.6	10	3	-2	18	11	-3		
MADRAS	60.40	261.8	10	6A	0	18	17	1	10	39 PP
QUETTA	60.56	286.0	10	6A	-1	18	20	2	39	28 PKPPKP
POONA	61.86	271.0	10	15	-1	18	37	3	14	39 PCS
SODANKYLA	62.12	336.7	10	16	-2	18	42	5	10	49 PCP
BOMBAY	62.43	272.0	10	20	0	18	42	1	12	14 PP
ALBERNI	62.53	47.5	10	22	2					
ASHKABAD	62.60	297.7	10	20	-1					
KARACHI	63.41	280.9	10	22	-4					
KIRUNA	63.61	338.9	10	25	-2				12	46 PP
VICTORIA	63.71	47.7	10	28K	0					
KODAIKANAL	64.20	261.3	10	31A	0	19	3	0	19	16 PS
COLOMBO	64.56	256.8	10	33	-1	19	8	0		
MOSCOW	64.94	322.8	10	37	1	19	15	3	12	57 PP
PENTICTON	65.38	45.4	10	37	-2					
PULKOVO	65.62	329.0	10	40	-1	19	22	1	13	3 PP
BANFF	66.48	42.1	10	46	0					
NURMIJARVI	67.28	331.6	10	50	-1	19	40	-1		
ARCATA	67.49	55.0	11	9	17					
BRISBANE	68.14	169.8	10	55	-1	19	44	-7		
TEHERAN	68.48	299.0	11	0	2					
SCORESBY SD.	68.85	354.3	11	1A	0	20	4	4	11 19	13 42 PP
AFIAMALU	68.86	131.4	11	15	14	20	8	8		13 21 PP
HUNGRY HORSE	68.95	44.0	11	0A	-1	20	2	1		13 31 PP
UKIAH	69.03	56.1	11	1K	-1	19	57	-5		39 12 PKPPKP
TIFLIS	69.24	307.4	11	3	0	20	7	3		13 39 PP
MINERAL	69.34	54.3	11	3A	-1					
GORIS	69.59	304.8	11	6	1	20	11	3		13 43 PP
UPPSALA	70.22	333.8	11	8	-1					13 44 PP
BERKELEY	70.38	56.7	11	10A	0	20	21	4		39 8 PKPPKP
RENO	70.93	54.1	11	14A	1					
LICK	71.09	56.9	11	14A	0					
BUTTE	71.17	45.3	11	14	-1	20	21	-6		
VINEYARD	71.61	57.3	11	23	6					
BOZEMAN	72.22	44.8	11	22A	1	20	39	0		
FRESNO	72.61	56.4	11	24A	1	21	19	36		
EUREKA	73.31	52.3	11	28A	0					38 35 PKPPKP
SIMFEROPOL	73.37	315.2	11	28A	0	20	55	3		25 36 SS
GOTEBORG	73.76	334.7	11	29	-1					
RIVERVIEW	74.30	172.2	11	35A	2	21	3	1	11 47	21 34 SKS
WARSAW	74.59	326.9	11	35A	0	21	4	-1		14 18 PP
SALT LAKE C.	74.93	49.1	11	37	0	21	15	6		
SIDA	75.00	351.1	11	41K	4					
LWOW	75.03	323.8	11	38	0	21	14	4		14 27 PP
REYKJAVIK	75.07	352.8	11	41A	3				11 59	
COPENHAGEN	75.21	333.2	11	39A	0	21	14	2		14 30 PP
PASADENA	75.27	57.7	11	39	0	21	14	1		25 30 SS
CANBERRA	75.59	174.2	11	40	-1	21	17	1	11 58	11 48 PCP
MUNDARING	75.89	202.6	11	42	0					
PERTH	75.99	202.9	11	43	0	21	25	4		26 53 SS
BACAU	75.99	320.0	11	46	3					
BOULDER CITY	76.23	54.5	11	45A	1	21	33	10		12 3
FLAMING GRGE	76.23	47.7	11	44A	0	21	28	5		39 1 PKPPKP
FOCSANI	76.45	319.2	11	51K	5	21	35	9		
KRAKOW	76.67	325.9	11	47	0	21	32	4		14 40 PP
CHORZOW	76.89	326.5	11	48	0	21	58	27		14 41 PP
SKALNATE PL.	77.18	325.2	11	50	0	21	36	2		14 47
RACIBORZ	77.38	326.8	11	51	0	21	58	22		14 51 PP
RAPID CITY	77.41	42.2	11	51A	0					
GLEN CANYON	77.57	51.9	11	52A	0	22	4	26		23 5
POTSDAM	77.61	330.9	11	53	1	22	2	24		14 50 PP
CAMPULUNG	77.83	320.0	11	57	4	21	45	4		
MELBOURNE	77.87	177.7	11	52	-2	21	38	-3		

BUCHAREST	77.91	318.8	11	53A	-1	22	4	22			21	42	
ABERDEEN	78.27	341.0	11	18	-38	21	48	3			14	53	PP
COLLMBERG	78.50	330.2	11	57A	0	22	10	22			14	55	PP
HALLE	78.74	330.9	11	59	1	21	51	1					
PRAGUE	78.92	328.7	12	1A	2	21	58	6			15	1	PP
PRUHONICE	78.95	328.6	12	4A	5	21	58	5			15	2	PP
HURBANOVO	79.06	325.3	12	2	2	21	50	-4			14	58	PP
TIMISOARA	79.30	322.3	12	7	6	22	3	7					
BRATISLAVA	79.31	326.1	12	3K	2	22	0	4			14	48	PP
JENA	79.33	330.7	12	1	-1	21	59	2	12	33	27	6	SS
PLAUEN	79.47	330.2	11	58	-4	21	52	-6	12	22			
WITTEVEEN	79.50	334.4	12	5	3								
VIENNA-H.	79.55	326.5	12	4A	1	22	5	6			15	10	PP
KSARA	79.68	305.7	12	3A	0	22	3	3			15	5	PP
CHEB	79.71	329.8	12	6	2	22	4	3			26	54	SS
SONNEBERG	79.92	330.6	12	5	0	22	26	23					
DURHAM	80.27	339.7	12	6A	-1	22	6	-1			15	11	PP
BELGRADE	80.36	322.1	12	7K	0	22	12	4			15	16	PP
SOFIA	80.54	319.1	12	11	3	22	11	2			14	52	PP
DE BILT	80.60	334.8	12	10A	2	22	15	5			15	16	PP
BENSBERG	80.90	333.1	12	9A	-1	22	14	1					
TUCSON	81.17	55.1	12	12A	1	22	20	4	12	33			
TUCSON TELE.	81.18	55.0	12	11A	0	22	30	14					
ONERAHI	81.36	154.0	12	23	11								
ZAGREB	81.62	325.2	12	13A	-1	22	38	18					
HEIDELBERG	81.64	331.4	12	14	0								
STUTTGART	81.96	330.7	12	16A	1	22	29	5			15	23	PP
UCCLE	81.98	334.5	12	15	-1	22	33	9					
LJUBLJANA	82.06	326.2	12	15A	-1				12	31	15	31	PP
TUBINGEN	82.23	330.7	12	17	0								
TOLMEZZO	82.41	327.2	11	57	-21	22	12	-17			14	41	PP
DOURBES	82.50	334.0	12	19	1	22	35	6					
EBINGEN	82.56	330.5	12	19A	1								
RAVENSBURG	82.65	329.9	12	18	-1								
STRASBOURG	82.67	331.4	12	19A	0	22	32	1					
TRIESTE	82.71	326.4	12	19	0	22	33	1	12	32	15	35	PP
KEW	82.85	337.4	12	20	0	22	35	2			15	34	PP
FORT NELSON	83.06	176.2	12	51	30	22	32	-3					
BASLE	83.62	330.9	12	23A	-1	22	44	3					
MERIDA	102.26	48.7	14	6	15	24	30	5			18	21	PP
KARAPIRO	83.71	154.1	12	23	-1								
ATHENS	83.82	315.7	12	24K	-1	22	44	1					
NEUCHATEL	84.30	331.0	12	27	0	23	15	28					
PARIS	84.31	334.5	12	27	0	22	48	0					
BESANCON	84.44	331.7	12	33A	5								
BOLOGNA	84.65	327.1	12	39	10						22	58	
CHATEAU	84.86	154.6	12	29	-1				12	46	15	41	PP
PAVIA	84.97	328.7	12	32A	1						15	49	PP
OROPA	85.07	329.7	12	34	3						23	26	
HELWAN	85.20	305.4	12	32A	0	22	52	-4					
TARANTO	85.21	321.1	12	46	14	23	34	38					
PRATO	85.25	326.8	12	37	5	23	56	59					
FOLINIERE	85.29	336.3	12	33	1								
JERSEY	85.41	337.4	12	36	3	23	27	29					
CHIAVARI	85.62	328.1	12	47	13						23	36	SP
ROME	86.27	324.9	12	37A	0	23	3	-4	13	6	16	1	PP
WELLINGTON	86.51	156.0	12	54	16	23	10	1			15	56	PP
CHIHUAHUA	86.63	54.9	12	48	9	23	28	18			24	9	PS
CLERMONT-FD.	86.73	332.6	12	40A	1	22	59	-12					
MONACO	86.87	329.0	12	40	0						16	24	PP
FLORISSANT	87.73	38.4	12	44A	0	23	19	-2			23	6	SKS
MESSINA	87.80	320.7	12	43	-1	23	28	7	13	2	16	8	PP
REGGIO CALA.	87.83	320.6	12	32	-13						15	36	
ST. LOUIS 1	87.92	38.4	12	44	-1	23	26	4			23	9	SKS
FAYETTEVILLE	87.96	42.4	12	44	-1	23	1	-22					
SHAWINIGAN	88.01	23.3	12	45A	0								
SEVEN FALLS	88.06	21.8	12	49	3								
OTTAWA	88.10	25.7	12	45A	-1								
BREBEUF	88.69	24.3	12	48A	-1	24	4	35					
ROXBURGH	88.87	161.3	13	2	12	23	42	11			23	18	SKS
CLEVELAND	89.38	31.3	12	53K	1	23	41	5			16	24	PP
MAZATLAN	90.24	58.9									22	58	
BARCELONA	90.87	331.1				24	18	29					
PENNSYLVANIA	91.37	29.2	13	2	1	23	53	-1			16	43	PP
MORGANTOWN	91.58	31.2	13	3A	1								
TORTOSA	91.98	331.9	13	7	3	23	36	-23					
WESTON	92.22	24.2	13	6A	1	24	2	1					
HALIFAX	92.27	18.1	13	6	1								

PALISADES	92.60	26.5	13	8A	1	23	34	-31	13 32	16	54 PP
TOLEDO	94.39	334.6	13	15	0	24	13	-7		17	5 PP
ALICANTE	94.52	331.4	13	11	-5	24	17	-4		17	4 PP
MANZANILLO	94.52	60.5								19	36 PPP
ALGIERS UNI.	94.54	328.2	13	9	-7	24	11	-10		17	5 PP
SERRA PILAR	94.63	338.3	13	10A	-6	24	9	-13	13 35	17	0 PP
CHAPEL HILL	95.14	32.5	13	20	2						
COIMBRA	95.45	337.8				23	55	5			
RELIZANE	96.42	329.5	13	26	2	23	55	-1		17	15 PP
ALMERIA	96.57	332.1	13	23A	-2	24	26	30		17	22 PP
GRANADA	96.67	333.1	13	28A	3	23	52	-5		17	24 PP
LISBON	97.02	337.8	13	30K	3	24	38	39		17	20 PP
MALAGA	97.36	333.5	13	25	-4	24	31	31		17	25 PP
TACUBAYA	97.61	56.7	13	47	17	24	9	7		17	47 PP
VERA CRUZ	99.70	54.7								26	26 PS
OAXACA	100.92	56.6								25	22 SKKS
COMITAN	104.40	53.6								25	50 SKKS
TAMANRASSET	105.32	318.9	14	7	777	25	10	31		18	30 PP
TANANARIVE	105.44	258.2	14	9	777					18	25 PP
WILKES	109.15	193.0				24	57	2		18	54 PP
MIRNY	113.05	199.2								19	19 PP
CAPE HALLETT	114.10	170.9	18	33	0	25	18	3		19	46 PP
SAN JUAN	115.88	30.0	19	29K	52					19	49
BROKEN HILL	117.23	274.0	18	41	2						
GALERAZAMBA	118.43	42.8	18	53	11					36	30 SS
SCOTT BASE	118.91	174.2	18	43	0					20	6 PP
BULAWAYO	120.52	268.7	18	46	0						
LCO. MARQUES	120.76	260.8								20	12 PP
LOME	121.44	312.8								20	8 PP
MBOUR	122.18	335.9	18	53	4	25	58	14			
CARACAS	122.66	34.6	18	53	3					29	18
MAWSON	122.79	206.6	18	49	-1						
CHINCHINA	123.09	46.8	18	54	3					20	54
PRETORIA	123.98	263.5	18	52	0						
BOGOTA	124.23	45.5	19	2	9					31	2 PS
LUANDA	124.97	290.3								23	10 PP
KIMBERLEY	128.13	262.3	18	24	-36						
GRAHAMSTOWN	128.99	256.3	19	5	3						
SOUTH POLE	130.19	180.0	18	48	-16					31	59 SKKP
WINDHOEK	130.69	273.9	19	8	3						
BYRD STATION	130.89	166.8	19	5	-1					22	26 SKP
HERMANUS	134.95	258.6								21	47 PP
HUANCAYO	136.61	60.1	19	19	3					22	7 PP
LA PAZ	144.58	56.6	19	31A	0	26	42	9			
ARGENTINE I.	150.84	157.4	19	45	4						
SANTA LUCIA	152.97	85.6	19	40	-4					23	14 PP

JULY 30 14.H 12.M 33.S EPICENTRE 56.32 164.33 DEPTH= 0.KM

A=-0.53650 B= 0.15051 C= 0.83037 D= 0.2701 E= 0.9628
G=-0.7995 H= 0.2243 K=-0.5572 HT= -7.7

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KLYUCHI	1.93	271.6	0	37	2	0	59	-1				
PETROPAVLOVK	4.67	227.3	1	13	-1	2	4	-5				
SEVERO-KUR.	7.48	224.4	1	52	-1							
TIKSI	21.34	329.6	4	55	4							
COLLEGE	24.42	50.0	5	22	1							
MATUSIRO	26.47	232.7	5	39	-2						6	8
SITKA	32.22	63.0	6	34	2							
PENTICTON	44.29	65.4	8	13	0							
HUNGRY HORSE	47.73	63.1	8	40	-1							
SHASTA	48.60	76.1	8	48A	0							
MINERAL	49.28	75.9	8	53A	0							
HONG KONG	49.92	248.3	7	57	-61	15	58	-10				
RENO	50.82	75.3	9	5	0							
LICK	51.41	78.6	9	9A	0							
VINEYARD	51.99	78.9	9	14	1							
SODANKYLA	52.69	340.9	9	17	-2							
FRESNO	52.83	77.7	9	6	-14							
EUREKA	52.92	72.6	9	21	1						11	25 PP
KIRUNA	53.32	343.8	9	21	-2							
SCORESBY SD.	53.43	2.6				17	4	8			21	45 SSS

FLAMING GRGE	55.30	66.9	9 37	-1				
PASADENA	55.67	78.7	9 41	0	17 33	7	11 42	
RAPID CITY	56.06	60.2	9 43	0				
BOULDER CITY	56.11	74.7	9 44	0				
GLEN CANYON	57.09	71.6	9 50	-1				
PULKOVO	58.65	334.8	9 57	-5				
NURMIJARVI	59.24	338.1	10 4	-2				
SHILLONG	59.46	270.9	10 4A	-3				
MOSCOW	60.24	328.5	10 13	0				
TUCSON TELE.	61.08	74.4	10 17	-1				
CHATRA	61.09	275.6	10 17	-1				
TUCSON	61.09	74.6	10 18	0				
UPPSALA	61.20	341.6	10 17	-2				
DUZHANBE	61.75	297.7	10 21	-2	18 42	-3		
DEHRA DUN	63.36	285.1					30 12	
GOTEBORG	64.18	343.9	10 36	-3				
BREBEUF	67.52	40.2	10 58A	-2				
DURHAM	68.68	351.3	11 25	17	20 22	12		
QUETTA	69.31	293.4	11 10	-1				
COLLMBERG	70.16	341.3	11 15	-2			13 49	PP
STUTTGART	73.24	343.1	11 34	-1				
SHIRAZ	76.79	303.9	11 50A	-5				
BRISBANE	83.95	190.3	12 38	4				
HELWAN	85.33	320.4	12 40	0				
RIVERVIEW	90.49	190.9	13 7	2			31 9	
CANBERRA	92.20	192.5	13 35	22				
BYRD STATION	142.60	163.8	19 36	1				
SOUTH POLE	146.14	180.0	19 41	0			20 10	

JULY 31 2.H 55.M 48.S EPICENTRE -6.15 149.95 DEPTH= 33.KM

A=-0.86065 B= 0.49796 C=-0.10639 D= 0.5008 E= 0.8656
G= 0.0921 H=-0.0533 K=-0.9943 HT= 6.9

SE= 3.54

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	2.94	48.9	0 43	-3				
CHARTERS TS.	14.31	194.2	3 38	15	6 1	0		
KOUMAC	19.97	137.2	4 29	-4	8 17	7		
GUAM	20.15	345.2	4 35	0	8 24	10		
BRISBANE	21.30	173.1	4 45K	-1	8 41	5		
PORT VILA	21.32	124.3	4 52	5	8 45	9		
NOUMEA	22.62	136.9	4 57	-3	9 10	10		
RIVERVIEW	27.57	177.8	5 43K	-3	10 27	3	5 51	6 36 PP
CANBERRA	29.04	181.6	5 57K	-3	10 46	-1	6 8	6 56 PP
MELBOURNE	31.86	187.5	6 25	0	11 33	1		13 21 SS
MANILA	35.32	306.1	6 54	0	12 34	8		
BAGUIO CITY	36.70	308.0	7 10	4	12 48	1		
FORT NELSON	36.70	183.2	7 24	18	12 57	10		
AFIAMALU	38.42	104.6	7 15	-6	13 16	3		9 21 PP
KARAPIRO	39.26	147.3	7 25	-3			7 32	9 10 PP
TONGARIRO	40.20	148.7	7 39	4				
MUNDARING	40.64	226.5	7 39	0	13 40	-6		
YAKUSIMA	40.89	333.9	7 41	0	13 36	-14		18 39
PERTH	40.90	226.7	7 52	11	14 7	17		9 19 PP
KAIMATA	40.91	155.6	7 48	7	13 57	7		
WELLINGTON	41.40	151.4	7 50	5	13 52	-6		9 47 PCP
SIOMISAKI	41.61	342.0	7 46	-1	14 3	2		17 8
KAGOSIMA	41.83	334.8	7 55	6	14 11	7		10 2 PP
OSIMA	41.90	346.9	7 55	6				9 40
MUROTO	41.94	340.1	7 53	3	14 8	2		
SIMIDU	41.94	338.4	7 41	-9				13 14
MERA	41.95	347.5	7 53	3				
OMAESAKI	42.01	345.5	7 48	-2				14 23
LEMBANG	42.05	266.6	7 51	0	13 42	-25		
OWASE	42.06	342.9	7 49	-2	14 11	3		
SHIZUOKA	42.32	345.9	7 48	-5				17 7
MISIMA	42.33	346.6	7 48	-5				
GEBBIES PASS	42.39	155.5	7 52	-1				
KOTI	42.44	339.5	7 54	0	13 58	-15		9 35 PP
YOKOHAMA	42.48	347.5	7 59	5				17 13
TOKUSIMA	42.56	341.0	8 1	6				
ROXBURGH	42.65	159.8	8 10	15	14 16	0		9 34 PP
TOKYO C.M.O.	42.70	347.7	8 1	5				9 53
SUMOTO	42.70	341.5	7 56A	0	14 18	1		9 58 PP

KAMEYAMA	42.71	343.6	7	55	-1	14	49	32		10	5 PP
HONGO	42.72	347.8	7	50	-6	14	39	22			
NARA	42.74	342.8	7	56	0						
HUNATU	42.74	346.5	8	1	5	14	30	13			
OSAKA	42.80	342.4	7	55	-2						
OOITA	42.85	337.2	7	58A	1	14	3	-16			
KUMAMOTO	42.86	335.9	7	58	1	14	35	16			
DJAKARTA	42.86	267.5	7	52	-5	14	21	2			
NAGOYA	42.88	344.3	7	58	1	14	38	19		13	30
KOBE	42.93	342.0	8	1	3	14	43	23			
KOHU	42.95	346.4	7	58	0	14	23	3			
TAKAMATU	42.96	340.6	7	58	0	14	26	5			
MATUYAMA	42.97	338.9	7	57	-1	14	33	12		20	23
ABUYAMA	42.99	342.6	7	57A	-1						
KYOTO	43.09	342.8	8	0	1					14	7
NAGASAKI	43.12	335.0	7	58A	-1	14	27	4			
TUKUBASAN	43.14	348.3	7	56K	-4	14	21	-2	8 6	9	49 PCP
GIHU	43.15	344.2	7	58	-2					13	43
HIKONE	43.17	343.5	7	59	-1	14	43	19			
MITO	43.23	348.8	7	48	-12					8	11
KUMAGAYA	43.23	347.5	8	2	2					10	1
SAGA	43.39	335.8	8	12	10						
TOMIE	43.50	333.7	8	2	0						
UTUNOMIYA	43.51	348.2	8	9	6					8	26
MAEBASI	43.54	347.2	8	2	-1					9	2
HIROSIMA	43.57	338.8	8	2	-1	14	32	3			
OIWAKE	43.59	346.6	8	3	0						
MAIZURU	43.60	342.7	8	2	-1						
MATUMOTO	43.65	345.9	8	11	7						
HUKUOKA	43.65	336.1	8	5	1	14	20	-11		9	55
ONAHAMA	43.70	349.5	8	11	7					8	40
TAKAYAMA	43.73	345.1	8	3	-1						
TOYOOKA	43.83	342.1	8	4	-1	14	33	0		17	50
MATUSIRO	43.86	346.3	8	2	-3	14	41	7		9	41 PP
NAGANO	43.99	346.4	8	5	-1	14	55	19			
SHIRAKAWA	43.99	348.8	8	6	0						
TOTTORI	44.01	341.4	8	3	-4						
HAMADA	44.17	338.8	8	7A	-1	14	44	6		9	48 PP
YONAGO	44.21	340.5	8	4	-4	14	25	-14		9	53 PP
KANAZAWA	44.24	344.6	8	7	-1						
TOYAMA	44.26	345.3	8	6	-3	15	8	28			
TAKADA	44.39	346.6	8	7	-3						
HUKUSIMA	44.56	349.3	8	10	-1						
SAIGO	44.92	340.9	8	15	1	14	57	8			
WAZIMA	44.98	345.3	8	13	-1	15	3	13			
SENDAI	44.98	349.9	8	14	0						
NIIGATA	45.00	347.8	8	13	-1	14	45	-5		11	2
HONG KONG	45.01	310.0	8	14A	-1	14	54	4		9	46 PP
YAMAGATA	45.06	349.3	8	13	-2						
ISINOMAKI	45.07	350.4	8	14	-1					10	7
MIZUSAWA	45.78	350.4	8	20	-1	14	43	-18			
SAKATA	45.79	349.0	8	36	15						
CANTON	46.09	310.3	8	22A	-1	15	12	6			
ZO-SE	46.13	325.1	8	22	-2	15	11	5			
MIYAKO	46.16	351.5	8	24	0						
MORIOKA	46.33	350.6	8	22	-3					14	18
AKITA	46.54	349.5	8	28	1						
HATINOHE	47.09	351.2								9	19
AOMORI	47.49	350.6	8	36	2						
NANKING	48.22	323.9	8	39A	-1	15	38	2		10	30 PP
HAKODATE	48.46	350.8	8	47	5						
URAKAWA	48.51	352.9	8	48	6						
MORI	48.77	350.7	8	49	5					11	49
KUSIRO	49.15	354.6	9	1	14	16	24	35			
NEMURO	49.40	355.8	8	53	4						
SUTTSU	49.51	350.6	8	57	7						
SAPPORO	49.60	351.7	8	49	-2	15	34	-21		10	55
WUHAN	49.78	319.1	8	51	-1						
VLADIVOSTOK	51.70	343.2	9	1	-5					10	21 PCP
WAKKANAI	51.87	352.6	9	12	4					20	13
CHANGCHUN	54.50	338.2	9	24	-3						
KUNMING	55.43	306.1	9	32	-2						
PEKING	55.50	328.8	9	33A	-1	17	19	3		11	36 PP
SIAN	55.82	318.9	9	34A	-3	17	18	-2			
CHENGTU	57.19	312.5	9	42	-5						
HONOLULU	57.79	60.2	9	55	4	17	52	6			
KIPAPA	57.90	60.1	9	54	2						
PAOTOW	59.21	325.3	9	59	-2						

PETROPAVLOVK	59.40	6.1	10	2	0					10	48 PCP
LANCHOW	60.25	317.7	10	2A	-6	18	14	-4			
CHITTAGONG	63.53	298.6	10	29	-1	18	57	-2			
SHILLONG	64.58	301.9	10	35K	-2	19	15	3		13	1 PP
MAGADAN	65.49	0.5	10	38	-5	19	23	0			
WILKES	65.96	196.3	10	48	2	19	23	-6		20	37 SCS
CAPE HALLETT	67.27	173.4	10	52	-2	19	48	3		15	30 PPP
CHATRA	68.98	301.7	11	4K	0	20	9	4			
YAKUTSK	69.74	350.0	11	11	2					13	47 PP
IRKUTSK	69.92	332.1	11	7A	-3					13	41 PP
COLOMBO	71.11	279.4	11	19	2	20	48	18			
MIRNY	71.67	200.7	11	19	-2						
SCOTT BASE	72.21	176.3	11	22	-2	20	53	10		13	21 PP
HYDERABAD	74.36	289.9	11	39	2	21	11	4		14	33 PP
AGRA	76.90	299.6	11	49	-2	21	33	-2		14	46 PP
DEHRA DUN	77.66	302.7	11	59	4	21	49	5		14	49 PP
BOMBAY	79.89	290.4	12	10	2	22	10	3		22	29 SCS
LAHORE	81.06	303.2	12	10	-4					12	17 PCP
SEMIPALATNSK	82.01	322.7								15	30 PP
HAWSON	83.24	202.7	12	23	-2						
FRUNSE	83.50	314.3	12	24	-2	22	46	2			
WARSAK DAM	83.86	305.1	12	40	12						
SOUTH POLE	83.89	180.0	12	26	-2	22	49	1		38	27 PKPPKP
BYRD STATION	84.08	169.9	12	27	-2	22	49	-1			
COLLEGE	84.17	22.3	12	24	-6	22	46	-5	12 52	28	55 SS
SITKA	86.91	31.9	12	47	4						
DUZHANBE	86.93	309.1	12	46	3					12	51 PCP
QUETTA	87.03	300.6	12	47	3	23	24	5		16	10 PP
TASHKENT	87.05	311.9	12	42	-2					16	14 PP
UKIAH	91.38	51.0	13	11	7						
BERKELEY	91.99	52.3	13	6A	-1	23	36	-28		16	48 PP
SHASTA	92.19	49.5	13	5	-3						
VICTORIA	92.33	41.6	13	13A	4						
LICK	92.42	52.9	13	8K	-1						
MINERAL	92.76	49.9	13	9	-2						
FRESNO	93.84	53.6	13	13	-3						
SVERDLOVSK	94.72	326.5	13	21	1	23	47	-40		17	9 PP
PENTICTON	94.90	41.1	13	18	-2						
PASADENA	94.96	56.3	13	19	-2	24	38	9		17	10 PP
ASHKABAD	94.99	307.5	13	22	1	23	59	-31		17	15 PP
KHEYS	96.34	350.5				24	25	25		19	11 PPP
EUREKA	97.02	51.1	13	28	-2	24	15	12		17	18 PP
BANFF	97.58	39.3	13	29	-4						
RUTH	97.78	51.3	13	45A	12	24	45	38			
BOULDER CITY	97.80	54.6	13	32	-2	24	14	7			
HUNGRY HORSE	98.56	42.1	13	34	-3					17	34 PP
SHIRAZ	99.45	298.9	13	43	2	24	17	1		18	50 PP
BUTTE	99.59	44.5	13	40	-2	24	18	2			
TANANARIVE	99.66	249.7	13	51A	9					17	44 PP
BOZEMAN	100.66	44.8	13	43	-4						
TUCSON	101.04	58.4	13	54	6					17	54 PP
TUCSON TELE.	101.14	58.4	13	53	4					17	52 PP
FLAMING GRGE	102.05	49.6	13	50	-3	24	30	2		25	9 S
RESOLUTE	102.41	14.3	13	52	-2	24	48	18		27	12
NORD	104.33	358.0				24	54	15		27	32 PS
GORIS	104.39	309.1								18	29 PP
ARGENTINE I.	104.46	165.8								18	44 PP
CHIHUAHUA	105.18	62.1								20	22
TIFLIS	105.37	311.5	14	8	777	24	46	2		18	34 PP
APATITY	105.59	339.1	14	8	777	24	47	2		18	27 PP
RAPID CITY	106.35	46.0	14	18	777					18	35 PP
MOSCOW	107.54	326.7	14	15	777	24	55	2		18	50 PP
SODANKYLA	108.03	340.1	14	16	777					18	47 PP
KIRUNA	109.79	341.9	18	30	777					29	36 PKKP
PULKOVO	109.91	332.1	14	26	777	25	5	2		19	2 PP
LCO. MARQUES	111.40	239.2								19	24 PP
TACUBAYA	111.67	71.7	18	47	15	25	17	7		19	2 PP
ADDIS ABABA	111.80	277.2								17	19
NURMIJARVI	112.13	334.2	18	32	0	25	11	-1		29	26 PKKP
SIMFEROPOL	112.49	316.2	14	43	-230					19	25 PP
KSARA	113.36	304.1	14	45	-230					17	34 PKP
FAYETTEVILLE	114.44	53.2	18	35	-2	26	36	75		19	39
VERA CRUZ	114.57	71.8								19	48 PP
PRETORIA	115.22	237.9	18	14	-25						
UPPSALA	115.45	335.6	18	37	-2					19	33 PP
SCORESBY SD.	115.54	357.0								19	51 PP
BULAWAYO	116.71	243.9	18	42A	1						
FLORISSANT	116.82	49.5	18	40	-2					29	28 PS

ST. LOUIS 1	116.96	49.7	18 43	1				29 30	PS
LWOW	117.31	323.8	18 47	4	25 33	1		19 56	PP
HELWAN	117.80	300.5	18 42	-2				20 3	PP
WARSAW	117.91	327.2						20 1	PP
BUCHAREST	118.10	317.6	19 46K	62				28 6	
HERMANUS	118.45	225.4			25 51	15		20 14	PP
BROKEN HILL	118.46	250.0	18 49	4					
GOTEBORG	119.10	335.7	18 51	5					
KRAKOW	119.57	325.4	18 50	3				20 12	PP
BERGEN	119.67	340.7						20 9	PP
CHORZOW	119.98	326.0						25 2	
COPENHAGEN	120.19	333.7						20 20	PP
RACIBORZ	120.52	326.1	18 53	4				20 10	PP
MERIDA	120.57	69.4						30 12	PS
SOFIA	120.60	316.6	18 53	4				22 20	PKS
LWIRO	120.65	263.7	15 20	-209					
BUDAPEST	121.33	323.1	18 56	6				30 8	PS
HURBANOVO	121.63	323.8						31 42	PPS
BELGRADE	121.66	319.8	18 53	2				20 53	
VIENNA-H.	122.50	325.0	18 51	-2	25 54	5			
PRUHONICE	122.57	327.5	18 51A	-2				20 35	PP
PRAGUE	122.58	327.6	19 8	15				20 33	PP
COLLMBERG	122.61	329.4	18 51	-2	25 59	9		20 40	PP
HALLE	123.02	330.1	18 53	-1	26 7	16		20 45	PP
PLAUEN	123.52	329.0	18 57	2					
JENA	123.55	329.7	18 53	-2	25 59	6		20 36	PP
CHEB	123.65	328.5	18 55	0				30 39	PS
ZAGREB	123.97	322.6	18 56	0	25 56	2		30 37	
SONNEBERG	124.08	329.4	18 54	-2					
OTTAWA	124.41	37.6	18 55K	-1					
ABERDEEN	124.59	341.9						20 52	PP
WITTEVEEN	124.63	333.8	18 57	0					
LJUBLJANA	124.73	323.5	18 56	-1				20 42	PP
SANTA LUCIA	124.96	138.4	19 3	6				22 48	PKS
PENNSYLVANIA	125.18	43.5	19 4	6				20 46	PP
TRIESTE	125.39	323.4	18 58	0	25 58	0		20 45	PP
COLUMBIA	125.40	52.4	18 58	0				20 48	PP
TOLMEZZO	125.41	324.6	18 59	1				20 35	
SHAWINIGAN	125.53	35.1	18 58K	-1					
BREBEUF	125.61	36.6	18 57	-2				20 48	PP
BENSBERG	125.67	331.9	18 57	-2				20 49	PP
TARANTO	125.68	316.4						20 26	
DE BILT	125.78	334.0	18 58	-1				20 55	PP
HEIDELBERG	125.94	329.6	18 59	0				20 48	PP
STUTTGART	126.06	328.8	18 59	0				20 50	PP
TUBINGEN	126.32	328.6	19 4	4					
DURHAM	126.38	339.9	19 3K	3				20 59	PP
RAVENSBURG	126.49	327.6	18 59	-1					
EBINGEN	126.59	328.3	19 3	2					
STRASBOURG	126.95	329.4	19 4	3				21 6	PP
UCCLE	127.07	333.3	19 8	7	26 9	6			
CHUR	127.11	326.7	19 8	6					
DOURBES	127.46	332.5	19 3	1				30 51	PS
BASLE	127.72	328.5	18 48	-15					
PALISADES	127.74	41.5	18 57	-6				21 4	PP
PRATO	127.94	322.9	19 12	9				33 53	PS
ROME	128.15	320.1	19 2A	-2				21 2	PP
PAVIA	128.32	325.2	19 10	6				32 58	PPS
NEUCHATEL	128.39	328.3	19 12	8					
KEW	128.54	336.6	19 0	-4				22 31	PKS
WESTON	128.70	38.8	21 16	131				22 24	PP
BESANCON	128.73	329.1	19 10	5					
CHIAVARI	128.74	324.3	19 31	26	25 45	-23		21 17	PP
PARIS	129.34	332.6	19 6	0				21 21	PP
MONACO	130.19	324.7	19 9	2				22 34	PP
FOLINIERE	130.69	334.5	19 1	-7					
BALBOA HTS.	130.87	83.5	19 8	-1					
CLERMONT-FD.	131.19	329.4	19 8	-1	26 18	4			
HUANCAYO	131.48	111.9	19 16K	6				22 45	PKS
BANGUI	131.51	270.4						21 15	
HALIFAX	131.78	32.0	19 8	-2				22 36	PKS
LUANDA	134.35	251.4	19 20A	5				21 55	PP
CHINCHINA	134.64	89.1	19 3	-13				22 47	SKP
GALERAZAMBA	135.07	80.9	19 11	-6				22 57	SKP
SETIF	135.87	317.6	19 16	-2				22 47	
TORTOSA	135.98	326.3	19 43	25				22 57	
LA PAZ	136.13	121.4	19 12	-7				22 2	PP
BOGOTA	136.16	89.7	19 24	5				21 57	PP
ALGIERS UNI.	137.07	319.9	19 17	-3				22 6	PP

ALICANTE	138.22	324.4	19 23	1	26 32	4				
TOLEDO	139.08	329.0	19 24	0					22 23	PP
RELIZANE	139.29	320.6	19 23	-1					22 11	PP
SERRA PILAR	140.25	334.4	19 23A	-3	26 27	-4	19 35		22 24	PP
ALMERIA	140.40	324.4	19 24A	-2					22 22	PP
GRANADA	140.81	325.7	19 23K	-4	27 20	48			22 38	PP
MALAGA	141.58	326.0	19 27A	-1	26 35	2			22 37	PP
TAMANRASSET	141.94	299.4	19 25	-4					23 16	PKS
LISBON	142.46	332.7	19 28K	-2					22 46	PP
SAN JUAN	142.81	67.6	19 24	-7					23 13	
CARACAS	143.27	80.7	19 16A	-15					22 39	PP
ST. KITTS	146.19	67.9	19 35	-1						
DOMINICA	147.93	71.0	19 41	2						
FORT FRANCE	148.29	71.9	19 42	2					20 40	
PONTA DELGDA	148.31	353.4	19 46A	6					19 56	PKP2
ST. VINCENT	148.47	74.9	19 42	2						
TRINIDAD	148.68	79.7	19 43	3						
LOME	148.91	271.7	19 52	11					23 34	PP
BARBADOS	150.08	74.4	19 49	6						
MBOUR	164.76	303.5	20 7	6					24 49	

JULY 31 7.H 4.M 37.S EPICENTRE -5.90 150.24 DEPTH= 55.KM

A=-0.86354 B= 0.49381 C=-0.10217 D= 0.4964 E= 0.8681
G= 0.0887 H=-0.0507 K=-0.9948 HT= 7.0

DEPTH OF FOCUS= 0.003R

SE= 3.74

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	2.56	48.8	0 41	1				
PORT MORESBY	4.63	221.2	1 6	-3	1 54	-8		
CHARTERS TS.	14.62	195.0	3 19	-6	6 4	-2		
KOUMAC	19.95	138.2	4 28	-2	8 16	10		
GUAM	20.00	344.2	4 33	3	8 22	15		
BRISBANE	21.50	173.8	4 43K	-2	8 24	-12		
NOUMEA	22.61	137.7	5 2	6				5 30
RIVERVIEW	27.80	178.4	5 38K	-7	10 25	2		
CANBERRA	29.30	182.1	5 56	-3	10 47	0		
BAGUIO CITY	36.78	307.5	7 15	11				
FORT NELSON	36.96	183.5						14 2
AFIAMALU	38.21	104.9	7 9	-7				
KARAPIRO	39.31	147.8	7 24	-1				
MUNDARING	41.01	226.4	7 38	-1				
ROXBURGH	42.78	160.2			14 13	0		
TUKUBASAN	42.97	347.9	7 54A	-1	14 9	-7		10 16 PPP
MATUSIRO	43.70	345.9	8 1	0	14 48	22		18 54
HONG KONG	45.08	309.6	8 13	1				15 9 *SS
NANKING	48.20	323.5			15 51	20		
VLADIVOSTOK	51.55	342.9	8 57	-5				
CHANGCHUN	54.38	338.0	9 24	1	17 0	5		
UGLEGORSK	55.22	353.5						10 13 PCP
PEKING	55.44	328.5	9 30	-1				
KUNMING	55.52	305.8			17 22	11		
PETROPAVLOVK	59.13	5.9						10 35 PCP
SHILLONG	64.70	301.7	10 33	-1				
MAGADAN	65.25	0.3			19 15	0		
LHASA	66.85	305.6	10 49	1	19 38	3		
CAPE HALLETT	67.47	173.5	10 57	5	19 44	2		24 17 SS
YAKUTSK	69.55	349.8	11 10	5				
IRKUTSK	69.84	331.9	11 6	0				
MIRNY	72.00	200.7	11 18	-1	20 33	-2		
SCOTT BASE	72.43	176.4	11 28	6				
MAWSON	83.57	202.7	12 23	0				
COLLEGE	83.83	22.3	12 22	-2				
BYRD STATION	84.27	169.9	12 26	-1				
ANDIJAN	84.70	311.8	12 31	2				
SHASTA	91.82	49.5	13 5	2				
LICK	92.05	52.9	13 3	-1				
MINERAL	92.38	49.9	13 7A	2				
FRESNO	93.46	53.6	13 11	1				
PASADENA	94.59	56.3	13 16	1	24 31	10		25 51 PS
KHEYS	96.14	350.5						23 51
EUREKA	96.64	51.0	13 26	1				
HUNGRY HORSE	98.19	42.1	13 32	0				

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TIFLIS	105.42	311.5							18 19	PP
SIMFEROPOL	112.51	316.4							19 18	PP
SCORESBY SD.	115.31	357.1							29 29	PS
PRUHONICE	122.52	327.7	18 51	2					20 58	
COLLMBERG	122.55	329.6	18 50	1						
JENA	123.49	329.9	18 51	0						
LJUBLJANA	124.70	323.7	18 53A	0						
STUTTGART	126.00	329.0	18 57	1						
DURHAM	126.25	340.2	18 54A	-2					38 0	SS
PALISADES	127.37	41.5							38 55	SS
FOLINIERE	130.59	334.8							22 27	
HUANCAYO	131.31	111.6	19 11	5					22 35	PKS
SETIF	135.88	318.0	19 16	2					22 44	
LA PAZ	136.00	121.0	19 19	4						
MALAGA	141.54	326.4	19 30	5						
TAMANRASSET	142.07	299.9	19 24	-2					23 3	PKS
SAN JUAN	142.45	67.5	19 21	-5						
CARACAS	142.95	80.4	19 13K	-14	26 35	6				
ST. KITTS	145.83	67.7	19 35	3						
DOMINICA	147.57	70.7	19 35	0						
FORT FRANCE	147.94	71.7	19 42	6						
ST. VINCENT	148.13	74.6	19 41	5						
TRINIDAD	148.35	79.3	19 41	5						

JULY 31 14.H 54.M 54.S EPICENTRE -43.85 -75.52 DEPTH= 0.KM

A= 0.18088 B=-0.70046 C=-0.69039 D=-0.9682 E=-0.2500
G=-0.1726 H= 0.6685 K=-0.7234 HT= -3.1

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	
SANTA LUCIA	11.07	21.7	2 37	-6	4 52	4			
PORT STANLEY	14.20	129.7	3 26	2					
ANTOFAGASTA	20.54	13.4	4 49	7					
ARGENTINE I.	22.34	167.5	5 1	0					
LA PAZ	27.98	15.3	5 56	2	10 46	8			
HUANCAYO	31.69	0.4	6 29	2				7 11	*SP
BYRD STATION	39.59	191.0	7 35	0				9 21	PCP
SOUTH POLE	46.34	180.0	8 29	0				10 3	PCP
BOGOTA	48.27	1.9	8 48	3	15 50	6			
CHINCHINA	48.60	359.9	8 46K	-1	15 51	2			
BALBOA HTS.	52.69	355.0	9 18	0					
SCOTT BASE	52.89	193.6	9 20A	0	18 54	126			
CARACAS	54.65	10.4	9 25	-8	17 4	-8			
CAPE HALLETT	55.50	199.8	9 38A	-1	17 30	7	10 2	11 38	PP
SAN JUAN	62.52	10.1	10 24	-4					
TACUBAYA	66.58	335.6	10 55K	1	19 41	-4			
MIRNY	69.58	175.1	11 10	-3					
HERMANUS	70.19	118.9						20 40	PS
WELLINGTON	74.34	227.5	11 42	1					
GRAHAMSTOWN	75.49	122.3	11 46	-2					
KARAPIRO	76.29	230.3	11 51	-1					
WINDHOEK	76.53	108.3	11 54K	0					
KIMBERLEY	77.48	117.8	11 57	-2					
MBOUR	78.73	57.5	12 9	3	22 9	6			
CHAPEL HILL	79.46	357.1	12 9	-1					
LUBBOCK	80.72	338.0	12 17	1					
FAYETTEVILLE	81.36	344.8	12 18K	-2	22 30	0			
TUCSON	82.32	330.4	12 25	0					
TUCSON TELE.	82.36	330.5	12 25	0				15 36	PP
LUANDA	83.16	95.5	12 32K	3					
MORGANTOWN	83.20	356.6	12 30K	1					
PENNSYLVANIA	84.30	358.2	12 35	0	22 57	-3			
LAWRENCE	84.35	344.7	12 33	-2					
PALISADES	84.49	1.2						23 4	
BULAWAYO	85.97	114.0	12 44K	1					
PASADENA	86.82	325.8	12 48	1	23 44	19		24 34	PS
GLEN CANYON	86.85	331.8	12 49	1					
BOULDER CITY	87.12	329.0	12 48	-1	23 34	6			
HALIFAX	88.73	8.5	13 5A	8					
BREBEUF	88.98	1.3	12 52	-6					
FLAMING GRGE	89.74	335.0	13 1	0	23 42	-10		13 42	
FRESNO	89.75	325.9	13 2	1					
BROKEN HILL	89.90	109.9	13 3K	1					

SHAWINIGAN	90.05	1.9	13	3	0						
RUTH	90.06	330.4	13	15	12					24	14
RAPID CITY	90.97	340.4	13	6	-1						
LICK	90.99	324.9	13	8K	1						
CANBERRA	91.40	215.0	13	8	-1						
BERKELEY	91.70	324.8	13	8	-2						
RIVERVIEW	91.76	217.3	13	13	2					25	38 PS
RENO	92.14	327.3	13	15	3						
SHASTA	94.15	326.2	13	22	0						
BOZEMAN	94.55	335.9	13	24	0						
BUTTE	95.33	335.1	13	27	0						
BRISBANE	96.43	221.9				24	3	-6		40	23
HUNGRY HORSE	97.86	335.2	13	34	-5					17	38 PP
LWIRO	98.74	101.6	13	52	9						
TAMANRASSET	99.31	67.5	13	47	2	24	25	1		17	48 PP
MALAGA	102.88	51.3								18	24 PP
ALGIERS UNI.	107.24	55.5	18	7	777					18	33 PP
PARIS	114.75	45.4								19	40 PP
KEW	115.03	41.9								40	19 SS
MESSINA	115.84	61.1								19	53 PP
ROME	116.14	56.2								19	46 PP
PAVIA	116.15	51.7								19	57 PP
DURHAM	116.53	38.5								20	1 PP
DOURBES	116.63	45.2				25	29	-9		20	1 PP
STRASBOURG	117.39	48.0								20	3 PP
ABERDEEN	117.81	36.2	18	31	-17					20	26
STUTTGART	118.32	48.5	18	49	0	25	47	3	19 15	20	14 PP
TRIESTE	119.05	53.4								20	18 PP
LJUBLJANA	119.72	53.3								20	18 PP
HELWAN	121.62	77.5								20	30 PP
COLLMBERG	121.71	47.5	18	56	0				19 23	20	39 PP
PRUHONICE	121.86	49.5	18	56	0					20	33
COLLEGE	122.03	331.3	18	55	-2					20	33 PP
BRATISLAVA	122.35	52.3								20	35 PP
COPENHAGEN	123.67	42.9								20	50 PP
LWOW	127.14	53.3	19	6	0						
UPPSALA	128.03	39.8	19	6	-2						
NORD	128.89	9.3	19	6	-4						
LEMBANG	129.47	184.0	19	12A	1						
SIMFEROPOL	131.21	62.7	19	19	5						
NURMIJARVI	131.55	40.6	19	14	-1					22	40 PKS
KIRUNA	131.85	30.5	19	14	-1						
PULKOVO	134.06	42.6	19	13	-7						
SODANKYLA	134.07	31.8	19	18	-2						
SHIRAZ	136.71	91.2	19	25	1					22	8 PP
TIFLIS	136.98	71.3	19	26	1						
MAKHACH-KALA	139.31	70.7	19	29	0						
KHEYS	139.71	10.6	19	21	-9						
PETROPAVLOVK	143.71	304.2	19	34	-3						
QUETTA	147.36	102.0	19	45K	2					23	10 PP
MANILA	147.64	211.1	19	45	1						
MAGADAN	148.06	315.9	19	55	11						
NHATRANG	148.22	188.8	19	48	4					20	9
BAGUIO CITY	149.43	211.6	19	50	4						
SVERDLOVSK	149.71	49.0	19	52	5						
TIKSI	149.73	344.9	19	54	7						
TUKUBASAN	151.85	266.6	19	50	0					43	42 SS
WARSAK DAM	152.71	99.9								20	11 PKP2
AGRA	152.92	119.3	19	53K	1						
MATUSIRO	153.35	265.7	21	0	68					23	46 PP
UGLEGORSK	153.78	294.8	19	52	-1						
NAMANGAN	155.70	85.4	19	58	3						
ANDIJAN	156.13	86.3	19	58	2						
YAKUTSK	156.55	329.6	19	53	-3						
CHATRA	157.99	134.8	19	58	0						
FRUNSE	158.31	82.3	19	59	0						
SHILLONG	159.07	146.5	19	59K	-1						
ALMATA	160.07	82.1	20	0	-1						
KUNMING	161.26	175.1	20	2	0					24	29 PP
LHASA	162.22	138.5	20	5	2					24	36 PP
CHANGCHUN	164.97	277.1	20	7	1					24	48 PP
CHENGTU	166.82	178.2	20	7	0					24	55 PP
PEKING	170.49	250.3	20	9	0					25	18 PP
IRKUTSK	171.58	0.7	20	8	-2						
LANCHOW	172.19	176.1	20	11	1					25	24 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.

JULY 31 22.H 26.M 53.S EPICENTRE 28.07 54.42 DEPTH= 0.KM

A= 0.51417 B= 0.71871 C= 0.46807 D= 0.8133 E=-0.5818
G= 0.2723 H= 0.3807 K=-0.8837 HT= 2.4

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
SHIRAZ	2.29	313.8	0 42K	2	1 21	12		0 56 PG
TEHERAN	8.07	342.2	2 3	1	3 34	-1		
QUETTA	11.16	76.1	2 44A	0	4 42	-9		2 57 PP
TIFLIS	15.72	332.5						4 29
WARSAK DAM	15.82	63.8	3 47	1				
MAKHACH-KALA	15.89	341.2	3 49	2	6 49	5		
KSARA	16.90	294.4	4 0	0	7 18	11		
LAHORE	17.62	73.8	4 9A	0				
NAMANGAN	19.14	43.2	4 30	3				
SOTCHI	19.49	326.4	4 33	2				
HELWAN	20.28	280.6	4 57	17	8 31	8		
DEHRA DUN	20.75	78.1	4 46	1				8 43
AGRA	20.93	87.0	4 49K	2	8 35	-1		
FRUNSE	22.00	42.7	5 1	3				
SIMFEROPOL	23.35	321.6	5 11	0				
ALMATA	23.67	44.2	5 15	1				
ADDIS ABABA	24.01	220.9	5 17	0	9 44	12		
ISTANBUL KA.	24.47	308.6	5 22	0				
ATHENS	27.46	299.0	5 51	1				
BUCHAREST	27.88	313.4			10 29	-8		
CHATRA	29.04	84.7	6 4	0				10 26
SOFIA	29.06	308.4	5 58	-6				
LWOW	31.75	321.5						8 48
LHASA	32.03	78.3	6 31	0				
SHILLONG	33.43	85.4	6 40	-3				
KRAKOW	34.17	319.5			12 5	-11		14 55 SSS
BRATISLAVA	35.10	315.1	6 54	-3				
PULKOVO	35.72	339.3	7 1	-1	12 36	-4		
LJUBLJANA	36.10	310.7	7 5A	-1				8 27 PP
TRIESTE	36.51	309.8	7 11	2	12 53	1		8 37 PP
ROME	36.66	303.3	7 7	-3	12 51	-3		8 14
TOLMEZZO	37.19	310.8	7 14	-1				9 9
PRUHONICE	37.31	316.9	7 17	1				8 45
NURMIJARVI	38.16	336.6	7 22	-1	13 15	-2		
COLLMBERG	38.71	318.4	7 26	-2			7 51	9 3 PP
LWIRO	38.93	223.4	7 29	0				16 47
HALLE	39.39	318.3	7 34	1				
JENA	39.42	317.3	7 20	-14				9 9
SONNEBERG	39.48	316.4	7 35	1				
STUTTGART	40.24	313.4	7 41	1			8 18	
UPPSALA	40.42	332.2	7 40	-2				
COPENHAGEN	40.72	324.5	7 45	1	13 56	0		
BASLE	41.08	311.2	7 36	-11				
APATITY	41.49	348.0	7 50K	-1				
GOTEBORG	41.84	327.1	7 55	2				
SETIF	41.93	294.0	7 54	0	14 13	0		9 35 PP
LANCHOW	42.25	66.2	7 57	0				
SODANKYLA	42.77	344.6	8 0	-1				
KUNMING	43.09	82.4	8 4	0				
UCCLE	43.81	315.3	8 10A	1	14 34	-7		
TAMANRASSET	44.25	274.6	8 11A	-2			8 37	9 59 PP
KIRUNA	44.67	342.4	8 10	-7				10 3
FOLINIERE	46.59	311.8	8 29	-3				
KEW	46.82	315.5	8 35	1	15 22	-2		
TANANARIVE	47.18	188.9	8 39	3				8 54
PEKING	51.61	59.7	9 10	0				
CHANGCHUN	57.83	53.9	9 55	-1				
TIKSI	58.73	20.9	9 59	-3	17 48	-18		
YAKUTSK	58.77	32.2	10 0	-2	18 4	-3		
KIMBERLEY	63.23	209.1	10 39A	6				
GRAHAMSTOWN	66.53	205.2	10 51	-3				
MATUSIRO	69.24	58.9	11 7	-4				
COLLEGE	85.76	9.3	12 40	-3				
RABAUL	98.80	90.1						18 53 PP
RIVERVIEW	110.22	118.2						18 58 PP
SOUTH POLE	117.91	180.0	18 47	-2				
BYRD STATION	127.89	181.3	19 8	0				
HUANCAYO	130.53	278.3	19 17	4				

AUGUST 1 2.H 20.M 50.S EPICENTRE 28.12 54.38 DEPTH= 62.KM

A= 0.51440 B= 0.71804 C= 0.46884 D= 0.8129 E=-0.5824
G= 0.2730 H= 0.3811 K=-0.8833 HT= 2.4

DEPTH OF FOCUS= 0.005R

SE= 1.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SHIRAZ	2.23	313.5	0	35K	0						0	55	PG
TEHERAN	8.01	342.3	1	57	1	3	35	9					
QUETTA	11.18	76.4	2	37K	-2	4	35	-8			2	56	*SP
KARACHI	11.80	103.2				4	57	-1					
TIFLIS	15.66	332.5	3	39	1								
WARSAK DAM	15.83	64.0	3	40	0								
MAKHACH-KALA	15.83	341.2	3	41K	1								
STALINABAD	15.90	45.3	3	42	1	6	43	8					
KSARA	16.85	294.3	3	53	0	7	11	14					
LAHORE	17.64	74.0	3	59	-4								
BOMBAY	19.22	114.5	4	37	16	8	0	10					
ANDIJAN	19.42	44.9	4	25A	2								
SOTCHI	19.43	326.4	4	23	-1								
HELWAN	20.24	280.5	4	31A	-1	8	22	11					
POONA	20.24	113.9	4	32	0	8	25	14					
SIMFEROPOL	23.29	321.5	5	3A	0						9	15	
ALMATA	23.65	44.3	5	9	3								
ADDIS ABABA	24.02	220.8	5	11	1	9	38	19					
ISTANBUL KA.	24.42	308.6	5	14	1								
SOFIA	29.00	308.3	7	7	71	12	47	126			8	18	PP
SVERDLOVSK	29.04	7.1	5	58	2	10	45	3					
CHATRA	29.07	84.8	5	57	1								
MOSCOW	30.11	341.0	6	7	1	11	5	6					
LWOW	31.69	321.5	6	20	1	11	23	0					
LHASA	32.05	78.3	6	24	1	11	41	12					
SHILLONG	33.46	85.5	6	34	-1								
MESSINA	33.82	297.4	6	38	0								
KRAKOW	34.11	319.4	6	40	0	12	12	11			8	10	PPP
WARSAW	34.57	323.4	6	46	2	12	16	8			8	14	PPP
ZAGREB	35.00	310.8	6	50	2	12	23	8					
BRATISLAVA	35.04	315.1	6	48	0	12	22	7	7	12			
RACIBORZ	35.13	318.6	6	49	0				7	5	8	12	PP
VIENNA-H.	35.52	314.9	6	52	-1								
PULKOVO	35.66	339.3	6	51	-3	12	29	4					
LJUBLJANA	36.04	310.6	6	57A	0						8	25	PP
TRIESTE	36.45	309.8	7	1	1	12	46	9			8	26	PP
ROME	36.61	303.3	6	59A	-3	12	43	4			8	26	PP
TOLMEZZO	37.13	310.8	7	5	-1						8	36	PP
PRUHONICE	37.26	316.9	7	6A	-1	12	56	7			8	39	PP
PRAGUE	37.36	317.0	7	6	-2	12	51	0			8	42	PP
PADOVA	37.68	308.9	7	14	3						8	44	PP
PRATO	37.93	306.2	8	10	57	14	10	71					
NURMIJARVI	38.10	336.6	7	15	1	13	6	4					
COLLMBERG	38.65	318.4	7	19	0	13	5	-5			8	56	PP
PLAUEN	38.87	316.8	7	20	-1								
LWIRO	38.94	223.4	7	22A	1								
HALLE	39.33	318.3	7	25	1	13	25	4	7	52	9	47	PPP
JENA	39.36	317.3	7	25	0	13	25	4			9	2	PPP
SONNEBERG	39.42	316.4	7	26	1								
PAVIA	39.51	307.9	7	28	2	13	44	21			17	3	SCS
CHUR	39.58	310.6	7	26	0						13	29	
RAVENSBURG	39.72	312.0	7	27	-1								
STUTTGART	40.18	313.4	7	31	0	13	57	24			9	8	PP
EBINGEN	40.24	312.4	7	31	-1								
TUBINGEN	40.26	313.0	7	32	0								
UPPSALA	40.36	332.2	7	32	-1						8	57	PP
MONACO	40.53	305.4	7	31	-3								
COPENHAGEN	40.66	324.5	7	36A	1	13	45	4					
HEIDELBERG	40.69	314.2	7	35	-1								
BASLE	41.02	311.2	7	39K	1						13	53	
STRASBOURG	41.11	312.8	7	39	0	14	10	23			16	46	SS
APATITY	41.44	348.0	7	43K	1	13	57	5			9	19	PP
GOTEBORG	41.78	327.1	7	45	0								
SETIF	41.88	293.9	7	45	0	14	3	4	8	13	9	29	PP
BESANCON	42.04	310.5	7	47	0								
SODANKYLA	42.71	344.6	7	53	1						9	32	PP

WITTEVEEN	42.83	318.7	7	55	2						
KUNMING	43.11	82.4	7	57K	2	14	29	12			
DE BILT	43.53	317.3	8	2	3	14	32	9		9	52 PCP
ALGIERS UNI.	43.73	294.9	8	0	0	14	33	7	8	30	9 46 PP
CLERMONT-FD.	43.80	307.9	8	1	0						
IRKUTSK	44.01	42.6	8	5	2						
TAMANRASSET	44.21	274.6	8	4A	0	14	41	8	8	18	9 51 PP
KIRUNA	44.61	342.4	8	8	0						9 45 PP
TORTOSA	45.54	300.8	8	20	5						15 2
RELIZANE	45.84	293.7	8	15	-2						
FOLINIERE	46.54	311.8	8	22	-1						
KEW	46.76	315.5	8	25	0	15	12	3			18 41 SS
PAOTOW	46.89	59.5	8	28	2						
TANANARIVE	47.23	188.8	8	31K	3				8	45	
DURHAM	48.04	319.8	8	29	-6	15	17	-10	9	5	10 23 PP
ALMERIA	48.14	295.6	8	36A	1						
ABERDEEN	48.79	322.9				15	52	14			19 38
GRANADA	48.99	296.2	8	56K	14						9 58 PCP
TOLEDO	49.06	299.8	8	42	0	15	51	10	9	9	
BROKEN HILL	49.20	214.0	8	42A	-2						
MALAGA	49.69	295.7	8	45K	-2						10 54 PP
PEKING	51.61	59.7	8	3K	-59	15	26	-51			
SERRA PILAR	52.39	301.8	9	1K	-7						11 23 PP
LISBON	53.13	298.9	9	14K	1						
BULAWAYO	54.06	210.3	9	18A	-2						
NANKING	55.13	69.0	9	29	1						
CHANGCHUN	57.83	53.9	9	47	0	17	48	8			
YAKUTSK	58.74	32.3	9	53	0						
SCORESBY SD.	59.22	337.7	9	58	1	18	11	13			
NORD	59.61	350.7	9	59	0						
MBOUR	67.08	274.5	9	50	-59	19	47	11			
MATUSIRO	69.24	58.9	11	2	0	20	9	7			
MAGADAN	69.32	32.8	11	5	3						
PETROPAVLOVK	75.99	37.1	11	41K	-1						
MUNDARING	83.83	131.1	12	24	0						
COLLEGE	85.71	9.3	12	34	1				13	12	
PALISADES	96.19	323.3									26 10 PS
HUNGRY HORSE	103.18	352.1	13	57	4						17 16
FLAMING GRGE	109.67	347.0	18	16	777						29 2 PKKP
SOUTH POLE	117.96	180.0	18	39	0						22 15
TUCSON TELE.	118.23	345.7	19	55	75						
TUCSON	118.34	345.8	18	48	8						19 57 PP
SCOTT BASE	121.97	166.6	18	49	2						
CAPE HALLETT	124.34	160.5	18	55	3						
LA PAZ	126.00	269.5	18	59	4						
BYRD STATION	127.94	181.3	19	1	2						
KARAPIRO	130.42	117.3	19	6	3						
HUANCAYO	130.49	278.3	19	9	5						22 32 PKS

AUGUST 2 5.H 7.M 26.S EPICENTRE -22.26 171.36 DEPTH= 111.KM

A=-0.91585 B= 0.13916 C=-0.37663 D= 0.1502 E= 0.9887
G= 0.3724 H=-0.0566 K=-0.9264 HT= 4.1

DEPTH OF FOCUS= 0.012R

SE= 1.75

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SUVA	7.80	59.6	1	52	0	3	34	15					
ONERAHI	13.71	169.6	3	10	0	5	49	9			5	39	
KARAPIRO	16.03	168.0	3	39K	-1	6	50	16	3	56			
TUAI	17.22	164.6	3	55	1	7	9	9			15	36	SCS
TONGARIRO	17.26	169.0	3	55K	0				4	12			
CHATEAU	17.26	169.0	3	55K	0				4	13			
BRISBANE	17.62	249.4	4	0	1	7	15	6					
AFIAMALU	18.04	65.4	4	3K	-1	7	25	6					
COBB RIVER	18.80	176.8	4	13	0	7	47	12					
WELLINGTON	19.18	172.2	4	16K	-1	7	59	16			5	9	
KAIMATA	20.20	179.9	4	28	0	8	39	36			5	9	
RIVERVIEW	21.19	232.7	4	40K	2	8	31	9	4	54	5	6	PP
GEBBIES PASS	21.41	177.4	4	38	-2	8	36	11	5	5			
ROXBURGH	23.22	183.6	4	59	2	9	6	8					
CANBERRA	23.46	231.4	5	2K	2	9	12	10	5	30	12	0	SCP
CHARTERS TS.	23.50	270.6	5	0	0	9	9	7					

RABAUL	25.85	311.2	5 31	9					12 24	SCP
PORT MORESBY	26.52	295.0	5 28	-1	9 54	1			12 24	SCP
MELBOURNE	27.49	229.7	5 37	-1	10 15	7	6 4		6 27	PP
FORT NELSON	28.70	218.5	6 2	14	10 35	7				
ADELAIDE	31.18	238.8	6 10A	0	11 9	2			7 14	PP
GUAM	44.06	321.2	7 58	0					9 41	PP
MUNDARING	49.58	246.4	8 40A	-1	15 41	1				
PERTH	49.91	246.4	8 44	0	15 49	5				
CAPE HALLETT	50.08	180.5	8 45A	0	15 46	0			10 45	PP
HONOLULU	52.56	36.6	9 20	16	16 52	32				
KIPAPA	52.70	36.6	9 4	-1						
HAWAII V.OB.	52.73	40.7	9 6	1	16 27	4				
SCOTT BASE	55.69	181.2	9 27A	0	17 9	7	9 46		11 34	PP
MANILA	61.44	302.0	10 24	17	18 22	5				
LEMBANG	63.16	273.6	10 17A	-1	18 42	3				
DJAKARTA	64.13	273.9	10 25	1	18 56	5				
BYRD STATION	64.63	169.6	10 25	-3	19 0	3			13 55	
TUKUBASAN	65.24	332.5	10 30A	-2	18 59	-5			13 0	PP
ABUYAMA	66.20	328.3	10 37A	-1						
MATUSIRO	66.34	331.3	10 37	-2	19 8	-10			13 1	PP
SOUTH POLE	67.87	180.0	10 47	-1	19 36	0			29 6	PKKP
NHATRANG	69.89	293.0	11 1A	0					11 3	PCP
KURILSK	70.50	342.6	11 0	-4	20 5	-2				
HONG KONG	71.17	304.7	11 6	-2	21 9	54				
ZO-SE	71.62	316.0	11 9A	-2			11 25		11 43	*SP
CANTON	72.25	304.9	11 16A	1	20 37	10			14 5	PP
NANKING	73.80	315.4	11 23A	-1			11 39		11 52	*SP
SEVERO-KUR.	73.85	350.0	11 23	-1					14 8	PP
VLADIVOSTOK	74.50	331.1	11 26	-2					14 16	PP
MEDAN	75.41	280.1	11 32	-1						
WUHAN	75.68	311.8	11 34A	0					14 25	PP
PETROPAVLOVK	75.77	352.1	11 34	-1	21 13	7	12 7		14 25	PP
CHANGCHUN	78.15	327.8	11 48A	0	21 38	6			12 20	*SP
KLYUCHI	78.77	354.1	11 51	-1						
OKHA	79.40	343.2	11 55	0					21 53	
SIAN	81.72	312.1	12 8A	1	22 19	10				
ARGENTINE I.	83.02	159.5	12 13	-1	22 24	2				
MAGADAN	83.24	349.6	12 13	-2	22 27	2				
CHENGTU	83.32	306.8	12 15A	0	22 32	7			15 28	PP
PAOTOW	84.58	317.8	12 23A	1	22 39	1				
BERKELEY	86.36	46.6	12 32A	2	23 2	7	12 55		16 8	PP
VINEYARD	86.37	47.9	12 32A	1						
UKIAH	86.39	45.1	12 31	0					12 55	
LICK	86.50	47.3	12 32A	1			12 56			
PASADENA	87.34	51.5	12 35A	0	23 13	9			16 1	PP
FRESNO	87.48	48.6	12 37	1						
SHASTA	87.76	44.1	12 38A	1						
MINERAL	88.09	44.8	12 38A	-1						
RENO	88.86	46.2	12 44A	2						
CHITTAGONG	89.24	294.4	12 46A	2	23 28	6			16 14	PP
YAKUTSK	90.32	341.7	12 49	0						
BOULDER CITY	90.62	51.2	12 52	1			13 15		16 55	PP
SITKA	90.75	26.0	12 51	0			13 15			
VICTORIA	91.33	37.1	12 54	0						
EUREKA	91.43	47.6	12 55	1	23 48	6	13 19		16 37	PP
TUCSON	91.96	56.0	12 23	-34					12 53	
RUTH	91.99	48.2	12 59A	2	23 59	12				
TUCSON TELE.	92.09	55.9	12 23	-35					30 15	PKKP
COLLEGE	92.36	16.2	12 57	-2	23 58	8	13 21		25 19	PS
LHASA	92.85	300.8	13 3A	2	24 7	13			23 28	SKS
GLEN CANYON	93.40	51.4	13 5	1	24 22	23			16 53	PP
PENTICTON	93.89	37.8	13 6A	0						
CHIHUAHUA	94.25	60.9	13 14	7					14 8	
IRKUTSK	94.30	325.4	13 7A	-1	23 34	-32			24 13	SCS
FLAMING GRGE	96.60	48.5	13 18	0	23 51	8	13 42		24 40	S
TACUBAYA	96.65	71.9							17 24	PP
HUNGRY HORSE	96.70	40.4	13 17	-2					17 13	PP
BOZEMAN	97.41	43.7	13 22	0						
SANTA LUCIA	99.04	131.6	13 25	-4	23 51	-5			26 45	PS
VERA CRUZ	99.29	73.1							18 58	
LARAMIE	99.40	49.3	13 29	-2					17 38	
RAPID CITY	102.01	47.3	13 54	12					17 53	PP
LAWRENCE	106.18	54.1	15 2	777						
FAYETTEVILLE	106.21	57.2	14 13	777	23 48	-41			18 46	PP
SEMIPALATNSK	107.51	317.9							18 35	PP
FRUNSE	109.58	309.2	18 18	777					18 48	PP
FLORISSANT	109.82	55.3							28 28	PS
WARSAK DAM	109.92	299.5	18 23	777						
LA PAZ	110.17	118.3							18 58	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.

RESOLUTE	112.28	16.7	19	7	45				19 38	
QUETTA	112.83	294.5	18	25A	2					
BOGOTA	114.46	95.2				27	26	143	19 37	PP
FUQUENE	115.09	94.4							19 29	PP
SVERDLOVSK	119.66	323.7	18	36	-1	25	25	3	19 57	PP
KIMBERLEY	119.92	213.9	19	13K	36					
ASHKABAD	121.13	301.8	18	40	1				20 10	PP
PALISADES	122.65	54.7	18	40	-2	26	16	44	20 18	PP
BREBEUF	122.91	49.4	19	11	28					
CARACAS	123.17	91.8	13	31	-12	25	44	11		
SHAWINIGAN	123.47	48.1	18	43	-1				20 24	
BULAWAYO	124.33	223.5	18	47A	1					
WESTON	124.61	53.1	18	59	13					
SHIRAZ	125.05	291.3	18	47K	0	27	25	106		
SAN JUAN	126.22	83.0	18	49	0					
TEHERAN	126.55	298.7	18	51A	1				20 46	PP
APATITY	127.72	341.0	18	52	0				20 52	PP
TRINIDAD	128.33	93.9	18	55	2					
BROKEN HILL	128.48	228.3	18	55	1					
SODANKYLA	129.79	343.1	18	55	-1					
GORIS	130.54	303.5	18	59	1				21 14	PP
KIRUNA	130.98	345.9	18	58	0				22 13	PKS
SCORESBY SD.	131.13	5.9	19	0A	1				21 17	PP
TIFLIS	131.51	306.6	19	1	2				21 23	PP
MOSCOW	132.29	326.5	19	2	1				22 30	PKS
ADDIS ABABA	132.69	261.6	19	7	5				22 28	SKP
PULKOVO	133.58	333.9	19	3	0				21 33	PP
NURMIJARVI	135.27	337.3	18	59	-7				22 38	PKS
UPPSALA	138.11	340.4	19	8	-4					
SIMFEROPOL	138.43	313.4	19	10	-2				22 49	PKS
KSARA	139.34	296.4	19	15	1				22 6	PP
GOTEBORG	141.56	342.3	19	12	-6				20 18	
LWOW	142.38	325.1	19	17	-2				22 26	PP
WARSAW	142.38	330.1	19	18K	-1				23 0	PKS
FOCSANI	142.65	317.4	19	20	0					
COPENHAGEN	143.13	340.1	19	17A	-4				22 32	PP
HELWAN	143.45	290.5	19	20A	-1					
BUCHAREST	143.92	316.1	19	21A	-1				19 42	PKP2
CAMPULUNG	144.20	318.0	19	23	0					
KRAKOW	144.33	328.1	19	23	0				22 40	SKP
SKALNATE PL.	144.73	326.7	19	25	2					
RACIBORZ	145.14	329.4	19	26	2					
TIMISOARA	146.25	321.1	19	31	5					
COLLMBERG	146.49	335.2	19	26A	0					
SOFIA	146.49	315.0	19	27	1					
HURBANOVO	146.62	326.5	19	29	2					
HALLE	146.73	336.4	19	29	2					
PRAGUE	146.85	332.5	19	31	4					
PRUHONICE	146.86	332.3	19	27A	0					
BRATISLAVA	146.97	327.8	19	28	1					
DURHAM	147.11	352.5	19	24	-4					
BELGRADE	147.21	320.3	19	27K	-1					
VIENNA-H.	147.27	328.5	19	29A	1					
WITTEVEEN	147.31	342.7	19	30	2					
JENA	147.32	336.1	19	28	0					
PLAUEN	147.45	335.1	19	29	1					
SONNEBERG	147.91	335.9	19	29	0					
ATHENS	148.12	306.8	19	28K	-1					
DE BILT	148.36	343.7	19	33	3					
BENSBERG	148.81	340.6	19	30	0					
ZAGREB	149.11	325.4	19	28	-3					
HEIDELBERG	149.63	337.3	19	32	1					
LJUBLJANA	149.71	327.1	19	32A	0					
STUTTGART	149.95	336.0	19	32	0					
KEW	150.13	349.5	19	32	0					
TOLMEZZO	150.19	329.1	19	37	5					
TUBINGEN	150.22	336.0	19	32	0					
TRIESTE	150.37	327.3	19	33	1					
EBINGEN	150.55	335.7	19	33	0					
RAVENSBURG	150.62	334.5	19	32	-1					
STRASBOURG	150.66	337.5	19	34K	1					
CHUR	151.41	333.4	19	37	3					
PADOVA	151.46	328.9	19	42	8					
TARANTO	151.56	315.6								
BASLE	151.61	336.5	19	42	8					
PARIS	152.06	344.2	19	38	3					
BESANCON	152.42	338.2	19	37	2					
JERSEY	152.64	350.6								

RESOLUTE										
QUETTA										
BOGOTA										
FUQUENE										
SVERDLOVSK										
KIMBERLEY										
ASHKABAD										
PALISADES										
BREBEUF										
CARACAS										
SHAWINIGAN										
BULAWAYO										
WESTON										
SHIRAZ										
SAN JUAN										
TEHERAN										
APATITY										
TRINIDAD										
BROKEN HILL										
SODANKYLA										
GORIS										
KIRUNA										
SCORESBY SD.										
TIFLIS										
MOSCOW										
ADDIS ABABA										
PULKOVO										
NURMIJARVI										
UPPSALA										
SIMFEROPOL										
KSARA										
GOTEBORG										
LWOW										
WARSAW										
FOCSANI										
COPENHAGEN										
HELWAN										
BUCHAREST										
CAMPULUNG										
KRAKOW										
SKALNATE PL.							19	54		
RACIBORZ							19	48	20 11	*SPKP
TIMISOARA										
COLLMBERG									19 39	PKP2
SOFIA					26	38 16			22 50	SKP
HURBANOVO									20 19	*SPKP
HALLE							19	48	22 58	PP
PRAGUE										
PRUHONICE							19	52	22 54	PP
BRATISLAVA							19	50	20 7	*SPKP
DURHAM					26	15 -8			22 50	PP
BELGRADE									35 38	PPS
VIENNA-H.									23 1	PP
WITTEVEEN										
JENA					26	13 -10	20	10	22 52	PP
PLAUEN									23 24	PP
SONNEBERG							19	58		
ATHENS										
DE BILT					26	24 -1			23 6	PP
BENSBERG									19 50	PKP2
ZAGREB										
HEIDELBERG									23 12	PP
LJUBLJANA									23 14	PP
STUTTGART									23 11	PP
KEW									23 10	PP
TOLMEZZO							19	51	22 14	
TUBINGEN										
TRIESTE									23 16	PP
EBINGEN										
RAVENSBURG										
STRASBOURG					26	34 6	19	59	23 18	PP
CHUR										
PADOVA									23 40	PP
TARANTO									21 38	
BASLE									23 26	
PARIS									23 26	PP
BESANCON										
JERSEY									23 5	

FOLINIERE	152.76	348.2	19	37	1						
ROME	153.60	322.8	19	37A	0					23	34 PP
MESSINA	153.86	312.9	19	38	0	26	25	-6	20 2	23	34 PP
CLERMONT-FD.	154.66	340.5	19	39	0					23	40 PP
MONACO	154.79	331.9	19	39	0				20 4		
TORTOSA	159.95	339.4								24	21 PP
SERRA PILAR	161.19	359.9	19	37A	-9					20	22 PKP2
SETIF	161.51	321.8	19	48	1				20 12	24	8 PP
TOLEDO	162.01	348.5	19	44	-3					24	27 PP
ALGIERS UNI.	162.34	327.6	19	47	-1					24	19 PP
ALICANTE	162.50	338.2	19	42	-6	27	26	46		24	33 PKS
RELIZANE	164.35	331.2	19	50	0					24	24 PP
GRANADA	164.51	344.8	19	46A	-4					24	28 PP
ALMERIA	164.51	341.2	19	51K	1					24	33 PP
MALAGA	165.13	346.6	19	48K	-2	27	8	26		24	34 PP
TAMANRASSET	166.90	275.0	19	54A	2				20 18	24	46 PP
MBOUR	168.87	133.3								21	6 PKP2

AUGUST 2 6.H 14.M 45.S EPICENTRE 51.61-178.30 DEPTH= 0.KM

A=-0.62329 B=-0.01848 C= 0.78177 D=-0.0296 E= 0.9996
G=-0.7814 H=-0.0232 K=-0.6236 HT= -6.0

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	14.16	284.8	3	32	8								
MAGADAN	19.04	306.7	4	18	-8								
COLLEGE	20.55	38.1	4	40	-2	8	41	13			4	55	
UGLEGORSK	25.20	280.0	5	29	1								
SITKA	25.31	60.6	5	45	16						6	2	
YAKUTSK	29.48	311.0									6	31	
TUKUBASAN	33.18	258.8	6	39A	-1						9	22	
ALBERNI	33.51	72.5	6	45	2								
KIPAPA	34.02	144.7	6	47	0								
MATUSIRO	34.13	261.1	6	48	0						9	24	PCP
VICTORIA	34.67	73.0	6	54A	1								
PENTICTON	36.56	69.8	7	10	1								
CHANGCHUN	37.88	281.0	7	20	0								
SHASTA	39.33	83.5	7	34	2								
RESOLUTE	39.40	24.6	7	35	2						9	40	
MINERAL	40.02	83.4	7	39K	1								
HUNGRY HORSE	40.27	68.4	7	41	1						9	44	PCP
BERKELEY	41.10	86.9	7	48	1								
RENO	41.61	83.1	7	53K	2								
LICK	41.82	87.1	7	54K	1								
BUTTE	42.33	70.6	7	55	-2								
FRESNO	43.32	86.4	8	1	-4								
BOZEMAN	43.41	70.2	8	7	1								
EUREKA	43.96	80.6	8	12	1						9	54	PCP
KHEYS	44.40	348.7	8	15	1								
PASADENA	46.02	88.0	8	28	1								
BOULDER CITY	46.91	83.6	8	35	1								
FLAMING GRGE	47.14	74.7	8	36	1						13	55	SCP
GLEN CANYON	48.27	80.3	8	44	0								
ZO-SE	48.31	269.3	8	45	0								
RAPID CITY	48.89	67.6	8	49	0								
NANKING	49.16	272.1	8	50	-1								
LARAMIE	49.18	71.9	8	52	1								
TUCSON	51.86	84.4	9	12	0								
WUHAN	52.83	273.8	9	18	-1								
LAWRENCE	56.74	67.7	9	46	-1								
APATITY	58.79	346.3	9	59	-3								
CHENGTU	59.25	281.6	10	4	-1								
FAYETTEVILLE	59.32	69.5	10	4A	-2								
FLORISSANT	59.64	64.8	10	7	-1								
ST. LOUIS 1	59.83	64.9	10	8	-1	19	11	51					
SODANKYLA	59.87	349.1	10	8	-1								
KIRUNA	60.06	351.9	10	10	-1						10	55	PCP
NURMIJARVI	66.72	347.9	10	54	-1						11	22	PCP
WESTON	67.04	50.3	10	56	-1								
LHASA	67.76	289.9	11	4	3								
CHAPEL HILL	67.96	59.8	11	3	1								
UPPSALA	68.15	351.4	11	3	-1								
COLUMBIA	68.31	62.5	11	4	-1								

HALIFAX	68.83	44.1	11 6	-2	
SHILLONG	70.29	286.4	11 17A	0	
GOTEBORG	70.73	354.2	11 20	1	
CHATRA	72.12	290.6	11 29A	1	
CHITTAGONG	72.73	284.2	11 32	1	14 15 PP
DURHAM	73.95	2.0	11 48K	9	
CHARTERS TS.	77.84	213.9	11 59	-2	
PRUHONICE	78.20	351.6	12 1	-1	
STUTTGART	79.79	354.9	12 12	1	
FOLINIERE	79.98	1.5	12 13	1	
QUETTA	80.50	307.1	12 15	0	
TEHERAN	82.74	321.3	12 27A	0	
SHIRAZ	87.60	317.5	12 50K	-1	
SAN JUAN	88.77	61.6	12 56	0	
KARAPIRO	89.33	184.9	12 57	-2	
CANBERRA	91.19	206.2	13 7	-1	
CAPE HALLETT	123.88	184.2	19 0	0	
LWIRO	125.81	325.8	19 5K	1	
BYRD STATION	135.51	167.7	19 20	-2	22 48 PP
SOUTH POLE	141.42	180.0	19 24	-9	23 5 PP
BULAWAYO	142.19	316.1	19 31	-3	
PORT STANLEY	143.95	114.2	19 34	-3	
ARGENTINE I.	144.69	138.3	19 35	-3	
MAWSON	146.85	217.9	19 41	-1	
WINDHOEK	148.65	331.8	19 50A	5	
KIMBERLEY	151.38	314.1	19 56K	7	

AUGUST 2 9.H 30.M 22.S EPICENTRE -28.62-176.58 DEPTH= 0.KM

A=-0.87761 B=-0.05245 C=-0.47651 D=-0.0597 E= 0.9982
G= 0.4757 H= 0.0284 K=-0.8792 HT= 2.3

SE= 3.30

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ONERAHI	10.46	224.8	2 33	-1	4 49	16		
SUVA	11.38	335.2	2 46	-1				
KARAPIRO	11.38	213.3	2 40	-7	4 48	-8		
TUAI	11.41	205.5	2 47	0	4 44	-12		
CHATEAU	12.41	209.7	2 52	-8	5 18	-3		
WELLINGTON	14.47	207.0	3 34	6	5 53	-17		
COBB RIVER	15.20	212.3	3 46	9	6 11	-16		
AFIAMALU	15.30	17.9	3 31K	-8	5 42	-48		
NOUMEA	16.56	288.5	3 57	2	6 54	-5		
KAIMATA	16.93	211.9	3 59	-1	6 56	-12		
GEBBIES PASS	17.36	207.0	4 0	-5	7 2	-15		
PORT VILA	17.59	304.8	4 15	7				
KOUMAC	19.15	290.5	4 24	-3	7 13	-45		
BRISBANE	27.05	265.2	5 43	-2	10 8	-15		
RIVERVIEW	28.01	251.1	5 53	-1	10 57	19	6 47 PP	
CANBERRA	29.85	248.2	6 10	-1			7 13 PP	
MELBOURNE	33.26	243.9	6 39	-2				
CHARTERS TS.	34.79	275.7	7 2	8	13 11	46		
ADELAIDE	38.27	248.9	7 22K	-1			9 37	
RABAUL	38.35	303.5	7 23	-1				
PORT MORESBY	39.04	292.0	7 27	-3	13 4	-26		
CAPE HALLETT	44.33	185.7	8 15K	2	14 56	8	10 8 PP	
SCOTT BASE	49.90	184.6	8 58	1	17 14	67		
KIPAPA	52.87	21.8	9 18	-1				
BYRD STATION	56.45	169.9	9 45	-1				
MUNDARING	57.28	248.6	9 48	-3				
WILKES	57.30	207.3			17 44	-3		19 43 SCS
SOUTH POLE	61.54	180.0	10 20	-1	18 59	17	10 40	
MIRNY	64.27	206.4	10 37	-2	19 13	-3		
MAWSON	74.40	200.0	11 40	-1				
MATUSIRO	77.50	324.2	11 56	-3	21 43	-7		12 46
PASADENA	83.36	45.3	12 30	0	22 58	7		24 6 PS
LICK	83.41	41.1	12 31K	1				
BERKELEY	83.42	40.3	12 31	1	22 58	7		13 21
ZO-SE	83.90	310.2	12 32	-1				
FRESNO	84.10	42.5	12 34	0				
PETROPAVLOVK	84.11	345.3	12 31	-3	23 9	11		
SHASTA	85.32	38.2	12 40	0				
MINERAL	85.51	38.9	12 40K	-1				
UGLEGORSK	85.70	334.2	12 40A	-2	23 18	4		

RENO	85.96	40.4	12	44	1							
NANKING	86.10	309.7	12	43A	-1							
SANTA LUCIA	86.59	126.3	13	22	36	23	37	15			23 13	SKS
BOULDER CITY	86.63	45.7	12	47	1							
TUCSON	86.97	50.7	12	49	1							
TUCSON TELE.	87.09	50.7	12	49	0						14 4	
WUHAN	88.12	306.4	12	52A	-1							
EUREKA	88.16	42.4	12	53	-1				13	24		
GLEN CANYON	89.29	46.5	13	0	1							
CHANGCHUN	89.58	322.1	12	59A	-1							
VICTORIA	90.31	32.1	12	58	-6							
FLAMING GRGE	93.02	44.4	13	16	0							
BUTTE	94.20	38.9	13	20	-2							
HUNGRY HORSE	94.86	36.4	13	12	-13							
COLLEGE	95.84	11.9	13	27	-2				13	55	17 13	PP
CHENGTU	95.89	301.6	13	30	1							
RAPID CITY	98.57	44.3	13	42	0						30 39	PKKP
YAKUTSK	100.06	337.3									17 48	PP
BOGOTA	103.18	91.9				24	42	0			27 29	PS
PALISADES	117.22	56.1				25	42	2			26 56	SKKS
KIMBERLEY	119.40	201.5	18	50	-1							
QUETTA	125.29	288.3	19	2	-1							
BULAWAYO	125.76	209.5	18	54A	-10							
BROKEN HILL	130.80	212.8	19	16	3						22 40	
SHIRAZ	137.36	283.8	19	24	-1						23 4	PP
KIRUNA	139.46	350.2	19	29	0							
MOSCOW	143.54	327.6	19	32	-4							
PULKOVO	143.88	337.1	19	34	-3							
TIFLIS	144.07	302.5	19	35	-2							
NURMIJARVI	145.04	341.8	19	38	-1							
UPPSALA	147.31	346.7	19	43	0							
GOTEBORG	150.32	350.7	19	43	-5							
KSARA	151.83	288.8	20	1	11							
COPENHAGEN	152.19	349.0	19	56	6							
DURHAM	153.62	6.5	20	10A	18							
LWOW	153.64	329.1	20	2	10							
HELWAN	155.64	279.8	20	6	11							
COLLMBERG	156.23	345.0	20	6	10						20 24	PKP2
JENA	156.88	346.8	19	59	2						24 8	PP
KEW	157.00	6.0									20 27	PKP2
PRUHONICE	157.05	341.4	20	7A	10						20 28	PKP2
VIENNA-H.	157.99	336.4	20	32	34							
SOFIA	158.65	316.4	20	34	35							
STUTTGART	159.38	348.9	19	57	-3						24 13	PP
FOLINIERE	159.66	7.4	20	39	39							
STRASBOURG	159.79	351.6	20	38	38							
PARIS	159.83	1.8	20	3	3							
LJUBLJANA	160.53	336.3	20	2	1						20 42	PKP2
TOLMEZZO	160.71	339.5	20	44	43							
TRIESTE	161.14	337.1									20 45	PKP2
BESANCON	161.29	354.6	20	47	45							
TOLEDO	167.19	26.8	20	5	-2						26 6	PP
TORTOSA	167.60	10.4	19	42	-25							
MALAGA	169.58	37.2	20	6A	-3						21 18	PKP2
TAMANRASSET	173.88	198.5	20	12	1						25 32	PP

AUGUST 2 13.H 42.M 52.S EPICENTRE -4.23-104.49 DEPTH= 281.KM

A=-0.24956 B=-0.96559 C=-0.07321 D=-0.9682 E= 0.2502
G= 0.0183 H= 0.0709 K=-0.9973 HT= 7.1

DEPTH OF FOCUS= 0.039R

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
OAXACA	22.45	19.7									10	8
COMITAN	23.74	30.7									11	26
TACUBAYA	24.05	12.3				9	11	24	5	8	11	2
VERA CRUZ	24.69	19.2									6	36
HUANCAYO	29.87	106.8	5	42K	-2	10	42	22				
BOGOTA	31.64	74.2	6	3	3	11	18	31				
CHIHUAHUA	32.70	357.4				11	38	34			19	4
TUCSON	36.77	351.0	6	47	4							
TUCSON TELE.	36.84	351.2	6	41	-3							

LA PAZ	37.71	111.6	6	49	-2	12	46	26		
PASADENA	40.29	342.3	7	11	-1	13	28	30		
BOULDER CITY	41.15	347.2	7	17	-2					
FAYETTEVILLE	41.25	12.7	7	21	1					
GLEN CANYON	41.51	351.4	7	22	0					
SANTA LUCIA	42.89	136.8				13	53	17		
LAWRENCE	43.82	10.4	7	40	-1					
RUTH	44.31	348.3	8	41	57				14	33
LICK	44.33	340.3	7	43	-2					
ST. LOUIS 1	44.65	15.9	7	48	1					
EUREKA	44.76	347.4	7	46	-2				9	33 PP
FLORISSANT	44.76	15.7	7	49	1	14	30	27		
BERKELEY	45.02	340.0	7	58	8	14	32	25		
FLAMING GRGE	45.16	354.8	7	50	-1					
LARAMIE	45.33	358.8	7	52	0					
RENO	45.78	343.4	7	58	2					
SHASTA	47.62	341.6	8	8	-2					
RAPID CITY	48.10	1.3	8	14	0					
MORGANTOWN	49.15	25.1	8	21A	-1					
BOZEMAN	50.02	354.0	8	27	-1					
HUNGRY HORSE	53.02	352.0	8	39	-12					
PENTICTON	54.93	348.0	9	1	-3					
WESTON	55.29	29.5							23	20 SS
PORT STANLEY	61.08	148.9	9	54	7					
ARGENTINE I.	67.23	162.9	10	23	-3					
COLLEGE	75.90	342.4	11	20	2					
RESOLUTE	79.00	2.6	11	35	0	21	36	27		
KARAPIRO	79.50	232.4	11	39	2					
CAPE HALLETT	84.56	197.8	12	3	0					
SOUTH POLE	85.80	180.0	12	8	-1					
DURHAM	100.88	35.1				24	58	89		
MATUSIRO	114.32	308.2							34	58 *SSS
LEMBANG	146.12	251.2	19	15A	9					
SHIRAZ	146.64	38.2	19	13A	6					
WARSAK DAM	150.15	6.6	19	29	17					
QUETTA	152.95	16.5	19	30	13					

AUGUST 2 20.H 51.M 1.S EPICENTRE 84.40 1.00 DEPTH= 0.KM
A= 0.09824 B= 0.00171 C= 0.99516 D= 0.0174 E=-0.9998
G= 0.9950 H= 0.0173 K=-0.0983 HT=-14.1

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	
NORD	3.52	226.6	0	55	-2	1	14	-26					
KHEYS	7.93	86.6	1	56	-4	3	22	-9			4	26	
SCORESBY SD.	14.61	211.3	3	28	-2	6	10	-4			6	33	SS
RESOLUTE	16.93	294.7	3	54K	-6								
KIRUNA	17.09	154.5	3	58	-4								
SODANKYLA	17.84	146.9	4	6	-6								
APATITY	18.07	138.4	4	7	-7	7	17	-17					
REYKJAVIK	20.93	208.5	4	48	1								
SIDA	21.12	203.7	4	48	-1								
TIKSI	22.38	41.1	5	3	1								
NURMIJARVI	24.59	151.5	5	22	-1								
UPPSALA	24.96	160.0	5	28	1								
PULKOVO	25.62	145.0	5	32	-1	9	56	-4			6	5	PP
GOTEBORG	26.96	167.0	5	45	0								
MOSCOW	30.09	137.7	6	18	4						7	6	PP
COLLEGE	30.24	334.0	6	15	0								
SVERDLOVSK	30.84	112.3	6	18	-2								
YAKUTSK	31.95	44.1				11	41	0					
DE BILT	32.47	175.2	6	29	-6	11	53	4					
KEW	33.08	181.5	6	43	3	11	58	-1					
HALLE	33.17	167.5	6	45	4						7	53	PP
COLLMBERG	33.39	166.3	6	43	0						7	55	PP
BENSBERG	33.63	172.9	6	49	4								
JENA	33.73	167.9	6	45	-1						8	10	PPP
PLAUEN	34.18	167.3	6	51	2								
PRUHONICE	34.75	164.6	6	54A	0						8	12	PPP
KRAKOW	34.85	158.5	6	54	-1						8	17	PP
HEIDELBERG	35.21	171.2	6	58	0								
LWOW	35.24	153.9	6	58	0								
SKALNATE PL.	35.73	158.3	7	1	-2								

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
STUTTGART	35.85	170.6	7 4	0	12 36	-6		
STRASBOURG	36.02	172.3	7 5	0				12 29
TUBINGEN	36.09	170.9	7 11	5				
EBINGEN	36.43	171.0	7 13	4				
VIENNA-H.	36.53	162.7	7 10	1				
BRATISLAVA	36.63	161.9	7 13	3				8 31 PP
RAVENSBURG	36.85	170.3	7 16	4				
BESANCON	37.33	174.4	7 21	5				
LJUBLJANA	38.68	164.9	7 26	-1				
CLERMONT-FD.	38.79	177.6	7 29	1				
TRIESTE	39.06	165.8	7 32	1				
SEMIPALATNSK	39.07	93.9	7 28	-3				
SIMFEROPOL	40.61	143.4	7 45	2	13 52	-2		9 15 PP
BUCHAREST	40.72	152.2						9 10
MONACO	40.86	172.9	7 40	-6				
SOFIA	42.32	155.4	7 55	-2				
ROME	42.78	167.4	8 17	16				14 29
HUNGRY HORSE	44.47	300.4	8 14	-1				10 0 PCP
TIFLIS	44.53	132.4	8 16	1				9 56 PP
FRUNSE	46.02	101.2	8 27	0				15 18 PS
BUTTE	46.65	298.6	8 31	-1				
GORIS	46.85	131.0	8 35	1				15 29 PS
TASHKENT	47.00	106.9	8 35	0				11 17 PPP
NAMANGAN	47.57	104.5	8 41	1				15 41 PS
RAPID CITY	47.74	289.3	8 43	2				
ANDIJAN	47.86	103.9	8 45	3				19 43
PALISADES	47.94	259.8			15 41	1		10 39 PP
FERGANA	48.17	104.5	8 48	4				
ASHKABAD	49.36	118.7	8 54	1				10 49 PP
DUZHANBE	49.68	107.9	9 2	6				16 12
FLAMING GRGE	51.43	294.7	9 9	0				11 22 PCP
KSARA	51.80	142.7	9 16	4				
JERUSALEM	53.79	143.6	9 29	2				
WARSAK DAM	54.47	105.7	9 31	-1				
FAYETTEVILLE	54.80	279.2	9 31	-3				
HELWAN	55.47	147.8	9 37	-2				
GLEN CANYON	55.55	296.3	9 44	4				
BOULDER CITY	56.81	299.3	9 50	1				
SHIRAZ	57.11	125.8	9 51K	0				
LAHORE	57.17	103.2	9 51	0				
QUETTA	57.83	110.9	9 53	-3				
MATUSIRO	57.87	40.2	9 53	-3				24 51
TUCSON TELE.	60.07	294.8	10 13	2				
TUCSON	60.16	294.9	10 13	1				
TAMANRASSET	61.74	175.3	10 20	-3				12 42 PP
SAN JUAN	69.62	249.0	11 14	1				
TRINIDAD	76.85	243.5	11 56	0				

AUGUST 4 7.H 34.M 47.S EPICENTRE 51.41 179.04 DEPTH= 0.KM

A=-0.62621 B= 0.01053 C= 0.77958 D= 0 0168 E= 0.9999
G=-0.7795 H= 0.0131 K=-0.6263 HT= -5.9

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
KLYUCHI	11.78	301.7	2 51	-1	5 5	0		5 16
PETROPAVLOVK	12.60	285.3	3 2	-1	5 30	5		
SEVERO-KUR.	14.44	276.0	3 26	-1	6 13	4		
MAGADAN	17.84	308.1	4 11	0				8 45 PCP
KURILSK	21.52	265.6	4 51	-1				8 51
COLLEGE	21.74	39.1	4 55	1	8 55	4		16 16 SCS
OKHA	21.95	289.8	4 59	2	9 3	8		7 49
UGLEGORSK	23.60	279.0	5 14	1				9 32
NEMURO	23.89	263.4	5 13A	-3	9 27	-3		
ABASHIRI	24.35	266.1	5 19	-1	9 45	8		
KUSIRO	24.81	263.8	5 24A	0	9 53	8		
WAKKANAI	25.30	271.1	5 29	0	10 9	15		
OBIHIRO	25.59	264.8	5 33	1				
HIROO	25.86	263.4	5 33	-1				
RUMOE	26.05	268.2	5 40	4				10 33
URAKAWA	26.26	263.7	5 39	1	10 3	-6		
SAPPORO	26.66	266.7	5 42A	0	10 17	1		6 39 PP
TOMAKOMAI	26.75	265.7	5 41	-2				
SITKA	26.85	59.9	5 48	4				12 44 SCP

HURORAN	27.29	265.6	5	46	-2							
SUTTSU	27.51	267.1	5	48	-2	10	29	-1				
MORI	27.67	265.6	5	51A	0	10	26	-6				
HAKODATE	27.71	264.9	5	51	0							
HATINOHE	27.95	261.9	5	53	-1	10	36	-1				
MIYAKO	28.20	260.0	5	58	2							
AOMORI	28.25	263.1	5	57	1	11	7	25				
YAKUTSK	28.36	311.2	5	56	-1	10	40	-4				
MORIOKA	28.67	260.8	6	0	0	10	33	-15				
MIZUSAWA	29.03	259.9	6	5	2	10	55	1				
AKITA	29.32	261.9	6	5A	-1	10	58	-1			11	41
ISINOMAKI	29.35	258.6	6	5	-1							
SENDAI	29.71	258.8	6	7A	-2	10	55	-10			12	52
TIKSI	29.94	330.8	6	12	0							
YAMAGATA	30.06	259.3	6	11	-2							
HUKUSIMA	30.30	258.4	6	17	2							
ONAHAMA	30.55	256.8	6	18	1							
NIIGATA	31.06	260.1	6	26	5	11	9	-18			7	42 PP
MITO	31.18	256.4	6	25	3							
KAKIOKA	31.45	256.4	6	23	-2						11	46
AIKAWA	31.49	261.0	6	23	-2							
TUKUBASAN	31.51	256.5	6	24A	-1	11	31	-2			7	21 PP
KUHAGAYA	31.99	257.1	6	29	-1						7	34
MAEBASI	32.02	257.8	6	29A	-1						7	57
HONGO	32.05	256.1	6	21	-9							
TAKADA	32.07	259.6	6	30	0							
TOKYO C.M.O.	32.08	256.1	6	31A	1	11	41	-1			7	29
TITIBU	32.29	257.2	6	33	1							
YOKOHAMA	32.31	255.9	6	34	2						13	53
NAGANO	32.38	259.0	6	34A	1	11	50	3			17	5 SCS
OIWAKE	32.38	258.2	6	36	3							
MATUSIRO	32.46	258.8	6	33	-1	11	36	-12			7	37 PP
MERA	32.54	255.0	6	39K	5						12	15
VLADIVOSTOK	32.55	274.1	6	29	-5	11	41	-9				
WAZIMA	32.73	261.3	6	37	1							
MATUMOTO	32.79	258.7	6	40	3							
HUNATU	32.79	256.8	6	23	-14						7	53
KOHU	32.81	257.3	6	37	0	11	48	-6				
OSIMA	32.91	255.2	6	37A	-1						17	3 SCS
MISIMA	32.94	256.1	6	36	-2							
TOYAMA	32.98	260.0	6	38	0						14	42
IIDA	33.36	257.8	6	43	2						7	49
SHIZUOKA	33.37	256.5	6	41	-1							
OMAESAKI	33.73	256.2	6	44	-1	12	11	3				
HAMAMATU	33.95	256.8	6	47	0							
GIHU	34.08	258.7	6	52	4	12	21	7			7	51 PP
NAGOYA	34.11	258.2	6	50	2	11	48	-26			7	18
HIKONE	34.49	259.0	6	52	1	12	26	6			8	9 PP
KAMEYAMA	34.63	258.2	6	53	1						11	14
KIPAPA	34.87	140.6	6	54	-1							
HONOLULU	34.95	140.8	6	56	1	12	28	1			7	40
KYOTO	34.97	259.2	6	54	-1	12	22	-5				
NARA	35.14	258.6	6	56	-1							
ALBERNI	35.15	70.9	6	40	-17							
ABUYAMA	35.17	259.1	6	57A	0							
TOYOOKA	35.20	260.7	6	56A	-1	12	28	-3			7	57
OWASE	35.32	257.5	6	58	0	12	31	-2				
OSAKA	35.34	258.9	6	59	0							
KOBE	35.54	259.2	7	2	2	12	38	2			8	34
TOTTORI	35.61	261.2	7	0	-1							
SAIGO	35.69	262.9	7	3	1	12	38	0				
SUMOTO	35.93	259.1	7	3A	-1	12	39	-3			8	31 PP
SIOMISAKI	36.00	257.1	7	7	3	12	44	1				
YONAGO	36.18	261.9	7	5	-1	12	47	1				
CHANGCHUN	36.28	279.6	7	5A	-2	12	44	-4			8	31 PP
VICTORIA	36.31	71.3	7	3K	-4							
TAKAMATU	36.47	259.8	7	8	0	12	50	0			15	25 SS
KOTI	37.31	259.4	7	16	1	13	3	0			8	39 PP
HAMADA	37.32	262.4	7	15A	0	13	3	0			9	18
HIROSIMA	37.44	261.4	7	16A	0	13	6	1			8	43 PP
MATUYAMA	37.58	260.4	7	17	0	13	7	0			17	54
HAWAII V.OB.	37.78	138.1	7	19	0	13	10	0				
SIMIDU	38.18	259.0	7	22	0						8	48
SIMONOSEKI	38.65	262.2									8	2
OOITA	38.70	260.7	7	26	-1	13	19	-5				
HUKUOKA	39.24	262.3	7	32A	1	13	33	0				
SAGA	39.51	262.0	7	34	0						9	23
KUMAMOTO	39.55	261.1	7	36	2	13	37	0				

BANFF	39.67	63.7	7 35	0						
MIYAZAKI	39.72	259.4	7 38	3	13 44	4				
NAGASAKI	40.12	261.7	7 39A	0	13 47	1				
RESOLUTE	40.27	24.2	7 41	1	13 17	-31			9 23	
KAGOSIMA	40.49	259.8	7 44	2	13 43	-8				
TOMIE	40.88	262.6	7 47	2	13 59	2				
SHASTA	41.00	81.4	7 48	2						
YAKUSIMA	41.30	258.6	7 48	0						
MINERAL	41.70	81.3	7 42A	-10						
HUNGRY HORSE	41.89	66.8	7 53	0					9 50	PCP
BERKELEY	42.77	84.7	8 2K	2	14 27	2			9 47	PP
RENO	43.28	81.1	8 6A	1						
LICK	43.49	84.9	8 7	1	14 5	-31	8 55			
BUTTE	43.96	69.0	8 11	1	14 43	1				
VINEYARD	44.02	85.4	7 13	-58						
PEKING	44.05	280.6	8 10A	-1	14 40	-4			9 55	PP
IRKUTSK	44.24	301.8	8 12	0	14 43	-3			10 2	PP
KHEYS	44.27	348.4	8 13	0					10 9	PP
FRESNO	44.99	84.2	8 20	2						
BOZEMAN	45.04	68.5	8 19	0						
RUTH	46.45	78.2	7 34K	-56	15 18	0			19 5	
ZO-SE	46.64	267.3	8 31A	0	15 17	-4			10 24	PP
GUAM	46.87	228.7	8 28	-5	15 13	-11				
NORD	46.96	3.1	8 33	-1	15 23	-3			11 1	PPP
SALT LAKE C.	47.41	74.5	8 37	-1	15 31	-1			9 28	
PAOTOW	47.46	285.2	8 38A	0	15 37	4				
NANKING	47.50	270.2	8 37A	-1	15 26	-7			10 27	PP
PASADENA	47.69	85.8	8 41	1	15 35	-1			10 47	PP
BOULDER CITY	48.58	81.5	8 47	0	15 44	-4			10 18	PCP
FLAMING GRGE	48.79	72.8	8 48	0	15 52	1			14 4	SCP
GLEN CANYON	49.94	78.3	8 57	0	16 15	8				
RAPID CITY	50.50	65.9	9 0	-1					14 13	SCP
TAIPEI	50.72	261.4	9 5	2						
LARAMIE	50.82	70.1	9 3	-1					14 13	
SIAN	52.18	279.6	9 14A	0	16 33	-5			11 14	PP
ALISHAN	52.27	260.7	8 21	-54						
TAWU	53.07	259.6	9 19	-2						
HENGCHUN	53.42	259.4	9 18	-5						
TUCSON	53.53	82.3	9 24	0	16 17	-40			20 25	
TUCSON TELE.	53.54	82.1	9 24	0					11 28	PP
CANTON	57.22	266.5	9 50A	-1	17 47	1				
HONG KONG	57.29	265.2	9 51A	0	17 49	2	10 5		11 58	PP
SEMIPALATNSK	57.47	311.4	9 50	-3					17 41	
SCORESBY SD.	57.48	8.2	9 53A	0	17 51	2			13 43	PPP
CHENGTU	57.66	279.8	9 52A	-2	17 47	-5			12 2	PP
BAGUIO CITY	57.76	255.2	9 56	1	17 52	-1				
LUBBOCK	58.13	74.9	9 57	0						
LAWRENCE	58.35	66.0	9 57	-2						
APATITY	58.58	345.3	9 59	-1	18 0	-4			11 57	PP
MANILA	58.82	253.5	10 2	0	17 6	-61				
CHIHUAHUA	58.99	82.0	10 18	15	18 18	9			22 39	
SODANKYLA	59.73	348.0	10 6	-2	18 13	-6			18 25	PS
RABAUL	59.97	211.4	10 5	-5						
KIRUNA	60.01	350.8	10 9	-1					10 42	
SVERDLOVSK	60.83	326.4	10 17	1	18 34	1			12 29	PP
FAYETTEVILLE	60.94	67.7	10 15A	-2	18 14	-20	10 34		12 30	PP
FLORISSANT	61.22	63.1	10 17A	-2	18 34	-4				
ST. LOUIS 1	61.41	63.1	10 18A	-2	18 35	-5				
KUNMING	62.38	276.3	10 25A	-1	18 51	-1			12 43	PP
MAZATLAN	62.71	86.5			19 4	7			12 55	PP
REYKJAVIK	63.65	10.1	10 34K	-1	19 9	1				
CLEVELAND	64.07	55.5	10 42K	4	19 10	-4	11 10			
OTTAWA	64.07	49.1	10 36	-2						
SIDA	64.37	8.3	10 43K	4						
BREBEUF	64.98	47.8	10 45	2	19 21	-4				
SEVEN FALLS	65.02	45.0	10 45	1						
AFIAMALU	65.53	170.2	10 50	3	19 31	-1				
FRUNSE	65.59	308.5	10 48	1	19 34	2				
TOCKLAI	66.11	283.3	10 55	4						
MORGANTOWN	66.24	55.9	10 52	0						
LHASA	66.26	288.1	10 52A	0	19 40	0			13 17	PP
PULKOVO	66.32	343.3	10 50	-2	19 39	-2			13 24	PP
PENNSYLVANIA	66.44	53.8	10 53	0	19 40	-3				
PORT MORESBY	66.53	214.6	10 50	-3	19 40	-4			20 43	
NURMIJARVI	66.54	346.5	10 51	-2	19 40	-4				
NHATRANG	67.97	261.9	11 1A	-1	19 57	-4				
UPPSALA	68.08	350.0	11 2	-1						
PALISADES	68.25	51.2	11 1K	-3	19 59	-5	11 9		13 11	PP

FORDHAM	68.38	51.3	11	2	-3	20	6	0				
BERGEN	68.43	356.7	11	5	0	20	7	0			24	35 SS
WESTON	68.44	48.6	11	4	-1	20	1	-6			24	43 SS
MOSCOW	68.53	337.7	11	5	-1	20	5	-3			13	36 PP
SHILLONG	68.74	284.5	11	7A	0	20	3	-7			13	38 PP
SUVA	69.26	180.6	11	18	8	20	17	1				
TASHKENT	69.31	310.7	11	12	1	20	19	2			13	39 PP
CHAPEL HILL	69.49	58.0	11	12	0							
COLUMBIA	69.87	60.6	11	13	-1	20	23	-1				
TACUBAYA	70.00	83.8	11	20K	5	20	25	0			13	58 PP
HALIFAX	70.12	42.4	11	14	-2							
CHATRA	70.63	288.8	11	19	0	20	30	-2				
DUZHANBE	71.70	309.2	11	26	1	20	44	-1				
ABERDEEN	71.78	0.7	11	23A	-3	20	47	1			21	27 PS
COPENHAGEN	72.70	352.1	11	31A	0	20	54	-2				
KOUMAC	72.82	194.5	11	35	3							
CALCUTTA	73.13	285.0	11	8	-26	20	38	-23			12	45
DEHRA DUN	73.24	297.6	11	39	5	21	3	1			14	22 PP
BOKARO	73.69	287.7	11	37A	0	21	0	-8			14	21 PP
WARSAK DAM	73.89	304.4	11	36	-2							
DURHAM	74.19	0.4	11	35	-5	21	9	-4			11	59 PCP
NOUMEA	74.22	192.1	11	40	0						12	12
LAHORE	74.33	300.9	11	40A	-1	21	10	-5			14	26 PP
MERIDA	74.73	75.6	11	54	11	21	25	6			21	54 *SS
WARSAW	75.08	346.2	11	42	-3	21	14	-9	11	57	14	33 PP
POTSDAM	75.91	351.2	11	49	-1	21	31	-1			14	31 PP
WITTEVEEN	75.95	355.2	11	52	2							
DE BILT	76.73	356.1	11	57A	3	21	43	2			22	25 PS
CHARTERS TS.	76.78	211.5	11	52	-3	21	37	-5				
HALLE	76.88	351.8	11	55	0	21	38	-5			22	10 SCS
LWOW	76.92	343.7	11	55	0						14	50 PP
COLLMBERG	76.98	351.1	11	55A	-1	21	43	-1			14	56 PP
ASHKABAD	77.01	315.8	11	57	1						26	49 SS
KRAKOW	77.36	346.4	12	0	2	21	46	-2			14	54 PP
JENA	77.48	351.9	11	56	-3	21	43	-6			14	58 PP
KEW	77.49	359.6	11	59	0	21	47	-2			22	45 PS
RACIBORZ	77.58	347.5	11	59	0	21	59	9			14	52 PP
BENSBERG	77.77	354.7	12	0	0						14	8 PP
PLAUEN	77.87	351.5	11	58	-3							
PRAGUE	78.05	349.9	12	0	-2	21	42	-13			14	49 PP
SONNEBERG	78.06	352.1	12	1	-1							
PRUHONICE	78.13	349.8	12	1A	-1	21	52	-4			14	54 PP
SKALNATE PL.	78.16	346.0	12	7	5	22	11	14			12	12 PP
CHEB	78.25	351.3	12	4	1	21	56	-2			26	40 SS
PORT BLAIR	78.69	274.5	12	3	-2							
TIFLIS	79.06	326.9	12	8	1						23	20
HEIDELBERG	79.23	353.6	13	7	59							
QUETTA	79.28	305.3	12	9A	1	22	8	-1	12	33	15	9 PP
SIMFEROPOL	79.34	335.5	12	9A	0						15	9 PP
BRATISLAVA	79.60	347.8	12	13	3				12	29	15	25 *PPP
VIENNA-H.	79.61	348.3	12	11	1	22	3	-9				
HURBANOVO	79.74	347.0	12	13	2				12	45	15	31 PP
STUTTGART	79.82	353.1	12	11A	0	22	14	0			15	6 PP
BUDAPEST	80.01	346.4	12	48	36							
TUBINGEN	80.07	353.2	12	12	-1							
STRASBOURG	80.11	354.1									27	41 SS
PARIS	80.12	357.7	12	14	1				12	41		
FOLINIERE	80.20	359.7	12	13	0							
FOCSANI	80.26	340.4	12	18	4	22	29	10				
EBINGEN	80.43	353.3	12	14	-1							
GORIS	80.49	324.8	12	17	2	22	22	1			15	19 PP
RAVENSBURG	80.77	352.8	12	15	-1							
CAMPULUNG	81.11	341.7	12	21	3	22	33	5				
BASLE	81.17	354.2	12	19	1						24	15
MEDAN	81.20	264.7	12	18A	-1						15	45
TIMISOARA	81.34	344.5	12	26	7							
BESANCON	81.54	355.2	12	20	0							
CHUR	81.70	352.7	12	24	3	22	40	6				
BUCHAREST	81.71	340.8	12	20A	-1	22	32	-2	12	34	15	3 PP
NEUCHATEL	81.73	354.5	12	23	2							
BRISBANE	81.80	203.4	12	20	-2	22	28	-7				
TEHERAN	81.83	319.4	12	23A	1	22	38	3				
LJUBLJANA	82.01	349.2	12	21	-2						15	46 PP
ZAGREB	82.05	348.1	12	20	-3	22	46	9				
BELGRADE	82.38	344.8	12	26	1	22	48	7			23	43 PPS
TRIESTE	82.49	349.6	12	26	1	22	47	5			15	49 PP
PADOVA	82.93	350.9	12	28	0	22	58	12			23	48 PS
HYDERABAD	82.98	289.0	12	55	27	23	13	26			16	10 PP
PAVIA	83.39	352.8	12	18A	-12						24	19

KARACHI	83.55	302.0	12 32	1							
DJAKARTA	83.86	252.2	12 27K	-5	22 52	-4					
LEMBANG	83.91	251.2	12 29A	-4					15 33		
SOFIA	83.92	342.2	12 32	-1	22 53	-3			15 45	PP	
CHIAVARI	84.24	352.6							15 38	PP	
ISTANBUL KA.	84.25	337.6	12 34	0							
PRATO	84.52	351.3	12 46	10	23 6	4					
POONA	84.80	293.2	12 39	2	23 4	-1			15 47	PP	
MONACO	84.96	353.9	12 39	1							
BOMBAY	85.10	294.2	12 40	1	23 5	-3			32 45	SSS	
MADRAS	85.40	284.9	12 41	1					23 56		
ROME	86.33	350.0	12 45A	0	23 13	-7			16 13	PP	
SHIRAZ	86.60	315.5	12 46K	0	23 26	4			23 10	SKS	
TARANTO	87.13	346.2			23 27	0			31 57		
SERRA PILAR	87.60	5.8	12 31	-20			12 57				
TORTOSA	88.14	358.9	12 43	-10	23 27	-10					
RIVERVIEW	88.35	202.9	12 54A	0	23 40	1	13 0		23 21	SKS	
COIMBRA	88.54	5.7			23 36	-5			29 23	SS	
KARAPIRO	89.02	182.8	12 57	-1					13 57		
TOLEDO	89.05	2.4	12 58	0	23 45	0			16 27	PP	
KSARA	89.16	330.0	12 58A	0	23 47	1			16 35	PP	
KODAIKANAL	89.20	285.3							23 19		
MESSINA	89.60	347.1	12 57	-3	23 44	-6			16 31	PP	
LISBON	89.96	6.4			23 35	-19					
CANBERRA	90.30	204.2	13 5	1	23 57	0			23 27	SKS	
SAN JUAN	90.32	59.5	13 7	3							
ALICANTE	90.61	359.6	12 55	-10	23 37	-23			18 33	PPP	
JERUSALEM	91.26	329.8	13 8	0	24 10	5					
GRANADA	91.75	2.1	13 13A	3	24 16	6			13 43	PP	
ALMERIA	92.10	1.2	13 10	-2	24 2	-11					
ALGIERS UNI.	92.12	356.8	13 12	0	23 54	-19			16 50	PP	
MALAGA	92.19	2.8	13 10K	-2	24 16	2			16 52	PP	
SETIF	92.58	354.9	13 15	1							
ADELAIDE	93.02	212.1	13 17A	1	24 19	-2			30 13	SS	
RELIZANE	93.20	358.8	13 55	38					17 17		
MELBOURNE	93.74	206.4	13 20	1	24 31	4			24 47		
HELWAN	94.22	332.3	13 22	0	24 33	2					
CHINCHINA	95.62	74.9	13 29	1	23 58	-6			25 0	S	
CARACAS	96.30	64.6	13 23A	-8	25 13	65					
FUQUENE	96.37	73.1	13 32A	0	24 2	-6			17 35	PP	
BOGOTA	96.84	73.9	13 42	8	24 5	-5			17 42	PP	
ROXBURGH	96.87	186.9			24 7	-4			24 55	S	
TAMANRASSET	105.92	353.8	14 15	777					18 37	PP	
HUANCAYO	109.07	85.4							18 37	PP	
ADDIS ABABA	110.74	317.5	18 13	-21							
MBOUR	113.02	16.9			25 39	15			19 33	PP	
CAPE HALLETT	123.58	183.2	18 58	-1	26 1	0			20 44	PP	
LWIRO	125.01	322.7							19 4		
SANTA LUCIA	127.55	98.5	19 9	2	26 11	-2			21 13	PP	
WILKES	128.37	208.6	19 13	5					21 22	PP	
SCOTT BASE	129.22	183.3	19 9	-1					22 27	SKP	
TANANARIVE	130.09	292.0	19 16	4					21 27	PP	
BYRD STATION	135.68	167.3	19 13	-9					22 52	SKP	
BROKEN HILL	136.20	316.5	19 24	1							
BULAWAYO	141.14	312.4	19 29	-3							
SOUTH POLE	141.22	180.0	19 24	-8					21 13		
PORT STANLEY	145.39	113.4	19 40	1					20 51		
ARGENTINE I.	145.65	138.2	19 39	-1							
MAWSON	145.68	217.6	19 38	-2							
PRETORIA	146.11	308.0	19 44	3							
WINDHOEK	147.98	327.3	19 49K	5							
KIMBERLEY	150.27	309.7	19 43	-4							
HERMANUS	157.60	311.5	20 35	37					24 9	PP	

AUGUST 5 16.H 6.M 39.S EPICENTRE 50.28 157.12 DEPTH= 66.KM

A=-0.59110 B= 0.24942 C= 0.76706 D= 0 3888 E= 0.9213
G=-0.7067 H= 0 2982 K=-0.6416 HT= -5.5

DEPTH OF FOCUS= 0 005R

SE= 1.48

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	8.02	234.5	1 52	-4				

MAGADAN	9.97	341.1	2 23	0					
YAKUTSK	19.09	318.4	3 50	-30					
MATUSIRO	19.35	232.0	4 19	-4	7 51	-1		4 40	PP
COLLEGE	31.73	41.7	6 19	-1			6 31		
SITKA	39.08	53.2	7 24	2					
RESOLUTE	46.62	20.4	8 23	0				34 44	
VICTORIA	49.38	59.4	8 44A	-1					
PENTICTON	51.00	56.7	8 57K	0					
SVERDLOVSK	53.07	316.9	9 25	12					
HUNGRY HORSE	54.55	55.0	9 23	0			9 37	10 26	
SHASTA	54.63	66.9	10 25	61					
SHILLONG	55.12	269.0	9 25A	-3					
APATITY	55.14	337.1	9 26	-2					
MINERAL	55.32	66.7	9 28A	-1					
BERKELEY	56.52	69.4	9 53	15					
RENO	56.89	66.4	9 41A	1					
SODANKYLA	56.90	339.4	9 38	-2					
BOZEMAN	57.82	55.9	9 48	1					
KIRUNA	57.83	342.1	9 44	-3					
FRESNO	58.72	68.9	9 53	0					
EUREKA	59.17	64.2	9 56	0				10 35	
PORT MORESBY	60.06	191.4	10 6	4					
SALT LAKE C.	60.64	60.6	10 6	0					
PASADENA	61.47	70.0	10 11	-1			10 24		
FLAMING GRGE	61.90	59.0	10 15	0				10 55	
RAPID CITY	63.00	52.9	10 22	0					
NURMIJARVI	63.11	335.8	10 23	0					
LARAMIE	63.70	56.5	10 27	0					
UPPSALA	65.42	338.9	10 40	2				10 54	
TUCSON	67.18	66.7	10 49	0			11 5		
TUCSON TELE.	67.18	66.6	10 49	0			11 5		
QUETTA	67.54	290.5	10 50	-1					
GOTEBORG	68.63	340.8	11 1	3					
CHARTERS TS.	70.71	190.8	11 8	-3				11 24	
FLORISSANT	73.34	48.9	11 26	0					
ST. LOUIS 1	73.53	48.9	11 27A	0			11 42		
FAYETTEVILLE	73.54	53.1	11 27A	0					
COLLMBERG	74.29	337.5	11 31	-1				11 47	PCP
BREBEUF	74.94	34.3	11 35A	-1					
JENA	74.98	338.2	11 35	-1				12 0	
PRUHONICE	75.12	336.0	11 36	0					
SHIRAZ	76.31	299.9	11 43K	0					
MORGANTOWN	77.41	41.6	11 50K	1					
BRISBANE	77.42	184.0	11 49	0					
STUTTGART	77.53	338.9	11 50	0					
STRASBOURG	78.06	339.8	11 55	2				12 10	PCP
LJUBLJANA	78.73	334.4	11 56	-1					
PARIS	78.91	343.2	11 59	1					
HALIFAX	79.06	28.3	11 58	-1					
FOLINIERE	79.47	345.1	12 32	31					
MONACO	82.71	338.4	12 18	0				12 40	
JERUSALEM	83.50	313.3	12 23	1				12 38	PCP
ADELAIDE	86.43	195.1	12 35K	-1					
MELBOURNE	88.39	189.6	12 45K	-1					
KARAPIRO	89.32	165.5	12 50	0					
SETIF	90.34	337.5	13 9	14					
TAMANRASSET	103.04	333.2	14 5	13					
SCOTT BASE	128.00	177.4	18 58	0					
LA PAZ	130.53	63.7	19 7	4					
BYRD STATION	137.93	165.0	19 5	-12			19 19		
SOUTH POLE	140.09	180.0	19 11	-10			19 26		
ARGENTINE I.	153.95	140.7	19 51	8					

AUGUST 5 22.H 27.M 41.S EPICENTRE 51.34 178.83 DEPTH= 52.KM

A=-0.62714 B= 0.01282 C= 0.77880 D= 0.0204 E= 0.9998
G=-0.7786 H= 0.0159 K=-0.6273 HT= -5.9

DEPTH OF FOCUS= 0.003R

SE= 2.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KURILSK	21.38	265.6	4	49	4	8	49	15					
COLLEGE	21.88	39.0	4	51	1	9	19	36				8 49	PCP
UGLEGORSK	23.48	279.0	5	7	1	9	31	19					

YAKUTSK	28.31	311.3	5	49	-2	10	34	2		
MATUSIRO	32.31	258.8	6	24	-2	11	39	4	13	51 SS
CHANGCHUN	36.16	279.5	6	57	-2	12	38	3	8	26 PP
VICTORIA	36.46	71.1	7	2	0					
RESOLUTE	40.39	24.2	7	35	0				9	36
SHASTA	41.14	81.2	7	43	2					
HUNGRY HORSE	42.03	66.6	7	47	-1				13	26 SCP
BERKELEY	42.91	84.5	7	55	0	14	23	7		
RENO	43.42	80.9	8	1	2					
LICK	43.62	84.7	8	1	0					
IRKUTSK	44.16	301.8	8	4	-1	15	2	28		
KHEYS	44.31	348.4	8	6	0					
FRESNO	45.13	84.0	8	14	1					
BOZEMAN	45.18	68.4	8	14	1					
EUREKA	45.83	78.4	8	18	-1	15	3	5	9	47 PCP
ZO-SE	46.51	267.2	8	23A	-1	16	12	64	10	15 PP
RUTH	46.59	78.0	8	25	0					
PAOTOW	47.36	285.1	8	32	1	15	29	9		
NANKING	47.37	270.1	8	29	-2	15	22	2	10	24 PP
SALT LAKE C.	47.56	74.3	8	32	0					
PASADENA	47.83	85.6	8	35	1	15	28	2		
BOULDER CITY	48.72	81.3	8	41	0					
FLAMING GRGE	48.94	72.6	8	41	-2	15	44	2	14	3 SCP
RAPID CITY	50.65	65.7	8	55	-1				9	9
LARAMIE	50.97	69.9	8	58	0					
TUCSON	53.67	82.1	9	19	0					
TUCSON TELE.	53.68	81.9	9	18	-1					
CANTON	57.09	266.4	9	43	0	17	38	5		
HONG KONG	57.15	265.1	9	43	-1	17	41	8		
CHENGTU	57.54	279.7	9	45	-2	17	43	4	11	58 PP
SCORESBY SD.	57.56	8.1	9	48	1	17	49	10		
APATITY	58.62	345.2	9	56	2				10	43
SODANKYLA	59.78	347.9	10	3	1					
KIRUNA	60.06	350.7	10	3	-1					
SVERDLOVSK	60.81	326.3	10	9	0					
FAYETTEVILLE	61.09	67.5	10	6A	-5	18	25	1		
FLORISSANT	61.37	62.9	10	11	-2	18	28	0		
ST. LOUIS 1	61.56	62.9	10	13	-1	18	32	2		
KUNMING	62.26	276.2	10	17	-2	18	43	4	12	37 PP
ALMATA	64.05	307.4	10	30	-1	19	50	48		
OTTAWA	64.22	49.0	10	35	3					
SHAWINIGAN	64.73	46.4	10	31	-4				11	34
BREBEUF	65.13	47.7	10	42	4					
LHASA	66.16	288.0	10	45	1	19	36	9		
PULKOVO	66.35	343.2	10	44	-1					
MORGANTOWN	66.39	55.8	10	50	4					
PORT MORESBY	66.40	214.4	11	25	39	19	33	3		
NURMIJARVI	66.58	346.4	10	46	-1					
UPPSALA	68.13	349.9	10	54	-3					
ANDIJAN	68.20	308.3	10	58	1					
NAMANGAN	68.37	308.9	10	58	0					
PALISADES	68.39	51.0	10	57	-1	19	55	1	13	23 PP
MOSCOW	68.55	337.6	11	0	1					
WESTON	68.58	48.5	10	57	-2					
SHILLONG	68.63	284.4	10	58A	-2					
COLUMBIA	70.02	60.5	11	7	-1					
HALIFAX	70.26	42.3	11	8	-2					
CHATRA	70.53	288.7	11	11	0	20	34	15		
CHITTAGONG	71.04	282.2	11	17	3					
COPENHAGEN	72.75	352.0	11	23	-2					
WARSAK DAM	73.82	304.3	11	28	-3					
LAHORE	74.25	300.8	11	35	2					
DURHAM	74.26	0.2				21	45	43		
POTSDAM	75.96	351.1	11	43	0	21	32	11		
WITTEVEEN	76.01	355.1	11	47	4					
CHARTERS TS.	76.65	211.3	11	44	-3					
DE BILT	76.80	356.0	11	52	4	21	44	14		
LWOW	76.96	343.6	11	50	1					
COLLMBERG	77.03	350.9	11	53	4				14	54 PP
JENA	77.53	351.8	11	51	-1	21	37	-1	22	25 PS
KEW	77.57	359.5	11	52	0				27	7 SS
BENSBERG	77.83	354.6	11	55	1				12	9
PRUHONICE	78.17	349.7	11	55	0				22	29 PS
TIFLIS	79.05	326.8	12	1	1	22	4	10		
QUETTA	79.21	305.1	12	2A	1	22	8	12	27	13 SS
SIMFEROPOL	79.35	335.3	12	0	-2					
STUTTGART	79.87	353.0	12	5	0				15	16 PP
STRASBOURG	80.17	354.0	12	7	1				22	11

PARIS	80.18	357.5	12	8	2	22	22	16		
FOLINIERE	80.27	359.5	12	7	0					
BRISBANE	81.68	203.2	12	12	-2	22	21	0		
BUCHAREST	81.74	340.6	12	13	-2	22	33	11	12 30	
TEHERAN	81.80	319.3	12	17	2	22	33	11		
BELGRADE	82.41	344.7	12	19A	1				28 52	SS
SOFIA	83.95	342.1	12	26	0					
MONACO	85.02	353.8	12	35	4					
ROME	86.38	349.8	12	39	1	23	21	13	24 29	PS
RIVERVIEW	88.23	202.8	12	57A	10	23	36	11		
KARAPIRO	88.94	182.6	12	49	-1					
TOLEDO	89.12	2.2	12	47	-4	23	40	6		
KSARA	89.16	329.9	12	49	-2	23	46	12	16 27	PP
MESSINA	89.64	346.9							16 31	
SAN JUAN	90.47	59.4	12	56	-1					
JERUSALEM	91.25	329.6	13	1	0					
CARACAS	96.45	64.5	13	19	-6	24	39	43		
TAMANRASSET	105.97	353.6							18 11	PP
LWIRO	124.98	322.5							20 45	PP
BYRD STATION	135.64	167.3	19	6	-9				22 39	SKP
BROKEN HILL	136.16	316.2	19	6	-10					
BULAWAYO	141.09	312.0	19	19	-6					
SOUTH POLE	141.15	180.0	19	17	-8				20 7	
MAWSON	145.54	217.5	19	29	-3					
ARGENTINE I.	145.68	138.2	19	33	0					
PIETERMZBURG	148.03	300.6							19 41	PKP2
KIMBERLEY	150.22	309.3							19 46	PKP2

AUGUST 6 3.H 5.M 57.S EPICENTRE 28.06 139.19 DEPTH= 547.KM

A=-0.66894 B= 0.57760 C= 0.46786 D= 0.6535 E= 0.7569
G=-0.3541 H= 0.3058 K=-0.8838 HT= 2.4

DEPTH OF FOCUS= 0.081R

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
TORISIMA	2.60	21.6	1	14	1							
HATIDYOZIMA	5.05	5.7				2	40	-2				
SIOMISAKI	6.13	332.1	1	40	-1	3	3	3				
OMAESAKI	6.58	353.0				3	7	0				
OSIMA	6.70	1.3	1	47	1	3	6	-4				
MERA	6.86	4.4				3	4	-8				
AJIRO	6.97	359.4	1	48	0	3	8	-7				
MISIMA	7.05	358.4				3	13	-3			2	31
KAMEYAMA	7.16	341.7	1	51	1	3	19	1				
TOKUSIMA	7.18	327.7	1	51	0							
NARA	7.20	337.3	1	51	0							
OSAKA	7.28	335.5	1	51A	-1							
NAGOYA	7.34	345.6	1	53A	1	3	22	1				
YOKOHAMA	7.36	2.9									3	18
HUNATU	7.43	357.3	1	52	-1	3	21	-2				
ABUYAMA	7.46	336.4	1	53A	0							
KYOTO	7.54	337.8	1	53	-1	3	21	-4				
GIHU	7.61	344.9	1	54	-1	3	25	-1				
KOHU	7.61	356.1	1	54	-1	3	25	-1				
HIKONE	7.62	341.5	1	57	2	3	28	2				
TOKYO C.M.O.	7.62	3.4	1	52	-3	3	24	-2				
TAKAMATU	7.64	326.1	1	56	1							
TYOSI	7.77	10.0	1	55K	-1	3	22	-7				
KUMAGAYA	8.07	1.1	1	55	-4	3	29	-5				
TUKUBASAN	8.18	5.2	1	57A	-3	3	30	-6				
KAKIOKA	8.19	5.6	1	58	-3	3	32	-4				
MATUMOTO	8.24	353.1	2	1	0	3	37	0				
OIWAKE	8.27	356.4	2	1	0							
MITO	8.37	7.1	2	2	0	3	38	-2				
UTUNOMIYA	8.49	3.7	2	2	-1	3	38	-4				
MATUSIRO	8.50	354.6	2	1	-3	3	37	-5				
NAGANO	8.63	354.7	2	4K	-1	3	42	-2				
KUMAMOTO	8.73	305.0	2	17	11							
TOYAMA	8.78	349.5									3	23
ONAHAMA	8.99	8.8				3	49	-2				
SHIRAKAWA	9.08	5.2	2	9	0	3	49	-4				
HUKUSIMA	9.73	6.0	2	15A	-1	4	3	-2				
NIIGATA	9.84	359.3	2	18	1							

YAMAGATA	10.21	5.2	2	20A	-1	4	14	0				
SENDAI	10.29	7.6	2	21	-1	4	12	-3				
ISINOMAKI	10.50	9.2	2	24A	0	4	20	1				
SAKATA	10.83	2.7	2	32	5	4	29	4				
MIZUSAWA	11.16	7.8	2	30	-1	4	34	3				
AKITA	11.66	3.5	2	37	1	4	43	3				
MORI	14.06	4.2	3	0	0						5	26
GUAM	15.42	159.3	3	13	0							
ZO-SE	15.96	285.3				5	56	-3				
NANKING	18.11	287.7	3	38K	-1	6	37	1				
CHANGCHUN	19.30	328.3	3	52	1	7	4	8				
WUHAN	21.61	282.5	4	11K	-1	7	30	-4				
HONG KONG	23.34	261.4	4	26	-2							
CHENGTU	30.70	283.5	5	30	-2	9	52	-5				
NHATRANG	32.13	246.7	5	43K	-1							
KUNMING	32.65	273.4	5	48	0	10	25	-2				
LHASA	41.97	284.1	7	5	0	12	44	-1				
SHILLONG	42.10	278.0	7	4K	-2							
CHATRA	45.89	281.2	7	35	0							
CHARTERS TS.	48.35	171.1	7	53	-1						9	39
COLLEGE	57.76	28.9	8	1	-60						9	16
MUNDARING	63.57	201.7	9	38	-1							
APATITY	70.14	336.9	10	18	-1							
SODANKYLA	72.53	338.0	10	33	0							
KARAPIRO	73.95	150.8	10	42	1							
SHIRAZ	74.04	295.3	10	41A	0							
KIRUNA	74.25	339.8	11	2	19							
PULKOVO	75.00	330.3	10	46	-1							
NURMI JARVI	77.00	332.5	10	58	0							
HELSINKI	77.06	332.1	10	59	1							
HUNGRY HORSE	79.73	40.5	11	14	2	13	10					
UPPSALA	80.19	334.1	11	13	-2							
EUREKA	83.04	48.9	11	31	2	13	31					
GOTEBORG	83.82	334.5	11	31	-2							
FLAMING GRGE	86.52	45.0	11	47	1	13	43					
COLLMBERG	87.91	329.5	11	52	0							
PRUHONICE	88.11	327.9	11	53	0						12	14
RAPID CITY	88.33	39.7	12	52	58							
TUCSON	90.43	52.8	12	7	3							
DURHAM	90.88	338.5	11	39K	-27							
TOLMEZZO	91.33	326.0									22	1
ROME	94.77	323.1									21	1
BYRD STATION	119.40	168.7	17	49	2							
HUANCAYO	144.04	70.7	18	36	2						21	25 SKP
LA PAZ	152.29	71.3	18	57	11							

AUGUST 6 14.H 49.M 50.S EPICENTRE -42.31 -75.33 DEPTH= 51.KM

A= 0.18782 B=-0.71756 C=-0.67069 D=-0.9674 E=-0.2532
G=-0.1698 H= 0.6488 K=-0.7417 HT= -2.5

DEPTH OF FOCUS= 0.003R

SE= 2.75

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SANTA LUCIA	9.60	24.2	2	15	-4	4	33	27			2	49
PORT STANLEY	15.13	134.3	3	39	7							
LA PAZ	26.46	15.7	5	36	2	10	10	7				
HUANCAYO	30.15	0.0	6	9	1							
BYRD STATION	41.13	190.7	7	39	-2						9	25 PP
BOGOTA	46.72	1.7	8	29	3	15	31	20				
CHINCHINA	47.06	359.6	8	28	-1	15	25	9				
FUQUENE	47.58	2.2	8	31K	-2						10	25 PP
SOUTH POLE	47.88	180.0	8	32	-3							
CARACAS	53.11	10.4	9	4	-11						11	30 PP
SCOTT BASE	54.42	193.3	9	23	-2						9	51
CAPE HALLETT	56.99	199.4	9	40	-3							
TACUBAYA	65.24	335.1	10	41	2							
MAWSON	65.95	163.8	10	41	-2							
MIRNY	71.10	175.1	11	10	-5							
KARAPIRO	77.39	230.0	11	50	-2							
MBOUR	77.79	57.6	11	54A	0	21	51	10				
CHAPEL HILL	77.93	356.9	11	55	0							
KIMBERLEY	78.08	117.9	11	55K	0						12	21
FAYETTEVILLE	79.91	344.6	12	4	-1							

TUCSON	81.05	330.1	12 12	1			
TUCSON TELE.	81.09	330.3	12 13	1			15 15 PP
MORGANTOWN	81.67	356.4	12 14A	-1			
ST. LOUIS 1	81.70	348.3	12 14	-1			
FLORISSANT	81.88	348.2	12 14	-2	22 28	4	
LAWRENCE	82.90	344.5	12 20	-1			
PALISADES	82.95	1.1	12 22	1	22 50	15	15 54 PP
PASADENA	85.62	325.6	12 36	1			
BOULDER CITY	85.87	328.9	12 37	1			
BULAWAYO	86.47	114.0	12 39K	0			
OTTAWA	87.33	359.7	12 42	-1			
BREBEUF	87.44	1.2	12 43	0			
FLAMING GRGE	88.40	334.9	12 48	0			
SHAWINIGAN	88.51	1.8	12 48	-1			
FRESNO	88.55	325.8	12 50	1			
EUREKA	89.38	329.7	12 53	0			
LICK	89.81	324.8	12 58	3			
BROKEN HILL	90.29	109.8	12 58K	1			
RENO	90.92	327.2	13 2A	2			
HUNGRY HORSE	96.52	335.2	13 24	-1			
TAMANRASSET	98.59	67.2	13 33	-2			17 35 PP
LWIRO	98.91	101.2	13 38	2			
ALGIERS UNI.	106.25	55.0					16 46 PP
PARIS	113.57	44.8					19 28 PP
ROME	115.16	55.5					19 42 PP
TARANTO	117.33	59.1					21 27
RESOLUTE	117.43	354.2					29 36
COLLMBERG	120.56	46.8	18 47	0			20 28 PP
COLLEGE	120.74	331.7	18 46	-1			
PRUHONICE	120.74	48.7	18 47	0			20 15
KSARA	126.51	74.9	19 8	10			21 0 PP
NORD	127.35	9.1	18 58	-2			
NURMIJARVI	130.28	39.7	19 5	0			22 28 PKS
SIMFEROPOL	130.36	61.5	19 5	0			
KIRUNA	130.45	29.8	19 6	0			
SODANKYLA	132.68	31.0	19 9	-1			
PULKOVO	132.82	41.6	19 10	0			22 39 PKS
MOSCOW	135.79	48.3	19 15	0			22 47 PKS
SHIRAZ	136.58	89.4	19 17	0			22 18 PP
MAKHACH-KALA	138.65	69.0	19 17	-4			22 57 PKS
MAGADAN	147.03	317.6	19 38	3			
TIKSI	148.28	345.7	19 37	0			
SVERDLOVSK	148.58	47.1	19 38	0			
NHATRANG	149.76	188.8	19 46	6			
MATUSIRO	153.57	268.6	19 53	8			44 31 PSPS
CHATRA	158.94	131.6	19 53	1			
SHILLONG	160.25	143.7	19 54A	0			
KUNMING	162.78	174.1	19 59	3			24 30 PP
LHASA	163.25	134.6	19 59	2			24 32 PP
CHENGTU	168.36	177.2	20 2	1			24 56 PP
LANCHOW	173.71	173.8	20 6	2			

AUGUST 8 12.H 28.M 8.S EPICENTRE 12.06 44.50 DEPTH= 0.KM

A= 0.69768 B= 0.68568 C= 0.20756 D= 0.7009 E=-0.7132
G= 0.1480 H= 0.1455 K=-0.9782 HT= 6.3

SE= 2.28

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
SHIRAZ	19.03	21.9	4 23K	-2	8 1	6		9 0	PCP
LWIRO	21.11	228.7	4 49A	1					
JERUSALEM	21.41	337.9	4 52	1	9 4	19			
HELWAN	21.54	327.4	4 54	2	10 4	77			
KSARA	23.05	341.4	5 9	1	9 35	20			
TEHERAN	24.39	13.7	5 16A	-5	9 43	5			
GORIS	27.38	3.1	5 50	1	10 52	24			
QUETTA	27.54	45.7	5 51	1	10 33	3		6 36	PP
TIFLIS	29.55	0.5	6 8	0					
MAKHACH-KALA	30.91	4.3	6 22	2					
TANANARIVE	30.93	174.4	6 21	1					
WARSAK DAM	32.93	44.0	6 39	1					
BULAWAYO	35.61	206.2	7 0A	-1					
SOFIA	35.64	332.8	7 1	0					
DEHRA DUN	35.98	54.4			12 23	-21		16 52	

NAMANGAN	37.39	34.7	7 18	2						
ANDIJAN	37.63	35.6	7 20	2						
TAMANRASSET	38.58	291.4	7 25K	-1	13 21	-2			8 55	PP
ROME	40.78	322.7							17 31	
LWOW	41.26	339.9	7 51	3						
LJUBLJANA	42.35	328.9	7 58	!						
TRIESTE	42.47	327.9	7 58	0					9 40	PP
CHATRA	42.62	63.4	8 3K	4						
BRATISLAVA	42.65	332.9	7 59	0						
MOSCOW	43.90	354.4	8 0	-10						
KIMBERLEY	44.83	204.9	8 16A	-1						
SVERDLOVSK	46.37	12.2	8 28	-1						
LHASA	46.53	60.5	8 34	3						
PLAUEN	46.56	331.9	8 30	-1						
SHILLONG	46.57	66.2	8 28	-3						
COLLMBERG	46.75	333.2	8 30	-2					10 21	PP
STUTTGART	46.82	328.4	8 32	-1					10 22	PP
JENA	47.13	332.0	8 33	-2					10 25	PP
STRASBOURG	47.48	327.4	8 39	1	15 40	7			18 52	SS
POTSDAM	47.50	334.3	8 39	1						
BESANCON	47.68	325.0	8 41	1						
PULKOVO	48.78	350.5	8 49	1						
BENSBERG	49.26	329.6	8 53	1						
NURMIJARVI	50.53	347.4	9 2	0						
TOLEDO	50.89	312.0	9 4	0	16 19	-2			11 1	PP
UPPSALA	51.71	343.1	9 12	1						
GOTEBORG	51.83	338.5	9 12	0						
KEW	53.42	326.7	9 23	0						
SODANKYLA	56.52	351.8	9 45	-1						
KIRUNA	57.93	349.5	9 54	-2						
PEKING	68.33	51.7	11 7	2						
KHEYS	68.85	2.4	11 7	-1						
CHANGCHUN	75.15	477	11 49	3						
MATUSIRO	85.87	53.7	12 46	4					36 3	
MIRNY	86.03	162.5	12 45	2						
RESOLUTE	89.85	350.0							25 9	
COLLEGE	102.73	5.4	18 6	246						
LA PAZ	114.82	257.3	18 44	2						

AUGUST 8 20.H 36.M 19.S EPICENTRE 35.30 27.27 DEPTH= 42.KM

A= 0.72703 B= 0.37484 C= 0.57526 D= 0.4583 E=-0.8888
G= 0.5113 H= 0.2636 K=-0.8180 HT= 0.0

DEPTH OF FOCUS= 0.001R

SE= 3.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.91	314.0	1	2A	3	1	50	6					
HELWAN	6.40	146.6	1	33	-1	2	41	-6					
KSARA	7.25	99.3	1	43	-3	3	2	-6					
JERUSALEM	7.50	115.7	1	47	-3	3	6	-8					
SOFIA	8.00	338.6	1	59	3	3	53	26			4	4	SS
BUCHAREST	9.15	354.7				4	1	7			6	34	
REGGIO CALA.	9.74	290.1									3	47	
MESSINA	9.84	290.5	2	22	0	4	5	-7			3	20	
BELGRADE	10.85	333.3	2	50A	14						4	18	PGSG
SIMFEROPOL	10.97	26.4	2	38	1	4	52	12					
ROME	13.31	304.1	3	9	0						5	56	
ZAGREB	13.55	324.2				6	18	36			7	30	
LJUBLJANA	14.44	321.9	3	25	2						3	38	PP
TRIESTE	14.57	319.3				6	21	15			4	53	PGPG
LWOW	14.70	351.7	3	31	4	6	23	14					
BRATISLAVA	14.92	332.7	3	33	3								
TIFLIS	15.13	59.7	3	34	2								
VIENNA-H.	15.26	331.3	3	34	0								
TOLMEZZO	15.44	320.2	3	37	1						4	18	
KRAKOW	15.69	342.3	3	43	3						3	55	PP
MAKHACH-KALA	17.43	57.9	4	4	2	7	22	10					
MONACO	17.44	304.8	4	4	2								
WARSAW	17.50	347.1	4	13	11	7	21	7			8	52	PCP
SETIF	17.78	279.3	4	8	2						4	22	PP
RAVENSBURG	18.12	318.9	4	9	-1								
PLAUEN	18.73	328.8	4	16	-2								

TUBINGEN	18.86	320.0	4 19	0					7 55	
STUTTGART	18.90	320.9	4 19	-1					4 45	PP
COLLMBERG	19.01	331.6	4 21	0						
SONNEBERG	19.07	327.1	4 20	-2						
BASLE	19.11	315.8	4 2	-20						
NEUCHATEL	19.20	313.7	4 22	-1						
JENA	19.31	328.8	4 23	-1	7 53	-1			7 18	
HALLE	19.58	330.5	4 28	1					5 53	
HEIDELBERG	19.59	321.7	4 27	0					5 9	
STRASBOURG	19.59	318.6	4 27	0			4 55			
ALGIERS UNI.	19.64	281.4	4 25	-3	7 58	-3			4 47	PP
POTSDAM	19.85	333.7	4 31	1					11 24	
BESANCON	19.89	313.4	4 30	-1						
CLERMONT-FD.	21.05	307.1	4 43	0						
BENSBERG	21.35	323.3	4 50	4					5 21	PP
MOSCOW	21.64	16.0	4 50	2						
RELIZANE	21.74	279.0	4 53	4	8 33	-9			5 20	PPP
SHIRAZ	22.00	97.7	5 3	11	8 52	5				
TAMANRASSET	22.69	242.5	5 1A	2	9 13	13			5 30	PP
PARIS	22.70	314.1	4 59	0						
ALMERIA	24.05	282.4	5 12K	0			5 26			
FOLINIERE	24.46	311.9	6 16	60						
PULKOVO	24.56	3.7	5 16	-1						
GOTEBORG	24.64	340.1	5 15	-3						
GRANADA	24.92	283.4	5 26K	5						
HELSINKI	24.93	357.3	5 23	2						
NURMIJARVI	25.28	357.0	5 24	0						
UPPSALA	25.36	348.6	5 24	-1					5 56	PP
KEW	25.54	317.8	5 38	12						
DURHAM	27.87	323.3	6 5	17						
ADDIS ABABA	28.18	155.4	5 56	5						
SERRA PILAR	28.64	292.6	5 56A	1	10 47	8			6 51	PP
SODANKYLA	32.12	359.5	6 24	-1						
APATITY	32.49	4.4	6 27	-2						
KIRUNA	32.81	355.2	6 30	-2						
QUETTA	33.60	87.3	6 44	6						
ISFJORD	43.27	355.9	7 59	0						
KHEYS	46.94	6.6							19 28	
NORD	49.03	352.2	8 44	-1						
CHATRA	51.33	81.9	9 3	1						
SHILLONG	55.68	81.1	9 35	1						
SHAWINIGAN	71.47	314.2	11 19	1						
PALISADES	75.17	309.8							27 13	
COLLEGE	80.09	357.9	12 7	0						
HUNGRY HORSE	89.85	335.4	12 57	1						
SOUTH POLE	125.12	180.0	18 58	2						

AUGUST 9 6.H 21.M 48.S EPICENTRE 56.07 164.52 DEPTH= 0.KM

A=-0.54037 B= 0.14964 C= 0.82801 D= 0.2669 E= 0.9637
G=-0.7980 H= 0.2210 K=-0.5607 HT= -7.6

SE= 4.10

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KLYUCHI	2.06	278.4	0 37	1	1 1	-2		0 45	*SP
PETROPAVLOVK	4.59	230.6	1 12	0				1 20	*SP
SEVERO-KUR.	7.39	226.4	1 51	0				3 0	
MAGADAN	8.11	301.1	2 1	0				4 3	
OKHA	12.70	267.5						6 24	
UGLEGORSK	15.29	252.2	3 39	1	6 29	0		3 47	*SP
YAKUTSK	18.69	302.8	4 17	-4					
TIKSI	21.60	329.9	4 52	-1				5 22	PP
COLLEGE	24.50	49.6	5 21	-1	9 40	0			
TUKUBASAN	25.85	230.1	5 34	0					
SITKA	32.23	62.7	6 32	0					
IRKUTSK	34.47	289.6						8 2	PP
RESOLUTE	39.57	24.2	7 38	4					
VICTORIA	42.83	68.5	8 10	9					
PENTICTON	44.29	65.3	8 12	-1					
ISFJORD	44.94	351.8	8 17	-1					
HUNGRY HORSE	47.74	63.0	8 40	0				10 17	PCP
SHASTA	48.56	76.0	8 48	1					
MINERAL	49.23	75.8	8 52	0					
BUTTE	50.05	64.4	8 57	-1					

RENO	50.78	75.3	9	4K	0					
LICK	51.36	78.6	8	53K	-15					
SVERDLOVSK	51.85	317.3	9	10	-2					
FRESNO	52.78	77.7	9	13	-6					
SODANKYLA	52.95	341.0	9	17	-3					
KIRUNA	53.58	343.9	9	21	-4					
RUTH	53.60	72.1	9	17	-8					
SALT LAKE C.	54.13	68.7	9	28	-1					
PASADENA	55.61	78.6	9	40	1					
RAPID CITY	56.09	60.2	9	42	-1					
GLEN CANYON	57.07	71.6	9	49	-1					
NURMIJARVI	59.51	338.3	10	4	-3					
TASHKENT	59.60	299.6	10	13	5					
MOSCOW	60.50	328.7	10	12	-2					
UPPSALA	61.47	341.7	10	17	-3					
DUZHANBE	61.96	297.9	10	15	-9					
CHITTAGONG	62.13	269.0	10	6	-19					
GOTEBORG	64.44	344.1	10	40	0					
ST. LOUIS 1	66.46	55.5	10	51	-2					
KIŽYL-ARVAT	67.37	306.9	11	2	3			19	56	2
BREBEUF	67.64	40.2	11	9	9					
POTSDAM	69.37	341.8	11	9	-2					
LWOW	69.47	333.9	11	15	3					
QUETTA	69.50	293.6	11	9	-3					
WITTEVEEN	69.95	345.9	11	23	8					
TIFLIS	70.07	316.2						11	28	PCP
MORGANTOWN	70.16	47.8	11	25	9					
COLLMBERG	70.42	341.5	11	16	-2			14	5	PP
JENA	71.03	342.3	11	17	-4			12	14	
SIMFEROPOL	71.04	325.1	11	27	6			21	5	PS
BRATISLAVA	72.61	337.8	11	32	1			11	40	PCP
S OURG	73.92	344.2	11	37	-1			26	12	SS
F RE	74.78	349.8	11	42	-1					
	77.02	304.1	11	54K	-2	12	2			
CHARTERS TS.	77.42	197.6	12	0	2					
KSARA	80.37	318.7	12	12	-2			27	2	
JERUSALEM	82.44	318.3	12	34	9					
BRISBANE	83.73	190.5	12	17	-15					
HELWAN	85.59	320.6	12	48	7					
SETIF	86.38	343.2	12	54	9			13	39	
ADELAIDE	93.32	201.0	17	24	246					
BYRD STATION	142.33	163.9	19	39	5					
SOUTH POLE	145.90	180.0	19	40	0			23	25	SKP

AUGUST 9 7.H 39.M 23.S EPICENTRE 40.47-126.62 DEPTH= 0.KM

A=-0.45509 B=-0.61233 C= 0.64648 D=-0.8026 E= 0.5965
G=-0.3856 H=-0.5189 K=-0.7629 HT= -1.9

SE= 3.71

	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
FERNDALE	1.80	85.7	0	32	0							
ARCATA	1.98	77.1	0	33	-2	0	59	-2				
UKIAH	2.94	115.9	0	47	-2							
SHASTA	3.23	84.5	0	52A	-1							
MINERAL	3.83	90.1	0	59A	-2							
SAN FRANCSCO	4.22	128.4	1	2K	-5	1	54	-3				
BERKELEY	4.27	126.0	1	2K	-5	1	57	-2				
BRANNER	4.61	129.9	1	8K	-4	2	4	-3				
CORVALLIS	4.79	29.7	0	31A	-44							
LICK	4.98	127.2	1	13K	-5	2	13	-4				
RENO	5.31	97.9	1	21K	-1	2	27	2				
VINEYARD	5.53	130.5	1	21K	-4							
FRESNO	6.49	122.5	1	36	-3	2	30	-25				
VICTORIA	8.37	14.8	2	1A	-4							
ALBERNI	8.89	7.6	2	10	-2							
RUTH	9.04	94.1	2	17K	3	3	52	-6				
PASADENA	9.22	130.5	2	13K	-4							
BOULDER CITY	10.30	112.1	2	33	1	3	59	-31				
PENTICTON	10.14	26.9	2	27A	-3							
SALT LAKE C.	11.23	83.7	2	45	0	5	3	11				
BUTTE	11.65	56.9	2	48	-2	5	52	50				
HUNGRY HORSE	11.95	44.6	2	52	-2							
GLEN CANYON	12.25	101.8	2	59	1							
BOZEMAN	12.51	60.3	3	1	-1	5	24	1				

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

TUCSON	15.12	117.9	3	36	0	6	51	26	3 57	
TUCSON TELE.	15.14	117.4	3	37	0					
SITKA	17.53	344.1	4	12	5	7	35	14		
RAPID CITY	17.69	70.5	4	6	-3	7	31	6		
CHIHUAHUA	20.58	118.7	4	47	4	8	41	12	12 5	
LUBBOCK	20.90	101.3	4	48	2					
MAZATLAN	24.24	129.2				9	49	13	15 37	
FAYETTEVILLE	25.75	89.3	5	34A	0	10	13	12		
COLLEGE	27.34	340.4	5	43	-5	10	19	-8		
FLORISSANT	27.85	81.5	5	56	3	10	37	1		
GUADALAJARA	27.99	127.9				10	45	7	16 45	
ST. LOUIS 1	28.00	81.8	5	53	-1	10	39	1		
MANZANILLO	28.66	131.6				10	44	-5		
TACUBAYA	31.49	123.7	6	27	2				7 23	PP
HAWAII V.OB.	32.26	238.0	6	30	-2	11	48	3		
PUEBLA	32.40	122.8							19 27	
KIPAPA	32.70	244.0	6	7	-29					
HONOLULU	32.84	243.9	6	34	-3				12 58	
VERA CRUZ	33.63	120.0	6	55	11	12	1	-6	17 22	SCS
OAXACA	34.80	123.4	6	57	3				18 13	
MORGANTOWN	35.41	75.8	6	59K	0	12	37	3		
COLUMBIA	36.55	85.3	7	12	3	12	59	7		
PENNSYLVANIA	36.61	73.1	7	15	6	12	48	-5		
MERIDA	36.94	110.6	7	19A	7	13	4	6	8 20	
OTTAWA	37.08	65.1	7	10	-3					
RESOLUTE	37.27	13.3	7	11	-4	13	5	2		
CHAPEL HILL	37.31	81.3	7	16	1					
WASHINGTON	37.76	75.8	7	21	2	13	19	9		
COMITAN	38.39	118.9				12	51	-29	10 57	
BREBEUF	38.51	64.4	7	28K	3	13	33	11		
SHAWINIGAN	38.88	62.6	7	28	-1					
PALISADES	39.43	71.4	7	36	3	13	41	5	9 11	PP
FORDHAM	39.50	71.7	7	37	3	13	38	1		
SEVEN FALLS	40.08	61.3	7	41	3					
WESTON	40.89	68.5	7	47	2	14	1	3	16 59	SS
HALIFAX	45.60	63.0	8	24	1					
PETROPAVLOVK	50.46	310.9	8	55	-6				10 57	PP
BALBOA HTS.	52.16	113.7	9	17	3	16	25	-13		
MAGADAN	52.66	320.6	9	15	-3				16 51	PS
NORD	53.05	10.0	9	20	-1	16	57	7		
GALERAZAMBA	53.96	108.4				16	44	-19		
SAN JUAN	55.99	94.4	9	44	2				11 15	
TIKSI	56.46	338.4	9	41	-5					
SCORESBY SD.	57.05	22.8	9	58	8	17	53	9		
CHINCHINA	57.73	113.7	9	58	3	17	58	5	13 38	
FUQUENE	58.70	111.7	10	3A	2				13 53	
BOGOTA	59.06	112.7	10	5	1	18	13	3	12 9	PP
KHEYS	59.14	359.1	10	4	0				12 23	PP
ISFJORD	59.33	8.9	10	11	5					
REYKJAVIK	60.27	29.3	10	13	1					
YAKUTSK	60.98	328.4	10	16	-1	18	33	-2		
DOMINICA	61.44	94.0	10	34	14					
SIDA	61.88	28.5	10	20	-3					
FORT FRANCE	61.98	94.3	10	26	2					
GRENADA	63.20	97.1	10	35	3					
TRINIDAD	64.34	98.1	10	37	-2					
AFIAMALU	68.41	227.8				20	3	-4		
KIRUNA	69.20	12.8	11	10	0					
TUKUBASAN	69.82	300.7	11	4	-10	20	20	-3	27 50	SSS
HUANCAYO	70.57	126.0	11	18	-1	20	43	11		
SODANKYLA	70.58	10.6	11	15	-4					
VLADIVOSTOK	70.78	310.5	11	21	1					
MATUSIRO	70.86	301.9	11	13	-7	20	31	-4	21 0	SCS
APATITY	71.25	8.0	11	27	4	20	44	4	14 6	PP
BERGEN	72.05	22.8	11	26	-2				11 33	15 37 PPP
ABERDEEN	72.14	28.1	11	41K	13	20	51	1		14 11 PP
CHANGCHUN	74.05	314.3	11	40	1	21	9	-3		
DURHAM	74.15	29.5	11	43K	3	21	21	8		14 30 PP
UPPSALA	75.79	17.7	11	49	0					
GOTEBORG	76.22	21.4	11	52	0					
NURMIJARVI	76.66	14.1	11	54	0					
KEW	77.18	31.1	11	58	1	21	56	10		26 44 SS
IRKUTSK	77.61	330.8	12	2	3					14 55 PP
COPENHAGEN	78.09	22.3	12	3	1	22	6	10		
JERSEY	78.22	33.5	11	4	-59	21	42	-15		
PULKOVO	78.32	11.7	12	2	-1	21	56	-2	15 7	PP
WITTEVEEN	78.68	26.8	12	7	2					
DE BILT	78.75	28.0	12	10	4	22	17	14	15 7	PP

FOLINIERE	79.22	32.9	12	6	-2					
PARIS	80.39	31.3	12	18	3	22	22	2		
BENSBERG	80.39	27.6	12	14	-1	22	29	9		
POTSDAM	81.13	23.7	12	22	4	22	38	10	15	39 PP
SERRA PILAR	81.21	42.4	12	15A	-4				18	22 PCP
HALLE	81.54	24.7	12	23	2	22	43	11	23	24 PS
JENA	81.91	25.2	12	23	0	22	43	7	15	37
COLLMBERG	82.05	24.2							12	23 PP
HEIDELBERG	82.25	27.6	12	25	1					
SONNEBERG	82.26	25.7	12	27	3				22	50 SKKS
PLAUEN	82.48	25.1	12	29	4					
STRASBOURG	82.59	28.6	12	27	1	22	49	6	15	37 PP
LISBON	82.68	44.4	12	30A	4	22	59	15		
SVERDLOVSK	82.88	356.0	12	26	-2	22	41	-5	27	43 SS
CHEB	82.91	25.2	13	7	39				23	57 PS
STUTTGART	82.98	27.6	12	32	4	22	48	1	15	42 PP
CLERMONT-FD.	83.09	32.8	12	32	3	23	5	17		
TUBINGEN	83.10	27.9	12	32	3					
MOSCOW	83.24	8.9							12	37 PCP
EBINGEN	83.36	28.1	12	35	5					
BASLE	83.40	29.3	12	26	-4	22	39	-12		
WARSAW	83.49	19.4	12	38	7	22	58	6	15	55 PP
PRAGUE	83.57	24.1	12	39	8	23	3	10	23	48 PS
PRUHONICE	83.68	24.0	12	31	-1	23	4	10	15	48 PP
RAVENSBURG	83.93	28.0	12	34	1					
TOLEDO	84.44	40.7	12	35	0	23	7	5	15	49 PP
RACIBORZ	84.68	21.9	12	39	2				23	8 SCS
CHORZOW	84.71	21.3	12	43	6				17	0 PPP
ZO-SE	85.12	307.1				23	11	3		
KRAKOW	85.19	20.9	12	45	6	23	12	3		
VIENNA-H.	85.77	23.8	12	43	1	23	11	-4		
NANKING	85.88	309.3	12	50	7	22	20	-56		
TORTOSA	85.90	37.4	12	57	14	23	19	3		
ISOLA	85.99	31.4	12	41	-2					
SKALNATE PL.	86.07	21.1	12	48	4				24	11 PS
BRATISLAVA	86.07	23.4	12	48	4	23	30	13		
LWOW	86.46	18.5							12	49 PP
MONACO	86.52	31.5	12	51	5					
HURBANOVO	86.67	22.9	13	4	17				15	56 PP
MALAGA	86.67	42.9	12	50	3	23	26	3	16	10 PP
GRANADA	86.73	42.1	13	24K	37	23	36	12	15	10 PP
CHIAVARI	86.76	30.0				23	13	-11	18	19
TRIESTE	87.21	26.6	13	23	34	23	37	9	24	30 SP
BUDAPEST	87.26	22.5	12	56	7	23	14	-15		
ALICANTE	87.38	39.5	12	51	1	23	37	7	16	19 PP
ALMERIA	87.56	41.6	12	51	0	23	33	1	24	35
PRATO	87.80	29.1	12	50	-2	23	37	3		
ZAGREB	87.81	25.2				23	9	-25		
NOUMEA	88.11	238.5	13	3	10					
SANTA LUCIA	89.87	136.1				23	22	-31	24	46 PS
RELIZANE	89.94	40.4	13	13	11	24	13	19		
ROME	90.02	29.3	13	6	3	24	2	8	13 31	16 41 PP
BELGRADE	90.09	22.8	13	47A	44	23	43	-12		17 17 PP
ALGIERS UNI.	90.33	38.2	13	5	1	23	53	-4		23 25 SKS
LANCHOW	90.85	321.3	13	8	2					
SETIF	91.89	37.0	13	11	0					18 29
TARANTO	92.99	26.8	12	59	-17	23	39	-42		
PORT MORESBY	93.18	260.4				23	57	-25		25 36
SIMFEROPOL	93.22	13.6							17	4 PP
MESSINA	94.40	29.0				24	27	-6	25	55 PS
MBOUR	95.11	66.4				24	16	15	24	58 S
WELLINGTON	97.20	220.4							26	21 PS
TASHKENT	97.32	348.0							18	9 PSP
TIFLIS	97.83	6.5	13	41	3					
BRISBANE	100.66	243.2				24	26	-4	26	50 PS
TAMANRASSET	102.92	44.6				24	5?	10	18	16 PP
ROXBURGH	102.98	220.5							27	27 PS
KSARA	104.34	15.0	14	7	0				18	31 PP
RIVERVIEW	105.81	239.0				24	54	0	27	58 PS
JERUSALEM	106.18	16.0							18	39 PP
HELWAN	107.09	19.9							18	52
CANBERRA	108.12	238.9							34	22 SS
CAPE HALLETT	120.68	198.5							30	13 PS
SOUTH POLE	130.28	180.0	19	9	-3					
LWIRO	135.93	36.7							22	3
WILKES	139.34	211.4							40	51 SS
MIRNY	145.86	207.0	19	35	-5					
HERMANUS	152.34	88.4							42	57

KIMBERLEY 153.83 72.4 20 8 15

AUGUST 9 16.H 46.M 25.S EPICENTRE -24.30-176.86 DEPTH= 30.KM

A=-0 91110 B=-0.04990 C=-0.40915 D=-0.0547 E= 0.9985
G= 0.4085 H= 0.0224 K=-0.9125 HT= 3.6

SE= 2.98

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	11.39	25.8	2 34	-9	4 35	-16		
ONERAHI	13.72	211.5	3 19	5				
KARAPIRO	15.06	203.7	3 33	1				4 14
PORT VILA	15.29	292.5	3 38	3	6 45	21		
TUAI	15.33	198.0	3 59	24	6 21	-4		
NOUMEA	15.46	274.0	3 37	0	6 49	21		
KOUMAC	17.82	278.3	4 8	1	7 44	22		
WELLINGTON	18.32	200.4	4 10	-3	7 19	-14		4 50
COBB RIVER	18.86	205.0	4 35	15	7 40	-6		
KAIMATA	20.60	205.3	4 50	11				5 11
GEBBIES PASS	21.18	201.4	4 42	-3	8 25	-9		
ROXBURGH	23.91	204.5	5 6	-6				
BRISBANE	27.46	257.0	5 40	-5	10 20	-2		
RIVERVIEW	29.43	243.8	6 4A	1				7 0 PP
CANBERRA	31.45	241.6	6 23	2	11 27	2		7 26 *SP
CHARTERS TS.	34.33	269.6	6 45	-1	11 44	-26		
MELBOURNE	35.12	238.3	6 51	-1				8 17 PP
RABAUL	35.89	298.9	6 55	-4				
PORT MORESBY	37.35	287.1	7 10	-1	12 49	-8		8 37 PP
ADELAIDE	39.76	244.0	7 28	-3				9 12 PP
CAPE HALLETT	48.59	185.2	8 42	0	15 47	6		
GUAM	53.05	310.9	9 14	-2				
SCOTT BASE	54.18	184.2	9 20	-4	17 11	13		
BYRD STATION	60.74	170.3	10 9	-2				39 32 PKPPKP
WILKES	61.03	206.1	10 15	2	18 32	4		19 1
SOUTH POLE	65.85	180.0	10 41	-3				39 3 PKPPKP
MIRNY	68.03	205.6	10 55	-3				
TUKUBASAN	72.62	324.7	11 22K	-4	20 47	-1		25 31 SS
BAGUIO CITY	73.22	297.2	10 35	-55				
MATUSIRO	73.87	323.7	11 30	-3	20 50	-12		14 3 PP
LEMBANG	74.04	269.6	11 33K	-1				
ABUYAMA	74.13	320.9	11 33K	-2				
ARGENTINE I.	77.08	156.5	11 50	-2				
Y.-SAKHLINSK	79.81	333.2	12 7	0				
PETROPAVLOVK	79.89	345.3	12 7	0				15 24 PP
VINEYARD	80.12	42.2	12 10	2				
BERKELEY	80.32	40.9	12 9A	0	22 21	9		
LICK	80.35	41.6	12 10A	0				
PASADENA	80.53	45.9	12 11	1	22 27	13		15 20 PP
UKIAH	80.59	39.4	12 11	0				
ZO-SE	80.93	309.9	12 12	-1	22 24	6		
FRESNO	81.11	43.0	12 14	0				
HONG KONG	81.43	299.1	12 15	0	22 29	6		18 38
VLADIVOSTOK	81.97	324.8	12 19	1				22 25 SCS
CANTON	82.49	299.3	12 23A	2	22 38	4		
RENO	82.86	40.8	12 23	0				
NANKING	83.16	309.6	12 26A	2				
BOULDER CITY	83.81	46.1	12 29	2				
TUCSON	84.45	51.1	12 31	0				
WUHAN	85.37	306.3	12 36A	1				
RUTH	85.63	43.4	12 41A	5				
CHANGCHUN	86.03	322.1	12 40A	2	23 4	-5		15 58 PP
GLEN CANYON	86.52	46.8	12 41	0				
VICTORIA	86.81	32.3	12 43K	1	23 27	11		
TACUBAYA	87.20	67.4						16 15 PP
PORT STANLEY	87.42	147.0	12 49	4				
MAGADAN	87.67	344.2	12 47	1				
SITKA	88.25	21.3	12 49	0				
SALT LAKE C.	88.48	43.5	12 50	0				
PENTICTON	89.22	33.4	12 55K	1				
PEKING	89.31	315.0	12 57A	3	23 29	-11		23 21 SKS
SANTA LUCIA	89.36	126.6						23 29
BUTTE	91.01	38.9	13 0	-2				16 39 PP
HUNGRY HORSE	91.54	36.4	13 4	-1				30 26 PKKP
COLLEGE	91.68	12.0	13 1	-4	23 44	-17		16 29 PP

BOZEMAN	91.70	39.8	13	7	2					
KUNMING	91.99	296.6	13	9A	2	23	39	-25		
CHENGTU	93.40	302.0	13	17	4	23	49	-27		
HUANCAYO	95.37	105.7	13	27	5					
YAKUTSK	95.99	337.6	13	22	-3					
FAYETTEVILLE	98.38	54.3	13	37K	1	24	28	18	17	39 PP
LAWRENCE	98.77	51.3	13	41	3					
BOGOTA	103.54	91.0				24	37	2	25	22 SKKS
RESOLUTE	111.13	16.4				26	53	105	19	6
PALISADES	114.98	54.5	15	59	-159	25	31	8	19	39 PP
SEMIPALATNSK	116.40	315.9	18	39	-1					
KHEYS	119.32	351.1	18	44	-2					
FRUNSE	119.36	306.8	18	46	0					
KIMBERLEY	123.30	202.8	18	54	0					
DUZHANBE	123.31	301.3	18	56	2					
QUETTA	123.59	291.1	18	54	0					
SVERDLOVSK	127.69	324.1	19	2	0				21	2 PP
BULAWAYO	129.34	211.5	19	7	2					
ASHKABAD	131.46	300.0	19	11	2				21	25 PP
SCORESBY SD.	131.54	11.0							22	40 PKS
APATITY	132.87	344.7	19	12	0				21	33 PP
BROKEN HILL	134.23	215.3	19	16	1					
SODANKYLA	134.52	347.5	19	15	0					
KIRUNA	135.17	350.8	19	15	-1				22	51 PKS
SHIRAZ	135.93	288.2	19	21	3				21	46 PP
TEHERAN	137.07	297.0	19	20	0				23	0 PP
MOSCOW	139.71	330.3	19	23	-2				22	19 PP
PULKOVO	139.78	339.0	19	15	-10				22	11 PP
GORIS	140.71	303.3	19	23	-4				22	55 PKS
NURMIJARVI	140.86	343.3	19	21	-6					
TIFLIS	141.40	307.1	19	26	-2	19	45		20	32 PP
ADDIS ABABA	142.78	252.1	19	42	12					
UPPSALA	143.05	347.9	19	26	-5					
LWIRO	143.69	227.0	19	31	-1					
LUANDA	145.61	197.9	18	38A	-57					
GOTEBORG	146.02	351.5	19	33	-3				24	55
ABERDEEN	146.94	5.2	19	49	12				23	45 PP
SIMFEROPOL	147.52	317.1	19	41	3				33	14 SKSP
COPENHAGEN	147.91	350.1	19	44A	5					
WARSAW	148.95	338.5	19	47A	6	20	21		23	16 PP
DURHAM	149.36	5.4	19	43	2	26	22	-22		
LWOW	149.76	332.7	19	46	4					
KSARA	149.95	295.9	19	43	1	27	11	26		
JERUSALEM	150.79	292.0	19	49	6				23	21 PP
POTSDAM	150.95	347.4	19	47	3					
KRAKOW	151.15	337.3	19	50	6					
WITTEVEEN	151.39	355.5	19	50	6					
RACIBORZ	151.71	339.3	19	44	-1					
COLLMBERG	151.99	346.8	19	45	0					
HALLE	152.01	348.2	19	53	8					
DE BILT	152.20	357.3	19	55	10					
BUCHAREST	152.55	322.7	20	11	25					
JENA	152.62	348.3	19	46	0					
KEW	152.74	4.7	19	49	3					
PRAGUE	152.81	344.0	20	8	22					
PRUHONICE	152.86	343.7	19	46	0					
PLAUEN	152.93	347.3	19	52	6					
BENSBERG	153.20	354.3	19	55	8					
CHEB	153.27	346.7	20	0	13					
HURBANOVO	153.61	336.8	20	14	27					
BRATISLAVA	153.73	338.6	19	48	0					
VIENNA-H.	153.90	339.6	19	45	-3					
HELWAN	154.33	288.7	19	50	2					
HEIDELBERG	154.56	351.5	19	52	3					
STUTTGART	155.10	350.3	19	46	-3					
BELGRADE	155.15	329.7	19	47A	-2					
SOFIA	155.20	322.6	19	49	0					
TUBINGEN	155.36	350.5	19	52	2					
FOLINIERE	155.41	5.8	19	56	6					
STRASBOURG	155.49	352.6	19	52	2					
PARIS	155.53	1.0	19	53	3					
EBINGEN	155.72	350.5	19	52	2					
RAVENSBURG	156.00	349.2	19	52	2					
LJUBLJANA	156.43	339.9	19	52	1					
BASLE	156.55	352.4	19	49	-2					
TOLMEZZO	156.56	342.6	19	52	1					
BESANCON	156.98	355.0	19	56	4					
TRIESTE	157.03	340.7	19	57	5					
PADOVA	157.78	343.6	20	33	40					

BOZEMAN	91.70	39.8	13	7	2					
KUNMING	91.99	296.6	13	9A	2	23	39	-25		
CHENGTU	93.40	302.0	13	17	4	23	49	-27		
HUANCAYO	95.37	105.7	13	27	5					
YAKUTSK	95.99	337.6	13	22	-3					
FAYETTEVILLE	98.38	54.3	13	37K	1	24	28	18	17	39 PP
LAWRENCE	98.77	51.3	13	41	3					
BOGOTA	103.54	91.0				24	37	2	25	22 SKKS
RESOLUTE	111.13	16.4				26	53	105	19	6
PALISADES	114.98	54.5	15	59	-159	25	31	8	19	39 PP
SEMIPALATNSK	116.40	315.9	18	39	-1					
KHEYS	119.32	351.1	18	44	-2					
FRUNSE	119.36	306.8	18	46	0					
KIMBERLEY	123.30	202.8	18	54	0					
DUZHANBE	123.31	301.3	18	56	2					
QUETTA	123.59	291.1	18	54	0					
SVERDLOVSK	127.69	324.1	19	2	0				21	2 PP
BULAWAYO	129.34	211.5	19	7	2					
ASHKABAD	131.46	300.0	19	11	2				21	25 PP
SCORESBY SD.	131.54	11.0							22	40 PKS
APATITY	132.87	344.7	19	12	0				21	33 PP
BROKEN HILL	134.23	215.3	19	16	1					
SODANKYLA	134.52	347.5	19	15	0					
KIRUNA	135.17	350.8	19	15	-1				22	51 PKS
SHIRAZ	135.93	288.2	19	21	3				21	46 PP
TEHERAN	137.07	297.0	19	20	0				23	0 PP
MOSCOW	139.71	330.3	19	23	-2				22	19 PP
PULKOVO	139.78	339.0	19	15	-10				22	11 PP
GORIS	140.71	303.3	19	23	-4				22	55 PKS
NURMIJARVI	140.86	343.3	19	21	-6					
TIFLIS	141.40	307.1	19	26	-2	19	45		20	32 PP
ADDIS ABABA	142.78	252.1	19	42	12					
UPPSALA	143.05	347.9	19	26	-5					
LWIRO	143.69	227.0	19	31	-1					
LUANDA	145.61	197.9	18	38A	-57					
GOTEBORG	146.02	351.5	19	33	-3				24	55
ABERDEEN	146.94	5.2	19	49	12				23	45 PP
SIMFEROPOL	147.52	317.1	19	41	3				33	14 SKSP
COPENHAGEN	147.91	350.1	19	44A	5					
WARSAW	148.95	338.5	19	47A	6	20	21		23	16 PP
DURHAM	149.36	5.4	19	43	2	26	22	-22		
LWOW	149.76	332.7	19	46	4					
KSARA	149.95	295.9	19	43	1	27	11	26		
JERUSALEM	150.79	292.0	19	49	6				23	21 PP
POTSDAM	150.95	347.4	19	47	3					
KRAKOW	151.15	337.3	19	50	6					
WITTEVEEN	151.39	355.5	19	50	6					
RACIBORZ	151.71	339.3	19	44	-1					
COLLMBERG	151.99	346.8	19	45	0					
HALLE	152.01	348.2	19	53	8					
DE BILT	152.20	357.3	19	55	10					
BUCHAREST	152.55	322.7	20	11	25					
JENA	152.62	348.3	19	46	0					
KEW	152.74	4.7	19	49	3					
PRAGUE	152.81	344.0	20	8	22					
PRUHONICE	152.86	343.7	19	46	0					
PLAUEN	152.93	347.3	19	52	6					
BENSBERG	153.20	354.3	19	55	8					
CHEB	153.27	346.7	20	0	13					
HURBANOVO	153.61	336.8	20	14	27					
BRATISLAVA	153.73	338.6	19	48	0					
VIENNA-H.	153.90	339.6	19	45	-3					
HELWAN	154.33	288.7	19	50	2					
HEIDELBERG	154.56	351.5	19	52	3					
STUTTGART	155.10	350.3	19	46	-3					
BELGRADE	155.15	329.7	19	47A	-2					
SOFIA	155.20	322.6	19	49	0					
TUBINGEN	155.36	350.5	19	52	2					
FOLINIERE	155.41	5.8	19	56	6					
STRASBOURG	155.49	352.6	19	52	2					
PARIS	155.53	1.0	19	53	3					
EBINGEN	155.72	350.5	19	52	2					
RAVENSBURG	156.00	349.2	19	52	2					
LJUBLJANA	156.43	339.9	19	52	1					
BASLE	156.55	352.4	19	49	-2					
TOLMEZZO	156.56	342.6	19	52	1					
BESANCON	156.98	355.0	19	56	4					
TRIESTE	157.03	340.7	19	57	5					
PADOVA	157.78	343.6	20	33	40					

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CLERMONT-FD.	158.57	0.0	20	11	17						
MBOUR	158.64	113.8	20	5	11					21 0	PKP2
ISOLA	159.91	351.8								20 37	
MONACO	160.30	350.7	20	2	6				20 21		
SERRA PILAR	160.56	27.5	19	48K	-8					24 26	PP
ROME	160.80	338.4	19	59A	3					24 25	PP
MESSINA	162.57	325.6	20	19	21					23 53	PP
TOLEDO	163.32	19.6	19	59	0					24 33	PP
TORTOSA	163.38	7.0								24 53	PP
ALICANTE	165.66	11.5	19	49	-12	26	27	-33		24 43	PP
GRANADA	165.92	22.6	21	2A	61					24 45	PP
MALAGA	166.03	25.9	20	2K	1	27	2	2		24 46	PP
ALMERIA	166.59	19.7	20	5K	3				21 5	25 0	PP
ALGIERS UNI.	167.57	0.3	19	55	-7	27	38	37		24 58	PP
SETIF	167.98	351.2	20	6	3					24 49	PP
RELIZANE	168.37	10.5	20	5	2					24 25	PP
TAMANRASSET	177.34	235.9	20	8	1					25 35	PP

AUGUST 9 23.H 36.M 54.S EPICENTRE -11.80 165.86 DEPTH= 62.KM

A=-0.94946 B= 0 23927 C=-0.20315 D= 0 2444 E= 0.9697
G= 0.1970 H=-0.0496 K=-0 9791 HT= 6.3

DEPTH OF FOCUS= 0.005R

SE= 2.99

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT VILA	6.36	158.3	0	42	-51	1	48	-58					
KOUMAC	8.84	189.7	2	6	-2	3	45	-2					
NOUMEA	10.46	177.0	2	29	-1								
RABAUL	15.51	298.0	3	36	0								
PORT MORESBY	18.54	275.6	4	16	2						7	48	
BRISBANE	19.78	216.5	4	30	2	8	16	14					
CHARTERS TS.	20.55	243.9	4	39K	3	8	30	13					
AFIAMALU	21.90	97.9	4	48K	-2								
RIVERVIEW	25.72	209.1	5	30A	4	9	56	8	5	48	6	14	PP
KARAPIRO	27.43	163.2	5	40	-2						6	41	
CANBERRA	27.96	210.4	5	50	3	10	33	8	6	3	6	53	PP
TUAI	28.71	161.4	5	52	-2								
COBB RIVER	29.79	169.5	6	6	3								
MELBOURNE	31.96	212.2	6	25	3								
GEBBIES PASS	32.32	170.8	6	23	-3								
ADELAIDE	33.74	222.4	6	40	2	12	14	18			16	39	SCS
KIPAPA	48.46	47.2	9	29	51								
MUNDARING	49.77	238.0	8	50	2								
BAGUIO CITY	52.83	301.2	9	12	0								
MATUSIRO	54.68	332.7	9	21	-4	16	47	-12			17	16	*SS
LEMBANG	57.60	269.4	9	48	2								
ZO-SE	60.47	316.1	10	6	0	18	18	3					
CAPE HALLETT	60.53	178.5	10	5K	-1	18	42	26			22	48	SS
HONG KONG	60.95	303.8	10	10	1	18	30	9	10	40			
NHA TRANG	61.08	291.1	10	13	3				10	33			
CANTON	62.00	304.1				18	43	9					
NANKING	62.68	315.6	10	18	-3								
WUHAN	64.81	311.9	10	36	1								
PETROPAVLOVK	64.85	355.2	10	30	-5								
SCOTT BASE	66.05	179.8	10	42K	-1								
CHANGCHUN	66.53	329.1	10	45	-1								
PEKING	69.13	321.2	11	2	0	20	5	4					
KUNMING	71.60	301.6	11	15	-2	20	29	-1					
MIRNY	72.44	203.6	11	21	-1								
CHENGTU	72.84	307.3	11	24	0	20	47	3					
BYRD STATION	75.80	170.0	11	40	-1								
SOUTH POLE	78.28	180.0	11	54	-1	21	37	-7			26	56	SS
SHILLONG	80.98	298.5	12	12A	2								
LHASA	82.92	302.2	12	22	2	22	39	7					
UKIAH	83.04	47.8	12	29	9								
BERKELEY	83.29	49.2	12	19	-3								
LICK	83.57	49.9	12	15	-8								
COLLEGE	83.97	18.1	12	20	-5				12	34			
MINERAL	84.64	47.1	12	30	2								
FRESNO	84.77	50.9	12	38	9								
PASADENA	85.22	53.8	12	50	19	24	6	71					
CHATRA	85.39	298.5	12	32	0								

RENO	85.66	48.3	12 35	2			
TIKSI	86.83	349.0	12 39	0			
BOULDER CITY	88.37	52.9	12 46	0			
RUTH	89.14	49.7	12 50A	0			
TUCSON	90.65	57.3	13 12	15			
TUCSON TELE.	90.76	57.2	12 59	1			
GLEN CANYON	91.15	52.6	13 4	4			
HUNGRY HORSE	92.25	41.1	13 4	-1			13 28
QUETTA	103.47	298.4	13 58	3			
SHIRAZ	115.95	297.3	18 35	-1	25 18	-2	
SODANKYLA	118.31	343.3	18 36	-5			
KIRUNA	119.60	345.7	18 41	-2			
PALISADES	120.39	49.3	14 58	-227			20 10 PP
PULKOVO	121.93	335.3					20 11
NURMIJARVI	123.65	338.1	18 50	-1			
KIMBERLEY	124.87	222.3	18 53K	0			
BULAWAYO	127.30	233.3	18 59K	1			
KSARA	129.51	304.2	19 7	5			21 20 PP
BROKEN HILL	130.37	239.4	19 7K	3			
WARSAW	130.73	332.1					22 29 PKS
COPENHAGEN	131.56	340.2					22 32 PKS
COLLMBERG	134.84	336.2	19 27	15			22 56 PKS
LWIRO	135.10	254.7	19 17	4			
PRUHONICE	135.21	333.9	19 13	0			21 49 PP
LJUBLJANA	138.09	330.0	19 28	10			
STUTTGART	138.31	336.7	19 17	-2			21 57 PP
PARIS	140.59	342.7	19 16	-7			
ROME	142.06	327.0	19 20	-5			22 22 PP
ISOLA	142.93	334.4	19 35	8			
TOLEDO	150.64	344.0	19 45	5			20 7 PKP2
ALGIERS UNI.	150.71	331.0	19 40	0			
RELIZANE	152.70	333.3	20 1	18			21 7 PKP2
TAMANRASSET	158.31	302.8	20 1	11	20 25		24 12 PP

AUGUST 11 2.H 37.M 13.S EPICENTRE 52.54-175.98 DEPTH= 229.KM

A=-0.60931 B=-0.04280 C= 0.79178 D=-0.0701 E= 0.9975
G=-0 7898 H=-0.0555 K=-0.6108 HT= -6.3

DEPTH OF FOCUS= 0.031R

SE= 1.06

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	18.93	38.4	4 4	-2				
SITKA	23.61	62.8	4 53	1				11 56 SCP
ALBERNI	31.88	75.0	6 8A	2				
VICTORIA	33.04	75.5	6 17A	1				
KIPAPA	34.02	149.1	6 22	-2				
PENTICTON	34.90	72.2	6 31K	-1				
MATUSIRO	35.68	261.9	6 37	-1			7 6	
SHASTA	37.82	86.3	6 57A	1				
UKIAH	38.27	89.0	7 0	0			7 21	8 20 PP
MINERAL	38.51	86.2	7 2	0				
HUNGRY HORSE	38.61	70.7	7 3	0				9 12 PCP
BERKELEY	39.64	89.8	7 9A	-2				7 53
LICK	40.36	89.9	7 17A	0				8 1
BUTTE	40.68	72.9	7 18	-2				
VINEYARD	40.90	90.4	7 22A	1				
BOZEMAN	41.76	72.5	7 29	1				
FRESNO	41.85	89.1	7 30	1				
EUREKA	42.47	83.2	7 35	1				9 16 PCP
PASADENA	44.58	90.7	7 52	1				
BOULDER CITY	45.40	86.2	7 58	1				
FLAMING GRGE	45.53	77.0	7 59	1				9 35 PCP
NORD	45.64	4.2	8 0	1				8 36
GLEN CANYON	46.72	82.8	8 7	-1				9 57 PCP
RAPID CITY	47.22	69.7	8 11	-1			8 41	13 20 SCP
TUCSON	50.36	86.8	8 36	0				
FAYETTEVILLE	57.66	71.6	9 27A	-1			9 48	10 19 PCP
ST. LOUIS 1	58.14	66.9	9 30A	-2				
APATITY	58.22	347.2	10 1	29				
SODANKYLA	59.21	350.0	9 39	0				10 17
KIRUNA	59.33	352.8	9 40	0				10 17
OTTAWA	60.97	52.5	9 50A	-1				

SHAWINIGAN	61.53	49.8	9 53A	-2					
MORGANTOWN	63.04	59.5	10 5K	0					
WESTON	65.34	52.1	10 19K	-1					
NURMIJARVI	66.09	349.0	10 24	0				11 3	
COLUMBIA	66.62	64.4	10 28	0					
HALIFAX	67.16	45.8	10 31	0					
UPPSALA	67.43	352.6	10 33	0				11 6	
PORT MORESBY	69.29	219.3	10 58	14					
CHITTAGONG	73.87	285.6	11 13	2					
COLLMBERG	76.26	354.2	11 26	1				12 4	*SP
JENA	76.71	355.1	11 52	25					
PRUHONICE	77.47	353.1	12 13	41	12 34				
STUTTGART	78.97	356.5	11 40	0				12 21	
CHARTERS TS.	79.42	215.8	11 41	-1				12 15	
QUETTA	81.06	308.7	11 52	1					
SAN JUAN	87.07	63.4	12 22	1					
KARAPIRO	90.40	186.7	12 36	0	13 9				
BYRD STATION	136.12	167.9	18 50	-4				22 13	PP
BROKEN HILL	137.31	323.7						22 18	
SOUTH POLE	142.35	180.0	19 0	-6	19 39			22 29	PP
BULAWAYO	142.45	320.1						22 32	
MAWSON	148.47	218.9	19 17	1					

AUGUST 11 2.H 53.M 23.S EPICENTRE -0.05 121.60 DEPTH= 109.KM

A=-0.52392 B= 0.85177 C=-0.00088 D= 0.8518 E= 0.5239
G= 0 0005 H=-0.0008 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.012R

SE= 4.11

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
LEMBANG	15.48	243.9	3 32K	-2	6 41	19			
BAGUIO CITY	16.40	356.5	3 45	0	7 7	24			
NHA TRANG	17.31	315.2	4 0	4				4 18	PP
MEDAN	23.18	279.2	5 10K	12	9 13	15			
HONG KONG	23.36	342.4	5 1A	1	9 15	14			
CANTON	24.36	341.3	5 13A	4			6 4		
GUAM	26.57	58.7	5 32	2				6 35	
PORT MORESBY	27.08	110.8	5 37	2	10 17	14			
RABAUL	30.82	98.1	6 12	4					
KUNMING	30.96	325.3	6 13	4	11 18	14	7 3	7 38	*SP
ZO-SE	30.98	359.3	6 12	3	11 17	12	7 4		
WUHAN	31.14	348.2	6 14	3					
CHARTERS TS.	31.30	131.0	6 15	3				12 54	
NANKING	32.05	355.5	6 22A	3	11 33	12	7 12	7 45	*SP
MUNDARING	32.15	188.6	6 18	-1					
CHENGTU	34.82	332.9	6 45A	3	12 13	9	7 37	8 7	*SP
SIAN	36.13	342.0	6 58A	4					
CHITTAGONG	36.57	309.5	6 56	-1	12 38	7	7 10	8 23	PP
TOCKLAI	37.10	318.0	7 9K	7					
ADELAIDE	38.25	157.0	7 14A	3				10 28	
SHILLONG	38.38	313.8	7 15A	3	13 4	6		9 6	PP
LANCHOW	39.54	337.1	7 25	3					
MATUSIRO	39.54	21.2	7 23	1	13 21	5		9 10	PP
TUKUBASAN	39.98	23.5	8 26	61					
BRISBANE	40.44	134.8	7 38	9	13 40	11			
LHASA	41.47	318.1	7 43A	5	13 57	12			
PAOTOW	41.79	346.8	7 45	5					
CHATRA	42.55	311.7	7 50K	3	14 11	11			
MELBOURNE	43.33	152.8	7 59	6				10 45	PCP
RIVERVIEW	43.56	143.4						9 3	
CHANGCHUN	43.81	3.9	7 58	1			8 49		
KODAIKANAL	45.06	284.5						24 38	
NOUMEA	48.94	120.0	8 41	4				9 52	
UGLEGORSK	52.02	17.0	9 3	2					
IRKUTSK	54.12	347.0	9 19	3					
WARSAK DAM	57.79	311.2	9 46	4					
ALMATA	58.73	323.1	9 52	3	18 1	18			
QUETTA	59.96	305.3	9 59A	2	18 8	9	10 9	12 6	PP
ANDIJAN	60.29	318.5	10 12	12					
NAMANGAN	60.87	318.5	10 6	3	18 23	12			
YAKUTSK	62.22	4.3	10 12	-1					
KARAPIRO	62.23	133.7	10 17	4				11 57	
CHATEAU	62.75	135.0	10 38K	22					

MAGADAN	63.65	16.1	10	24	2							
TIKSI	71.72	2.4	11	23	11							
SHIRAZ	7° 91	301.2	11	15K	2	21	0	36			14 17	PP
TANANARIVE	7..90	250.5	11	34	3						11 45	PCP
CAPE HALLETT	78.29	166.4	11	55	5	22	2	28			31 7	SSS
MAWSON	78.47	199.5	11	51	0							
TIFLIS	80.19	312.3	12	4	4	22	11	17				
SCOTT BASE	81.36	171.3	12	10	4							
ADDIS ABABA	82.92	279.0	12	38	24						15 48	PP
KHEYS	85.86	351.5	12	32	3	23	14	23				
KSARA	86.46	303.7	12	35	3	23	14	17			15 58	PP
MOSCOW	86.63	325.7	12	35	2	22	59	1				
JERUSALEM	86.94	301.7	12	56	22							
SIMFEROPOL	88.24	314.8	13	3	23	23	43	29				
APATITY	89.34	337.4	12	48	3	23	12	-12			16 19	PP
SOUTH POLE	89.95	180.0	12	52	4						17 20	PP
HELWAN	90.26	299.7	12	59	9							
COLLEGE	90.30	25.3	12	52	2				13	8		
SODANKYLA	91.97	337.3	12	59	1						16 42	PP
BULAWAYO	92.79	250.0	13	4	3							
LWIRO	92.79	267.8	13	4	3							
BROKEN HILL	93.02	255.6	13	6K	3							
PRETORIA	93.06	244.4	13	13	10							
NURMIJARVI	93.47	330.5	13	13	8							
KIRUNA	94.26	338.1	13	10	2							
BYRD STATION	94.78	171.2	13	16	5						17 20	PP
LWOW	94.93	319.9	13	16	5							
WARSAW	96.52	322.5				23	55	11			17 36	PP
COPENHAGEN	100.75	327.0									17 53	PP
PRUHONICE	100.95	321.0	13	43	4						17 55	PP
COLLMBERG	101.59	322.6	13	46	5						18 0	PP
ROME	104.19	313.3	13	27	-26						24 50	SKKS
STUTTGART	104.59	320.8	17	30	215						18 33	PP
HUNGRY HORSE	112.17	36.5	18	19	-4				18	31	20 0	PP
TA ANRASSET	113.95	294.9	18	31	5						19 23	PP
EU KA	114.56	45.9	18	31	4						19 25	PP
FLAMING GRGE	118.53	42.1	18	40	5						29 4	PKKP
RAPID CITY	120.80	36.2									29 51	PKKP
FAYETTEVILLE	131.12	39.0	19	3	4						22 25	PP
ST. LOUIS 1	131.75	33.6									22 28	
SHAWINIGAN	132.01	13.3	19	6	5							
OTTAWA	132.32	16.5	19	7A	5							
HALIFAX	135.38	5.3	19	13	6							
PALISADES	136.87	17.2									22 48	PKS
COLUMBIA	140.12	29.9	19	23	7							
HUANCAYO	159.34	126.2	19	54	9							
SAN JUAN	160.27	22.2	20	30	44						21 22	PP
LA PAZ	160.96	150.2	19	55	8							
CARACAS	166.60	39.0	19	30	-22							
TRINIDAD	169.06	15.7	20	1	7						21 2	PKP2

AUGUST 11 4.H 50.M 34.S EPICENTRE 9.07 126.31 DEPTH= 74.KM

A=-0.58486 B= 0.79587 C= 0.15662 D= 0.8058 E= 0.5922
G=-0.0927 H= 0.1262 K=-0.9877 HT= 6.7

DEPTH OF FOCUS= 0.006P.

SE= 1.86

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
BAGUIO CITY	9.20	323.2	2	10	-2	3	52	-3				
NHATRANG	17.09	282.0	3	58K	2	7	12	10				
HONG KONG	17.58	319.8	4	1A	-1	7	22	9			4	24 PP
GUAM	18.59	74.7	4	16	2							
CANTON	18.68	319.8	4	14	-1							
ZO-SE	22.43	348.4	4	54A	0	8	57	7				
NANKING	23.92	344.1	5	8A	0	9	21	5				
WUHAN	24.00	334.4	5	9	0	9	23	5				
LEMBANG	24.42	230.3	5	15K	2	9	41	16				
DJAKARTA	24.63	232.7	5	15	0	9	44	16				
ABUYAMA	27.04	16.9	5	38A	1							
KUNMING	27.53	308.4	5	42	0	10	19	3				
PORT MORESBY	27.70	131.0	5	41	-2	10	17	-2			10	39
MEDAN	27.99	260.5	5	46A	0						11	16
RABAUL	28.95	116.0	5	58	3							

MATUSIRO	29.41	19.8	5	57	-2	10	38	-8		9	3 PCP
SIAN	29.72	330.0	5	59	-2						
TUKU[illegible]AN	29.80	22.8	6	OK	-2					9	2 PCP
CHE[illegible]	29.90	319.0	6	2	-1						
LANC.	33.77	326.1	6	36A	-1						
PAOTOW	34.56	337.9	6	43	-1						
TOCKLAI	34.63	304 6	6	49K	5						
CHANGCHUN	34.64	358.7	6	44A	0	12	9	1			
CHARTERS TS.	35.00	146.0	6	46A	-1	12	15	2			
CHITTAGONG	35.63	295.9	6	54A	1	12	27	4	7 18	8	22 PP
SHILLONG	36.59	301.0	7	1A	0	12	30	-8		8	31 PP
LHASA	38.83	306.7	7	21A	2	13	15	4			
KURILSK	40.54	23.5	7	35	1	13	40	3			
CHATRA	40.99	300.7	7	38	1						
MUNDARING	41.94	192.9	7	44	-1						
UGLEGORSK	42.01	15.5	7	47	1						
BRISBANE	44.40	145.5	8	5	0	14	27	-7			
ADELAIDE	45.35	165.6	8	11A	-2	14	47	0		13	44 PCS
IRKUTSK	46.66	341.6	8	22	-1						
RIVERVIEW	48.75	152.3	8	38A	-1					9	58 PCP
CANBERRA	49.08	155.3	8	41A	-1	15	38	-2	9 5	10	36 PP
DEHRA DUN	49.67	302.2	7	56	-50						
MELBOURNE	49.81	160.6	8	47A	-1						
PETROPAVLOVK	51.03	24.6	8	58	1						
YAKUTSK	52.91	2.0	9	11	0	16	35	2			
LAHORE	53.07	302.7	9	11A	-1	16	35	0		10	20 PCP
MAGADAN	53.66	15.2	9	17	1						
ALMATA	54.77	317.3	9	24	-1						
WARSAK DAM	55.90	305.0	9	33	0	17	18	5			
ANDIJAN	57.08	313.0	9	41	0						
NAMANGAN	57.65	313.0	9	45	0						
QUETTA	59.06	299.7	9	55A	0	17	59	5	10 17	12	4 PP
STALINABAD	59.15	309.6	9	55	-1	17	53	-2			
KARAPIRO	65.53	138.9	10	37	-1					13	13
CHATEAU	66.26	140.0	10	43	0						
SHIRAZ	71.51	298.2	11	14K	-1	20	34	7		21	38 SP
TEHERAN	72.54	304.6	11	21	0	20	30	-8			
HONOLULU	73.39	70.5	11	29	3					11	57
MAKHACH-KALA	75.70	312.0	11	36	-3						
GORIS	76.58	308.4	11	46	2						
KHEYS	77.61	351.0	11	51	1						
TIFLIS	77.70	310.7	11	52	2						
MIRNY	79.23	192.9	12	2	3						
COLLEGE	80.10	25.6	12	4	0					15	9 PP
SOTCHI	81.36	312.8	11	50	-20						
MOSCOW	81.84	325.2	12	12	-1	22	22	3			
TANANARIVE	82.43	249.5	12	17A	1				12 37	13	20
APATITY	82.79	337.3	12	17A	-1	22	30	2			
SIMFEROPOL	85.21	314.6	12	30	0	22	46	-6			
PULKOVO	85.24	329.7	12	30	0						
KSARA	85.38	303.4	12	30	-1	23	8	14		15	53 PP
SODANKYLA	85.40	337.5	12	30	-1						
CAPE HALLETT	86.08	167.7	12	34K	0	22	56	-5			
ADDIS ABABA	86.20	278.5	12	38	3						
JERUSALEM	86.21	301.4	12	36	1						
SITKA	86.98	32.8	12	41	3						
KIRUNA	87.57	338.6	12	40	-1					13	3
NORD	87.77	354.9	12	41	-1						
HELSINKI	87.79	330.6	12	42	0						
NURMIJARVI	87.86	331.0	12	42	-1						
MAWSON	88.59	200.1	12	43	-3						
SCOTT BASE	89.65	172.1	12	50K	-1						
HELWAN	89.82	300.1	12	53A	1						
LWOW	90.96	320.7	13	7	10	24	11	25			
UPPSALA	91.40	331.4	12	58	-1						
WARSAW	92.10	323.6	13	3	1	24	5	9		25	23 PS
RESOLUTE	92.67	10.1	13	5	0					16	48
SOFIA	93.31	314.0	13	8	0						
KRAKOW	93.43	321.7	13	8	-1					13	17 PCP
ATHENS	94.26	309.3	13	10K	-2						
GOTEBORG	94.95	330.6	13	12	-3						
ALBERNI	95.21	38.5								16	6
BRATISLAVA	95.81	320.6	13	19	0				13 45	14	4 *SP
VIENNA-H.	96.24	320.8	13	22	1						
VICTORIA	96.34	38.9	13	24K	2						
PRUHONICE	96.71	322.9	13	24A	1					17	21 PP
COLLMBERG	97.09	324.5	13	25A	0				13 47	17	21 PP
SCORESBY SD.	97.75	349.7	13	29K	1						

JENA	98.06	324.5	13 29	-1						17 23	PP
LJUBLJANA	98.22	319.2	13 26	-4							
PENTICTON	98.35	37.1	13 32K	1							
SOUTH POLE	99.01	180.0	13 33	-1	24	5	1			17 24	PP
BROKEN HILL	99.75	256.9	13 36	-1							
SHASTA	99.85	46.0	13 40A	2							
BULAWAYO	100.25	251.1	13 39A	-1							
MESSINA	100.33	311.5								17 45	PP
STUTTGART	100.34	323.2	13 40	0						17 47	PP
HEIDELBERG	100.39	323.9	13 39	-1							
MINERAL	100.54	46.1	13 41A	0							
ROME	101.17	315.9								17 54	PP
LICK	101.59	48.9	13 39A	-7							
HUNGRY HORSE	102.08	36.4	13 50	2				14	4	29 51	PKKP
RENO	102.11	46.3	13 50K	2							
BYRD STATION	102.99	170.6	13 55	3						18 1	PP
BUTTE	104.08	38.0	13 55	-2							
PARIS	104.23	325.5								17 27	PP
EUREKA	104.85	45.1	14 1	1						29 42	PKKP
PASADENA	105.39	50.9	14 3	777							
FOLINIERE	105.90	326.6								18 21	
FLAMING GRGE	108.63	41.3	18 23	777						29 31	PKKP
GLEN CANYON	109.06	45.9	18 23	777						29 30	PKKP
RAPID CITY	110.71	35.9	17 51	-33						29 25	PKKP
TUCSON	111.77	50.0	18 30	4							
TAMANRASSET	113.97	299.8	18 33A	2						19 24	PP
LAWRENCE	118.55	36.1	18 40	0							
FAYETTEVILLE	121.09	37.9	18 45A	0						20 13	PP
ST. LOUIS 1	121.60	33.2	18 46	1						30 8	PS
SHAWINIGAN	122.06	15.4	18 48A	2							
OTTAWA	122.27	18.2	18 48A	1							
BREBEUF	122.80	16.6	18 49A	1							
MORGANTOWN	125.77	24.9	18 55K	2						20 44	PP
HALIFAX	125.82	8.7	18 55A	1							
WESTON	126.32	16 2	18 56K	1						20 51	
PALISADES	126.80	19.1								20 57	PP
COLUMBIA	129.92	29.8	19 4	3						21 22	PP
SAN JUAN	150.09	24.2	19 39	2							
ST. KITTS	152.28	18.8	19 32	-8							
ANTIGUA	152.74	17.2	19 45	4							
ST. VINCENT	156.66	18.9	19 49	3							
HUANCAYO	158.52	99.8	19 54	5						20 37	PKP2
TRINIDAD	158.96	21.6	19 54	5						20 29	
LA PAZ	164.11	119.1	19 59A	4						25 26	PP

AUGUST 12 13.H 12.M 34.S EPICENTRE 36.42 141.43 DEPTH= 49.KM

A=-0.63063 B= 0.50283 C= 0.59116 D= 0.6234 E= 0.7819
G=-0.4622 H= 0.3685 K=-0.8066 HT= -0.4

DEPTH OF FOCUS= 0.003R

SE= 2.71

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ONAHAMA	0.68	321.0	0	13K	-1	0	22	-3				
MITO	0.78	267.1	0	13K	-3	0	22	-5				
TYOSI	0.85	214.1	0	13K	-3	0	21	-8				
KAKIOKA	1.03	259.6	0	16	-2	0	22	-10				
TUKUBASAN	1.10	259.7	0	17A	-2							
SHIRAKAWA	1.20	305.9	0	21K	0	0	37	1				
UTUNOMIYA	1.27	276.2	0	21K	-1	0	40	2				
HONGO	1.52	242.6	0	24K	-1							
HUKUSIMA	1.53	330.1	0	25K	0	0	45	0				
TOKYO C.M.O.	1.55	241.9	0	24K	-2	0	44	-1				
BUMAGAYA	1.68	261.3	0	26K	-1	0	46	-2				
YOKOHAMA	1.75	236.1	0	30A	2	0	52	2				
SENDAI	1.89	347.2	0	30K	0	0	53	0				
MAEBASI	1.91	270.0	0	29K	-1	0	56	2				
TITIBU	1.95	257.6	0	29	-2	0	55	0				
MERA	1.99	221.5	0	31A	-1	1	10	14				
ISINOMAKI	2.00	357.5	0	31K	-1	0	56	0				
YAMAGATA	2.02	335.0	0	32K	0	1	0	4				
OIWAKE	2.33	268.6	0	36	0	1	8	4				
HUNATU	2.35	247.7	0	36A	-1	1	11	6				

OSIMA	2.35	226.0	0	34A	-3	1	5	0			
MISIMA	2.40	237.9	0	37A	0	1	12	6			
NIIGATA	2.42	308.8	0	39	1	1	12	5			
KOHU	2.45	252.9	0	37K	-1	1	15	8		0	59
MATUSIRO	2.60	273.5	0	38	-2					1	25
NAGANO	2.61	276.4	0	43K	2	1	23	12			
TAKADA	2.64	285.7	0	40K	-1	1	19	7			
MIZUSAWA	2.71	355.0	0	43	1	1	17	3			
SAKATA	2.78	333.3	0	48	5	1	22	6			
MATUMOTO	2.80	267.5	0	42	-1	1	15	-1			
SHIZUOKA	2.86	240.5	0	45A	1	1	22	4			
AIKAWA	3.00	303.0	0	47K	1	1	34	13			
IIDA	3.06	253.9	0	50	3	1	36	13			
OMAESAKI	3.19	236.2	0	52	3	1	32	6			
MIYAKO	3.25	7.3	0	53	4	1	29	2			
MORIOKA	3.28	356.5	0	50	0	1	30	2			
TAKAYAMA	3.39	266.6	0	52	1	1	38	7			
TOYAMA	3.42	275.9	0	52K	0	1	31	-1			
AKITA	3.45	342.7	0	55	3	1	36	3			
HAMAMATU	3.47	241.8	0	56	3	1	49	16			
WAZIMA	3.76	286.1	0	59	2						
NAGOYA	3.84	252.3	1	0	2	1	50	8			
KANAZAWA	3.86	273.0								1	20
GIHU	3.92	256.3	0	59A	0	1	52	8			
HATINOHE	4.10	1.0	1	1	0	1	49	0			
HUKUI	4.22	266.5	1	4	1	1	57	5		1	38
KAMEYAMA	4.34	250.2	1	7	2	2	4	9			
TU	4.36	248.2	1	15	10						
HIKONE	4.36	256.2	1	4	-1	2	7	12			
TSURUGA	4.41	261.5	1	7K	1	1	58	1			
AOMORI	4.42	353.6	1	6	0	2	2	5			
KYOTO	4.85	254.9	1	11	-1	1	58	-10			
OWASE	4.88	242.8	1	12	0	2	36	28			
NARA	4.89	250.8	1	12	-1	2	24	15			
ABUYAMA	5.02	253.7	1	14A	0						
OSAKA	5.13	251.5	1	20	4	2	22	7			
KOBE	5.39	253.0				2	34	13			
HAKODATE	5.40	354.7	1	19	-1	2	31	9			
TOYOOKA	5.44	262.5	1	22	2	2	22	0		2	5
SIOMISAKI	5.52	239.1	1	39	18	2	52	28			
WAKAYAMA	5.57	248.7	1	17	-5						
MORI	5.71	353.5	1	25	1	2	29	0			
SUMOTO	5.72	250.6	1	26A	2	2	52	23		2	38
URAKAWA	5.81	9.9	1	23	-2	2	29	-3			
MURORAN	5.90	356.7	1	32	5					2	39
TOTTORI	5.95	263.3	1	29	2	2	49	14			
TORISIMA	6.00	189.4	1	26	-2	2	44	8			
HIROO	6.03	13.5	1	28	0					2	33
TOKUSIMA	6.08	249.3	1	37	8					3	25
TOMAKOMAI	6.20	1.0				2	48	7		1	53
TAKAMATU	6.39	253.0	1	36	3	3	7	21			
SUTTSU	6.44	352.1	1	36	2	2	48	1			
SAIGO	6.55	270.4	1	37	1	3	0	10			
OBIHIRO	6.63	11.3	1	38	1	2	47	-5			
YONAGO	6.63	263.8	1	38	1	3	32	40			
SAPPORO	6.64	359.5	1	33	-4	2	51	-1		3	9
MUROTO	6.75	244.1	1	39	0	3	21	26			
KUSIRO	6.94	18.3	1	36	-5	2	52	-8			
KOTI	7.09	248.5	1	43	0	2	54	-9		2	28
RUMOE	7.52	1.0	1	50	1						
MATUYAMA	7.54	252.5	1	54	4	3	48	33			
NEMURO	7.60	23.5	1	48	-2	3	4	-12		4	9
HIROSIMA	7.63	257.1	1	48	-3	2	45	-32			
HAMADA	7.77	261.5	1	55	2	4	3	43		3	43
SIMIDU	7.87	244.9	1	50	-4	3	45	22			
ABASHIRI	7.89	15.1	1	53	-1						
UWAZIMA	7.97	249.0	1	55	0	4	6	41			
OOITA	8.67	251.3	2	5A	0	4	12	29			
WAKKANAI	8.99	1.1	2	8	-2						
MIYAZAKI	9.43	244.5	2	16A	0	5	11	70			
HUKUOKA	9.50	255.9	2	16	-1	4	9	6			
KUMAMOTO	9.55	251.0	2	21	4	6	3	119			
SAGA	9.68	254.2	2	20	1	5	32	84			
VLADIVOSTOK	9.92	315.3	2	22	0	4	14	1			
KAGOSIMA	10.25	244.9	2	22	-5					5	21
YAKUSIMA	10.90	240.0								2	36
CHANGCHUN	14.37	305.9	3	19A	-3						
ZO-SE	17.65	258.4	4	3	0						
NANKING	19.22	263.5	4	18	-4						

PEKING	20.15	288.0	4	28	-4	8	5	-6				
PETROPAVLOVK	20.53	30.7	4	37	1	8	21	3				
GUAM	23.06	171.8	4	57	-4	9	20	15				
WUHAN	23.13	263.1	5	2	0							
KLYUCHI	23.84	27.3	5	9	0							
MAGADAN	23.93	11.8	5	10	0	9	23	3				
PAOTOW	24.85	289.2	5	16	-3							
YAKUTSK	26.65	347.7	5	34	-2							
BAGUIO CITY	27.20	228.4	5	37	-4							
HONG KONG	27.50	246.7	5	46	3							
LANCHOW	30.21	280.7	6	6A	-2							
IRKUTSK	30.50	313.1	6	9A	-1							
CHENGTU	31.58	270.5	6	18A	-2	11	21	-3				
KUNMING	34.89	262.2	6	46A	-2						8	8 PP
TIKSI	35.88	353.2	6	52	-5	12	28	-2				
NHATRANG	37.68	238.5	7	11	-1				7	33		
TOCKLAI	40.57	269.9	7	44A	8							
LHASA	42.39	275.9	7	52	1	14	12	4				
SHILLONG	43.43	270.0	7	58A	-1							
SEMIPALATNSK	45.33	308.0	8	13	-2							
PORT MORESBY	45.89	172.1	8	20	1	15	0	1				
CHATRA	46.66	274.2	8	26A	1							
COLLEGE	49.60	32.0	8	48	0	15	57	6				
FRUNSE	50.65	299.0	8	56	0						9	5
DEHRA DUN	52.45	282.8	9	12	3							
KHEYS	53.24	348.3									9	24 PCP
LEMBANG	53.44	223.5	9	14A	-3							
KIPAPA	54.26	88.4	9	34	11							
LAHORE	54.85	285.9	9	25A	-2							
TASHKENT	54.90	298.8	9	27	-1						17	25 PS
SVERDLOVSK	55.62	318.9	9	32	-1	17	16	3				
WARSAK DAM	55.98	289.7	9	35	0							
DUZHANBE	56.26	295.9	9	37	0						17	43 PS
CHARTERS TS.	56.39	174.6	9	36	-2							
QUETTA	61.15	287.7	10	10A	-1				10	33	12	29 PP
NORD	61.66	356.4	10	13A	-2							
RESOLUTE	63.19	14.4	10	21A	-4							
APATITY	63.25	335.9	10	24	-1	18	51	-1				
ASHKABAD	63.97	299.1	10	30	0						10	41
BRISBANE	64.37	168.8	10	42	9							
SODANKYLA	65.53	337.3	10	40	0						13	10 PP
AFIAMALU	66.73	129.6	10	56	8							
VICTORIA	66.83	46.1	10	48	0							
KIRUNA	67.09	339.3	10	49	-1							
MOSCOW	67.75	323.6	10	53	-1	19	48	1			20	8 PS
PENTICTON	68.60	44.0	10	58A	-1							
PULKOVO	68.72	329.6	10	59	-1							
RIVERVIEW	70.48	171.4	11	6K	-5							
NURMIJARVI	70.49	332.1	11	11	0						13	40 PP
HELSINKI	70.59	331.7	11	12	0							
TIFLIS	71.20	308.2	11	15	0							
GORIS	71.40	305.6	11	16	0							
SHASTA	71.46	52.9	11	18K	1							
CANBERRA	71.72	173.5	11	20	2							
MUNDARING	72.02	202.4	11	18	-2							
MINERAL	72.15	52.8	11	21	0							
HUNGRY HORSE	72.22	42.7	11	21	0							
SHIRAZ	72.29	294.0	11	22K	0	21	4	24			22	3 PS
SCORESBY SD.	72.72	354.2	11	25	1	20	54	9			25	55 SS
BERKELEY	73.07	55.3	11	38	12	20	55	6				
UPPSALA	73.51	334.1	11	28	-1						14	10 PP
RENO	73.75	52.8	11	33	3							
LICK	73.77	55.5	11	32K	2							
VINEYARD	74.27	55.9	11	34	1							
BUTTE	74.39	44.1	11	34	0							
FRESNO	75.31	55.1	11	40	1							
BOZEMAN	75.45	43.7	11	41	1							
SIMFEROPOL	75.77	315.6	11	41A	-1	21	17	-2			11	52 PCP
EUREKA	76.22	51.1	11	45	1							
GOTEBORG	77.08	334.8	11	50	1							
WARSAW	77.59	327.1	11	53	1	21	59	21			14	48 PP
LWOW	77.88	324.0	11	54	0						14	51 PP
PASADENA	77.90	56.5	11	55	1	21	43	1			26	26 SS
SALT LAKE C.	77.98	48.1	11	55	1							
COPENHAGEN	78.48	333.3	11	57A	0	21	49	1			14	55 PP
SIDA	78.81	350.9	12	1	2				12	14		
REYKJAVIK	78.92	352.6	12	6A	7				12	15		
BOULDER CITY	79.02	53.4	12	2	2							

FLAMING GRGE	79.34	46.7	12	2	0							
KRAKOW	79.62	326.0	12	4	1	21	56	-4			15	2 PP
RACIBORZ	80 37	326.9	12	9	2							
KARAPIRO	80.43	153.3	12	8	0							
GLEN CANYON	80.48	51.0	11	47	-21							
BUCHAREST	80.50	319.0	12	7A	-1							
RAPID CITY	80.75	41.3	12	9	0				12	25		
POTSDAM	80.78	330.9	12	7	-2							
KSARA	81.52	305.8	12	13	0							
COLLMBERG	81.64	330.2	12	13A	-1						12	25 PCP
HALLE	81.90	330.8	12	15	0						15	19 PP
PRAGUE	82.00	328.7	12	16	0							
PRUHONICE	82.01	328.6	12	16A	0						15	17 PP
BRATISLAVA	82.26	326.1	12	18	1						12	28 PCP
JENA	82.49	330.7	12	18	0						15	9
VIENNA-H.	82.53	326.5	12	18	-1						12	30 PCP
WITTEVEEN	82.81	334.3	12	11	-9							
SOFIA	83.15	319.1	12	22	0							
JERUSALEM	83.22	304.6	12	23	1				12	34		
DURHAM	83.77	339.5	12	23	-2	22	41	-2				
TUCSON	83.93	54.3	12	26	0				12	38	13	10 *SP
HEIDELBERG	84.83	331.2	12	30	0							
LJUBLJANA	85.02	326.0	12	31A	0							
STUTTGART	85.11	330.5	12	32A	0							
TUBINGEN	85.39	330.5	12	32	-1							
STRASBOURG	85.86	331.2	12	35	0							
HELWAN	87.01	305.2	12	42A	1						16	8 PP
BESANCON	87 64	331.4	12	56	12							
LAWRENCE	88.57	40.7	12	48	0							
FOLINIERE	88.67	335.9	12	49	0							
ROME	89.15	324.5				23	26	-8			16	29 PP
MONACO	89.94	328.6	13	0	5							
FAYETTEVILLE	91.27	42.0	13	1A	0				13	34		
ST. LOUIS 1	91.39	37.9	13	1	-1	23	59	5				
ADDIS ABABA	94.73	284.8	13	19	2							
PALISADES	96.40	26.1				24	42	46			31	32 SS
TAMANRASSET	107.88	317.6	18	2	777						18	28 PP
LWIRO	109.46	282.0	18	54	777							
BROKEN HILL	116.83	271.5	18	41	2							
BULAWAYO	119.75	266.0	18	46A	2							
SOUTH POLE	126.24	180.0	18	56	-1						20	54 PP
BYRD STATION	127.17	167.5	18	59	0						31	14 SKKP
HUANCAYO	139.00	63.2	19	25	4							
LA PAZ	147.13	60.7	19	40	5				20	16		

AUGUST 13 7.H 11.M 6.S EPICENTRE 40.36 142.37 DEPTH= 51.KM

A=-0.60520 B= 0.46652 C= 0.64505 D= 0.6105 E= 0.7920
G=-0 5109 H= 0 3938 K=-0.7641 HT= -1.8

DEPTH OF FOCUS= 0.003R

SE= 2 17

	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	0.67	285.0	0	14K	-1	0	24	-2				
MIYAKO	0.77	203.7	0	14K	-2	0	21	-7				
MORIOKA	1.13	234.9	0	20K	0	0	33	-2				
AOMORI	1.30	291.3	0	22K	-1	0	40	1				
MIZUSAWA	1.56	218.4	0	27	1	0	47	1				
URAKAWA	1.81	9.6	0	32A	2	0	57	5				
AKITA	1.86	250.6	0	31K	1	0	54	1				
HAKODATE	1.89	320.4	0	32K	1	0	56	2				
HIROO	2.05	20.1	0	34	1	0	59	1				
ISINOMAKI	2.09	203.3	0	33K	-1	0	57	-2				
MORI	2.21	322.6	0	38K	3	1	5	3				
MURORAN	2.22	332.3	0	36K	1	1	1	-1				
TOMAKOMAI	2.34	345.5	0	39	2	1	7	2				
SENDAI	2.38	209.2	0	38A	0	1	6	0				
SAKATA	2.45	234.2	0	41	2	1	13	5				
YAMAGATA	2.63	217.3	0	40K	-1	1	11	-1				
OBIHIRO	2.63	13.4	0	44	3	1	20	8				
SAPPORO	2.81	344.5	0	44A	0	1	19	2				
SUTTSU	2.92	327.3	0	45K	0	1	20	0				
HUKUSIMA	3.00	210.2	0	46A	0	1	21	0				

KUSIRO	3.03	29.5	0	46K	-1	1	19	-3			
NIIGATA	3.55	227.7	0	50	-4	1	36	1	1	57	
ONAHAMA	3.59	199.2	0	54	-1	1	38	1			
RUMOE	3.63	351.4	0	55A	0	1	39	2			
SHIRAKAWA	3.65	208.2	0	55	0	1	43	5			
NEMURO	3.81	37.9	0	56K	-2	1	35	-7			
ABASHIRI	3.92	20.5	0	59	0	1	47	2			
AIKAWA	3.96	235.2	0	59K	-1	1	51	5			
MITO	4.25	201.2	1	2	-2	1	52	-1			
UTUNOMIYA	4.28	208.1	1	3	-1	1	52	-2	1	28	
KAKIOKA	4.47	203.4	1	4	-3	1	59	1			
TUKUBASAN	4.50	204.1	1	5	-2						
TAKADA	4.58	226.0	1	10A	1	2	1	0			
MAEBASI	4.73	214.3	1	11A	0	2	10	5			
TYOSI	4.79	195.0	1	9A	-2	2	9	3			
KUMAGAYA	4.82	210.2	1	9A	-3	2	9	2			
NAGANO	4.93	222.9	1	15A	2	2	22	12			
OIWAKE	5.02	218.0	1	9	-6	2	10	-2			
MATUSIRO	5.02	221.9	1	14	-1	2	12	0			
HONGO	5.08	204.7	1	15	-1	2	14	0			
TITIBU	5.08	211.7	1	14	-2	2	16	2			
TOKYO C.M.O.	5.11	204.7	1	14A	-2	2	14	-1	2	7	
WAZIMA	5.20	236.9	1	18	1	2	23	6			
MATUMOTO	5.37	221.5	1	20	0	2	35	14			
YOKOHAMA	5.37	204.5	1	20A	0	2	30	9			
TOYAMA	5.46	229.6	1	22	1	2	32	9			
KOHU	5.57	213.9	1	23	1	2	31	5			
HUNATU	5.63	211.5	1	23	0	2	28	1			
MERA	5.79	201.2	1	23	-2	2	41	9			
TAKAYAMA	5.82	225.4	1	28	2						
MISIMA	5.89	208.5	1	27	0	2	40	6			
AJIRO	5.90	207.1	1	29	2	2	34	0			
OSIMA	6.06	204.0	1	26	-3	2	34	-4	3	4	
SHIZUOKA	6.23	211.6	1	28	-4	2	53	10			
KURILSK	6.33	37.9	1	31	-2	2	43	-2			
HUKUI	6.47	230.3	1	37	2	2	58	10	2	14	
OMAESAKI	6.63	211.2	1	39K	2	2	56	4			
GIHU	6.64	223.6	1	38	1	2	55	2			
NAGOYA	6.72	221.3	1	42K	4	3	12	17	3	1	
HAMAMATU	6.73	214.7	1	40	1	3	2	7	3	25	
TSURUGA	6.85	228.6	1	41	1	3	6	8			
HIKONE	7.02	225.6	1	45A	2	3	13	11			
KAMEYAMA	7.22	222.3	1	49	4	3	14	7			
TU	7.32	221.3	1	50	3						
MAIZURU	7.37	230.7	1	49K	2	3	19	8			
KYOTO	7.49	226.7	1	49	0	3	20	6			
HATIDYOZIMA	7.54	196.8							2	28	
TOYOOKA	7.67	233.4	1	53A	1	3	22	4			
NARA	7.69	224.6	1	54	2	3	25	6			
ABUYAMA	7.69	226.7	1	51A	-1						
OSAKA	7.88	225.8	1	59	5	3	40	17			
OWASE	7.98	220.0	1	58	2	3	42	16			
KOBE	8.05	227.5	1	59	2	3	45	18			
TOTTORI	8.08	235.8	1	58	1	3	37	9			
SAIGO	8.23	242.6	2	1	2	3	25	-7			
VLADIVOSTOK	8.30	292.8	2	2	2	3	43	9			
WAKAYAMA	8.39	225.4	2	2	0				2	33	
SUMOTO	8.45	227.0	2	4A	2	3	46	9	2	34	
YONAGO	8.66	238.2	2	6A	1	3	42	-1			
SIOMISAKI	8.69	219.5	2	8	2	4	0	17			
UGLEGORSK	8.72	358.7	2	5	-1	3	45	1			
TOKUSIMA	8.83	227.1	2	11	3	4	23	36			
TAKAMATU	8.96	230.3	2	9	0	3	58	8			
MUROTO	9.67	225.3	2	16	-3	4	33	26			
KOTI	9.81	228.9	2	21	0	4	4	-7	4	47	
HAMADA	9.82	239.5	2	22A	1	4	20	9	5	30	
HIROSIMA	9.91	236.0	2	22	-1	4	22	9			
TORISIMA	10.00	190.4	2	27	3						
MATUYAMA	10.05	232.7	2	26	2	4	29	12			
SIMIDU·	10.69	227.9	2	23	-10	4	27	-5			
OOITA	11.17	233.8	2	40A	0	4	39	-5	4	21	
HUKUOKA	11.73	238.6	2	48	1	5	9	11			
SAGA	11.99	237.5	2	50	-1	5	45	41			
KUMAMOTO	12.02	234.9	2	50	-1	5	27	23			
MIYAZAKI	12.21	229.8	2	52	-2	5	41	32			
KAGOSIMA	12.98	231.2	3	4K	0	6	10	43			
CHANGCHUN	13.14	290.9	3	5A	-1	5	50	19	3	21	3 33 *SP
OKHA	13.20	1.5	3	3	-4	5	30	-3			3 6
YAKUSIMA	13.83	228.0	3	12	-3						

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SEVERO-KUR.	14.08	38.4	3 14	-4					
PETROPAVLOVK	16.83	35.8	3 56	3					
ZO-SE	19.49	248.3	4 22A	-3	8 13	16	4 37	4 47	*SP
MAGADAN	19.93	12.6	4 26	-4	8 6	0			
PEKING	20.00	277.6	4 26A	-5	8 6	-2	4 43	4 52	*SP
NANKING	20.72	253.9	4 34A	-4	8 24	2	4 51	5 0	*SP
YAKUTSK	23.01	344.7	4 59	-2	9 2	-2			
PAOTOW	24.54	281.1	5 15	-1					
WUHAN	24.60	255.2	5 15	-2	9 34	3			
GUAM	26.88	174.9	5 36	-2				5 17	
SIAN	27.19	267.8	5 37	-4					
IRKUTSK	28.52	307.5	5 53	0	10 38	3			
HONG KONG	29.89	241.4	6 4	-1	10 56	-1			
CANTON	29.92	243.6	6 5A	0	11 2	4		6 33	*SP
LANCHOW	30.43	274.4	6 8A	-2					
BAGUIO CITY	30.44	224.7	6 8	-2	11 5	-1			
TIKSI	32.07	352.0	6 22	-2	11 29	-2		13 6	SS
CHENGTU	32.48	264.9	6 25	-3			6 41	6 54	*SP
KUNMING	36.31	257.5	6 49A	-11	12 36	-1	7 5	7 17	*SP
NHA TRANG	40.45	235.5	7 34	-1				9 8	PP
TOCKLAI	41.45	265.9	7 49	6					
LHASA	42.86	272.1	7 56A	1	13 38	-37	8 14	8 22	*SP
SEMIPALATNSK	43.59	304.9	8 1	0	14 27	1			
SHILLONG	44.29	266.5	8 6A	0	14 33	-3		14 41	PS
RABAUL	45.25	166.2	8 13	-1					
COLLEGE	45.90	33.9	8 19	0	15 3	4			
CHATRA	47.22	271.1	8 30A	0	15 17	-1			
FRUNSE	49.48	296.4	8 47	0	15 52	3			
KHEYS	49.56	347.6	8 48	0	15 50	-1	9 0	10 42	PP
PORT MORESBY	49.70	173.8	8 48	-1	15 51	-2			
DEHRA DUN	52.39	280.3	9 8	-1	16 21	-9			
SVERDLOVSK	53.19	317.2	9 15	0	16 39	-1		11 14	PP
SITKA	53.41	42.4	9 17	0					
KIPAPA	53.53	91.9	9 17	-1			9 31		
HONOLULU	53.54	92.1	9 18	0			9 32		
TASHKENT	53.72	296.6	9 19	0	16 47	-1	9 32	10 26	PCP
MEDAN	53.74	238.8	9 20K	1				10 26	
LAHORE	54.56	283.6	9 25A	0	17 1	2		10 27	PCP
DUZHANBE	55.28	293.8	9 31	1				17 30	PS
WARSAK DAM	55.42	287.6	9 31	0					
LEMBANG	56.82	222.6	9 39A	-2					
NORD	57.78	356.4	9 47A	-1					
RESOLUTE	59.20	15.1	9 56A	-2	18 2	2			
APATITY	59.98	335.2	10 2	-1	18 10	0		12 13	PP
CHARTERS TS.	60.24	175.8	10 3	-2					
QUETTA	60.71	286.1	10 8A	0	18 20	0			
POONA	62.02	271.1	10 18	1					
SODANKYLA	62.20	336.8	10 17	-1	18 39	0			
ASHKABAD	62.75	297.8	10 22	0			10 38	18 57	PS
KARACHI	63.57	281.0	10 26A	-1					
VICTORIA	63.60	47.8	10 28A	0					
KIRUNA	63.68	338.9	10 27	-1					
KOUMAC	63.95	157.1	10 34	4				12 50	PP
MOSCOW	65.04	322.9	10 36	-1			10 51	12 54	PP
PULKOVO	65.72	329.0	10 41	0	19 22	0	10 50	13 3	PP
NOUMEA	66.25	155.6	10 45	0				12 9	
NURMIJARVI	67.37	331.7	10 51	-1				13 17	PP
HELSINKI	67.49	331.3	10 51	-2					
BRISBANE	68.09	170.0	10 57	1	19 48	-3			
SHASTA	68.53	54.4	11 0A	1				11 25	
TEHERAN	68.63	299.1	11 0	0				13 34	PP
AFIAMALU	68.73	131.6	10 59	-1					
HUNGRY HORSE	68.86	44.0	11 1	0	19 56	-4	11 16	39 2	PKPPKP
SCORESBY SD.	68.89	354.4	11 1A	0	20 6	6	11 16	20 34	*PS
UKIAH	68.91	56.2	11 6	5			11 15		
SKALSTUGAN	69.10	338.5	11 2	-1				13 30	PP
MINERAL	69.23	54.4	11 3A	0					
TIFLIS	69.37	307.5	11 4	0				11 14	PP
GORIS	69.73	304.9	11 6	0	20 13	3		13 39	PP
BERKELEY	70.26	56.8	11 10	0	20 20	4			
UPPSALA	70.31	333.9	11 9	-1				13 39	PP
RENO	70.81	54.2	11 14A	1					
LICK	70.97	57.0	11 6	-8	20 19	-5		11 30	
BUTTE	71.08	45.3	11 15	0			11 33	39 3	PKPPKP
SHIRAZ	71.39	293.3	11 16K	0	20 51	22		21 51	PPS
VINEYARD	71.49	57.3	11 18A	1					
BOZEMAN	72.12	44.9	11 21	0			11 36		
FRESNO	72.49	56.5	11 28	5					

SIMFEROPOL	73.49	315.3	11	29A	0						11	42 PCP
GOTEBORG	73.84	334.8	11	32	1						14	12 PP
RUTH	73.96	52.1	11	48	16	21	4	6				
RIVERVIEW	74.26	172.4	11	38	5						11	52
WARSAW	74.69	327.0	11	36A	0	21	18	11	11	49	14	22 PP
SALT LAKE C.	74.82	49.2	11	37	0							
ADELAIDE	75.03	183.1	11	38	0						11	53 PCP
SIDA	75.04	351.1	11	39A	1				11	54		
REYKJAVIK	75.11	352.9	11	39A	1				11	53		
LWOW	75.14	323.9	11	39	1	21	38	26			14	26 PP
PASADENA	75.15	57.8	11	39	1	21	19	7	11	52	14	33 PP
COPENHAGEN	75.30	333.3	11	40	1	21	18	5			14	29 PP
CANBERRA	75.55	174.4	11	42	1						14	42 PP
MUNDARING	75.93	202.7	11	42	-1							
BOULDER CITY	76.11	54.6	11	45	1				11	58		
FLAMING GRGE	76.13	47.8	11	44	0	21	3	-20				
KRAKOW	76.77	326.0	11	48	0	21	52	22			14	38 PP
RAPID CITY	77.32	42.3	11	51	0	21	39	3	12	6	22	8
GLEN CANYON	77.46	52.1	11	50	-1				12	5		
RACIBORZ	77.48	326.9	11	52	0						12	2 PCP
POTSDAM	77.71	331.0	11	53	0				12	4	14	48 PP
MELBOURNE	77.85	177.9	11	53	-1							
CAMPULUNG	77.94	320.1	11	57	3							
BUCHAREST	78.02	318.9	11	25A	-30						15	4
ABERDEEN	78.34	341.1				22	0	14			14	58 PP
COLLMBERG	78.59	330.3	11	57A	-1						14	54 PP
HALLE	78.83	331.0	11	58	-1	21	50	-2			14	57 PP
ISTANBUL KA.	78.84	314.9									22	46 PP
PRAGUE	79.02	328.8	12	0	0	21	58	4			14	54 PP
PRUHONICE	79.04	328.7	12	1A	1	21	54	0			14	58 PP
BUDAPEST	79.11	324.8	12	2	1						22	18 PS
BRATISLAVA	79.41	326.2	12	4	2						12	19 PCP
JENA	79.42	330.8	12	3	1	22	14	16	12	28	15	1 PP
PLAUEN	79.56	330.3	12	0	-3	22	13	14	12	13		
WITTEVEEN	79.59	334.5	12	4A	1							
VIENNA-H.	79.65	326.7	12	4A	0	22	18	18				
KSARA	79.82	305.8	12	6A	2	22	13	11			15	10 PP
DURHAM	80.35	339.8	12	8K	1	22	49	41			15	21 PP
DE BILT	80.68	334.9				22	30	19				
BENSBERG	80.98	333.2	12	10	-1						15	22 PP
TUCSON	81.06	55.2	12	12	1	22	19	4	12	26		
TUCSON TELE.	81.07	55.1	12	12	1				12	22		
ONERAHI	81.28	154.2	12	28	16							
JERUSALEM	81.60	304.7	12	15	1						15	19 PP
HEIDELBERG	81.73	331.5	12	15A	0							
STUTTGART	82.05	330.8	12	16A	0	22	27	2			15	26 PP
LJUBLJANA	82.16	326.3	12	16A	-1						15	31 PP
TUBINGEN	82.33	330.8	12	18A	0							
TOLMEZZO	82.51	327.3	12	28	9						15	27 PP
EBINGEN	82.65	330.6	12	20A	1							
STRASBOURG	82.76	331.5	12	20A	0	22	36	4	12	34	15	30 PP
TRIESTE	82.81	326.5	12	20	0							
KEW	82.93	337.5	12	21	0	22	35	1			15	32 PP
KARAPIRO	83.63	154.2	12	25A	1							
BASLE	83.71	331.1	12	22A	-3						17	0
ATHENS	83.94	315.8	12	24A	-2							
NEUCHATEL	84.39	331.1	12	28	0						15	27
PARIS	84.39	334.7	12	30	2						15	35 PP
BESANCON	84.53	331.8	12	29	0				12	44		
CHATEAU	84.78	154.7	12	30	0				12	43		
TUAI	84.96	153.4	12	33	2							
FOLINIERE	85.37	336.4	12	33	0							
ISOLA	86.73	329.6	12	39	-1				13	1		
CLERMONT-FD.	86.82	332.8	12	42A	2							
MONACO	86.96	329.1	12	41	0							
ST. LOUIS 1	87.84	38.5	12	45A	0	23	34	12	12	59		
FAYETTEVILLE	87.87	42.6	12	45A	0	23	23	1	13	0	15	31 PP
SHAWINIGAN	87.96	23.4	12	45A	0							
OTTAWA	88.05	25.8	12	46A	0							
BREBEUF	88.64	24.4	12	49A	0	23	30	1				
CLEVELAND	89.32	31.4	12	53A	1	23	37	2	13	8		
PENNSYLVANIA	91.31	29.4	13	1	0	23	58	5	13	15	23	28 SKS
MORGANTOWN	91.52	31.3	13	3A	1							
WESTON	92.17	24.3	13	5K	0	24	0	-1	13	20		
HALIFAX	92.24	18.2	13	5A	-1							
PALISADES	92.55	26.6	13	8	1	24	4	0	13	22	23	38 SKS
GUADALAJARA	93.90	58.8				23	38	-38			25	57
ADDIS ABABA	94.41	285.7	13	17	2	24	18	-2			17	4 PP

TOLEDO	94.47	334.7	13 16A	0	23 57	-24	13 30	17 5 PP
ALGIERS UNI.	94.64	328.3						17 7 PP
SERRA PILAR	94.71	338.4	13 10A	-7	23 35	-48		17 1 PP
COLUMBIA	95.87	35.0	13 23	1				
GRANADA	96.76	333.3						17 26 PP
MALAGA	97.45	333.6	13 27	-2				17 23 PP
TACUBAYA	97.49	56.9	13 48	19				
TAMANRASSET	105.44	319.1	14 5	777			14 19	18 28 PP
LWIRO	109.30	284.0	18 23	777				
BROKEN HILL	117.38	274.1	18 42A	2				
BULAWAYO	120.67	268.8	18 47A	1				
MAWSON	122.85	206.7	18 50	0			19 15	20 32 PP
TRINIDAD	124.68	28.8	18 55	1				
KIMBERLEY	128.28	262.4	19 22K	21				
SOUTH POLE	130.17	180.0	18 51	-14				21 29 PP
BYRD STATION	130.84	166.8	19 6	0				22 26 SKP
HUANCAYO	136.49	60.3	19 20	4				22 0 PP
LA PAZ	144 46	56.9	19 30K	-1				
ANTOFAGASTA	147.85	68.9	19 42	6				
ARGENTINE I.	150.77	157.3	19 46	5				

AUGUST 13 14.H 14.M 52.S EPICENTRE -39.92 -74.82 DEPTH= 0 KM

A= 0.20143 B=-0.74222 C=-0.63917 D=-0 9651 E=-0.2619
G=-0 1674 H= 0.6169 K=-0 7691 HT= -1.7

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
SANTA LUCIA	7.28	28.7	1 47A	-3	3 9	-5		
BUENOS AIRES	14.05	72.9	3 21	-1				
PORT STANLEY	16.63	140.7	3 55	-1				
LA PAZ	24.05	15.9	5 20	3	9 58	26		
ARGENTINE I.	26.09	169.9	5 37	0				
HUANCAYO	27.76	358.9	5 54A	2	10 29	-5		
BYRD STATION	43.55	190.3	8 8	1				9 45 PP
BOGOTA	44.32	1.1	8 16A	3				
CHINCHINA	44.67	358.9	8 17K	1	14 54	1		
FUQUENE	45.17	1.5	8 20	0				
BALBOA HTS.	48.83	353.8	8 50	1	15 53	1		
SOUTH POLE	50.27	180.0	9 0	0	16 8	-4		10 48 PP
GALERAZAMBA	50.44	359.4	9 11	10	16 21	7		
CARACAS	50.69	10.0	9 19K	16	16 33	15		
TRINIDAD	51.83	16.9	9 11	-1				10 25
GRENADA	53.11	16.1	9 20	-1				
ST. VINCENT	54.30	16.3	9 29	-1				
SANTIAGO MA.	54.63	343.6	9 32	0	17 13	1		
BARBADOS	54.63	18.3	9 36	4				
SAN SALVADOR	54.98	342.9	9 35	0	17 18	2		
FORT FRANCE	55.84	16.0	9 39	-2				
DOMINICA	56.34	15.6	9 42	-3				
SCOTT BASE	56.83	192.9	9 48A	0	17 43	2		11 48 PP
ANTIGUA	58.04	14.7	10 12	15				
COMITAN	58.16	340.3						10 48 PCP
SAN JUAN	58.56	9.7	9 57	-3				11 56 PP
CAPE HALLETT	59.38	198.8	10 5A	-1	18 26	12		12 14 PP
OAXACA	60.23	335.7	10 18	6	18 32	7		18 56 PS
VERA CRUZ	62.09	337.1	10 28	3	18 58	9		13 32
MERIDA	62.11	344.3	10 27	2	18 43	-6		22 52 SS
TACUBAYA	63.25	334.1	10 34K	2	19 9	6		12 57 PP
MANZANILLO	64.81	329.0			19 16	-7		11 56
GUADALAJARA	65.89	330.7	10 47K	-2	19 33	-3		13 30 PP
MAWSON	68.14	163.9	11 2	-2	20 3	0	11 21	13 27 PP
TERRE ADELIE	70.04	194.4	11 8	-7	21 8	42		
HERMANUS	71.65	119.7	11 24	-1	20 46	2		14 9 PP
MIRNY	73.45	174.9	11 34	-2	21 2	-3		
COLUMBIA	73.78	354.6	11 36	-2				
WILKES	73.99	182.2	11 39K	0	21 13	2		14 23 PP
CHIHUAHUA	74.14	331.7	11 35	-5				
MBOUR	76.18	57.7	11 52	1	21 38	3		
GEBBIES PASS	76.92	223.5	11 54	-2				
GRAHAMSTOWN	77.15	122.7						12 56 PCP
WINDHOEK	77.28	108.7	11 59	1				
ROXBURGH	77.40	220.4	11 58K	0	21 44	-4		14 50 PP
WELLINGTON	77.41	226.4	11 58K	0	22 8	19		14 52 PP

TUAI	77.71	229.5	12	3	3							
FAYETTEVILLE	77.71	344.0	11	58K	-2	21	51	-1	12	22	14	55 PP
CHATEAU	78.38	228.3	12	3K	-1						15	1 PP
KAIMATA	78.39	223.7	12	9	5							
WASHINGTON	78.47	358.2	12	3	-1	21	49	-11			14	58 PP
GEORGETOWN	78.47	358.2	12	3	-1	22	2	2				
COBB RIVER	78.68	225.4	12	4	-1						15	7 PP
KIMBERLEY	78.86	118.1	12	32A	26							
TUCSON	79.18	329.5	12	8K	0	22	4	-4	12	18	27	39 SS
TUCSON TELE.	79.22	329.6	12	8K	0	22	7	-1			39	31 PKPPKP
KARAPIRO	79.23	229.3	12	7K	-1						15	9 PP
MORGANTOWN	79.31	356.0	12	8K	-1						14	53 PP
ST. LOUIS 1	79.45	347.8	12	7K	-2	22	2	-8				
PITTSBURGH	80.12	356.0									17	24 PPP
PENNSYLVANIA	80.39	357.6	12	13	-1	22	11	-9				
FORDHAM	80.39	0.7	12	12	-2	22	18	-2				
PALISADES	80.55	0.7	12	14K	-1	22	22	0	12	26	15	10 PP
LAWRENCE	80.71	344.0	12	14	-2							
CLEVELAND	81.25	354.9	12	18K	-1	22	25	-4	12	35		
ONERAHI	81.39	230.2									12	22
WESTON	81.98	2.6	12	22K	-1	22	38	1				
PIETERMZBURG	82.04	122.0	12	22	-1							
ROCHESTER	82.66	358.3	12	25	-1							
LUANDA	82.90	95.6	12	30K	2	22	45	-1	12	45		
PRETORIA	83.10	117.7									12	58 PCP
LOME	83.29	76.3	12	30	0	22	52	2				
GLEN CANYON	83.65	331.2	12	31K	0							
PASADENA	83.88	325.1	12	33K	0	22	57	1			23	14 PS
BOULDER CITY	84.04	328.4	12	33	0	23	1	4			13	17
HALIFAX	84.76	8.0	12	38K	1							
OTTAWA	84.94	359.4	12	37K	-1							
KERGUELEN I.	85.86	157.8	12	47	5	23	9	-6				
LCO. MARQUES	85.92	120.6	13	43	60	23	16	0			16	7 PP
SHAWINIGAN	86.11	1.4	12	43K	-1							
FLAMING GRGE	86.41	334.5	12	45K	0	23	0	-21				
AFIAMALU	86.44	255.0	12	46	1	23	29	8			24	21 PS
SEVEN FALLS	86.73	2.7	12	49	2							
FRESNO	86.80	325.4	11	47	-60							
RUTH	86.91	329.9	12	49K	1	23	25	0				
BULAWAYO	87.08	113.8	12	49K	1							
SALT LAKE C.	87.10	332.7	12	48K	-1	23	29	2				
RAPID CITY	87.45	339.9	12	49K	-1	22	58	-32	13	1	16	13 PP
VINEYARD	87.48	324.3	12	52K	2							
EUREKA	87.51	329.3	12	51K	0							
LICK	88.09	324.4	12	54K	1						22	25
BERKELEY	88.80	324.3	12	58K	1	23	26	-17			22	32
SAN FRANCSCO	88.80	324.2	12	58K	1							
RENO	89.12	326.9	12	59K	1							
PONTA DELGDA	89.46	36.8	13	1A	1						16	36 PP
ANGRA DO HO.	89.51	35.3	13	7	7	24	2	12			16	38 PP
UKIAH	90.26	324.4	13	4K	0							
MINERAL	90.56	326.2	13	4K	-1							
BROKEN HILL	90.73	109.5	13	7K	1							
SUVA	90.74	245.6	13	6	0						24	42 PS
SHASTA	91.19	325.9	13	7K	-1							
BOZEMAN	91.19	335.5	13	7	-1	24	1	-4				
BUTTE	91.99	334.7	13	11	-1	23	42	-30				
MELBOURNE	94.45	210.5	13	23	0	23	59	-34			17	9 PP
HUNGRY HORSE	94.51	335.0	13	22K	-1						17	9 PP
CANBERRA	94.93	214.6	13	24	-1						17	6 PP
RIVERVIEW	95.21	216.9	13	25K	-1	24	38	36			17	13 PP
NOUMEA	95.81	234.7	13	29	0						17	19
TAMANRASSET	97.29	66.5	13	35K	-1				13	49	17	29 PP
VICTORIA	98.01	329.8	13	39A	0							
HONOLULU	98.45	290.6	13	44	3	24	16	-3			25	18 S
LISBON	98.64	46.1	13	41K	-1	24	18	-2			17	50 PP
LWIRO	98.97	100.5	13	43A	0	25	34	72				
ADELAIDE	99.31	207.4	13	46	1						17	43 PP
BRISBANE	99.71	221.8	13	45	-2	24	20	-5				
MALAGA	99.98	50.2	13	47A	-1	25	29	62			17	53 PP
COIMBRA	100.08	45.5	13	49K	1	24	28	1	14	2		
TANANARIVE	100.59	125.6	13	45	-6						17	53 PP
SERRA PILAR	100.63	44.7	13	44A	-7	25	12	42			17	54 PP
GRANADA	100.77	50.3	13	58K	6	24	34	4	14	10	18	10 PP
ALMERIA	101.22	51.2	13	53	-1	24	32	-1			17	59 PP
TOLEDO	102.31	48.0	13	57	-1	24	39	1			17	31 PP
RELIZANE	102.34	53.7	14	2	3						18	14 PP
ALICANTE	103.40	51.1	13	58	-5	25	38	55			18	16 PP
ALGIERS UNI.	104.55	54.2	14	9	1	24	48	0			18	34 PP

TORTOSA	105.56	49.6	14	33	777	24	55	2			
SETIF	105.67	55.9				25	7	14	18	41	PP
BARCELONA	106.89	50.0	18	51	777	25	2	3			
MUNDARING	107.75	189.8	14	21	777				18	30	
PERTH	107.81	189.5	18	54	777				35	36	PPS
CHARTERS TS.	109.07	220.8	18	49	777	28	20	192			
CLERMONT-FD.	110.12	46.8				25	21	9	20	17	
MONACO	111.41	50.5							19	24	
ISOLA	111.45	49.9							19	20	
PARIS	111.58	43.9	14	43	-233				19	22	PP
KEW	111.72	40.5	18	33	-3	25	17	-2	19	22	PP
BESANCON	112.59	46.7							19	35	PP
CHIAVARI	112.87	50.8				24	33	-50	19	2	PP
NEUCHATEL	112.99	47.4							19	30	
DURHAM	113.10	37.1	18	36	-3				19	29	PP
MESSINA	113.42	59.2							19	39	PP
ROME	113.46	54.4	18	22	-18	25	28	2	19	34	PP
BASLE	113.64	47.2							19	27	
PRATO	113.70	52.0							20	22	PP
ADDIS ABABA	113.80	98.3				29	8	221	19	30	PP
ABERDEEN	114.30	34.8				25	28	-1	19	38	PP
STRASBOURG	114.33	46.3	18	44	3	25	43	14	19	41	PP
CHUR	114.38	48.6	18	39	-3				29	18	PS
EBINGEN	114.78	47.1	18	41	-1	•			19	45	PP
DE BILT	114.88	42.0	18	48	6	25	34	3	19	45	PP
RAVENSBURG	114.94	47.8	18	43	0				19	43	PP
PADOVA	114.98	50.9				25	31	-1	20	15	PP
TUBINGEN	115.03	46.8	18	44	1				19	47	PP
RESOLUTE	115.10	354.2	14	54	-229	27	21	109	25	28	
STUTTGART	115.27	46.7	18	44	1	25	31	-2	19	49	PP
BENSBERG	115.30	43.8	18	55	12	25	33	0			
HEIDELBERG	115.30	45.9	18	46	3				19	46	PP
WITTEVEEN	116.03	41.9	18	45	0						
TOLMEZZO	116.19	50.4							19	44	
TRIESTE	116.23	51.4				25	40	4	19	48	PP
SCORESBY SD.	116.48	17.4				25	38	1	19	53	PP
LJUBLJANA	116.90	51.3	18	47	1				19	52	PP
PORT MORESBY	117.42	228.0	15	57	-170	22	57	-164	18	49	PP
JENA	117.67	45.5	18	48	0	25	38	-3	19	53	PP
ZAGREB	117.67	52.1							20	4	PP
CHEB	117.68	46.6							20	29	PP
HALLE	118.15	45.1	18	48	-1	25	42	-1	20	4	PP
COLLMBERG	118.63	45.6	18	50	0	25	46	1	20	11	PP
COLLEGE	118.81	332.2	18	49	-1	25	42	-4	20	9	PP
PRAGUE	118.83	47.4							20	13	PP
PRUHONICE	118.86	47.5	18	51	1	25	47	1	22	43	PKS
VIENNA-H.	119.08	49.9	18	51	0				20	18	PP
POTSDAM	119.18	44.6	18	51	0	25	48	1	20	0	PP
BRATISLAVA	119.48	50.2	18	50	-1				20	29	PP
BELGRADE	119.95	54.9				25	51	1	20	14	PP
HURBANOVO	119.99	50.9							20	34	PP
HELWAN	120.16	74.8	18	55	2				20	24	PP
BUDAPEST	120.30	51.6							20	21	PP
COPENHAGEN	120.40	41.0	18	53K	0	25	55	4	20	20	PP
SOFIA	120.81	58.2	18	49	-5				20	24	
TIMISOARA	120.86	54.2	19	32	38				30	30	PS
RACIBORZ	120.99	48.6	18	57	3				20	28	PP
GOTEBORG	121.07	38.7	18	55	0				20	24	PP
CHORZOW	121.54	48.7							30	22	PS
SKALNATE PL.	121.79	50.3	18	20	-36				27	28	SKKS
KRAKOW	121.98	49.2	18	59	3	25	56	0	27	30	SKKS
CAMPULUNG	123.05	56.1							20	40	PP
BUCHAREST	123.38	57.4							20	43	PP
WARSAW	123.51	47.2	19	0	1	26	2	1	19	11	20 44 PP
SKALSTUGAN	123.66	32.5	19	8	9				28	45	PKKP
JERUSALEM	124.01	74.9	19	2	2				20	49	PP
LWOW	124.30	50.8	19	1	0				20	40	PP
UPPSALA	124.63	37.8	19	0	-1				20	48	PP
BACAU	124.78	55.3							20	56	
NORD	124.93	8.8	18	59	-3				20	48	PP
KSARA	125.48	73.0	18	54	-9				20	54	PP
KIRUNA	128.17	28.7	19	7	-1				21	14	PP
NURMIJARVI	128.18	38.4	19	8	0				22	28	PKS
HELSINKI	128.24	38.8	19	7	-1				22	28	PKS
ISFJORD	128.38	15.4	19	10	1						
SIMFEROPOL	128.85	59.6	19	9	0				21	13	PP
SODANKYLA	130.42	29.9	19	11	-1				22	33	PKS
PULKOVO	130.76	40.2	19	12	-1				21	26	PP

APATITY	133.05	29.9	19	16K	-1	26	25	-2	21 41 PP
LEMBANG	133.43	183.3	19	20	2				21 50
DJAKARTA	134.11	182.3	19	21	2				22 52
TIFLIS	135.10	67.2	19	22	1				21 56 PP
GORIS	135.45	70.7	19	21	-1				21 58 PP
KHEYS	135.75	9.9	19	22	0	26	27	-5	22 58 PKS
SHIRAZ	136.11	86.6	19	24A	1				22 3 PP
GUAM	136.44	244.0	19	19	-5				
TEHERAN	137.84	78.0	19	19	-7				22 14 PP
COLOMBO	140.04	138.6	19	41	11				
KODAIKANAL	141.53	132.6	19	31	-2				
PETROPAVLOVK	141.81	308.3	19	27	-6				22 41 PP
MEDAN	143.35	169.1	19	34	-2				30 43
ASHKABAD	143.84	77.7	19	34	-3				22 55 PKS
KARACHI	144.74	103.6	19	38	0				
MADRAS	145.31	133.6	19	40	1				20 22
MAGADAN	145.49	320.0	19	38	-2				
POONA	145.61	119.1	19	40	0				23 2 PP
TIKSI	146.05	346.8	19	41	0				
SVERDLOVSK	146.64	44.5	19	43	1				23 7 PP
QUETTA	147.44	95.3	19	45K	2				23 33 PP
HYDERABAD	147.78	126.3	19	51	7				20 12 PP
PORT BLAIR	149.78	155.2	19	52	5				23 45 PP
MANILA	151.25	213.4	20	1	12				
DUZHANBE	151.89	80.9	19	54	4				23 41 PP
NHA TRANG	152.18	188.5	19	51	1				23 58 PP
TUKUBASAN	152.37	273.5	19	36A	-15				21 41 PP
WARSAK DAM	152.59	91.7							20 0 PKP2
TASHKENT	152.83	75.3	19	52	1				23 44 PP
BAGUIO CITY	153.02	214.2	19	52	0				
YAKUTSK	153.33	334.1	19	50	-2				20 16 PKP2
LAHORE	153.70	98.8	19	53K	1				
MATUSIRO	153.92	273.2	19	51	-2				23 47 PP
ABUYAMA	155.40	267.8	19	57K	2				
DEHRA DUN	155.91	105.0	19	59	4				23 57 PP
FRUNSE	156.94	72.8	19	58	1				24 6 PP
CALCUTTA	157.54	135.6	19	33	-25				24 20 PP
SEMIPALATNSK	159.63	50.8	20	1	1				24 16 PP
VLADIVOSTOK	159.77	287.8	19	58	-2				
CHATRA	160.13	125.6	20	2K	1				24 12 PP
HONG KONG	160.84	206.2	19	38	-23				24 10 PP
CANTON	161.85	204.8	20	4K	2				24 31 PP
SHILLONG	161.86	138.1	20	3	1				24 34 PP
ZO-SE	164.30	240.9	20	6K	1				24 53 PP
CHANGCHUN	164.51	291.2	20	2K	-3				24 45 PP
LHASA	164.52	127.1	20	7K	2				24 55 PP
NANKING	166.49	238.7	20	7K	0	27	1	-8	24 57 PP
IRKUTSK	167.63	2.5	20	7	0				25 3 PP
WUHAN	167.90	222.1	20	7K	-1				25 0 PP
CHENGTU	170.71	173.7	20	10K	1				25 16 PP
PEKING	171.56	274.3	20	9K	-1				25 21 PP
SIAN	173.60	209.0	20	12K	1				
LANCHOW	175.99	164.1	20	13K	2				25 41 PP
PAOTOW	176.23	281.6	20	12	0				

AUGUST 14 4.H 0.M 54.S EPICENTRE 45.62 151.19 DEPTH= 56.KM

A=-0 61496 B= 0 33818 C= 0 71236 D= 0 4819 E= 0 8762
G=-0 6242 H= 0 3433 K=-0 7018 HT= -3.8

DEPTH OF FOCUS= 0 004R

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
KURILSK	2.37	261.7	0	36	-2	1	6	0				
SEVERO-KUR.	6.02	31.2	1	28	-1	2	36	-1				
UGLEGORSK	7.10	302.5	1	44	0						3	10
PETROPAVLOVK	8.86	30.6	2	8	0	3	50	3				
OKHA	9.57	329.0	2	20	2	4	10	5				
MIZUSAWA	9.87	232.5	2	34	12	4	4	-8				
KLYUCHI	12.31	26.1	2	58	3						5	30
TUKUBASAN	12.58	225.6	2	57	-1	5	8	-10				
MATUSIRO	13.33	231.7	3	4	-4	5	44	8				
MAGADAN	13.96	359.2	3	15	-1							

VLADIVOSTOK	14.03	266.6	3	17	0				6	26
CHANGCHUN	18.46	273.7	4	13	0					
PEKING	26.15	270.2	5	32	1	10	3	7		
ZO-SE	27.45	248.6	5	45	2	10	23	6		
LANCHOW	36.62	271.9	7	2	-1					
COLLEGE	37.86	37.5	7	13	0	13	7	7	8	55
CHENGTU	39.42	264.5	7	26	0	13	24	0		
KUNMING	43.72	259.0	8	2	1	14	29	2		
SITKA	45.12	47.7	8	15	2					
KHEYS	45.86	346.8				14	52	-6	9	55 PCP
LHASA	49.11	272.8	8	46	2	15	48	4		
SHILLONG	51.01	268.0	9	3A	5					
ALMATA	51.26	295.7	8	58	-2					
FRUNSE	52.96	296.3	9	14	1					
CHATRA	53.52	272.6	9	18K	1					
SVERDLOVSK	53.75	317.0	9	15	-4					
APATITY	57.85	336.3	9	49	1					
SODANKYLA	59.82	338.4	9	58	-4					
SHASTA	60.26	60.9	10	5	0					
HUNGRY HORSE	60.55	49.8	10	6	-1				10	19
MINERAL	60.95	60.8	10	9	-1					
KIRUNA	60.98	340.8	10	8	-2					
RENO	62.54	60.6	10	21	1					
LICK	62.75	63.6	10	22K	0					
QUETTA	65.34	288.6	10	37A	-2					
NURMIJARVI	65.65	334.1	10	41	0					
HELSINKI	65.82	333.8	10	41	-1					
SKALSTUGAN	66.39	341.3	10	44	-1					
FLAMING GRGE	67.80	53.8	10	54	0					
UPPSALA	68.24	336.8	11	4	7					
RAPID CITY	69.04	48.0	11	2	0				11	15
GLEN CANYON	69.15	58.2	11	1	-1					
TIFLIS	71.09	310.6	11	15	1				21	16 SCS
TUCSON	72.80	61.5	11	24	0					
TUCSON TELE.	72.80	61.3	11	25	1					
SHIRAZ	75.02	297.0	11	38	1					
KRAKOW	75.75	330.0	11	41	0				11	53 PCP
COLLMBERG	76.94	334.6	11	47A	-1				14	46 PP
WITTEVEEN	77.33	338.8	11	49	-1					
DURHAM	77.35	344.2	11	50A	0					
PRUHONICE	77.61	333.0	11	52A	0				12	16
JENA	77.69	335.2	11	52	0				13	2
BENSBERG	78.89	337.8	11	58	-1					
FAYETTEVILLE	79.57	48.5	12	2A	-1				12	16
ST. LOUIS 1	79.63	44.4	12	3A	0	22	0	1		
HEIDELBERG	79.88	336.2	12	4	0					
STUTTGART	80.29	335.5	12	6	0					
OTTAWA	80.34	31.5	12	6	-1					
SHAWINIGAN	80.39	29.1	12	8	1					
TUBINGEN	80.56	335.6	12	7	-1					
CANBERRA	80.59	181.8							27	20
STRASBOURG	80.89	336.4	12	10	0					
EBINGEN	80.91	335.5	12	9	-1					
BREBEUF	81.01	30.1	12	10A	0					
RAVENSBURG	81.08	334.9	12	10	-1					
KSARA	81.67	310.5	12	15	1					
BASLE	81.90	336.0	12	15A	0					
BESANCON	82.60	336.9	12	19	0				12	45
FOLINIERE	82.79	341.6	12	19	0					
MORGANTOWN	83.54	37.2	12	24K	1					
JERUSALEM	83.59	309.6	12	25	1					
WESTON	84.54	30.2	12	28A	0					
PALISADES	84.79	32.6	12	28	-2	22	52	0	15	56 PP
HALIFAX	85.01	24.1	12	31	0					
ISOLA	85.10	335.0	12	34	3					
COLUMBIA	87.75	41.1	12	45	1					
SETIF	92.90	332.9	12	8	-60					
HUANCAYO	128.33	64.8	19	4	3					
BYRD STATION	134.42	165.9	19	4	-8				23	0
SOUTH POLE	135.43	180.0	19	14	0					

AUGUST 14 22.H 37.M 11.S EPICENTRE 36.00 69.55 DEPTH= 53.KM

A= 0.28328 B= 0.75979 C= 0.58522 D= 0.9370 E=-0.3493
G= 0.2044 H= 0.5483 K=-0.8109 HT= -0.2

DEPTH OF FOCUS= 0.003R

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	
KULYAB	1.90	4.7	0	31	1	0	58	4					
KHOROG	2.17	46.5	0	35	1	1	5	5					
WARSAK DAM	2.58	140.0	0	40	0								
DUZHANBE	2.64	346.5	0	40	-1	1	20	8					
OBI-GARM	2.70	2.4	0	42	0	1	19	6					
GARM	3.05	11.0	0	47	0	1	33	11					
DZERGETAL	3.48	22.0	0	56	3								
MURGAB	4.22	54.6	1	5	2	2	12	20					
FERGANA	4.71	21.2	1	15	5	2	29	25			1	16	
ANDIJAN	5.23	24.2	1	17	0	2	44	27					
NAMANGAN	5.24	17.8	1	17	0	2	49	32			2	12	
TASHKENT	5.31	357.8	1	17	-1	2	17	-2			3	1	
LAHORE	5.96	136.8	1	25	-2	2	27	-8			1	46	*SP
QUETTA	6.20	201.3	1	30A	-1	2	41	0			1	46	*SP
TCHIMKENT	6.29	0.3	1	30	-2	3	21	38			3	10	
NARYN	7.40	41.0	1	45	-2	3	13	2					
FRUNSE	7.86	28.4	1	53	-1	3	23	1					
FABRICHNAYA	8.88	34.6	2	7	-1								
DEHRA DUN	9.10	126.1	2	19	8	3	51	-2			2	33	PPP
ASHKABAD	9.17	285.6	2	11	-1								
ALMATA	9.23	35.9	2	14	1						4	17	
PRZHEVALSK	9.43	44.0	2	15	0						4	50	
ALMATA-2	9.43	37.3	2	13	-2						4	56	
KURMENTY	9.71	41.3	2	19	0								
KIZYL-ARVAT	11.01	290.8	2	36	-1						6	6	
TEHERAN	14.73	274.3	3	25	-1	6	31	22					
SHIRAZ	15.65	251.0	3	38	0	6	39	9			4	7	
SEMIPALATNSK	16.34	25.0	3	44	-3								
BOMBAY	17.28	169.5									9	23	
CHATRA	17.58	116.4	4	1	-1	7	6	-8			4	22	PP
POONA	17.81	166.6	4	6	1	7	14	-5			4	28	PPP
GORIS	18.68	287.7	4	14	-2	7	42	3					
LHASA	19.12	103.3	4	23	2	7	47	-1					
TIFLIS	20.07	294.0	4	32	1	8	19	10					
HYDERABAD	20.11	154.6									10	43	
VIZIANAGRAM	21.64	141.7				8	47	10					
SVERDLOVSK	21.69	346.7	4	47	-1	8	49	10					
SHILLONG	21.76	112.3	4	55A	7	8	56	15					
TOCKLAI	23.37	106.2	5	6	2								
MADRAS	24.82	154.6	5	23	5						11	3	
KSARA	27.62	275.4	5	46	2						11	1	*SS
JERUSALEM	28.72	271.6	5	55	1						6	31	PP
CHENGTU	29.18	90.5	6	14	16								
MOSCOW	29.32	322.3	5	59	0	11	39	52					
KUNMING	30.43	101.6	6	10	1	11	4	-1					
HELWAN	32.51	270.3	6	29	2								
PULKOVO	34.66	325.7	6	46	0						11	4	
LWOW	35.53	307.3	6	55	2								
SOFIA	36.00	295.1	5	59	-58								
PEKING	36.62	69.3	7	4	1								
HELSINKI	37.29	324.6	7	9	1								
NURMIJARVI	37.55	325.0	7	10	0								
APATITY	37.64	338.2	5	12K	-119								
WARSAW	37.66	311.0									12	29	
WUHAN	37.77	85.1	7	13	1								
KRAKOW	38.18	307.4	7	17	1								
SODANKYLA	39.70	335.6	7	29	1								
VIENNA-H.	40.53	304.6	7	38	3								
UPPSALA	40.74	322.5	7	37	0								
PRUHONICE	41.65	307.3	7	46	2						9	28	PP
LJUBLJANA	41.96	301.4	7	49	2								
KIRUNA	42.03	334.6	7	48	1						8	12	
TRIESTE	42.54	300.9	7	49	-3						9	35	
COLLMBERG	42.60	309.3	7	53	1						9	34	PP
HALLE	43.25	309.6	7	58	1								
GOTEBORG	43.35	318.7	7	54	-4								
JENA	43.51	308.8	8	0	1						9	40	PP
SKALSTUGAN	43.99	327.2	8	4	1								
KHEYS	44.96	357.3	8	12	1						9	57	PCP
YAKUTSK	45.07	35.3	8	12	0	14	52	6					
RAVENSBURG	45.08	304.5	8	13	1								
STUTTGART	45.18	305.9	8	14	1								
TUBINGEN	45.35	305.6	8	15	1								

EBINGEN	45.46	305.1	8 16	1						
HEIDELBERG	45.47	306.9	8 15	0						
STRASBOURG	46.20	305.8	8 22	1						
BENSBERG	46.29	309.2	8 23	1						
TIKSI	46.67	22.0	8 21	-4						
KEW	50.87	310.8	8 57	0						
SETIF	50.95	290.4	8 58	0					9 48	
NORD	54.08	349.6	9 21	0						
MATUSIRO	54.23	67.6	9 20	-2					28 24	
RELIZANE	54.78	291.6	9 25	-1					11 32	PP
TAMANRASSET	56.43	275.2	9 37	-1					11 38	PP
SIDA	57.36	328.2	9 46	1						
BROKEN HILL	63.45	225.4	10 27	1						
BULAWAYO	67.96	221.6	10 54	-1						
COLLEGE	75.29	15.5	11 39	0						
ST. LOUIS 1	103.41	343.8							18 17	PP
SOUTH POLE	125.82	180.0	18 56	0						

AUGUST 14 22.H 46.M 6.S EPICENTRE -23.86 -66.70 DEPTH= 213.KM

A= 0.36218 B=-0.84085 C=-0.40224 D=-0.9184 E=-0.3956
G=-0.1591 H= 0.3694 K=-0.9155 HT= 3.7

DEPTH OF FOCUS= 0.028R

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	
LA PAZ	7.45	349.3	1 48	1	3 10	-1			
HUANCAYO	14.32	323.6	3 16A	1	6 4	16			
PORT STANLEY	28.61	168.5	5 37	-2					
CARACAS	34.15	359.6	6 46K	19	11 54	17			
TRINIDAD	34.69	9.2	6 31	-1					
BALBOA HTS.	34.96	337.4	6 35	1	11 56	7			
GRENADA	36.02	8.3	6 42	-1					
ANTIGUA	41.02	7.1	7 21	-3					
ARGENTINE I.	41.41	178.5	7 25	-2					
SAN JUAN	41.99	0.8	7 30	-2			8 23	9 17	PCP
TACUBAYA	53.41	320.8	8 55	-5					
COLUMBIA	59.13	346.1	9 39	-2					
BYRD STATION	60.49	189.2	9 50	0			10 41		
CHAPEL HILL	60.59	348.5	9 50	0					
MORGANTOWN	64.36	348.7	10 15K	0					
PALISADES	64.88	354.0	10 16	-3	18 44	3	11 20	23 4	SS
FAYETTEVILLE	65.04	335.6	9 18K	-62			10 20	9 56	PCP
WESTON	66.04	356.3	10 26K	0					
SOUTH POLE	66.28	180.0	10 26	-2			11 12	12 47	PP
HALIFAX	68.20	2.4	10 39K	-1					
BREBEUF	69.31	354.8	10 46	0				13 9	PP
OTTAWA	69.41	353.2	10 46K	-1					
TUCSON	69.93	321.1	10 50	0				11 9	
TUCSON TELE.	69.93	321.2	10 50	0			11 36		
SHAWINIGAN	70.29	355.6	10 52K	0					
GLEN CANYON	73.82	323.9	11 15	2					
SCOTT BASE	73.88	190.2	11 13	-1					
BOULDER CITY	74.91	321.3	11 19	0					
RAPID CITY	75.43	333.7	11 23	1	20 48	5	12 13		
PASADENA	75.63	318.0	11 26K	3					
FLAMING GRGE	75.68	328.0	11 24	0				12 35	
SALT LAKE C.	76.78	326.4	11 30	0				11 51	
EUREKA	78.02	323.2	11 38	1				12 16	
VINEYARD	79.31	318.2	11 45	1					
GRAHAMSTOWN	79.85	121.9	11 46	0					
LICK	79.85	318.5	11 48K	2					
BOZEMAN	80.08	330.2	11 48	0				12 22	
KIMBERLEY	80.11	117.0	11 48K	0					
RENO	80.22	321.1	11 50K	2					
BERKELEY	80.57	318.6	11 51K	1					
BUTTE	81.04	329.6	11 54	1				12 24	
MAWSON	81.49	162.6	11 55	0			12 45		
MINERAL	81.79	320.8	11 56	-1					
SHASTA	82.47	320.7	12 0	0					
HUNGRY HORSE	83.44	330.4	12 5	0			12 56		
PRETORIA	84.05	115.4	12 8	0					
TAMANRASSET	84.08	62.1	12 9A	1			12 58	15 26	PP

PIETERMZBURG	84.30	119.7	12	11A	2							
GRANADA	84.90	45.7	12	44K	32							
ALMERIA	85.46	46.4	12	15K	0	22	9	-17				
TOLEDO	86.17	43.2	12	19	0	22	28	-5	13	9		
BULAWAYO	86.67	110.4	12	22A	1							
RELIZANE	86.90	48.7	12	23	1				13	17		
ALICANTE	87.61	46.1	12	14	-11	22	49	2				
VICTORIA	88.08	326.2	12	27K	-1							
BROKEN HILL	88.86	105.2	12	34A	3							
ALGIERS UNI.	89.15	48.9	12	31	-2	23	7	6	13	23	15	39 PP
SETIF	90.51	50.3	12	39	0				13	29		
FOLINIERE	93.29	37.3	12	53	1							
LWIRO	94.13	94.3	12	58A	2						23	2
KARAPIRO	95.22	224.6	13	2A	1							
ABERDEEN	97.09	29.7									22	24
ROME	98.01	47.8									23	36 PKS
MESSINA	98.65	52.2									20	42 PPP
STUTTGART	98.91	40.5	13	18	1							
PRUHONICE	102.55	40.8	13	35	1				14	24		
COLLEGE	107.66	333.7	13	56	777							
CHARTERS TS.	125.78	219.1	18	38	1							
SHIRAZ	125.94	69.8	18	38A	1	25	26	6			21	23 PP
GUAM	148.54	256.5	19	2	-16							
LEMBANG	149.00	169.0	19	20A	1							
MATUSIRO	155.12	306.3	19	28	1						23	29 PP
SHILLONG	160.45	80.6	19	13A	-21							

AUGUST 15 6.H 58.M 57.S EPICENTRE -13.97 65.99 DEPTH= 0.KM

A= 0.39495 B= 0.88682 C=-0.23991 D= 0.9135 E=-0.4068
G=-0.0976 H=-0.2192 K=-0.9708 HT= 5.9

SE= 3.96

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TANANARIVE	18.36	252.0	4	21	3	7	41	1			4	31	PP
COLOMBO	24.89	34.5				9	40	-7			15	23	
KODAIKANAL	26.60	25.9				10	54	38			13	24	
MADRAS	30.26	28.3				11	41	27					
BOMBAY	33.35	11.8				11	57	5			15	59	
HYDERABAD	33.54	21.9	4	37A	-127	10	46	-80			14	4	SS
ADDIS ABABA	35.38	308.7	7	7	8	12	41	7			8	15	PP
BULAWAYO	36.21	255.0	6	23	-43								
BROKEN HILL	36.35	264.5	7	5	-3								
MEDAN	36.81	64.1									17	10	
PRETORIA	37.32	245.8	7	21	5								
LWIRO	38.55	284.2	7	23	-3								
KIMBERLEY	40.88	242.1	7	46	1								
LEMBANG	41.50	84.5	7	46	-5								
QUETTA	43.90	1.2	8	6	-4	14	37	-5			9	47	PP
SHIRAZ	45.27	343.4	8	15A	-6	14	55	-7			10	13	PP
CHATRA	45.48	26.9	8	20	-3	15	0	-5					
DEHRA DUN	45.54	14.7	8	38	15	14	57	-9					
LAHORE	45.96	9.9	8	20	-7								
SHILLONG	46.69	32.8	8	27A	-5	15	13	-9					
LHASA	49.64	28.9	8	54	-1	16	3	-1					
TEHERAN	51.34	344.8	9	16	8	16	8	-19					
STALINABAD	52.33	2.7	9	14	-2	16	36	-5					
KUNMING	52.85	42.9	9	22	2								
MAWSON	53.62	181.5	9	23	-2								
JERUSALEM	54.22	327.5	9	29	-1						11	34	PP
ANDIJAN	54.76	5.9	9	31	-3								
HELWAN	54.92	322.9	9	35	0	17	15	-1					
NAMANGAN	54.92	5.3	9	30	-5								
KSARA	55.51	329.6	9	43	4								
CHENGTU	57.50	39.0	9	49	-4	17	41	-9					
MAKHACH-KALA	59.15	344.3									11	0	PCP
WILKES	60.08	160.9				18	24	0			19	8	
NANKING	68.17	46.8	11	1	-3								
TAMANRASSET	69.56	301.0	11	9	-4						13	37	PP
SVERDLOVSK	70.68	356.9	11	17	-3								
PEKING	71.11	38.6	11	22	0	20	38	-1					
MOSCOW	73.42	343.7	11	34	-2								
LWOW	73.45	333.1	11	36	0								
IRKUTSK	73.81	23.4	11	36	-2								

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LJUBLJANA	75.58	325.8	11	48A	0				12	9
TRIESTE	75.76	325.1	11	51	2					
VIENNA-H.	76.00	328.3	11	51	0				12	31
SOUTH POLE	76.12	180.0	11	46	-5				12	32
CHARTERS TS.	76.34	107.6	11	49	-4					
CANBERRA	76.42	123.4	11	57	4					
ALGIERS UNI.	77.78	313.0	12	1	0					
PRUHONICE	78.03	328.9	12	2A	0	21	55	-1	14	54 PP
MONACO	78.36	320.8	12	0	-4					
SCOTT BASE	78.69	167.7	12	10	4					
ISOLA	78.83	321.1	12	10	4				12	17 PCP
CHANGCHUN	78.87	39.4	12	7	0					
RELIZANE	79.13	311.1	12	12	4					
COLLMBERG	79.62	329.4	12	10	-1				15	12 PP
STUTTGART	80.06	325.8	12	12	-1					
STRASBOURG	80.79	325.1	12	20	3				14	17
BRISBANE	80.90	116.0	12	19	1	22	15	-11		
CAPE HALLETT	81.06	162.5	12	21	3	22	33	5	27	51 SS
NURMIJARVI	81.25	340.7	12	20	1					
TORTOSA	81.41	315.7	12	24	4	22	32	1		
ALMERIA	81.80	311.1	12	22	0				13	4
BENSBERG	82.42	326.9	12	25	0				12	42
GRANADA	82.76	311.0	12	37K	10	23	37	52		
MALAGA	83.17	310.3	12	27A	-2	22	51	2	15	41 PP
PARIS	83.90	323.5	12	24	-9					
TOLEDO	84.16	313.4	12	22	-12	22	59	0		
MATUSIRO	84.46	50.4	12	35	-1	22	56	-6	28	26 SS
SODANKYLA	86.03	345.8	12	44	0					
BYRD STATION	86.12	179.0	12	44	0					
KEW	86.75	325.0				23	22	-2		
DURHAM	88.91	327.6	12	46A	-12					
COLLEGE	124.15	16.7	19	5	4					
LA PAZ	125.50	237.8	19	9	6					
HUANCAYO	133.76	237.8	19	27	8					
PALISADES	135.96	315.5							32	29 PS
COLUMBIA	144.11	309.5	19	41	3					
VICTORIA	144.68	10.8	19	37	-2					
HUNGRY HORSE	145.72	0.0	19	37	-4					
BALBOA HTS.	145.90	265.4	19	43	2				24	57
ST. LOUIS 1	147.66	323.8	19	45	1					
BUTTE	148.03	358.1	19	44	0					
BOZEMAN	148.31	356.1	19	51	6					
RAPID CITY	148.60	345.0	19	46	1					
FAYETTEVILLE	151.70	324.6	19	51	1					
FLAMING GRGE	152.84	352.3	19	59	7					
MINERAL	152.89	12.8	20	1	9					
RENO	154.02	10.3	20	0	7					
EUREKA	154.53	3.5	20	4	10				22	13
GLEN CANYON	157.00	355.0	19	56	-1				24	3 PP
TUCSON TELE.	161.47	351.2	20	1	-1				24	32 PP
TUCSON	161.57	351.5	20	14	12					

AUGUST 15 14.H 33.M 40.S EPICENTRE -14.51 65.30 DEPTH= 0.KM

A= 0.40474 B= 0.87990 C=-0.24894 D= 0.9085 E=-0.4179
G=-0.1040 H=-0.2262 K=-0.9685 HT= 5.8

SE= 6.63

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
TANANARIVE	17.55	253.1	4	18	11							
COLOMBO	25.72	35.1				9	47	-14			14	51
KODAIKANAL	27.38	26.8									9	2
MADRAS	31.05	29.0	6	58	37						11	6
BOMBAY	34.01	12.8									7	58
HYDERABAD	34.29	22.7				12	0	-17			14	57
ADDIS ABABA	35.20	310.1				12	39	8				
BULAWAYO	35.42	255.6	7	5A	6							
BROKEN HILL	35.63	265.4	7	7A	6							
PORT BLAIR	37.62	47.7									15	24
MEDAN	37.65	64.0	7	7K	-11						7	59
LWIRO	38.03	285.3	7	26A	5	13	28	14				
KIMBERLEY	40.04	242.5	7	51	13							
LEMBANG	42.23	84.2	7	46K	-10							
QUETTA	44.46	2.0	8	5K	-9	14	35	-15			9	44 PP

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DEHRA DUN	46.23	15.3	8 22	-6					14 59	
CHATRA	46.26	27.4	8 17	-11	15 1	-15				
LAHORE	46.61	10.6	8 19	-12						
SHILLONG	47.51	33.2			15 14	-20				
LHASA	50.43	29.4	8 50K	-11	15 58	-16				
TEHERAN	51.68	345.6	7 50	-80					10 3	PP
STALINABAD	52.90	3.4	9 11	-9	16 32	-16				
MAWSON	53.07	181.2	9 22	1			9 33			
KUNMING	53.70	43.1	9 16	-9	16 44	-15				
JERUSALEM	54.32	328.3	9 26	-4					15 0	PCS
HELWAN	54.95	323.6	9 31	-4						
MIRNY	55.16	166.9	9 30	-6	17 33	14				
NAMANGAN	55.52	5.9	9 28	-11						
KSARA	55.64	330.3	9 37	-3					14 30	PCS
CHENGTU	58.34	39.3	9 47	-12	17 40	-21				
TIFLIS	59.06	342.2	9 57	-7	18 1	-9				
LANCHOW	62.09	34.8	10 14	-11						
SOFIA	68.74	328.1	10 59	-8						
NANKING	69.03	47.0	11 3	-6						
TAMANRASSET	69.26	301.5	11 9	-2					13 51	
ZO-SE	70.24	49.0	11 16	-1						
SVERDLOVSK	71.17	357.3	11 12	-10						
PEKING	71.95	38.8	11 19	-8	20 35	-13				
LWOW	73.63	333.6	11 37	0						
MOSCOW	73.74	344.1	11 34	-3						
IRKUTSK	74.57	23.7	11 35	-7	20 32	-45				
SOUTH POLE	75.59	180.0	11 49	1					12 36	
LJUBLJANA	75.65	326.2	11 43A	-5						
TRIESTE	75.82	325.5	11 50	1						
CANBERRA	76.69	123.4	12 0	6						
CHARTERS TS.	76.82	107.6	11 48	-7						
ALGIERS UNI.	77.66	313.3	11 55	-5	21 48	-3				
PRUHONICE	78.14	329.3	11 58A	-4	21 50	-6			14 52	PP
SCOTT BASE	78.31	167.8	12 4	1						
ISOLA	78.82	321.4	12 2	-4						
RELIZANE	78.97	311.4	12 3	-4						
CHANGCHUN	79.71	39.6	12 3	-8	22 1	-12				
STUTTGART	80.13	326.2	12 6	-7						
JENA	80.22	328.8	12 12	-1					16 28	
CAPE HALLETT	80.75	162.6	12 16	0					27 52	SS
STRASBOURG	80.84	325.4	12 20	3					15 0	
BRISBANE	81.27	116.0	12 14	-5					22 2	
BENSBERG	82.50	327.2	12 20	-5						
MALAGA	83.00	310.6	12 26	-2					15 42	PP
TOLEDO	84.04	313.6	12 29	-4						
MATUSIRO	85.32	50.6	12 30	-10	22 53	-17			33 21	
BYRD STATION	85.60	179.2	12 43	2						
SODANKYLA	86.38	346.0	12 37	-8						
KIRUNA	88.27	344.5	12 54	0						
PALISADES	135.86	314.8							40 0	SS
COLUMBIA	143.92	308.5	19 38	1						
BALBOA HTS.	145.18	264.8	19 41	2						
VICTORIA	145.33	10.2	19 35	-4						
HUNGRY HORSE	146.25	359.2	19 37	-4						
ST. LOUIS 1	147.69	322.6	19 32	-11					42 7	SS
BOZEMAN	148.79	355.1	19 46	1						
RAPID CITY	148.93	343.8	19 47	2						
FAYETTEVILLE	151.73	323.2	19 54	4						
FLAMING GRGE	153.27	351.0	19 56	4						

AUGUST 16 2.H 47.M 18.S EPICENTRE -16.64 -71.32 DEPTH= 113.KM

A= 0.30697 B=-0.90816 C=-0.28464 D=-0.9473 E=-0.3202
G=-0.0911 H= 0.2697 K=-0.9586 HT= 5.4

DEPTH OF FOCUS= 0.013R

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
LA PAZ	3.07	87.8	0	52A	4	1	29	4				
HUANCAYO	5.99	319.1	1	27	-1	2	28	-8				
ANTOFAGASTA	7.07	173.3	1	38	-5	2	52	-10				
BOGOTA	21.30	352.4	4	39K	0	8	34	10				
CHINCHINA	21.89	348.5	4	45K	0	8	40	6			5	32
FUQUENE	22.10	353.6	4	47	0	8	46	8				

BALBOA HTS.	26.71	341.6	5 34	3	10 8	12		
CARACAS	27.32	9.5	5 54	18	10 34	28		
GALERAZAMBA	27.52	351.6	5 39	1	10 16	7		
TRINIDAD	28.84	20.6	5 49	-1				
GRENADA	30.05	19.0	5 59	-2				
ST. VINCENT	31.24	19.1	6 9	-2				
SAN JUAN	35.18	8.6	6 43	-2	12 4	-5		8 10 PP
PORT STANLEY	36.58	165.9	6 57	0				
TACUBAYA	45.10	321.5	8 29	22				
ARGENTINE I.	48.80	176.1	8 35	-1				
COLUMBIA	51.20	349.6	8 54	0				
MORGANTOWN	56.55	352.0	9 33A	0				
FAYETTEVILLE	56.73	337.9	9 33K	-1			9 59	10 7 *SP
PALISADES	57.41	357.7			17 22	-3		
ST. LOUIS 1	57.78	342.5	9 42	0	17 29	-1		
WESTON	58.72	0.0	9 47	-1				
LAWRENCE	59.68	338.5	9 54	-1				
HALIFAX	61.37	6.3	10 5A	-1				
TUCSON	61.60	322.2	10 9	1				
TUCSON TELE.	61.60	322.4	10 8	0				
OTTAWA	61.87	356.5	10 8A	-2				
BREBEUF	61.88	358.2	10 9A	-1			10 37	
MBOUR	61.89	63.2	10 10	0				
SHAWINIGAN	62.91	358.9	10 16A	-1				
GLEN CANYON	65.46	325.3	10 33	0				
BYRD STATION	66.94	188.1	10 44	1			11 7	11 19 *SP
RAPID CITY	67.08	335.6	10 44	0				
FLAMING GRGE	67.29	329.6	10 44	-1				
PASADENA	67.37	319.0	10 46	1				
EUREKA	69.66	324.5	11 0	1				11 38 PP
VINEYARD	71.05	319.4	11 10A	2				
LICK	71.58	319.7	11 13K	2				11 50
RENO	71.89	322.5	11 15	2				
BERKELEY	72.30	319.8	11 17K	2				
BUTTE	72.66	331.2	11 12	-5				
MINERAL	73.46	322.2	11 23	1				
SOUTH POLE	73.46	180.0	10 56	-26			11 18	11 22 *SP
SHASTA	74.15	322.1	11 26K	0				
HUNGRY HORSE	75.06	332.1	11 32	1			11 58	12 8 PP
CORVALLIS	77.12	324.7	11 45K	2				
BANFF	77.79	333.3	11 46	-1				
VICTORIA	79.69	327.8	11 56A	-1				
SCOTT BASE	80.17	190.5	12 1	2				
MALAGA	82.39	48.2	12 11K	0				
CAPE HALLETT	82.45	195.7	12 13	2			12 50	12 37 PCP
GRANADA	83.17	48.1	12 3A	-12				
ALMERIA	83.83	48.8	12 17K	-1			12 54	
TOLEDO	84.08	45.5	12 19A	0			12 57	
TAMANRASSET	84.73	64.5	12 24A	1			13 1	15 39 PP
RELIZANE	85.58	50.8	12 28	1			13 5	
SETIF	89.39	51.9	12 46	1			13 22	
MAWSON	89.61	164.1	12 46	0			13 11	
FOLINIERE	90.31	38.7	12 49	-1				
PARIS	92.12	39.4	12 58	0				
BULAWAYO	93.32	112.0	13 4	1				
STUTTGART	96.31	41.0	13 17	0			13 44	
COLLEGE	99.31	335.1	13 31	0			13 58	
PRUHONICE	99.95	40.8	13 36	2				14 6
CHARTERS TS.	128.08	226.7	18 56	3				
GUAM	145.06	269.8	19 26	2				
MATUSIRO	147.19	312.9	19 31	3			19 58	

AUGUST 17 11.H 24.M 6.S EPICENTRE -19.53 -11.91 DEPTH= 0.KM

A= 0.92287 B=-0.19473 C=-0.33226 D=-0.2065 E=-0.9785
G=-0.3251 H= 0.0686 K=-0.9432 HT= 4.8

SE= 3.42

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HERMANUS	31.32	124.7			11 36	5		
MBOUR	34.06	351.2	6 59	11	12 19	6		
KIMBERLEY	34.61	112.5	6 57	5				
PRETORIA	37.41	107.1	7 46	30				
BULAWAYO	38.06	98.0	7 28	6				

BROKEN HILL	38.89	89.0	7	29	1						
LWIRO	43.34	71.8	8	7K	2	14	34	1			
TAMANRASSET	45.36	22.9	7	22	-59	15	12	9	10	2	PP
LA PAZ	53.35	263.6	9	22A	-1	16	55	1			
SANTA LUCIA	53.72	242.4				16	54	-5			
RELIZANE	56.23	12.2	9	44	0				10	50	PCP
MALAGA	56.39	7.2	9	47K	2	17	45	10	10	43	PCP
GRANADA	56.94	7.9	9	53K	4				21	42	SS
ALGIERS UNI.	57.75	14.2	9	53	-2				12	0	PP
SETIF	57.79	16.5	9	37	-18						
ALICANTE	58.56	10.5	10	1	1	18	4	0	12	12	PP
HUANCAYO	61.19	266.7	10	19	1						
CARACAS	61.86	294.0	10	26	3	18	37	-9			
MESSINA	62.95	24.1	10	30	0	19	4	4			
HELWAN	64.40	41.3	10	36	-4						
ROME	65.15	19.9	10	45	0	19	31	4	23	39	SS
BOGOTA	65.64	284.6	10	50	2	19	35	2			
FUQUENE	65.67	285.6	10	48A	0						
ISOLA	65.73	14.9	11	4	16						
CLERMONT-FD.	66.40	11.4	10	53	0						
CHINCHINA	67.19	284.3	10	58	0						
JERUSALEM	68.14	42.3	10	57	-7				38	57	PCP
PADOVA	68.15	17.8							12	56	
TRIESTE	68.93	19.0	11	8	0				19	31	
PARIS	69.23	10.1	11	10	0						
LJUBLJANA	69.53	19.3	11	11K	-1						
ZAGREB	69.79	20.4	11	10	-4						
SOFIA	69.92	26.9	11	9	-6				13	9	
STRASBOURG	70.04	13.8	11	20	5	20	36	10	28	12	
BELGRADE	70.51	23.8	11	20	2				12	8	
STUTTGART	70.57	14.7	11	15	-3						
SOUTH POLE	70.59	180.0	11	16	-3				12	56	
PRUHONICE	73.06	17.5	11	31K	-2	21	0	0			
JENA	73.13	15.3	11	33	-1				12	2	
BYRD STATION	73.89	190.0	11	35	-3						
DURHAM	74.52	6.2				21	22	5			
POTSDAM	74.84	15.6	11	43	-1						
LWOW	76.03	23.1	11	48	-2						
SIMFEROPOL	76.64	31.7	11	53	-1						
WARSAW	77.00	20.1	11	57	1						
COPENHAGEN	77.71	13.8	12	11	11	22	2	10			
MIRNY	78.03	156.7	12	1	-1						
SHIRAZ	79.00	53.1							12	7	PP
TIFLIS	80.37	39.4	12	16	2						
WESTON	82.38	319.9	12	27	2						
MAKHACH-KALA	82.73	39.6	12	26	-1						
SCOTT BASE	82.82	179.7	12	24	-3						
PALISADES	83.23	317.7	12	30	1	22	52	3	15	24	PP
MOSCOW	85.86	25.6	12	41	-1						
OTTAWA	86.70	320.7	12	45	-2						
CAPE HALLETT	88.38	180.7	12	55	0						
QUETTA	90.48	58.2	13	6	1	23	54	-4			
EUREKA	112.81	305.5	20	7	89						
COLLEGE	126.14	338.4	19	3	-1						
YAKUTSK	129.92	22.4							22	32	
UGLEGORSK	143.87	29.3							18	40	
PORT MORESBY	144.62	142.5	19	37	-1						
PETROPAVLOVK	145.78	10.1	19	40	0						
MATUSIRO	148.83	50.8	19	48	3				42	36	SS
RABAUL	151.70	144.8	19	49	-1						

AUGUST 18 20.H 47.M 9.S EPICENTRE 44.35 147.82 DEPTH= 81.KM

A=-0.60719 B= 0.38211 C= 0.69665 D= 0.5326 E= 0.8464
G=-0.5896 H= 0.3710 K=-0.7174 HT= -3.3

DEPTH OF FOCUS= 0.008R

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
KURILSK	0.88	2.4	0	20	1	0	36	3				
NEMURO	1.91	238.5	0	27K	-4	0	46	-9				
ABASHIRI	2.57	263.8	0	40	0	1	11	0				
KUSIRO	2.83	242.2	0	41K	-3	1	11	-6				
OBIHIRO	3.64	248.5	0	52	-3	1	32	-6				

HIROO	3.88	239.3	0	55	-4	1	37	-6											
URAKAWA	4.29	240.9	1	1	-3	1	49	-4											
RUMOE	4.48	267.0	1	8	1														
WAKKANAI	4.49	285.9	1	10	3														
TOMAKOMAI	4.85	251.4	1	20	8														
SAPPORO	4.86	257.0	1	11K	-1	2	5	-3											
MURORAN	5.38	250.2	1	17	-2	2	15	-6											
SUTTSU	5.73	256.9	1	32	8														
MORI	5.75	249.5	1	24	0	2	22	-8											
HAKODATE	5.76	246.3	1	21K	-3	2	22	-8											
HATINOHE	6.02	232.8	1	29	1	2	23	-13											
UGLEGORSK	6.16	322.2	1	33	3	2	45	5											
AOMORI	6.28	238.2	1	34	2	2	33	-10											
MIYAKO	6.41	224.8	1	36	3	2	29	-17											
MORIOKA	6.79	229.1	1	33	-6	2	38	-17											
MIZUSAWA	7.22	226.1	1	58	13	2	50	-16											
AKITA	7.38	233.8				2	59	-11							2	21			
ISINOMAKI	7.67	221.8	1	43A	-8	3	0	-17											
SENDAI	8.00	222.9	1	57	2	3	7	-18											
SAKATA	8.09	230.4													2	58			
YAMAGATA	8.29	225.2	1	53	-6	3	17	-15											
SEVERO-KUR.	8.44	38.6	2	3	2														
HUKUSIMA	8.62	222.6	1	58	-6	3	23	-17											
ONAHAMA	9.07	217.7	2	28	18										3	32			
NIIGATA	9.22	228.8	2	0	-12	3	47	-8											
SHIRAKAWA	9.24	221.2	2	7	-5	3	38	-17											
AIKAWA	9.59	232.0	2	21	4														
MITO	9.73	217.6	2	16	-3	3	49	-18											
OKHA	9.75	342.5	2	21	2	4	14	6											
UTUNOMIYA	9.86	220.5	2	23	2										2	53			
KAKIOKA	9.99	218.3	2	13	-9	3	54	-20											
TUKUBASAN	10.03	218.6	2	23K	0	3	56	-19											
TYOSI	10.14	214.1				3	59	-18							3	5			
TAKADA	10.25	228.3	2	43	17														
MAEBASI	10.37	223.0	2	25	-3	4	8	-15											
KUMAGAYA	10.42	221.0	2	33	5	4	13	-11											
NAGANO	10.60	226.9	2	37	6														
TOKYO C.M.O.	10.64	218.2	2	48	17	4	11	-18											
OIWAKE	10.68	224.6	2	50	18														
MATUSIRO	10.69	226.4	2	25	-7	4	15	-16											
WAZIMA	10.80	233.6	2	30	-3														
YOKOHAMA	10.89	217.9													4	22			
MATUMOTO	11.04	226.2	2	27	-10														
HUNATU	11.24	221.2				4	29	-15							2	59			
PETROPAVLOVK	11.24	35.6	2	39	0	4	45	1											
VLADIVOSTOK	11.59	269.4	2	40	-4	4	50	-2											
CHANGCHUN	16.18	276.0	3	40	-3														
YAKUTSK	20.62	335.4	4	33	-2	8	17	2											
PEKING	23.76	270.6	5	5	0	9	17	5											
ZO-SE	24.75	246.7	5	45	30														
NANKING	25.77	251.5	5	48	23														
CHENGTU	36.91	263.4	7	1	-1														
COLLEGE	40.32	36.5	7	32	1	13	33	1							10	9	PP		
KUNMING	41.12	257.4	7	37	0														
LHASA	46.77	271.6	8	24	1	15	9	3											
RABAUL	48.49	174.2	8	28	-8										8	50			
SHILLONG	48.56	266.6	8	36A	-1														
CHITTAGONG	50.59	263.4	8	47	-5				8	56		10	43	PP					
CHATRA	51.17	271.2	8	56	-1														
NORD	54.03	357.2	9	15	-3														
LAHORE	57.53	284.0	9	42A	-1														
APATITY	58.03	335.6	9	45	-2														
PENTICTON	59.62	49.3	9	56K	-2														
SODANKYLA	60.09	337.5	9	59	-2														
CORVALLIS	60.18	55.4	10	3	2														
KIRUNA	61.37	339.9	10	9	0														
SHASTA	62.97	58.6	10	20A	0														
HUNGRY HORSE	63.18	47.7	10	22	0										10	48			
QUETTA	63.45	287.1	10	23A	0														
MINERAL	63.66	58.5	10	23	-2														
CHARTERS TS.	64.14	181.6	10	24	-4														
MOSCOW	64.25	323.9	10	28	-1														
BUTTE	65.41	49.1	10	35	-1														
LICK	65.46	61.2	10	35	-1														
NURMIJARVI	65.72	333.0	10	37	-1														
HELSINKI	65.87	332.6	10	38	-1														
BOZEMAN	66.45	48.6	10	41	-2														
SKALSTUGAN	66.80	340.1	10	43	-2														

UPPSALA	68.43	335.5	10	53	-2				11	12
PASADENA	69.66	61.9	11	2	-1					
TIFLIS	70.07	309.1	11	6	1	20	13	5		
TEHERAN	70.14	300.7	11	5	0					
FLAMING GRGE	70.47	51.6	11	7	0					
BOULDER CITY	70.55	58.6	11	8	0					
BERGEN	71.21	341.4	11	13	1					
BRISBANE	71.54	175.3	11	22	8					
REYKJAVIK	71.56	355.3	11	16	2					
SIDA	71.63	353.4	11	15	1					
RAPID CITY	71.65	45.9	11	14	-1					
GLEN CANYON	71.85	55.9	11	14	-2					
GOTEBORG	71.86	336.8	11	15	-1					
SIMFEROPOL	73.40	317.3	11	25A	0	20	50	4		
SHIRAZ	73.43	295.3	11	25K	0	20	57	11	14	5 PP
COPENHAGEN	73.44	335.5	11	25	0					
LWOW	74.20	326.0	11	31	2					
TUCSON	75.51	59.1	11	36	-1				12	2
TUCSON TELE.	75.51	59.0	11	36	-1					
KRAKOW	75.61	328.3	11	38	0					
POTSDAM	76.07	333.3	11	40	0				12	21
HALLE	77.18	333.5	11	47	1				12	8
WITTEVEEN	77.61	337.1	11	51	2					
PRUHONICE	77.61	331.2	11	50A	1				14	26 PP
JENA	77.79	333.4	11	49	-1				12	36
DURHAM	77.88	342.4	11	50A	0	21	34	-1		
BRATISLAVA	78.21	328.8	11	55	3					
VIENNA-H.	78.42	329.2	11	53	0					
BENSBERG	79.12	335.9	11	57A	0					
CANBERRA	79.30	179.0	12	15	17					
HEIDELBERG	80.03	334.3	12	3	1					
UCCLE	80.06	337.4	12	4	2					
SOFIA	80.14	321.9	12	3	0					
STUTTGART	80.40	333.6	12	4	0				15	7 PP
KSARA	80.63	308.5	12	6K	1				21	30
KEW	80.65	340.4	12	5	0					
TUBINGEN	80.68	333.6	12	6	1					
LJUBLJANA	80.95	329.1	12	7	0					
EBINGEN	81.02	333.5	12	8	1					
STRASBOURG	81.05	334.4	12	8A	1					
RAVENSBURG	81.16	332.9	12	8	0					
MELBOURNE	81.84	182.3	12	28	17					
BASLE	82.04	334.0	12	13A	1					
ST. LOUIS 1	82.19	42.1	12	13A	0					
FAYETTEVILLE	82.19	46.2	12	13A	0					
PARIS	82.38	337.7	12	15	1					
JERUSALEM	82.51	307.5	12	16	1					
SHAWINIGAN	82.64	26.9	12	15	-1					
OTTAWA	82.65	29.3	12	15	-1					
BESANCON	82.78	334.9	12	17	1					
FOLINIERE	83.19	339.5	12	19	1					
BREBEUF	83.28	27.9	11	19	-60				11	47
MONACO	85.46	332.4	12	28	-2					
MORGANTOWN	85.98	35.0	12	34K	2					
WESTON	86.82	27.9	12	37	1					
HALIFAX	87.11	21.9	12	39	1					
TAMANRASSET	104.81	324.3	14	17	19				17	46 PP
BYRD STATION	133.77	166.0	19	7	0	19	27			
SOUTH POLE	134.16	180.0	19	7	-1	19	26			
LA PAZ	138.92	59.0	19	19	2					

AUGUST 19 12.H 41.M 47.S EPICENTRE 26.96 140.32 DEPTH= 423.KM

A=-0.68691 B= 0.56990 C= 0.45096 D= 0.6385 E= 0.7696
G=-0.3471 H= 0.2879 K=-0.8925 HT= 2.8

DEPTH OF FOCUS= 0.062R

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
SIOMISAKI	7.57	329.8	1	52	0	3	22	2				
OMAESAKI	7.82	347.2	1	54	0	3	23	-2				
OSIMA	7.83	354.3	1	55A	1	3	20	-5				
MERA	7.94	357.1	1	55	-1	3	20	-7				
HAMAMATU	8.05	344.5	1	57	0	3	29	0				

AJIRO	8.13	352.9	1	57	-1	3	27	-4		
SHIZUOKA	8.15	348.8				3	30	-1		
MISIMA	8.22	352.1	1	58	-1	3	29	-4		
YOKOHAMA	8.46	356.3	2	3	1	3	33	-5		
KAMEYAMA	8.53	338.1	2	5	3	3	41	2	2	45
NARA	8.61	334.5	2	5	2	3	42	1		
HUNATU	8.61	351.5	2	1	-2	3	37	-4		
SIMIDU	8.62	314.0	2	4A	1	3	42	1		
TOKUSIMA	8.64	326.5	2	3	-1	3	45	4		
NAGOYA	8.67	341.5	2	3	-1	3	43	1		
OSAKA	8.70	332.9	2	7	3	3	46	4		
SUMOTO	8.70	329.0	2	7K	3	3	44	1	2	28
TOKYO C.M.O.	8.71	356.9	2	3A	-1	3	39	-4		
TYOSI	8.74	2.8	2	5	0				3	6
IIDA	8.79	346.6	2	17	12	3	47	3		
KOTI	8.81	319.8	2	7	1	3	49	4		
KOHU	8.81	350.6	2	5	-1	3	43	-2		
ABUYAMA	8.87	333.8	2	7K	1					
GIHU	8.94	341.0	2	8	1	3	48	1		
HIKONE	8.99	338.2	2	11	3	3	49	1		
TITIBU	9.05	353.6	2	8	0	3	45	-5		
TAKAMATU	9.11	325.2	2	14	5	3	50	-1		
KUMAGAYA	9.20	355.2	2	9	-1	3	45	-8		
MIYAZAKI	9.20	304.6	2	17	7	3	59	6		
TUKUBASAN	9.23	358.9	2	7K	-3	3	40	-13		
KAKIOKA	9.24	359.3	2	9	-1	3	48	-6		
MITO	9.39	0.7	2	11	-1	3	52	-5		
TSURUGA	9.39	338.3	2	11	-1	3	56	-1		
MATUYAMA	9.45	318.3	2	14	1	4	3	5		
OIWAKE	9.46	351.3	2	10	-3	3	56	-2		
MAEBASI	9.47	353.9	2	11	-2	3	57	-1		
MATUMOTO	9.47	348.4	2	14	1	3	58	0		
UTUNOMIYA	9.57	357.8	2	13	-1	3	53	-7		
HUKUI	9.71	340.0	2	11	-5	4	5	2		
MATUSIRO	9.72	349.9	2	13	-3	3	56	-7		
TOYOOKA	9.75	332.5	2	17	1	4	5	1		
OOITA	9.78	311.8	2	20K	3	4	23	18		
NAGANO	9.85	350.0	2	16	-1	4	4	-2		
ONAHAMA	9.97	2.7	2	18K	-1	4	4	-5		
HIROSIMA	10.03	319.3	2	21	2	4	13	3		
TOYAMA	10.06	345.5	2	20	0	4	8	-3		
SHIRAKAWA	10.13	359.6	2	19	-2	4	6	-6		
KUMAMOTO	10.18	307.3	2	24	3	4	18	5		
TAKADA	10.26	350.7	2	17	-5					
HAMADA	10.62	320.2	2	27	1	4	26	4		
SAGA	10.70	308.3	2	29	2	4	30	6		
HUKUSIMA	10.76	0.6	2	27	-1	4	21	-4		
NIIGATA	10.98	354.7	2	36	6				4	13
AIKAWA	11.16	351.5	2	29	-3					
YAMAGATA	11.26	0.1	2	33K	0	4	34	-1		
SENDAI	11.29	2.3	2	33	-1	4	33	-3		
ISINOMAKI	11.47	4.0	2	35K	-1	4	37	-3		
SAKATA	11.91	358.2	2	44	3					
MIZUSAWA	12.15	3.0	2	47	4	4	51	-3		
MORIOKA	12.72	3.0	2	50	0	5	4	-1		
AKITA	12.73	359.2	2	50	0	5	6	1		
MIYAKO	12.73	5.8	2	48	-2	5	3	-2		
HATINOHE	13.57	3.9				5	21	-1		
AOMORI	13.83	1.5	3	3	1	5	32	5		
GUAM	14.06	162.0	2	55	-9					
HAKODATE	14.82	1.3	3	12	0	5	50	4		
MORI	15.10	0.7	3	15	0	5	56	4		
URAKAWA	15.29	7.0	3	18	1	6	0	5		
HIROO	15.48	8.4							6	4
SUTTSU	15.80	359.8	3	20	-2	6	6	1		
SAPPORO	16.09	2.7	3	25K	0	6	14	4		
KUSIRO	16.32	10.7	3	28	1	6	18	4		
NEMURO	16.88	13.3							6	29
RUMOE	16.98	3.2							3	35
ZO-SE	17.24	288.4	3	34	-2	6	33	2		
VLADIVOSTOK	17.52	339.1	3	38	-1					
NANKING	19.41	290.3	3	57	-1	7	12	2		
BAGUIO CITY	21.10	244.2	4	13	-1	7	35	-4		
UGLEGORSK	22.12	3.1	4	23	-1					
PEKING	23.90	309.2	4	38	-2	8	21	-4		
PETROPAVLOVK	29.40	22.8	5	29	0	9	53	1		
CHENGTU	31.94	285.3	5	50	0	10	26	-5		
LANCHOW	32.25	295.4	5	52	-1					

NHATRANG	32.66	249.4	5 56	0						
KUNMING	33.74	275.5	6 5	-1						
YAKUTSK	35.76	351.5	6 21	-2						
LHASA	43.21	285.5	7 24	1						
SHILLONG	43.26	279.5	7 24K	0						
CHITTAGONG	44.11	275.0	7 30K	0	13 44	13				
TIKSI	45.17	354.9	7 34	-5	13 43	-3				
LEMBANG	46.17	228.0	7 46A	-1						
CHATRA	47.10	282.5	7 55K	1						
BRISBANE	55.35	166.5	8 56	2						
ANDIJAN	56.78	302.7	9 4	0	16 26	3				
LAHORE	56.98	291.6	9 7K	1						
NAMANGAN	57.27	303.0	9 7	-1	16 31	1				
COLLEGE	58.24	28.5	9 13	-1	16 43	1			13 19	SCP
WARSAW DAM	58.70	295.0	9 17	0						
STALINABAD	59.90	300.7	9 25	0	17 5	2				
ADELAIDE	61.61	181.5	9 37	0			11 4			
CANBERRA	62.48	172.0	9 43	1						
QUETTA	63.46	292.0	9 48K	-1	17 47	0	10 51		12 4	PP
SITKA	64.81	36.9	9 57	0						
NORD	71.02	356.5	10 34	-1						
APATITY	71.53	337.2	10 36K	-2						
KARAPIRO	72.51	151.4	10 44	0					12 16	
SODANKYLA	73.92	338.4	10 51	-1						
TEHERAN	73.99	302.2	10 53	1	19 51	2				
MAKHACH-KALA	74.09	310.3	10 52	-1	19 46	-4				
VICTORIA	74.21	43.4	10 55A	1						
MOSCOW	74.87	325.1	10 56	-1	19 54	-5				
SHIRAZ	75.42	296.0	11 0A	0	20 2	-3				
KIRUNA	75.62	340.1	11 0	-2						
CORVALLIS	75.84	47.1	11 5A	2						
PENTICTON	76.17	41.6	11 5A	0						
TIFLIS	76.42	310.0	11 6	0						
PULKOVO	76.44	330.7	11 5	-1						
SHASTA	78.06	50.4	11 17A	2						
NURMIJARVI	78.42	332.9	11 15	-2						
HELSINKI	78.49	332.5	11 17	0						
MINERAL	78.76	50.5	11 19	0						
BERKELEY	79.37	53.0	11 23A	1						
HUNGRY HORSE	79.90	40.7	11 26	1						
LICK	80.05	53.2	11 27A	2						
RENO	80.35	50.6	11 29	2						
VINEYARD	80.49	53.7	11 31A	3						
SKALSTUGAN	80.95	339.1	11 29	-1					14 33	PP
UPPSALA	81.61	334.6	11 32	-1						
SIMFEROPOL	81.91	316.5	11 35	0	21 11	-1				
SCORESBY SD.	82.01	354.1	11 55A	19						
EUREKA	83.00	49.2	11 41	0					28 43	PKKP
BOZEMAN	83.02	42.0	11 43	2						
PASADENA	84.01	54.8	11 47	1						
SALT LAKE C.	85.08	46.5	11 52	1						
BOULDER CITY	85.51	51.9	11 56	3						
KSARA	86.30	306.1	12 0	3						
FLAMING GRGE	86.57	45.4	11 59	1	22 1	4			29 16	PKKP
GLEN CANYON	87.25	49.7	12 2	1						
JERUSALEM	87.80	304.6	12 1	-3						
COLLMBERG	89.35	330.0	12 10	-1					15 53	PP
PRUHONICE	89.57	328.4	12 12K	0					14 57	
JENA	90.25	330.4	12 14	-1						
TUCSON	90.28	53.3	12 18	3						
TUCSON TELE.	90.31	53.2	12 17	2						
HEIDELBERG	92.62	330.7	12 25	-1						
STUTTGART	92.84	330.0	12 26	-1						
TUBINGEN	93.11	330.0	12 27	-1						
STRASBOURG	93.65	330.6	12 31A	0						
BESANCON	95.44	330.7	12 38	-1						
PARIS	95.68	333.5	12 39	-1						
TAMANRASSET	114.01	314.2	17 51	1					18 51	PP
SOUTH POLE	116.81	180.0	17 55	0					28 23	PKKP
BYRD STATION	118.13	168.8	17 59	1					28 20	PKKP
HUANCAYO	143.42	73.1	18 46	0			19 59			
LA PAZ	151.66	74.3	19 4	6					24 0	

AUGUST 19 17.H 3.M 44.S EPICENTRE 53.99 160.72 DEPTH= 53.KM

A=-0.55739 B= 0.1949? C= 0.80703 D= 0.3302 E= 0.9439
G=-0.7618 H= 0.2665 K=-0.5905 HT= -6.9

DEPTH OF FOCUS= 0.003R

SE= 2.75

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	1.57	232.6	0	26	0	0	44	-2				
UGLEGORSK	12.60	254.6	3	2	3	5	33	15				
YAKUTSK	18.13	308.7	4	9	-1	7	31	4				
VLADIVOSTOK	21.80	251.9				8	57	15				
TIKSI	22.42	334.0	4	51	-4							
MATUSIRO	23.40	230.9	5	6	1	9	13	3				
CHANGCHUN	25.15	260.7	5	21	-1							
COLLEGE	27.52	46.3	5	43	-1	10	21	2				
SITKA	35.16	58.5	7	3	12							
LANCHOW	42.76	269.0	7	54	0							
KIPAPA	45.04	119.7	8	11	-1							
PENTICTON	47.19	61.3	8	29	0							
CORVALLIS	48.18	68.5	8	39	2							
HUNGRY HORSE	50.67	59.3	8	57	1						10	13 PCP
SHASTA	51.24	71.7	9	0	0							
MINERAL	51.92	71.5	9	5	0							
APATITY	52.57	337.4	9	16	6							
RENO	53.48	71.1	9	16	-1							
LICK	53.97	74.3	9	21	0							
SODANKYLA	54.19	340.0	9	19	-3							
LHASA	54.86	273.3	9	27	0							
KIRUNA	54.95	342.8	9	25	-3							
EUREKA	55.65	68.6	9	33	0							
SHILLONG	57.39	269.4	9	47A	2							
NHATRANG	58.06	244.4	9	49	-1				9	58		
PASADENA	58.22	74.5	9	39	-12							
RABAUL	58.42	190.0	9	50	-3				10	4		
BOULDER CITY	58.78	70.7	9	56	1							
CHATRA	59.22	274.1	9	59K	1							
GLEN CANYON	59.85	67.7	10	1	-1							
SKALSTUGAN	60.22	344.3	10	4	-1							
NURMIJARVI	60.60	336.8	10	8	0							
REYKJAVIK	62.20	1.3	10	19	1							
UPPSALA	62.72	340.1	10	21	-1							
PORT MORESBY	64.19	194.9	10	30	-1							
MAKHACH-KALA	67.84	313.3									20	14 PS
QUETTA	68.28	291.6	10	56	-1							
ST. LOUIS 1	69.46	52.2	11	3	-2							
FAYETTEVILLE	69.59	56.6	11	4K	-1							
OTTAWA	69.96	38.7	11	7	-1							
TIFLIS	70.01	314.2	11	9	1							
SHAWINIGAN	70.03	36.2	11	19	11							
LWOW	70.33	331.3	11	12	2							
DURHAM	70.62	349.2	11	4	-8							
BREBEUF	70.63	37.3	11	13K	1							
COLLMBERG	71.65	339.3	11	17	-1						12	58
JENA	72.30	340.1	11	21	-1						11	59
PRUHONICE	72.56	337.9	11	24K	1						11	49
MORGANTOWN	73.18	44.7	11	37K	10							
HALIFAX	74.74	31.1	11	38	2							
STUTTGART	74.81	340.9	11	36	0							
CHARTERS TS.	74.82	194.1	11	36	0						12	56
STRASBOURG	75.28	341.8	11	39	0							
PARIS	75.94	345.4	11	44	1							
SHIRAZ	76.31	301.7	11	44K	-1	21	21	-3				
FOLINIERE	76.39	347.3	11	45	0							
BESANCON	76.88	342.6	11	48	0							
NEUCHATEL	76.95	341.9	11	48	-1							
MONACO	80.01	340.7	12	3	-2							
KSARA	80.43	316.1	12	8	0							
BRISBANE	81.33	187.1	12	12	0							
JERUSALEM	82.48	315.6	12	19	1							
HELWAN	85.73	317.7	12	36	1							
SETIF	87.68	340.2	12	51	7							
CANBERRA	89.52	189.6	12	53K	0				13	4		
ADELAIDE	90.62	197.9	12	58A	0							
TAMANRASSET	100.61	336.8	13	43	0						17	53 PP
BROKEN HILL	125.79	297.9	18	59	3							
CAPE HALLETT	126.18	176.4	18	57	0							
SCOTT BASE	131.63	178.3	19	6	-1							

HAWSON	140.92	217.0	19 24	0			
BYRD STATION	140.93	164.2	19 17	-7		19 39	22 36 PP
SOUTH POLE	143.81	180.0	19 24	-5		19 42	20 9 *SPKP

AUGUST 20 0.H 19.M 43.S EPICENTRE 14.74 -91.51 DEPTH= 183.KM

A=-0.02545 B=-0.96718 C= 0.25281 D=-0.9997 E= 0.0263
G=-0.0067 H=-0.2527 K=-0.9675 HT= 5.8

DEPTH OF FOCUS= 0.024R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COMITAN	1.62	338.3	0 24	-10	0 49	-12		
SAN SALVADOR	2.47	114.9	0 29A	-15	1 2	-15		
SANTIAGO MA.	3.20	112.5	0 39	-13	1 22	-10		
OAXACA	5.55	294.8	1 31	9	2 29	3		
VERA CRUZ	6.26	315.7	1 33	1	2 49	6		
MERIDA	6.43	15.9	1 34A	0	2 54	7		
PUEBLA	7.70	304.6			3 23	6		
TACUBAYA	8.69	303.3	2 2	-2	3 45	5		
BALBOA HTS.	13.02	114.8	2 41	-19	5 28	7		
CHINCHINA	18.40	120.2	4 0	-4	7 33	14		
FUQUENE	19.76	116.0	4 17	-1	8 3	17		
BOGOTA	19.89	118.6	4 20	1	8 6	18		
COLUMBIA	21.39	24.5	4 36	2	8 35	20		
FAYETTEVILLE	21.40	354.0	4 33K	-1	8 42	27	4 52	
ST. LOUIS 1	23.83	2.5	4 58	0	9 11	14	5 16	
FLORISSANT	23.99	2.2	4 59	0	9 14	14	5 15	
TUCSON TELE.	24.77	318.3	5 7	0				
TUCSON	24.78	318.0	5 6	-1	10 35	82		
MORGANTOWN	26.79	20.1	5 43A	18				
GLEN CANYON	28.46	324.8	5 41	1				9 7 PCP
BOULDER CITY	29.72	319.6	5 52	1				
PALISADES	30.32	26.9	6 26	29	11 26	44		
PASADENA	30.87	313.5	6 1	-1	11 43	52	6 17	
HUANCAYO	31.07	148.1	6 0	-3				8 55 PCP
SALT LAKE C.	31.41	329.6	6 6	0				
WESTON	32.58	28.3	6 14	-2				
EUREKA	32.68	323.6	6 18	1				9 23 PCP
OTTAWA	33.35	20.4	6 23A	0				
VINEYARD	34.47	315.0	6 32K	0				
LICK	34.95	315.7	6 32A	-5				
BOZEMAN	34.96	335.8	6 36	-1				
RENO	35.01	320.3	6 39	2				
SHAWINIGAN	35.38	22.5	6 41	1				
BERKELEY	35.65	316.0	6 42	-1	12 23	18		
MINERAL	36.60	320.0	6 51	1				
HUNGRY HORSE	38.32	335.7	7 6	1				9 16 PCP
LA PAZ	38.68	142.5	7 5	-3				
CORVALLIS	40.14	324.3	7 22	2				
BANFF	41.17	337.1	7 27	-1				
PENTICTON	41.45	332.2	7 31	0				
VICTORIA	42.70	328.8	7 42K	1				
COLLEGE	62.76	336.4	10 8	0				
FOLINIERE	79.74	42.2	11 49	0				
SKALSTUGAN	82.94	26.0	12 7	1				
KIRUNA	84.45	20.7	12 12	-2				
STUTTGART	86.00	40.7	12 22	1				
SODANKYLA	86.76	20.0	12 23	-2				
COLLMBERG	87.44	37.5	12 29	1			12 58	
TAMANRASSET	90.68	66.4	12 44	1				31 58
BYRD STATION	95.74	184.7	13 5	-1				16 50 PP
SOUTH POLE	104.64	180.0	13 45	-1				
KIMBERLEY	119.82	114.9	18 31	2				
SHIRAZ	123.86	38.0	18 39	2	25 44	24		
QUETTA	130.75	24.8	18 55	5				22 14 PKS
NHA TRANG	146.26	321.5	19 41	23				
MUNDARING	149.45	231.0	19 28	5				

AUGUST 20 20.H 8.M 36.S EPICENTRE -35.64 -15.62 DEPTH= 0.KM

A= 0.78442 B=-0.21937 C=-0.58014 D=-0.2693 E=-0.9630
G=-0.5587 H= 0.1562 K=-0.8145 HT= -0.1

SE= 4.60

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
HERMANUS	28.48	97.8			10 54	8		
PORT STANLEY	33.97	228.5	6 44	-3				
GRAHAMSTOWN	34.67	98.6	7 20	27				
LUANDA	37.47	51.6	7 16K	-1				
PRETORIA	38.67	87.6	7 54	27				
ARGENTINE I.	41.17	208.7	7 45	-3				
BULAWAYO	41.68	80.3	7 48A	-4				
BROKEN HILL	44.72	73.3	8 14A	-3				
SANTA LUCIA	44.87	256.2	8 16A	-2	14 44	-12		17 59 SS
MBOUR	49.76	358.3	8 57	1	16 12	7		
LA PAZ	50.25	278.1	8 55K	-5	16 14	2		
LWIRO	52.85	61.3	9 16K	-4	16 59	11		
MAWSON	53.27	152.1	9 21	-2				
SOUTH POLE	54.54	180.0	9 31	-1	17 23	12		18 51 SCS
BYRD STATION	57.51	191.6	9 52	-1	18 7	17		11 52 PP
TANANARIVE	57.66	91.0	9 54K	0				10 27
HUANCAYO	58.52	277.9	9 58	-2	18 4	1		
TAMANRASSET	61.46	22.3	10 15	-6				12 34 PP
CARACAS	66.69	303.3	10 44A	-11	19 42	-4		
SCOTT BASE	66.76	180.5	10 54	-1	20 30	43		
BOGOTA	67.76	293.4	11 2	0	20 7	8		
FUQUENE	68.07	294.3	11 9A	6				
CHINCHINA	69.15	292.6	11 7	-3	20 17	1		
WILKES	70.31	159.7	11 27	10	20 33	4	11 36	25 9 SS
CAPE HALLETT	72.26	181.9	11 31	2	20 59	7		21 32 SCS
RELIZANE	72.61	13.7	11 29	-2				12 30
GALERAZAMBA	72.74	297.4			21 6	9		
MALAGA	72.75	9.4	11 38	6				14 27 PP
ALMERIA	73.15	11.0	11 39K	5				13 0
GRANADA	73.31	10.0	11 57K	22	21 59	55		18 5 PPP
SETIF	74.11	17.6	11 34	-6				13 41
ALGIERS UNI.	74.11	15.5	11 37	-3	21 11	-2		14 28 PP
LISBON	74.23	5.3	11 34	-7				
BALBOA HTS.	74.70	293.1	11 41	-2	21 9	-10		
ALICANTE	74.95	12.3	11 46	1	21 21	-1		14 35 PP
TOLEDO	75.90	9.2	11 45	-5	21 39	6		23 1 PS
SERRA PILAR	76.67	5.4	11 51K	-3				
TORTOSA	77.52	12.5	12 11	12	22 12	22		
HELWAN	78.73	40.3	12 4K	-2				12 13 PCP
MESSINA	78.94	24.6			22 14	9		12 58
ROME	81.35	20.8	12 37K	17	22 31	1	13 27	27 27 SS
TARANTO	81.56	24.7	12 46	25				22 16
ATHENS	81.81	30.4	12 19A	-3				
JERUSALEM	82.30	41.8	12 24	-1				15 37 PP
PAVIA	83.52	17.4	12 16	-15				13 58
KSARA	84.22	40.9	12 35	0	22 50	-10		15 47 PP
BESANCON	84.77	14.6	12 35	-2				
SAN SALVADOR	84.98	290.6						26 10
FOLINIERE	85.12	10.0	12 35	-4				
TRIESTE	85.16	20.2	12 38	-1	23 13	4		
BASLE	85.37	15.5	12 38	-2				
PARIS	85.61	11.9	12 39	-3				15 53 PP
SOFIA	85.70	27.7	12 40	-2				
LJUBLJANA	85.74	20.5	12 37	-5				13 22
ZAGREB	85.96	21.6	12 42	-1				
STRASBOURG	86.41	15.3	12 43	-2	23 12	-9		28 24 SS
BELGRADE	86.50	24.8	12 44A	-2				23 55 PPS
STUTTGART	86.92	16.2	12 44	-4	23 21	-5		
HEIDELBERG	87.39	15.6	12 48	-2				
UCCLE	87.85	12.5	12 58	6	23 32	-3		
BUCHAREST	88.22	28.5			23 37	-1		
VIENNA-H.	88.27	20.8	12 52	-2				
BRATISLAVA	88.41	21.2	12 53	-2				
HURBANOVO	88.47	22.0						16 47 PP
BENSBERG	88.54	14.2	13 2	6				13 25
DE BILT	89.25	12.7			23 36	-12		29 24 SS
PRUHONICE	89.34	18.9	12 58	-2	23 39	-9		24 40 PS
PRAGUE	89.39	18.8	13 11	11				
JENA	89.47	16.8	12 57	-3	23 24	-26		16 4 PP
HALLE	90.09	16.8	12 58	-5			13 9	16 29 PP
COLLMBERG	90.15	17.5	13 2	-1				16 40 PP
WITTEVEEN	90.21	13.3	13 11	7				

DURHAM	90.86	8.1	13	12	5	24	5	3	13	17	PCP
KRAKOW	90.93	22.0	13	15	8	24	0	-3			
SHIRAZ	91.24	53.9	13	8	0				22	52	
LWOW	92.05	24.4	13	44	32						
WESTON	92.84	322.2				23	54	-26	15	10	
ABERDEEN	93.16	7.3				24	34	12	30	31	SS
PALISADES	93.16	319.9	13	9	-8	23	53	-29	16	45	PP
WARSAW	93.18	21.6	13	34	17	24	29	6	30	49	SS
COPENHAGEN	94.07	15.5				24	12	-18	24	44	S
TEHERAN	94.51	48.7	13	14	-9	24	56	22			
TIFLIS	94.80	40.8	13	25	0						
ROXBURGH	99.13	183.5							32	16	
ST. LOUIS 1	101.04	309.7							26	57	PS
FLORISSANT	101.22	309.8							27	1	PS
QUETTA	101.48	61.2	13	57	2	25	26	52	18	6	PP
MOSCOW	101.70	27.6	17	39	223						
PULKOVO	102.34	21.9	18	11	252						
WELLINGTON	102.86	188.0							33	10	SS
SCORESBY SD.	105.92	357.8							33	27	SS
KIRUNA	106.67	13.5	18	40	777						
STALINABAD	107.33	54.8	19	2	777						
APATITY	109.31	17.9	19	16	777				22	23	PP
RIVERVIEW	109.79	168.3				26	6	55	34	30	SS
NAMANGAN	110.48	53.8							20	26	
ANDIJAN	110.83	54.3							19	31	
TUCSON	111.76	294.7	19	28	51						
GLEN CANYON	114.53	298.9	19	38	56						
FLAMING GRGE	114.78	303.6	18	51	8				19	40	
BRISBANE	116.36	168.5							26	0	
RUTH	117.92	299.9							29	48	
PASADENA	118.09	293.4							20	2	PP
EUREKA	118.72	299.8	18	48	-2				26	26	SKKS
HUNGRY HORSE	120.77	309.8	18	54	0						
CHARTERS TS.	121.97	159.8	18	57	0						
BERKELEY	122.63	295.8	19	31	33				30	30	
COLLEGE	139.31	331.0	19	28	-1						
TIKSI	139.50	16.5							20	17	
YAKUTSK	145.85	28.5	19	38	-3						
UGLEGORSK	158.84	43.7	19	54	-5						
MATUSIRO	158.85	79.9	20	36	37						
PETROPAVLOVK	162.16	11.3	20	2	-1						

AUGUST 20 22.H 22.M 47.S EPICENTRE 0.72 122.53 DEPTH= 95.KM

A=-0.53766 B= 0.84307 C= 0.01254 D= 0.8431 E= 0.5377
G=-0.0067 H= 0.0106 K=-0.9999 HT= 7.2

DEPTH OF FOCUS= 0.010R

SE= 3.40

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BAGUIO CITY	15.71	353.1	3	44	7	6	20	-8					
LEMBANG	16.66	243.0	3	49	0						7	32	
DJAKARTA	17.11	246.1	3	51A	-4						7	55	
NHATRANG	17.46	311.4	3	54	-5						7	10	
CANTON	23.96	338.8	5	8	1	9	26	13					
MEDAN	24.00	277.1	5	9K	2	9	19	5					
GUAM	25.38	59.1	5	45	25								
PORT MORESBY	26.50	112.9	5	35	4	10	30	34					
RABAUL	30.02	99.6	6	8	6								
ZO-SE	30.24	357.7	6	5	1								
WUHAN	30.59	346.4	6	8K	1								
KUNMING	30.88	323.3	6	9K	-1	11	13	7			7	9	PP
CHARTERS TS.	31.12	133.0	6	16	4	11	46	37					
NANKING	31.37	353.9	6	6	-8								
MUNDARING	33.06	189.9	6	29	0								
CHITTAGONG	36.81	307.9	7	3K	2	12	39	2	7	23	8	30	PP
TOCKLAI	37.17	316.4	7	7K	3								
MATUSIRO	38.49	20.5	7	14	-1								
SHILLONG	38.53	312.3	7	13K	-2	13	4	1			8	44	PP
ADELAIDE	38.61	158.5	7	19A	3	13	9	5			9	3	PP
LANCHOW	39.20	335.7	7	22K	1	13	22	9					
BRISBANE	40.34	136.2	7	37	7						16	37	
LHASA	41.54	316.7	7	41K	1						9	27	PP
CHATRA	42.75	310.4	7	48	-2	14	6	0					

CHANGCHUN	42.99	3.0	7	51	-1	14	17	8				
CANBERRA	43.55	148.1	8	1A	5	14	25	7	8	4		
MELBOURNE	43.60	154.0	8	5	8				8	23	10	3 PCP
RIVERVIEW	43.64	144.7	7	50A	-7						18	20
KOUMAC	46.00	119.8	8	21	5						9	11
POONA	50.92	293.4	8	53	-1							
UGLEGORSK	51.02	16.4	8	53	-2							
DEHRA DUN	51.45	309.2	8	59	1						16	10
BOMBAY	51.96	293.5									16	17
IRKUTSK	53.59	346.2	9	13	-1							
LAHORE	54.86	308.9	9	22K	-1	16	55	0				
WARSAK DAM	57.99	310.4	9	46	1	17	40	4				
QUETTA	60.28	304.7	10	0K	-1	18	7	1	10	18	12	15 PP
ANDIJAN	60.34	317.8	10	12	11							
NAMANGAN	60.92	317.8	10	6	1	18	20	6				
STALINABAD	61.89	314.2	10	11	-1	18	30	4				
KARAPIRO	62.09	134.4	10	17	4						10	45
WELLINGTON	63.05	138.1	10	21	1						9	1
AFIAMALU	66.63	105.4	11	0	17							
TIKSI	70.91	2.1	11	6	-3							
SHIRAZ	72.32	300.8	11	17A	0	20	34	2			13	53 PP
TEHERAN	74.32	306.9	11	30	1	20	57	3				
TANANARIVE	76.04	250.4	11	40	1						12	8
MAKHACH-KALA	78.57	313.7	11	13	-40							
CAPE HALLETT	78.82	166.7	11	57K	3						12	21 PCP
TIFLIS	80.36	312.1	12	4	1							
ADDIS ABABA	83.72	278.9				22	43	10				
MOSCOW	86.52	325.6	12	33	-1							
KSARA	86.81	303.7	12	38A	3	23	10	7			15	57 PP
JERUSALEM	87.33	301.6	11	39	-59						14	45 PP
APATITY	88.99	337.4	12	45A	-1	23	4	-20			23	54 PS
COLLEGE	89.20	25.3	12	47	0				13	9	16	16 PP
HELWAN	90.68	299.7									23	47
SOUTH POLE	90.72	180.0	12	55	1	23	19	-20	13	13	16	48 PP
SODANKYLA	91.62	337.4	12	56	-2							
NURMIJARVI	93.26	330.6	13	5	0							
LWIRO	93.75	267.8	13	8	0							
KIRUNA	93.90	338.2	13	7	-1							
BULAWAYO	93.93	250.0	13	8A	0							
BROKEN HILL	94.11	255.7	13	10A	1							
LWOW	94.94	320.0	13	14	1						16	37
BYRD STATION	95.40	171.1	13	18	3						17	12 PP
SKALSTUGAN	98.26	334.9	13	27	-1						17	28 PP
PRUHONICE	100.93	321.3	13	31	-9						17	43 PP
COLLMBERG	101.54	322.8	13	44	1						18	47 PP
LJUBLJANA	101.90	317.4									17	59 PP
HALLE	102.12	323.2									17	56
TRIESTE	102.52	317.1									18	1 PP
STUTTGART	104.58	321.1	13	56	0						18	21 PP
STRASBOURG	105.59	321.2									18	27 PP
BESANCON	107.17	320.4									18	43 PP
ISOLA	107.50	317.1									18	33 PP
DURHAM	108.34	329.6									18	51 PP
PARIS	108.75	322.8	18	36	777							
HUNGRY HORSE	110.99	36.6	18	22	0						19	21
SETIF	111.19	309.5									21	57 PP
EUREKA	113.36	46.0	18	24	-3							
BOZEMAN	114.04	38.2	18	50	22							
TAMANRASSET	114.47	295.4	18	39	10						19	23 PP
FLAMING GRGE	117.33	42.2	18	39	4							
GLEN CANYON	117.51	47.0	18	42	7							
RAPID CITY	119.63	36.4	19	2	23							
FLORISSANT	130.41	33.9									22	18 PKS
ST. LOUIS 1	130.60	33.9	19	21	21						22	20 PKS
BREBEUF	131.80	15.2	19	22	20							
COLUMBIA	138.98	30.4	19	42	26							
HUANCAYO	159.01	123.1	20	21	34							
LA PAZ	161.13	146.7	19	55	6						20	37 PKP2

AUGUST 21 0.H 18.M 1.S EPICENTRE -4.82 143.94 DEPTH= 32.KM

A=-0.80563 B= 0.58652 C=-0.08341 D= 0.5886 E= 0.8084
G= 0.0674 H=-0.0491 K=-0.9965 HT= 7.0

SE= 4.09

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	5.55	145.2	1	37	14	2	42	15					
RABAUL	8.22	86.1	2	5	5						2	47	
CHARTERS TS.	15.35	171.8	3	45	9	6	42	16					
GUAM	18.17	2.5	4	30	18								
BRISBANE	23.98	160.4	5	21	8	9	31	6					
KOUMAC	25.21	130.1	5	13	-12								
RIVERVIEW	29.64	167.8	6	20A	15						12	26	
ADELAIDE	30.39	188.5	6	16	4	11	13	4					
CANBERRA	30.71	171.9	6	19	4				6	31	7	43	PPP
MELBOURNE	32.87	178.5	6	39	5								
LEMBANG	36.19	265.0	6	58	-4								
MUNDARING	37.48	220.5	7	13	0								
ABUYAMA	40.25	349.3	7	36K	0								
MATUSIRO	41.49	353.0	7	44	-2	13	49	-10			8	8	
KARAPIRO	43.76	143.2	8	12K	7						8	44	
COBB RIVER	44.37	148.6	8	16	7								
AFIAMALU	44.54	104.9	8	55	44								
TONGARIRO	44.59	144.6	8	18	7								
KAIMATA	44.78	151.0									9	13	
WELLINGTON	45.59	147.3				15	39	40					
MEDAN	45.98	279.6	8	21A	-1						10	31	
GEBBIES PASS	46.26	151.2	8	28	3								
KUNMING	49.88	308.7	8	52K	-1								
CHANGCHUN	51.26	342.8	9	3K	0	16	15	-3					
CHENGTU	51.97	315.4	9	7	-1								
UGLEGORSK	53.70	358.5	9	20	-1								
LANCHOW	55.34	320.6	9	33K	0								
TOCKLAI	56.96	306.2	9	47K	2								
CHITTAGONG	57.67	300.1	9	50	0								
SHILLONG	58.84	303.6	9	56K	-2						20	37	
PETROPAVLOVK	58.95	10.3	9	59K	0								
LHASA	61.17	307.6	10	14K	0								
KIPAPA	62.53	63.0	10	28	5						10	51	
CHATRA	63.23	303.1	10	25K	-3								
YAKUTSK	67.54	352.8	10	54	-2	19	42	-6					
CAPE HALLETT	69.35	171.7	11	10	3	20	16	6			11	38	PCP
MIRNY	70.87	199.2	11	17	1	20	22	-6					
DEHRA DUN	71.94	303.9	11	25	3								
POONA	72.81	291.0	11	26	-2								
LAHORE	75.35	304.2	11	40K	-2								
ALMATA	76.85	316.3	11	50K	-1								
TIKSI	76.94	355.1	11	49A	-2								
WARSAK DAM	78.23	306.0	11	57	-2								
NAMANGAN	79.91	312.9	12	16K	8								
QUETTA	81.23	301.4	12	14K	-1						15	21	PP
MAWSON	82.16	202.5	12	21	2								
SOUTH POLE	85.22	180.0	12	11	-24						15	58	PP
COLLEGE	85.28	23.4	12	35	0				12	58	30	25	PKKP
BYRD STATION	86.43	170.0	12	46	5						30	40	PKKP
SHIRAZ	93.59	299.3	13	13A	-2	24	9	-9			15	48	PP
TANANARIVE	94.48	250.7	13	21	2						13	54	
CORVALLIS	95.31	45.8	13	26A	4								
SHASTA	95.89	49.7	13	28K	3								
BERKELEY	95.92	52.6	13	28K	3								
LICK	96.40	53.1	13	30K	3								
MINERAL	96.49	50.1	13	30	2								
VINEYARD	96.60	53.7	13	30K	2								
PASADENA	99.21	56.3	13	43	3								
TIFLIS	100.01	311.4	13	42	-2								
EUREKA	100.83	50.9	13	49	2						30	1	PKKP
HUNGRY HORSE	101.57	41.8	13	53	2								
APATITY	102.19	338.4	13	51A	-2								
MOSCOW	103.13	326.1	13	55	-3								
GLEN CANYON	104.44	53.2	14	6	3						29	44	PKKP
FLAMING GRGE	105.72	48.9	14	12	777						17	38	
KIRUNA	106.62	340.7	18	22	777								
SKALSTUGAN	111.77	338.9	18	42	10						19	12	PP
BRATISLAVA	117.51	322.8									19	46	
VIENNA-H.	117.92	323.2	18	46	2						20	12	PP
PRUHONICE	118.16	325.5	18	46	2						19	57	
COLLMBERG	118.35	327.4	18	46	1						20	40	
LJUBLJANA	120.04	321.6	18	50A	2						20	18	PP
ST. LOUIS 1	120.57	47.5	18	51	2								
TRIESTE	120.70	321.5									20	20	PP
WITTEVEEN	120.70	331.4	18	50	1								
HEIDELBERG	121.69	327.3	18	52	1								

STUTTGART	121.74	326.4	18 53	2			20 52	
EBINGEN	122.23	326.0	18 53	1				
STRASBOURG	122.67	326.9	18 54	1			20 29	PP
DURHAM	122.96	337.0	18 55K	1				
PARIS	125.30	329.7	19 0	2				
ISOLA	125.55	322.8	19 0	1				
MONACO	125.56	322.2	19 0	1				
OTTAWA	126.85	34.2	19 3	2				
SHAWINIGAN	127.71	31.4	19 4	1			19 29	
BREBEUF	127.94	32.9	19 4K	1			22 16	
COLUMBIA	129.20	49.3	19 9	3				
PALISADES	130.54	37.7	19 11	3	19 35		22 26	PKS
SETIF	130.78	315.0	19 10	1			21 15	PP
HALIFAX	133.58	27.1	19 18A	4				
TAMANRASSET	136.06	298.0	19 7	-11			21 51	PP
HUANCAYO	137.51	113.5	19 25	4				
LA PAZ	141.86	124.4	19 31	2			22 37	PP
SAN JUAN	147.69	62.9	19 41	2			20 9	
ST. KITTS	151.07	62.4	19 52	8				
ANTIGUA	151.93	62.1	19 49	4			20 20	
GRENADA	153.62	72.6	19 57	9				
ST. VINCENT	153.77	69.9	19 51	3				
TRINIDAD	154.24	75.5	19 53	4				

AUGUST 21 0.H 59.M 27.S EPICENTRE -5.50 149.60 DEPTH= 154.KM

A=-0.85855 B= 0.50380 C=-0.09527 D= 0.5061 E= 0.8625
G= 0.0822 H=-0.0482 K=-0.9955 HT= 7.0

DEPTH OF FOCUS= 0.019R

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RABAUL	2.87	63.3	0 46	0				
PORT MORESBY	4.57	211.9	1 6	-2	2 2	1		
CHARTERS TS.	14.86	192.3	3 23A	0	6 32	28		
GUAM	19.45	345.7	4 18	2				
KOUMAC	20.67	137.7	4 31	2	8 13	7		
BRISBANE	21.98	172.4	4 42	0	8 34	5		
NOUMEA	23.33	137.3	4 55	0	9 11	19		
RIVERVIEW	28.22	177.3			10 20	7		
CANBERRA	29.68	181.0	5 52A	-1				6 57 PP
ADELAIDE	31.00	197.5	6 3	-2	10 57	0		
MELBOURNE	32.45	186.8	6 17A	0				
AFIAMALU	38.93	105.3	7 11	-1				
KARAPIRO	39.99	147.4	7 21A	0			7 51	9 22 PCP
MUNDARING	40.83	225.7	7 25	-2				7 57
TONGARIRO	40.93	148.8	7 29	1				
COBB RIVER	41.03	153.1	7 30	1				
KAIMATA	41.64	155.6	7 35	1				
LEMBANG	41.74	265.9	7 43	8				
WELLINGTON	42.13	151.4	7 41	3				13 46 PCS
ABUYAMA	42.28	342.8	7 40K	1				
GEBBIES PASS	43.12	155.4	7 44	-2				
MATUSIRO	43.16	346.6	7 46	0				
ZO-SE	45.41	325.0	8 5K	1				
CANTON	45.41	310.1	8 7	3	14 40	7		
NANKING	47.50	323.8	8 22K	1	15 8	5		
VLADIVOSTOK	50.99	343.4	8 47	0	15 58	7		
CHANGCHUN	53.78	338.3	9 8K	0				
UGLEGORSK	54.75	353.9	9 15	0				
KUNMING	54.77	305.9	9 17K	2				
CHENGTU	56.50	312.4	9 28	0				
PETROPAVLOVK	58.80	6.4	10 7	23				
LANCHOW	59.54	317.7	9 50	1				
SHILLONG	63.95	301.8	10 16K	-2	19 44	64		
LHASA	66.10	305.7	10 32	0				
CAPE HALLETT	67.94	173.3	10 44	0	19 33	5		11 17 PCP
CHATRA	68.35	301.5	10 43A	-3				
YAKUTSK	69.05	350.1	10 50	-1	19 41	-1		
MIRNY	72.14	200.5	11 9	0				
LAHORE	80.41	303.1	11 54	-1				
WARSAK DAM	83.21	305.1	12 8	-2				
MAWSON	83.69	202.6	12 12	0				
COLLEGE	83.71	22.4	12 10	-2			12 44	

NAMANGAN	84.52	311.9	12 17A	1					
SOUTH POLE	84.53	180.0	12 16	0	22 20	-8	13 0	15 30	PP
BYRD STATION	84.77	169.9	12 20	2			12 54		
QUETTA	86.41	300.6	12 25	-1					
SHASTA	92.04	49.5	12 52	0					
LICK	92.32	52.9	12 47	-6					
MINERAL	92.61	49.9	12 54	-1					
FRESNO	93.74	53.6	13 0	0					
PASADENA	94.90	56.3	13 6	1					
EUREKA	96.89	51.0	13 15	1					
HUNGRY HORSE	98.32	42.1	13 21	0					
SHIRAZ	98.84	299.0	13 21	-2	23 47	2			
FLAMING GRGE	101.90	49.5	13 36	-1					
APATITY	104.87	339.1	13 48	-2					
MOSCOW	106.81	326.8					18 20		
SODANKYLA	107.31	340.1	18 22	777					
KIRUNA	109.07	341.9						18 43	PP
SKALSTUGAN	114.37	340.6						19 20	PP
VIENNA-H.	121.77	325.0						20 14	
PRUHONICE	121.84	327.5						20 5	PP
COLLMBERG	121.88	329.5					19 30	20 24	PP
LJUBLJANA	124.00	323.6	18 40	0					
STUTTGART	125.33	328.8	18 42	0					
ISOLA	129.40	325.5	18 50	0				21 57	PP
HUANCAYO	132.05	111.5	18 59	4					
SETIF	135.16	317.9	18 57	-4			19 47	21 34	PP
LA PAZ	136.76	121.0	19 8	4				21 55	PP
TAMANRASSET	141.32	300.0	19 6	-6				31 3	
ANTIGUA	147.14	66.8	19 25	3					
GRENADA	148.39	76.0	19 27	3					
ST. VINCENT	148.63	73.7	19 29	4					
TRINIDAD	148.90	78.6	19 31	6					

AUGUST 21 12.H 49.M 42.S EPICENTRE 5.11 125.25 DEPTH= 228.KM

A=-0.57490 B= 0.81343 C= 0.08843 D= 0.8166 E= 0.5772
G=-0.0510 H= 0.0722 K=-0.9961 HT= 7.0

DEPTH OF FOCUS= 0.031R

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
MANILA	10.35	336.9	2	26	1	4	23	5					
BAGUIO CITY	12.14	338.2	2	47	0	5	13	14					
HONG KONG	20.18	328.9	4	18	-1	7	48	1			5	44	
GUAM	20.93	65.3	4	27	1								
LEMBANG	21.22	236.2	4	28K	-1	8	23	17					
CANTON	21.26	328.4	4	31K	2	8	12	6	5	10			
DJAKARTA	21.54	238.8	4	30K	-2						6	47	
PORT MORESBY	26.15	123.4	5	14	-1	9	31	3			12	0	
MEDAN	26.54	267.8	5	20K	1	9	41	6					
PABAUL	28.43	108.5	5	36	0	10	10	5			12	6	
KUNMING	29.37	314.9	5	46K	2	10	26	6	6	28			
ABUYAMA	31.12	16.6	5	59A	-1								
CHENGTU	32.34	324.3	6	10	0	10	52	-14	6	52			
CHARTERS TS.	32.46	141.1	6	9	-2	11	9	1					
PORT BLAIR	32.81	283.6	6	12	-2								
MATUSIRO	33.47	19.1	6	18	-2	11	23	-1			12	22	SCP
TOCKLAI	36.18	309.8	6	48K	5								
CHITTAGONG	36.59	301.2	6	44	-2	12	19	8			8	20	PP
PAOTOW	37.87	341.0	6	57	0								
SHILLONG	37.89	306.0	6	57	0	12	36	5					
VLADIVOSTOK	38.31	7.9	7	1	0	12	42	5	7	43	16	47	SCS
CHANGCHUN	38.56	0.1	7	1K	-2	12	41	0					
LHASA	40.48	311.1	7	20K	2								
ACELAIDE	41.83	163.3	7	28	-1	13	31	2			17	8	SCS
BRISBANE	41.85	142.0	7	29	0	13	29	-1					
CHATRA	42.24	304.9	7	33	0	12	39	-56					
RIVERVIEW	45.82	149.5	8	1A	0	14	31	4			17	45	
CANBERRA	46.00	152.8	8	3K	0	14	34	5	8	42	9	48	PP
KOUMAC	46.03	124.9	8	3	0								
MELBOURNE	46.49	158.4	8	7K	1	14	42	6	8	46	9	38	PCP
NOUMEA	48.64	125.6	8	22	-1								
IRKUTSK	50.10	343.4	8	32	-2	15	28	2					
OKHA	50.41	13.6	8	38	2	15	36	5	9	18			

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DEHRA DUN	50.98	305.2	8	41	0	15	40	1				
POONA	51.86	289.5	8	46	-1							
BOMBAY	52.88	289.8									16	7
LAHORE	54.40	305.4	9	5K	-	16	27	2				
PETROPAVLOVK	55.05	23.9	9	11	.	16	39	6	9	56	11	25 PP
WARSAK DAM	57.38	307.3	9	28	1	17	10	6				
FRUNSE	58.35	318.1	9	34	0	17	23	6				
SEMIPALATNSK	58.75	328.0	9	35	-1	17	25	3				
KARACHI	59.09	295.8	9	39	0				10	25		
QUETTA	60.17	301.9	9	46K	0	17	44	4	10	31	39	11 PKPPKP
DUZHANBE	60.92	311.6	9	52	1	18	4	15				
TASHKENT	61.44	314.7	9	53	-2	18	0	4			12	10 PP
COBB RIVER	63.19	141.4	10	5	-1							
KAIMATA	63.23	143.3	10	16	10							
KARAPIRO	63.31	137.1	10	7	0				10	59		
ROXBURGH	63.85	147.0				18	29	3			25	18 SS
TONGARIRO	63.96	138.3	10	11	0							
WELLINGTON	64.58	140.6	10	13	-2	18	33	-2			19	48 *SS
GEBBIES PASS	64.65	143.8	10	15	-1							
TUAI	64.84	137.2	10	20	3							
AFIAMALU	65.26	107.8	10	20	0							
TIKSI	66.48	1.3	10	25	-2	18	54	-4			23	6 SS
SVERDLOVSK	72.03	328.5	11	1	0	20	3	0				
SHIRAZ	72.49	299.3	11	2A	-2	20	17	9			13	48 PP
TEHERAN	73.94	305.6	11	13	1	20	29	5				
MIRNY	75.16	192.8	11	18	-1	20	38	1				
HONOLULU	75.73	69.4	11	24	2				12	10		
KIPAPA	75.81	69.3	11	26	3				12	7		
GORIS	78.22	309.1	11	36	0	21	16	6	12	24	11	48 PCP
TIFLIS	79.49	311.3	11	43	0	21	27	3			14	54 PP
TANANARIVE	80.08	249.9	11	48K	2						12	36
KHEYS	81.34	351.2	11	54	1	21	44	1	12	46	12	0 PCP
CAPE HALLETT	82.46	167.4	11	59A	1	21	58	4	12	43	23	18 *SS
COLLEGE	84.10	25.4	12	6	-1	22	10	0	12	55	30	7 PKKP
MOSCOW	84.47	325.4	12	8	-1	22	13	-1	12	51	23	36 *SS
MAWSON	84.53	199.9	12	13	4	22	19	5				
ADDIS ABABA	85.75	278.6	12	18	3							
SCOTT BASE	85.89	171.9	12	16A	0	22	34	6				
APATITY	86.02	337.4	12	15K	-1	22	30	1				
KSARA	86.67	303.5	12	21K	2	22	30	-5			15	37 PP
SIMFEROPOL	87.23	314.7	12	20	-2	22	40	0	13	12	15	52 PP
JERUSALEM	87.37	301.5	12	23	0				13	15		
GULKOVO	88.11	329.7	12	25	-1	22	49	1			15	57 PP
SODANKYLA	88.64	337.5	12	31	2							
HELSINKI	90.70	330.5	12	38	0							
NURMIJARVI	90.79	330.9	12	38	-1							
KIRUNA	90.85	338.5	12	37	-2				13	25		
HELWAN	90.88	299.9	12	39K	0						13	36
NORD	91.59	354.8	12	41K	-1							
LWOW	93.34	320.5	12	50	0							
UPPSALA	94.35	331.2	12	53	-2							
SOUTH POLE	95.07	180.0	12	59	1	23	14	4	13	44	16	49 PP
SKALSTUGAN	95.44	335.6	12	58	-2							
ATHENS	95.92	308.9	12	59K	-3							
LWIRO	96.62	268.3	13	5	0						17	56
RESOLUTE	96.73	9.9	13	0	-6						23	22
BROKEN HILL	97.81	256.2	13	11K	0							
GOTEBORG	97.86	330.1	13	9	-2							
BULAWAYO	97.96	250.5	13	11K	0							
BRATISLAVA	98.17	320.0	13	15	3						17	11 PP
PRUHONICE	99.19	322.3	13	17	0						17	22 PP
BYRD STATION	99.27	170.8	13	18	1						17	20 PP
COLLMBERG	99.67	323.9	13	19	0						17	23 PP
HALLE	100.21	324.3	13	20	-2						17	27 PP
LJUBLJANA	100.49	318.5	13	23	0						17	36 PP
TRIESTE	101.13	318.3									17	39 PP
MESSINA	102.13	310.7									16	42
STUTTGART	102.84	322.4	13	33	0						17	51 PP
SHASTA	103.34	46.3	13	38	2							
MINERAL	104.02	46.4	13	38	-1							
HUNGRY HORSE	105.88	36.6	17	59	777				14	29	29	22 PKKP
BUTTE	107.83	38.3	17	20	777						13	57 P
EUREKA	108.37	45.6	14	0	777						29	16 PKKP
PASADENA	108.67	51.5	17	41	777	28	56	281			33	42 SS
BOZEMAN	108.93	38.1									29	26 PKKP
SETIF	110.43	311.5	18	7	2						19	22 PP
FLAMING GRGE	112.27	41.9	17	54	-15	24	38	8			25	40 SKKS
GLEN CANYON	112.54	46.5	17	11	-58						29	2 PKKP

RAPID CITY	114.51	36.4	18 15	2			28 53	PKKP
TAMANRASSET	114.95	297.9	18 11	-3		19 10	28 55	PKKP
TUCSON	115.09	50.9	18 20	6			28 53	PKKP
ARGENTINE I.	119.59	175.4	18 24	1				
FAYETTEVILLE	124.83	38.8	18 35K	2	28 14 180	19 23	20 2	PP
ST. LOUIS 1	125.47	33.9	18 36	2				
SHAWINIGAN	126.14	15.3	18 37K	1				
OTTAWA	126.34	18.2	18 38K	2				
BREBEUF	126.87	16.5	18 39A	2			20 40	PP
MORGANTOWN	129.78	25.3	18 45A	2			21 50	
HALIFAX	129.86	8.2	18 46K	3				
TACUBAYA	129.94	59.6					21 55	
PALISADES	130.86	19.2	18 47	2		19 36	21 7	PP
PORT STANLEY	133.49	177.3	18 47	-3				
COLUMBIA	133.85	30.7	18 53	3			22 4	PP
MBOUR	137.83	297.8	19 3	5				
SAN JUAN	154.11	25.4	19 26	2			20 37	
HUANCAYO	158.52	110.1	19 36	6			20 13	PKP2
LA PAZ	162.67	131.8	19 40	6			23 0	

AUGUST 23 8.H 58.M 12.S EPICENTRE 29.33 60.01 DEPTH= 51.KM

A= 0.43645 8= 0.75633 C= 0.48732 D= 0.8661 E=-0.4998
G= 0.2436 H= 0.4221 K=-0.8732 HT= 2.0

DEPTH OF FOCUS= 0.003R

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	
QUETTA	6.09	80.3	1 30A	1	2 55	16		1 44	PP
KARACHI	7.70	123.9	1 48	-4					
BAIRAM-ALI	8.43	11.5	2 2	0					
ASHKABAD	8.71	351.3	2 10	4				4 4	
TEHERAN	9.68	313.5	2 18	-1	4 46	39			
KIZYL-ARVAT	10.32	343.6	2 24	-4				5 31	
WARSAK DAM	10.88	61.7	2 38	3					
DUZHANBE	11.73	35.9	2 42	-5				5 20	
TASHKENT	14.14	29.8	3 17	-2				7 59	
GORIS	15.16	315.6	3 31	-1				6 30	
BOMBAY	15.62	128.8	3 45	7					
DEHRA DUN	15.69	81.9	3 56	17	6 49	18		7 9	SS
POONA	16.58	127.3	3 51	1					
TIFLIS	17.46	319.1	4 0	-1				7 30	SS
FRUNSE	17.88	37.2	4 6	0				7 30	SS
HYDERABAD	20.62	121.0	4 35A	-2	8 32	12		5 15	PPP
KSARA	21.03	288.4	4 40A	-1	8 29	2	5 27	9 22	*SS
JERUSALEM	21.48	282.8	4 43	-3	8 51	15			
BOKARO	23.68	97.3	5 8	1	9 16	1			
CHATRA	24.07	89.4	5 12	1	9 35	13			
HELWAN	24.92	278.4	5 19	0	9 54	18			
SIMFEROPOL	25.72	314.4	5 24	-3				10 6	
SEMIPALATNSK	26.00	30.3	5 30	1					
CALCUTTA	26.34	98.3						7 55	
LHASA	26.97	81.6	5 38	0					
ADDIS ABABA	28.37	228.9	5 50	-1	10 54	21			
SHILLONG	28.47	89.9	5 51	-1	10 32	-2			
BUCHAREST	30.77	308.6						12 10	
MOSCOW	30.84	335.2	6 14	1					
ATHENS	31.26	295.6	6 13K	-4					
SOFIA	32.27	304.4	6 31	6					
LWOW	34.01	317.1	6 45	5				8 4	PP
PULKOVO	36.47	335.1	7 7	6				8 27	PP
KRAKOW	36.56	315.8	7 1	-1			7 11		
WARSAW	36.71	319.6	7 9	6	12 51	8			
LANCHOW	37.24	68.0	7 8	0					
MESSINA	37.71	295.5	7 17	5	13 7	9			
KUNMING	38.07	85.9	7 14	-1					
VIENNA-H.	38.29	311.9	7 16	-1				9 8	PPP
LJUBLJANA	39.10	308.0	7 26A	3				9 2	PP
NURMIJARVI	39.11	333.0	7 22	-1				8 55	PP
TRIESTE	39.57	307.3	7 29	2				9 6	PP
IRKUTSK	39.79	42.1	7 30	1					
PRUHONICE	39.86	314.1	7 34A	4				9 10	PP
PRAGUE	39.96	314.2						9 12	PP

ROME	40.15	301.3			13	42	7			
COLLMBERG	41.14	315.7	7	39K	-1			7 52	9 32	PCP
UPPSALA	41.73	329.3	7	44	-1					
HALLE	41.83	315.8	7	39	-7			7 53	9 29	PP
JENA	41.93	314.9	7	45	-2			7 52	9 15	PP
RAVENSBURG	42.67	309.9	7	53	0					
SODANKYLA	42.99	341.8	7	54	-1					
STUTTGART	43.02	311.3	7	53	-3				9 39	PCP
LWIRO	43.34	229.0	8	2	4					
HEIDELBERG	43.47	312.2	7	57	-2					
MONACO	43.92	303.9	8	3	0					
STRASBOURG	43.99	310.9	8	6	2					
BASLE	44.02	309.4	8	2	-2					
ISOLA	44.20	304.5	8	5	0				10 2	PP
NEUCHATEL	44.40	308.6	8	8	1					
BENSBERG	44.68	314.2	8	11	2					
KIRUNA	45.07	340.0	8	11	-1					
BESANCON	45.08	308.9	8	12	0					
WITTEVEEN	45.27	316.7	8	13	-1					
SKALSTUGAN	45.69	332.4	8	23	6					
SETIF	45.93	293.4	8	17	-2			8 38	10 9	PP
UCCLE	46.43	313.7	8	30	7					
PARIS	47.50	310.8	8	34	3					
ALGIERS UNI.	47.72	294.5	8	19	-14					
HONG KONG	48.90	85.0	8	38	-4					
TAMANRASSET	49.03	275.7	8	40	-3			9 2	10 32	PP
TANANARIVE	49.45	195.6	8	50	4					
FOLINIERE	49.46	310.7	8	44	-3					
RELIZANE	49.88	293.6	8	52	2			9 14	10 46	PP
ALMERIA	52.08	295.6	9	2A	-4					
TOLEDO	52.76	299.6	9	9	-2					
GRANADA	52.90	296.2	9	18A	5					
BROKEN HILL	53.12	219.3	9	13	-1					
MALAGA	53.62	295.8	9	12A	-6					
BULAWAYO	57.76	215.4	9	44	-4					
PRETORIA	62.71	212.4	10	6	-15					
MATUSIRO	64.36	61.0	10	30	-2					
KIMBERLEY	66.85	213.4							10 43	PCP
MUNDARING	81.02	134.4							12 8	
COLLEGE	83.63	11.6	12	22	-2				12 54	
PALISADES	98.04	326.6							26 29	PS
EUREKA	111.44	356.7	19	13	45				29 35	PKKP
SOUTH POLE	119.16	180.0	18	41	-2					

AUGUST 23 14.H 8.M 13.S EPICENTRE 0.46 -25.78 DEPTH= 0.KM

A= 0.90046 B=-0.43487 C= 0.00793 D=-0.4349 E=-0.9005
G= 0.0071 H=-0.0034 K=-1.0000 HT= 7.2

SE= 2.53

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MBOUR	16.35	31.8	3	50	-2	6	39	-15					
TAMANRASSET	37.66	51.7	7	19A	1	13	14	5			8	44	PP
MALAGA	41.16	26.4	7	54	7	14	4	3			9	26	PP
GRANADA	41.90	26.8	8	11K	18	14	30	18			9	40	PP
CARACAS	42.10	285.1	7	47	-8	14	15	0					
ALMERIA	42.15	28.2	7	54	-1						9	33	PP
RELIZANE	42.81	32.1	7	54	-7						9	33	PP
TOLEDO	43.96	24.2	8	10	0	14	37	-5			18	4	SS
ALICANTE	44.30	28.8	8	13	0	14	46	-1					
ALGIERS UNI.	44.91	33.3	8	18	0	14	47	-9			10	1	PP
LA PAZ	45.03	246.0	8	20	1	14	59	1					
SETIF	45.84	35.7	8	26	1						10	13	PP
FUQUENE.	48.13	276.9	8	44	1								
BOGOTA	48.41	275.7	8	51	6	15	50	4					
HUANCAYO	50.73	254.1	9	2	-1								
CLERMONT-FD.	51.80	25.5	9	13	2								
MONACO	52.27	30.1	9	13	-2								
ISOLA	52.40	29.5	9	17	1								
FOLINIERE	52.84	20.8	9	20	1								
MESSINA	53.38	40.4	10	24	61	17	0	5			20	28	SS
ROME	53.74	35.0	9	25	-1	17	6	7			11	5	PP
SANTA LUCIA	53.96	226.8	9	26K	-1	17	2	-1					
BESANCON	54.19	26.2	9	29	0								
LWIRO	54.63	93.1	9	36	4								

HALIFAX	55.27	327.8	9	35K	-2						
TARANTO	55.75	39.0	9	2	-38	16	42	-44	22	32	
STRASBOURG	55.99	26.3	9	42	0	17	40	10			
KIMBERLEY	56.36	125.5	9	47K	2						
STUTTGART	56.80	27.0	9	46	-2	17	41	1			
TRIESTE	56.86	32.2	9	48	0				11	52	PP
HEIDELBERG	57.02	26.2	9	49	-1						
BULAWAYO	57.02	114.4	9	51	1						
LJUBLJANA	57.53	32.3	9	53A	0				11	58	PP
WESTON	58.38	321.6	9	56	-3	17	55	-6			
PALISADES	59.32	319.1	10	8	2	18	12	-1	21	56	SS
JENA	59.39	26.5	10	5	-1				12	19	PP
VIENNA-H.	59.91	31.2	10	10	0						
PRUHONICE	60.12	28.8	10	10A	-1				12	54	
COLLMBERG	60.29	26.9	10	11	-1				12	16	PP
SOFIA	60.79	39.7	10	17	1						
BREBEUF	61.47	323.6	10	21	1						
SHAWINIGAN	61.54	325.0	10	28	7						
HELWAN	61.60	56.0	10	23	2				10	54	
MORGANTOWN	62.80	315.3	10	28A	-1						
ADDIS ABABA	64.80	80.3	11	2	20						
KSARA	66.45	53.1	10	52	-1				13	19	PP
UPPSALA	68.06	22.0	11	3	0						
SKALSTUGAN	68.94	17.2	11	9	0						
NURMIJARVI	71.21	23.8	11	19	-3						
FAYETTEVILLE	72.38	307.8	11	27K	-2						
KIRUNA	74.34	16.5	11	42	1						
SODANKYLA	75.91	18.4	11	50	0						
TEHERAN	79.32	53.8	12	10	1	22	1	-8			
RAPID CITY	80.65	314.5	12	15	-1						
FLAMING GRGE	84.87	310.9	12	38	1						
TUCSON TELE.	85.48	302.2	12	41	0						
HUNGRY HORSE	88.50	318.2	12	55	0						
BOULDER CITY	88.97	305.8	12	57	0						
EUREKA	89.86	309.3	13	5	3						
SOUTH POLE	90.45	180.0	13	7	3						
BYRD STATION	91.10	190.0	13	5	-2						
QUETTA	92.13	59.9	13	15	3						
CANBERRA	144.98	172.5	19	43	4						

AUGUST 23 22.H 44.M 48.S EPICENTRE -15.01-176.21 DEPTH= 0.KM

A=-0.96419 B=-0.06384 C=-0.25741 D=-0.0661 E= 0.9978
G= 0.2568 H= 0.0170 K=-0.9663 HT= 5.7

SE= 3.70

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
AFIAMALU	4.43	76.2	1	2K	-8	1	47	-16				
SUVA	6.01	238.0	1	30	-2						1	2
NOUMEA	17.95	243.6	4	15	3	7	51	20				
KOUMAC	19.37	250.6	4	29	-1	8	15	12				
ONERAHI	22.33	200.5	4	52	-9	9	50	48			5	17
KARAPIRO	23.97	196.2	5	19	2							
BRISBANE	31.33	241.8	6	20	-4	11	28	-3				
RIVERVIEW	34.92	231.7	6	58A	3	12	33	6			8	24 PP
CHARTERS TS.	36.08	256.4	7	1	-4	12	40	-5				
PORT MORESBY	36.21	274.6	7	7	1	12	48	1				
CANBERRA	37.14	230.6	7	14	0	13	3	2				
HONOLULU	40.23	26.7	7	33	-7	13	37	-11				
KIPAPA	40.37	26.7	7	46	5							
MELBOURNE	41.12	229.0	7	47	0							
ADELAIDE	44.98	235.3	8	22	3							
GUAM	47.89	304.3	8	37	-5							
CAPE HALLETT	57.84	184.9	9	57	1	18	7	13			12	12 PP
SCOTT BASE	63.43	184.0	10	35	1						12	31 PP
TUKUBASAN	65.57	322.2				19	25	-7			27	9 SSS
MATUSIRO	66.91	321.3	10	58	2	19	58	9				
WILKES	69.65	204.3	11	16	3	20	20	-1			24	54 SS
BYRD STATION	69.76	171.1	11	13	-1							
SEVERO-KUR.	69.76	341.6	11	15	1							
BAGUIO CITY	69.78	294.1	11	20	6	20	18	-5				
PETROPAVLOVK	71.13	344.3	11	19	-3							
BERKELEY	72.98	42.0	11	31	-2	20	33	-27			21	3
LICK	73.08	42.8	11	32A	-2							

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UKIAH	73.11	40.5	11	34	0						
PASADENA	73.72	47.1	11	36	-1	21	10	2		21	34 PS
UGLEGORSK	73.72	332.9	11	40	3						
FRESNO	73.99	44.1	11	38	-1						
SHASTA	74.55	39.5	11	41	-1						
MINERAL	74.83	40.2	11	42A	-2						
LEMBANG	74.94	266.9	11	44K	0						
SOUTH POLE	75.08	180.0	11	45	0					14	39 PP
RENO	75.51	41.7	11	47	-1						
ZO-SE	75.58	308.1				21	33	4			
DJAKARTA	75.86	267.3	11	37	-13					21	7
MIRNY	76.67	204.3	11	50	-4						
BOULDER CITY	77.01	46.9	11	55	-1						
HONG KONG	77.61	297.3	11	44	-15	21	17	-34			
NANKING	77.84	308.1				22	3	10			
EUREKA	77.98	43.4	12	9	7						
TUCSON	78.21	51.9	12	2	-1				12	14	
TUCSON TELE.	78.33	51.9	12	2	-1						
GLEN CANYON	79.77	47.3	12	21	10						
CHIHUAHUA	80.44	57.0								36	30
PENTICTON	81.17	33.6	12	15	-4						
SALT LAKE C.	81.37	43.8	12	23	3						
COLLEGE	82.52	11.8	12	21	-5	22	37	-5			
FLAMING GRGE	83.10	44.6	12	28	-1						
TACUBAYA	83.11	67.9								13	34
PEKING	83.25	314.4	12	31	2	22	54	4			
BUTTE	83.43	38.9	12	22	-8						
HUNGRY HORSE	83.74	36.4	12	29	-3						
BOZEMAN	84.20	39.8	12	37	3						
ARGENTINE I.	85.33	156.9	12	45	5						
VERA CRUZ	85.81	69.0								15	28
MAWSON	87.28	199.2	12	50	0						
KUNMING	88.42	296.4	12	56	1						
RAPID CITY	88.57	43.6	12	59	3						
LANCHOW	90.82	307.1	13	9	3						
TIKSI	93.90	344.9	13	19	-1						
IRKUTSK	95.42	322.6								26	5 PS
ST. LOUIS 1	96.14	51.8	13	32	1	24	10	3			
PALISADES	108.91	51.4				25	9	2		18	41 PP
SEMIPALATNSK	110.03	318.5								19	8 PP
CARACAS	111.13	84.4								20	18
FRUNSE	114.06	310.4								19	49 PP
DUZHANBE	118.70	305.9								20	15 PP
SVERDLOVSK	120.37	327.8								20	7 PP
QUETTA	120.43	296.3	18	54	1					20	19 PP
SCORESBY SD.	122.35	9.9	18	48A	-9						
SODANKYLA	125.59	349.4	19	6	3						
PULKOVO	131.26	342.5	19	29	15					21	32 PP
MOSCOW	131.78	335.0	19	17	2					21	29 PP
NURMIJARVI	132.10	346.3	19	17	1					22	47 PKS
TEHERAN	132.82	305.0	19	23	6						
GORIS	135.56	311.7								22	7 PP
TIFLIS	135.77	315.2	19	29	6						
WARSAW	140.41	343.4								22	41 PP
SIMFEROPOL	140.67	325.5	19	38	6						
LWOW	141.57	338.9	19	35	2						
BROKEN HILL	141.89	220.9	19	29	-5						
DE BILT	142.99	358.6	19	42	6					23	12 PP
HALLE	143.02	351.5								22	5
COLLMBERG	143.05	350.4	19	34	-2					22	42 PP
JENA	143.63	351.7	19	36	-1					22	39 PP
PRAGUE	143.98	348.3								22	58 PKS
BENSBERG	144.04	356.4	19	34	-3						
PRUHONICE	144.04	348.2	19	36	-1					23	1 PKS
UCCLE	144.30	359.4	20	2	24					22	54 PP
BUCHAREST	145.10	331.6	19	42	3					21	18
VIENNA-H.	145.27	345.2	19	40	1						
ADDIS ABABA	145.30	264.2	19	49	9						
HEIDELBERG	145.47	354.3	19	37	-3						
KSARA	145.50	308.7	19	39K	-1	27	1	14		23	0 PP
ISTANBUL KA.	146.01	324.7	19	43	2						
STUTTGART	146.04	353.5	19	39	-2					41	53 SS
FOLINIERE	146.16	5.1	19	40	-1						
PARIS	146.28	1.5	19	41	0					22	40 PP
TUBINGEN	146.30	353.7	19	40	-1						
STRASBOURG	146.37	355.2	19	41	0					23	37
EBINGEN	146.66	353.7	19	42	0						
JERUSALEM	146.84	305.7	19	45	3						

RAVENSBURG	146.97	352.8	19 41	-1			
BELGRADE	147.10	337.9	19 32K	-11		21 31	PP
BASLE	147.43	355.2	19 47	4			
ZAGREB	147.62	344.0	19 49K	6			
SOFIA	147.70	332.5	19 40	-4		22 59	
TOLMEZZO	147.77	348.0				20 49	
LJUBLJANA	147.77	345.9	19 44	0		20 6	
BESANCON	147.81	357.2	19 45	1			
CHUR	147.90	352.6				20 10	
NEUCHATEL	148.00	355.9	19 50	6			
TRIESTE	148.33	346.6	19 45	0			
PADOVA	148.94	348.9	20 6	20		21 34	
CLERMONT-FD.	149.33	0.9	19 54	8			
LWIRO	149.88	237.3	19 55	8			
PRATO	150.56	349.2	20 4	16			
HELWAN	150.66	304.9	19 54	6		21 7	
ISOLA	150.80	355.2	19 53	5	20 2		
ATHENS	151.12	326.1	19 36A	-13			
MONACO	151.21	354.5	19 56	7			
SERRA PILAR	151.84	20.1	19 41A	-9	20 6	19 57	PKP2
TARANTO	152.05	337.7	20 37	47		35 37	PS
ROME	152.17	346.0	20 14K	24		35 30	PS
TOLEDO	154.29	14.0	19 57	4			
MESSINA	154.67	338.0	20 25	31			
GRANADA	156.97	15.2	20 38A	41		24 43	PP
MALAGA	157.18	17.2	20 4	7		20 33	PKP2
ALGIERS UNI.	158.32	1.6	20 3	4		24 20	PP
SETIF	158.85	356.4	20 2	3		24 30	PP
RELIZANE	159.15	7.4	20 9	9		20 43	PKP2
TAMANRASSET	172.10	348.3	20 11	1		25 30	PP

AUGUST 24 1.H 44.M 9.S EPICENTRE 56.01 163.93 DEPTH= 0.KM

A=-0.53967 B= 0.15549 C= 0.82739 D= 0.2769 E= 0.9609
G=-0.7950 H= 0.2291 K=-0.5616 HT= -7.6

SE= 4.90

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KLYUCHI	3.08	275.7	0 32	-19	0 55	-34	0 40		*SP
PETROPAVLOVK	4.29	227.9	1 9	1	1 58	-2	1 17		*SP
SEVERO-KUR.	7.11	224.4	1 47	-1	3 15	5			
OKHA	12.36	267.3	3 0	0	5 25	5	3 8		*SP
UGLEGORSK	14.96	251.5	3 34	0			6 28		
YAKUTSK	18.44	303.0	4 14	-5	7 34	-8			
TIKSI	21.49	330.2	4 52	0			5 17		PP
VLADIVOSTOK	24.20	251.3					6 39		
COLLEGE	24.79	49.5	5 18	-7	10 15	30	6 19		
TUKUBASAN	25.55	229.2	5 32K	0			11 21		SS
MATUSIRO	26.11	232.6	5 35	-2					
CHANGCHUN	27.31	259.9	5 55	7	10 40	13			
SITKA	32.56	62.4	6 35	0			7 55		
IRKUTSK	34.17	289.3	6 52	3			12 8		SCP
PEKING	34.92	263.2	6 54	-1	12 26	-1			
KHEYS	37.72	345.1					15 15		SS
PAOTOW	37.98	269.3	7 29	8					
RESOLUTE	39.76	24.1	7 34	-2	13 5	-36	9 5		
VICTORIA	43.17	68.1	7 59	-5					
KIPAPA	44.56	125.1	8 21	6					
PENTICTON	44.62	64.9	8 10	-6					
LANCHOW	44.63	269.6	8 15	-1	14 50	-3			
CORVALLIS	45.76	72.3	8 30	5					
SEMIPALATNSK	47.52	300.4	8 42	3			10 38		PP
HUNGRY HORSE	48.07	62.6	8 39	-4					
SHASTA	48.90	75.5	8 48	-1					
UKIAH	49.55	77.6	9 1	7					
MINERAL	49.57	75.3	8 59K	4					
HONG KONG	49.60	248.2	8 56	1	16 37	34			
BUTTE	50.38	64.0	8 56	-5					
BERKELEY	50.97	78.1	9 7	2	16 19	-3	20 3		SS
RENO	51.12	74.8	9 14	8					
BAGUIO CITY	51.36	237.5	9 7	-1	16 26	-1			
BOZEMAN	51.39	63.4	9 6	-3					
APATITY	51.40	338.1	9 14	5			20 30		
SVERDLOVSK	51.67	317.0	9 8	-3	16 27	-5	19 57		SS

LICK	51.70	78.1	9	13K	2					
MANILA	52.65	235.9	9	26	8					
SODANKYLA	52.90	340.8	9	14	-6					
FRESNO	53.12	77.2	9	28	6					
EUREKA	53.23	72.1	9	21	-1				11	16 PP
KUNMING	53.51	261.1	9	23	-1	16	56	-1		
KIRUNA	53.55	343.7	9	18	-7					
SCORESBY SD.	53.74	2.4				17	5	5	23	8 SSS
ALMATA	54.07	295.7				17	2	-2		
SALT LAKE C.	54.47	68.2	9	38	7					
FRUNSE	55.57	296.9	9	36	-3				9	44 *SP
PASADENA	55.95	78.2	9	50	8	17	27	-2	21	21 SS
BOULDER CITY	56.41	74.2	9	41	-4					
RAPID CITY	56.41	59.8	9	38	-8					
LHASA	56.57	274.4	9	44	-3	17	33	-5		
GLEN CANYON	57.41	71.1	9	57	4					
SKALSTUGAN	58.74	345.6	10	7	5					
PULKOVO	58.83	334.6	9	57	-6	17	58	-9	11	58 PP
TASHKENT	59.34	299.2	10	2	-4	18	7	-7	19	44 SCS
NURMIJARVI	59.44	338.0	10	2	-5					
HELSINKI	59.68	337.6	10	10	2					
MOSCOW	60.38	328.4	10	8	-5				13	42 PPP
CHATRA	60.90	275.4	10	13	-4	18	26	-8		
TUCSON TELE.	61.38	74.0	10	26	6					
TUCSON	61.39	74.1	10	17	-3					
UPPSALA	61.42	341.4	10	24	4					
DUZHANBE	61.70	297.5	10	18	-4	18	37	-7		
WARSAK DAM	63.82	292.3	10	35	-1	19	3	-8		
GOTEBORG	64.41	343.7	10	44	4					
COPENHAGEN	66.27	342.8				19	36	-5		
ABERDEEN	66.61	351.8				19	51	6	20	11 PS
PORT MORESBY	66.65	198.1	11	7	12	19	45	-1		
ST. LOUIS 1	66.77	55.1	10	52	-3	19	42	-5		
FAYETTEVILLE	66.95	59.5	10	50	-6					
ASHKABAD	67.20	304.3	10	54	-4				19	51
OTTAWA	67.22	41.3	10	54A	-4					
SHAWINIGAN	67.30	38.7	11	3	4					
WARSAW	67.86	336.4	11	3	1	19	53	-7	20	18 PS
BREBEUF	67.90	39.8	10	59	-3					
QUETTA	69.22	293.2	11	6	-5	20	8	-8	13	38 PP
POTSDAM	69.33	341.4	11	15	4					
LWOW	69.38	333.5	11	15	3	20	15	-3	13	44 PP
TIFLIS	69.89	315.9	11	9	-6				13	43 PP
WITTEVEEN	69.93	345.5	11	23	8					
KRAKOW	70.15	336.2				20	26	-1	20	47 PS
HALLE	70.37	341.8	11	24	6				11 43	12 5 PCP
COLLMBERG	70.38	341.1	11	15	-3					15 42 PPP
MORGANTOWN	70.45	47.4	11	13	-5					
DE BILT	70.83	346.3				20	35	0		25 21 SS
SIMFEROPOL	70.90	324.7	11	20	-1	20	31	-5		28 15 SSS
JENA	70.98	341.9	11	19	-2	20	36	-1		13 56 PP
GORIS	71.16	313.6	11	21	-1	20	37	-2		14 3 PP
PLAUEN	71.31	341.4	11	27	4					
PRUHONICE	71.35	339.7	11	29	5	20	45	4		14 6 PP
WESTON	71.43	40.0	11	26	2					
PALISADES	71.66	42.4	11	36	11	20	30	-15		14 0 PP
BENSBERG	71.67	344.8	11	31	6					
HALIFAX	72.04	33.6	11	39	11					
KEW	72.09	349.7				20	44	-6		25 38 SS
TEHERAN	72.18	307.9	11	27	-2	20	50	-1		
UCCLE	72.21	346.6				20	57	6		
VIENNA-H.	72.62	337.9	11	28	-3					
HEIDELBERG	72.94	343.3	11	30	-3					
STUTTGART	73.46	342.8	11	31	-5	21	0	-5		25 42 SS
TUBINGEN	73.73	342.9	11	45	7					
BUCHAREST	73.81	329.9				21	6	-3		21 44
STRASBOURG	73.89	343.8	11	36	-3	20	57	-13		25 51 SS
EBINGEN	74.09	342.9	11	47	7					
RAVENSBURG	74.36	342.3	11	38	-3					
PARIS	74.40	347.4	12	50	68					
COLUMBIA	74.75	51.3	11	36	-8					
FOLINIERE	74.78	349.4	11	45	1					
BELGRADE	74.93	334.0	11	49A	4	21	20	-2		14 41 PP
ZAGREB	75.02	337.4	12	2	17					
LJUBLJANA	75.11	338.5	11	51	5					
BESANCON	75.46	344.7	11	51	3					
NEUCHATEL	75.56	344.0	11	52	4					
TRIESTE	75.65	338.9	11	56	7					
SOFIA	76.16	331.2	11	40	-12					

CHARTERS TS.	77.26	197.0	11 56	-2							
ISOLA	78.29	343.2	12 0	-3				12 6			
MONACO	78.66	342.9	12 7	2							
ROME	79.50	338.7	12 16	6	22 5	-6			23 11	PS	
TARANTO	79.81	334.8							21 7		
KSARA	80.20	318.3	12 18	4	22 30	11			15 18	PP	
ATHENS	80.45	329.1	12 6	-9							
JERUSALEM	82.27	317.9	12 20	-5	22 43	3					
MESSINA	82.37	335.4	12 20	-5	22 30	-11					
BRISBANE	83.61	190.0	12 37	6	22 56	3					
TOLEDO	83.93	350.7	12 35	2	23 11	14					
HELWAN	85.42	320.1	12 41	0	23 11	0					
ALGIERS UNI.	86.16	344.7	12 53	9	23 19	1					
SETIF	86.34	342.7	12 41	-4					16 1	PP	
GRANADA	86.57	350.0	12 59A	13							
ALMERIA	86.73	349.1	12 58K	11							
MALAGA	87.10	350.6	12 48A	-1							
RELIZANE	87.51	346.5	13 6	15					16 39	PP	
RIVERVIEW	90.15	190.6	13 18A	15							
TAMANRASSET	99.41	339.9	13 49	3					17 44		
LA PAZ	124.39	66.5	19 15	14							
BROKEN HILL	126.37	302.4							19 6		
CAPE HALLETT	128.10	177.6	19 14	6					39 21	SS	
SCOTT BASE	133.61	179.2	19 28	9							
KIMBERLEY	140.26	296.1							19 31		
BYRD STATION	142.37	163.9	19 23	-12					23 16	SKP	
MAWSON	143.65	219.4	19 35	-2							
SOUTH POLE	145.83	180.0	19 37	-4				19 49	20 39		

AUGUST 24 5.H 49.M 4.S EPICENTRE -19.34-173.89 DEPTH= 44.KM

A=-0.93890 B=-0.10043 C=-0.32921 D=-0.1064 E= 0.9943
G= 0.3273 H= 0.0350 K=-0.9443 HT= 4.8

DEPTH OF FOCUS= 0.002R

SE= 3.08

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
AFIAMALU	5.77	20.9	1	18A	-7	2	21	-10					
SUVA	7.37	278.0	1	56	8	3	26	15					
NOUMEA	18.61	257.5	4	17	1						5	29	
ONERAHI	19.36	209.9	4	28	3								
KOUMAC	20.55	262.9	4	35	-2								
KARAPIRO	20.68	204.2	4	37	-2						5	40	
TUAI	20.89	199.9	4	39	-2	8	26	0					
TONGARIRO	21.80	202.6	4	48	-2								
WELLINGTON	23.91	201.4	5	15	4	9	28	7					
COBB RIVER	24.50	204.9	5	19	3	9	42	11					
KAIMATA	26.24	205.1	5	37	4	10	26	26					
GEBBIES PASS	26.79	202.0	5	37	-1	10	19	10					
BRISBANE	31.55	249.0	6	18	-2	11	14	-11					
RIVERVIEW	34.24	237.9									8	12	PPP
CANBERRA	36.36	236.3	7	1	-1				7	14			
CHARTERS TS.	37.46	262.0	7	9	-2								
PORT MORESBY	38.92	279.1	7	24	1	13	31	13			14	0	
MELBOURNE	40.17	233.9	7	33	0								
KIPAPA	43.39	21.8	8	5	5								
ADELAIDE	44.53	239.5	8	10	1								
GUAM	52.17	305.5	9	10	2								
CAPE HALLETT	53.76	186.0	9	21	1	17	2	12					
SCOTT BASE	59.31	184.7	10	0	0								
MUNDARING	63.30	243.3	10	26	-1								
BYRD STATION	65.16	171.0	10	38	-1								
WILKES	66.67	205.2	10	46	-2	19	38	3					
SOUTH POLE	70.78	180.0	11	13	-1				11	28	12	9	
MATUSIRO	71.66	321.0	11	19	0								
MIRNY	73.67	204.6	11	31	0								
BERKELEY	74.78	40.0	11	38	1	21	17	8			25	56	SS
LICK	74.82	40.8	11	38K	1								
PASADENA	75.10	45.2	11	38	-1	21	22	9			25	56	SS
SHASTA	76.52	37.7	11	48	1								
MINERAL	76.76	38.4	11	49A	1								
RENO	77.32	39.9	11	54	2								
TUCSON	79.19	50.3	12	3	1								

TUCSON TELE.	79.31	50.2	12 4	1					
EUREKA	79.65	41.8	12 9	5					
ARGENTINE I.	80.50	156.3	12 13	4					
GLEN CANYON	81.12	45.9	12 14	2					
HONG KONG	81.55	297.1	12 18	4	21 31 -50				
SALT LAKE C.	82.99	42.5	12 22	0					
PENTICTON	83.58	32.3	12 25	0					
CHANGCHUN	83.90	320.6	12 27	1	23 9 24				
FLAMING GRGE	84.66	43.4	12 31	1					
BUTTE	85.43	37.8	12 34	0					
HUNGRY HORSE	85.93	35.3	12 36	0					
COLLEGE	86.30	10.8	12 38	0	23 12 3	12 51		13 0 *SP	
PEKING	87.83	313.8	12 43	-3	23 41 18				
SANTA LUCIA	90.03	125.5	12 56	0	23 48 4			23 30 SKS	
RAPID CITY	90.19	42.9	13 3	6					
KUNMING	92.30	295.7	13 12	5	24 36 32				
FAYETTEVILLE	93.23	53.0	13 11K	0					
HUANCAYO	93.97	104.1	13 25	11					
ST. LOUIS 1	97.07	51.7			24 5 4			24 57 S	
LA PAZ	98.81	110.9	13 46	10					
BOGOTA	100.77	88.9						24 35	
PALISADES	109.82	52.4	18 29	777	25 11 11			19 13 PP	
QUETTA	124.26	293.8	18 58	4					
KIMBERLEY	128.90	201.2	19 1	-2					
SKALSTUGAN	135.59	356.1	19 32	16					
NURMIJARVI	136.80	346.7	19 15	-3					
WARSAW	145.16	343.9	19 35	2		19 49		22 46	
SIMFEROPOL	145.46	324.0	19 35	2					
WITTEVEEN	146.58	359.4	19 41	6					
DE BILT	147.30	1.1	19 42	6					
KEW	147.54	7.5	19 41	4					
HALLE	147.58	353.2	19 44	7				19 55 PKP2	
COLLMBERG	147.65	351.9	19 41	4				23 21 PP	
JENA	148.18	353.4	19 42	4				23 24 PP	
BENSBERG	148.44	358.7	19 45K	7					
UCCLE	148.58	2.1	19 54	16		20 4			
PRAGUE	148.63	349.7	19 49	11					
PRUHONICE	148.69	349.5	19 46	7				22 48	
LWIRO	149.05	228.6	19 47	8					
KSARA	149.85	304.6	19 47K	7				23 23 PP	
VIENNA-H.	149.98	346.2	19 48	7					
PARIS	150.46	4.9	19 55	14					
STUTTGART	150.53	355.7	19 44	3					
STRASBOURG	150.80	357.7	19 51	9					
JERUSALEM	151.06	301.1	19 46	4				20 11 PKP2	
BESANCON	152.16	0.2	20 3	19					
LJUBLJANA	152.47	347.3	19 48	4					
SOFIA	152.54	331.7	19 42	-2					
TRIESTE	153.01	348.1	19 45	0		19 56			
ISOLA	155.22	358.4	20 0	12				20 17 PKP2	
ROME	156.87	347.8	19 53A	3				24 10 PP	
TOLEDO	157.74	21.0	20 34	43					
GRANADA	160.30	23.5	20 51K	57	27 28 35			24 48 PP	
MALAGA	160.38	25.9	20 43A	49					
ALGIERS UNI.	162.43	8.2	20 1	5				24 33 PP	
SETIF	163.19	2.0	20 1	4				20 49 PKP2	
TAMANRASSET	176.53	9.0	20 9	4				25 42 PP	

AUGUST 24 19.H 27.M 53.S EPICENTRE 24.55 94.90 DEPTH= 105.KM

A=-0.07778 B= 0.90729 C= 0.41324 D= 0.9963 E= 0.0854
G=-0.0353 H= 0.4117 K=-0.9106 HT= 3.5

DEPTH OF FOCUS= 0.011R

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
TOCKLAI	2.19	357.0	0 36A	0				
SHILLONG	2.93	290.8	0 43A	-3	1 14	-6		0 56 PPP
CHITTAGONG	3.57	232.9	0 52	-3	1 32	-4		
LHASA	6.12	326.7	1 29	0				
CALCUTTA	6.32	252.7	1 33	1	2 37	-6		1 39 PP
KUNMING	7.14	83.8	1 46	3	3 9	6		
CHATRA	7.33	289.6	1 44	-2	3 0	-8		
CHENGTU	10.11	51.0	2 23	0	4 14	-1		

PORT BLAIR	12.98	189.5	3 1	0				5 26	
DEHRA DUN	16.02	294.7	3 43	3	6 27	-7		6 42	SS
HYDERABAD	16.91	248.4	3 46K	-5				7 25	
CANTON	16.94	91.2	3 52A	0					
HONG KONG	17.83	93.3	4 1	-1	7 26	11	4 4	4 30	*SP
MADRAS	18.04	233.1	4 5	0	7 12	-7			
LAHORE	19.43	295.6	4 20	0					
POONA	20.47	257.1	4 31	0	8 6	-3		8 24	SSS
MEDAN	21.17	169.5	4 41A	3	8 31	9			
BOMBAY	21.26	259.0			8 17	-7		5 4	
NANKING	22.29	65.0	4 52	3	8 50	8			
WARSAK DAM	22.40	300.2	4 56	6	8 50	6			
PEKING	23.61	44.1	5 2	0					
ALMATA	23.79	326.1	5 6	2	9 16	8			
ZO-SE	24.11	68.4	5 7	0					
ANDIJAN	24.81	316.1	5 14	1	9 38	13			
NAMANGAN	25.38	315.8	5 21	2					
QUETTA	25.41	289.0	5 19	0	9 32	-4	5 48	6 4	PP
STALINABAD	26.17	308.5	5 27	1					
IRKUTSK	28.59	12.1	5 48	0					
MATUSIRO	38.87	61.7	7 15	-1					
TIFLIS	44.66	305.2	8 5	1					
TIKSI	50.85	13.2	8 50	-2	15 59	1			
KSARA	51.74	294.6	9 7	8					
JERUSALEM	52.55	292.2	9 5	0				11 21	PP
SIMFEROPOL	52.65	308.8						16 56	PCP
ADDIS ABABA	55.55	264.0	9 42	16					
HELWAN	56.16	290.5	9 55	24				10 15	
ISTANBUL KA.	56.47	304.2	9 55	22				10 11	
APATITY	56.73	336.2	9 34K	-1					
HELSINKI	59.06	326.8	9 50	-1					
SODANKYLA	59.24	335.3	9 52	0					
NURMIJARVI	59.24	327.2	9 51	-1			10 16	10 31	*SP
LWOW	59.46	314.7	9 53	-1				10 17	
MUNDARING	59.78	159.1	9 54	-2				10 20	
PORT MORESBY	61.11	117.0	10 5	0					
KIRUNA	61.65	335.4	10 8	-1				10 32	
UPPSALA	62.74	326.4	10 15	-1					
SKALSTUGAN	65.04	330.7	10 30	-1				10 49	
PRUHONICE	65.54	315.6	10 34	0				10 57	
GOTEBORG	65.86	324.3	10 34	-2					
LJUBLJANA	66.26	311.4	10 37A	-2				11 4	
COLLMBERG	66.28	317.2	10 37	-2				13 23	PP
CHARTERS TS.	66.84	127.0	10 41	-1				11 36	
TRIESTE	66.87	311.1	10 42	-1					
HALLE	66.89	317.6	10 43	0				11 8	PCP
JENA	67.23	317.0	10 44	-1				11 29	
STUTTGART	69.15	315.1	10 56	-1				11 21	PCP
LWIRO	69.36	257.5	11 0A	2				15 4	PCP
HEIDELBERG	69.36	315.8	10 57	-1				11 23	PCP
STRASBOURG	70.17	315.2	11 2	-1					
MONACO	71.71	310.3	11 12	0					
ISOLA	71.85	310.8	11 13K	0				13 54	PP
ADELAIDE	72.31	143.4	11 15	-1			11 43		
PARIS	73.46	316.4	11 22	0					
DURHAM	73.90	323.2	11 25A	0	20 45	-2			
KEW	74.30	319.7	11 27	0					
BROKEN HILL	75.51	246.5	11 36A	2					
SETIF	75.56	303.4	11 33	-2			12 3	12 21	*SP
BRISBANE	76.03	129.1	11 39	2				12 6	
ALGIERS UNI.	77.13	304.6	11 43	0			12 23		
MELBOURNE	77.85	141.6	11 48	1			12 14		
BULAWAYO	78.31	241.5	11 50A	0					
CANBERRA	78.53	137.5	11 50A	-1			12 18		
COLLEGE	78.73	22.8	11 50	-2			12 20		
RELIZANE	79.39	304.4	11 56	0			12 25		
TAMANRASSET	80.32	290.6	12 2	1				12 32	
RESOLUTE	80.81	2.6	12 3	0					
KIMBERLEY	85.75	235.9	12 29A	1					
HUNGRY HORSE	102.93	19.3	18 2	255					
PALISADES	113.95	350.8						35 36	SS
SOUTH POLE	114.41	180.0	18 27	0				29 7	PKKP
BYRD STATION	122.54	173.3	18 43	0				28 38	PKKP
LA PAZ	162.21	293.6	19 52	4				20 43	PKP2

AUGUST 25 17.H 41.M 54.S EPICENTRE 52.52-169.67 DEPTH= 0.KM

A=-0.60113 B=-0.10953 C= 0.79161 D=-0.1793 E= 0.9838
G=-0.7788 H=-0.1419 K=-0.6110 HT= -6.3

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
COLLEGE	16.67	33.7	3 56	-1	7 21	19		
PETROPAVLOVK	19.10	284.1	4 27	0				
SITKA	20.18	63.4	4 39	0				
MAGADAN	22.88	303.5	5 10	3				
VICTORIA	29.28	79.1	6 6	0				
UGLEGORSK	30.24	283.1	6 14	-1				
PENTICTON	31.20	75.5	6 21	-2				
CORVALLIS	31.24	85.9	6 29	5				
HONOLULU	32.43	159.6	6 34	0	11 43	-6		
TIKSI	32.51	328.8						7 37 PP
YAKUTSK	32.91	310.9	6 39	1				
SHASTA	33.97	91.2	6 46	-2				
UKIAH	34.42	94.1	6 57	6				7 35
MINERAL	34.66	91.0	6 59K	5				8 19
HUNGRY HORSE	34.94	74.1	6 54	-2				9 29 PCP
SAN FRANCSCO	35.74	95.2	7 7	4				
BERKELEY	35.79	94.9	7 7A	4	12 37	-4		7 28
RENO	36.24	90.7	7 6	-1				
LICK	36.51	95.1	7 8	-1				
VINEYARD	37.05	95.6	7 12	-2				
FRESNO	38.00	94.2	7 20	-2				
BOZEMAN	38.05	76.2	7 22	0				
TUKUBASAN	38.57	265.4			13 21	-2		15 59 SS
EUREKA	38.63	87.8	7 27	0				
VLADIVOSTOK	39.34	280.2	7 33	0				
MATUSIRO	39.52	267.4	7 33	-1	13 38	0		9 22 PCP
SALT LAKE C.	40.35	83.1	7 40	-1				
PASADENA	40.73	95.9	7 49	4	13 55	-1		
BOULDER CITY	41.55	91.1	7 50	-1				8 14
FLAMING GRGE	41.75	81.2	7 51	-2				11 15
ABUYAMA	42.23	267.6	7 55A	-2				
CHANGCHUN	42.86	285.3	8 1A	-1				
GLEN CANYON	42.88	87.4	10 3	121				
RAPID CITY	43.57	73.5	8 6	-2				10 6 PCP
KHEYS	44.48	350.0	8 11	-4				
NORD	45.34	5.4	8 22	0				
TUCSON	46.51	91.8	8 29	-2				
TUCSON TELE.	46.51	91.6	8 29	-2				
IRKUTSK	49.41	306.2	8 49	-5				
PEKING	50.56	287.0	9 2A	-1	16 18	1		
ZO-SE	53.60	275.2	9 25A	0	17 0	2		9 38 *SP
FAYETTEVILLE	53.96	75.9	9 24K	-4				10 0
NANKING	54.38	277.8	9 29	-2	17 16	7		9 42 *SP
ST. LOUIS 1	54.55	70.9	9 29K	-3	17 6	-5		
OTTAWA	57.85	56.1	9 54	-2				
SHAWINIGAN	58.52	53.5	9 59	-2				
BREBEUF	58.84	54.8	10 0K	-3				
APATITY	59.00	349.9	10 4	0				18 27 PS
MORGANTOWN	59.66	63.5	10 7K	-2				
KIRUNA	59.73	355.6	10 8	-1				
SODANKYLA	59.80	352.8	10 9	-1				12 23 PP
REYKJAVIK	61.01	15.5	10 19K	1				
PALISADES	61.90	58.6	10 23	-1	18 45	-2		12 55 PP
SIDA	61.94	13.8	10 26	2				
WESTON	62.24	55.9	10 24	-2				
COLUMBIA	63.09	68.7	10 29	-3				
CHENGTU	64.18	287.2	10 38	-1	19 19	3		10 51 *SP
CANTON	64.19	274.7	10 41	2	19 21	5		
SKALSTUGAN	64.23	359.0	10 39	0				
HONG KONG	64.28	273.5	10 40	0	19 18	1		
HALIFAX	64.32	49.6	10 43	3				
NURMIJARVI	66.73	352.3	10 54	-1				
HELSINKI	67.04	352.1	10 58	1				
BERGEN	67.36	2.7	10 58	-1				
UPPSALA	67.83	356.0	11 2	0				
KUNMING	69.05	284.1	11 9A	-1	20 18	3		11 22 *SP
MOSCOW	69.78	343.9	11 13	-1				
GOTEBORG	70.13	359.1	11 16	-1				
ABERDEEN	70.20	7.2			21 30	62		29 24
PORT MORESBY	71.87	225.3	11 32	5	20 46	-2		

COPENHAGEN	72.15	358.7	11 27	-2	21 3	12		
DURHAM	72.62	7.2			20 39	-17		
ANDIJAN	72.72	315.3	11 33	1				
NAMANGAN	72.83	315.9	11 33	0				
SHILLONG	75.01	292.4	11 45A	0	21 24	1	14 22	PP
WARSAW	75.23	353.2	11 45	-2				
DE BILT	75.66	3.3	12 1	12	21 48	18		
KEW	75.99	6.8	11 51	0				
HALLE	76.34	359.0	11 54	1			14 37	PP
COLLMBERG	76.53	358.3	11 54	0			12 6	PCP
BENSBERG	76.86	2.0	11 56	0				
JENA	76.92	359.2			22 3	19		
UCCLE	76.93	3.9	11 58	2	22 1	17		
PLAUEN	77.35	358.8	11 58	-1				
LWOW	77.37	351.0	11 59	0	21 50	1		
KRAKOW	77.48	353.7	12 0	1	21 55	5		
CHITTAGONG	77.54	290.3	11 51	-9	22 8	17	12 7	PCP
PRUHONICE	77.81	357.2	12 1A	0	22 18	24	14 32	
HEIDELBERG	78.45	1.1	12 6	1				
DEHRA DUN	78.62	305.3	12 10	4	22 20	18		
WARSAK DAM	78.68	312.0	12 6	0				
PARIS	78.82	5.3	12 8	1				
STUTTGART	79.08	0.7	12 8	0			12 20	PCP
STRASBOURG	79.25	1.7	12 10	1	22 29	20	28 48	SS
TUBINGEN	79.32	0.8	12 12	3				
VIENNA-H.	79.47	355.9	12 12	2				
BRATISLAVA	79.52	355.4	12 11A	1	22 30	18	12 19	PCP
MAKHACH-KALA	79.61	333.2	12 9	-2				
EBINGEN	79.67	0.9	12 12	1				
BOKARO	79.77	295.7			22 31	17		
RAVENSBURG	80.07	0.5	12 14	1				
BASLE	80.30	1.9	12 17A	2				
BESANCON	80.54	3.0	12 16	0				
SIMFEROPOL	80.77	343.1					12 9	PCP
TIFLIS	81.50	334.6	12 22	1				
LJUBLJANA	81.74	357.0	12 21A	-1				
CHARTERS TS.	81.82	221.3	12 19	-4				
CLERMONT-FD.	81.89	5.1	12 23	0				
TRIESTE	82.16	357.6	12 25	1				
BELGRADE	82.65	352.8	12 30A	3	23 11	27	13 54	
GORIS	83.16	332.7	12 30	0				
SAN JUAN	83.56	68.3	12 30	-2				
ISOLA	83.64	2.4	12 33	1				
QUETTA	83.98	313.4	12 34A	0	23 15	17	15 58	PP
MONACO	84.09	2.1	12 35	1				
TEHERAN	85.09	327.6	12 40	1				
ISTANBUL UN.	85.42	345.9	12 42K	1				
ROME	85.94	358.4	12 43A	-1	23 11	-6	24 35	PPS
BRISBANE	86.07	212.9	12 48	4			27 33	
TORTOSA	86.64	7.5	13 6	19				
TOLEDO	87.13	11.0	12 49	0	23 30	2		
CARACAS	89.38	73.6	13 1K	1				
MESSINA	89.54	355.9	13 2	1	23 44	-7	24 57	PS
GRANADA	89.85	11.1	13 3A	1	24 8	15	30 8	SS
MALAGA	90.20	11.8	13 2K	-2			16 38	PP
BOMBAY	90.70	302.9					24 16	
ALGIERS UNI.	90.85	5.8	13 7	0			16 39	PP
KARAPIRO	91.00	191.6	13 5	-3				
KSARA	91.17	338.9	13 7	-1	24 6	1	16 48	PP
SETIF	91.54	4.0	13 11	1			13 54	
RELIZANE	91.68	7.9	13 21	10				
JERUSALEM	93.28	339.0	13 20	2				
TAMANRASSET	104.90	4.6			24 55	5	18 13	PP
BYRD STATION	135.33	169.0	19 23	1			31 0	
BROKEN HILL	139.36	332.4	19 32	2				
SOUTH POLE	142.34	180.0	19 27	-8			23 27	SKP
BULAWAYO	144.69	329.3	19 39	0				
WINDHOEK	149.65	347.5	19 53K	6				
MAWSON	150.87	218.7	19 52	3				
KIMBERLEY	153.94	330.1	19 54	0				

AUGUST 26 18.H 27.M 23.S EPICENTRE -13.44 165.69 DEPTH= 103.KM

A=-0.94281 B= 0.24042 C=-0.23088 D= 0.2471 E= 0.9690
G= 0.2237 H=-0.0570 K=-0.9730 HT= 6.0

DEPTH OF FOCUS= 0.011R

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	
KOUMAC	7.21	190.6	1	42	-2	2	57	-8					
NOUMEA	8.85	175.4	1	58	-8	3	40	-5					
SUVA	13.12	112.6				4	47	-40					
RABAUL	16.20	303.3	3	42	0								
BRISBANE	18.40	219.0	4	9	0	7	32	5					
PORT MORESBY	18.61	280.5	4	13	2						7	46	
CHARTERS TS.	19.74	247.8	4	25	1	8	10	15					
AFIAMALU	21.89	93.9	4	51	6	8	43	7					
ONERAHI	23.57	162.1	5	5	3								
RIVERVIEW	24.23	210.6	5	10A	2				5	18	5	47	PP
KARAPIRO	25.92	162.0	5	25K	1								
CANBERRA	26.49	211.8	5	31A	2	10	12	18					
TONGARIRO	27.09	163.1	5	36	1								
TUAI	27.23	160.2									6	5	
COBB RIVER	28.22	168.7	5	51	6								
KAIMATA	29.40	171.4	5	59	4								
MELBOURNE	30.50	213.5	6	7A	2								
GEBBIES PASS	30.75	170.1	6	7	0								
ADELAIDE	32.45	224.0	6	24A	2								
MANILA	52.25	300.7	9	7	4	16	44	26					
ABUYAMA	55.90	330.1	9	30K	1								
MATUSIRO	56.06	333.4	9	31	1	17	36	27					
LEMBANG	57.44	270.4	9	42K	2								
CAPE HALLETT	58.91	178.4	9	52	2	18	7	21					
ZO-SE	61.54	316.8	10	9	1								
HONG KONG	61.74	304.6	10	1	-9	19	18	56	10	24	13	55	PPP
CANTON	62.79	304.9	10	20	3								
VLADIVOSTOK	64.23	333.1	10	28	2	19	10	16					
SCOTT BASE	64.42	179.8	10	29	2						10	34	PP
PETROPAVLOVK	66.46	355.4	10	40	0								
CHANGCHUN	67.85	329.6	10	52K	3								
PEKING	70.30	321.7	11	6K	2	20	19	13					
MIRNY	70.89	203.9	11	9	1								
KUNMING	72.33	302.1	11	19	3	20	43	13					
CHENGTU	73.71	307.8	11	27K	3	20	59	14					
BYRD STATION	74.22	169.9	11	28	1						14	16	PP
LANCHOW	76.32	312.7	11	43K	4								
SOUTH POLE	76.65	180.0	11	42	1						12	47	
YAKUTSK	80.34	343.7	12	3	2	22	14	17					
CHITTAGONG	80.63	295.7	12	20	17								
SHILLONG	81.62	298.7	12	11K	3								
MAWSON	82.50	202.1	12	14	2								
LHASA	83.65	302.4	12	22	4								
IRKUTSK	84.01	327.2	12	22	2								
UKIAH	84.25	47.7	12	23	2								
BERKELEY	84.48	49.1	12	25A	3								
LICK	84.74	49.8	12	26K	2								
SITKA	85.38	28.0	12	29	2								
SHASTA	85.43	46.5	12	30	3								
COLLEGE	85.57	18.1	12	29	1	22	57	8			17	16	
MINERAL	85.86	47.0	12	31A	2								
FRESNO	85.92	50.9	12	32	3								
CHATRA	86.02	298.6	12	34	4								
CORVALLIS	86.28	42.6	12	34A	3								
PASADENA	86.31	53.8	12	34	3	23	6	10			24	6	PS
VICTORIA	87.74	39.0	12	39	1								
TIKSI	88.40	349.0	12	44	3								
BOULDER CITY	89.48	52.9	12	50	4								
EUREKA	89.65	49.3	12	50	3						16	22	PP
PENTICTON	90.37	39.1	12	52A	1								
TUCSON	91.66	57.4	12	58	1								
TUCSON TELE.	91.77	57.3	12	59	2								
GLEN CANYON	92.26	52.7	13	3	4								
SALT LAKE C.	93.05	48.9	13	6	3								
ARGENTINE I.	93.10	161.2	13	6	3								
HUNGRY HORSE	93.58	41.2	13	7	2						38	9	PKPPKP
BUTTE	93.91	43.7	13	9	2								
BOZEMAN	94.85	44.3	13	15	4								
FLAMING GRGE	94.90	49.2	13	13	2						30	10	PKKP
ANDIJAN	101.13	309.4									17	52	PP
NAMANGAN	101.68	309.5									17	22	
QUETTA	104.10	298.1									18	14	PP
SVERDLOVSK	109.38	325.8	18	23	777								

HUANCAYO	114.41	110.0							18 35	PKP
SHIRAZ	116.55	296.5	18	35A	3				22 12	PP
APATITY	117.68	341.3	18	37	3				29 24	PS
LA PAZ	119.06	117.6	18	43	6					
OTTAWA	119.46	45.3	18	40	3					
SODANKYLA	119.82	343.0	18	38	0					
BREBEUF	120.89	44.8	18	43	3					
KIRUNA	121.14	345.4	18	44	3					
SHAWINIGAN	121.22	43.5	18	44	3					
PALISADES	121.57	50.0							30 5	PS
TIFLIS	121.81	310.9	18	48	6					
WESTON	123.20	48.0	18	48	3					
KIMBERLEY	123.55	221.6	18	51A	6					
NURMIJARVI	125.10	337.6	18	51	3					
HELSINKI	125.21	337.2	18	51	3					
BULAWAYO	126.19	232.4	18	55K	5					
SKALSTUGAN	126.57	345.6	18	54	3					
ADDIS ABABA	127.83	271.1	19	2	9					
HALIFAX	127.94	43.3	18	53	-1					
UPPSALA	128.03	340.2	18	57	3					
SIMFEROPOL	128.39	317.3							21 0	PP
BROKEN HILL	129.39	238.4	19	2K	6					
SAN JUAN	130.06	77.2	19	0	2					
KSARA	130.28	303.0	19	5	7				21 33	PP
JERUSALEM	131.22	300.5	19	5	5				21 40	PP
GOTEBORG	131.54	341.5	19	5	4					
WARSAW	132.09	331.4							22 32	PKS
COPENHAGEN	133.03	339.6	19	8	5				22 40	PKS
ISTANBUL UN.	133.37	314.5	19	20	16					
COLLMBERG	136.26	335.4	19	13	4			19 23	22 2	PP
SOFIA	136.39	319.3	19	14	4					
HALLE	136.52	336.3	19	14	4				21 47	PP
PRUHONICE	136.59	333.0	19	13K	3				20 39	
DURHAM	137.57	349.1				26 12	2			
BENSBERG	138.72	339.5	19	21	7					
LJUBLJANA	139.41	328.9	19	12	-3				22 13	PP
HEIDELBERG	139.45	336.9	19	13	-2					
STUTTGART	139.74	335.8	19	13	-3				22 12	PP
UCCLE	139.77	341.7							22 17	PP
TOLMEZZO	139.90	330.5	19	23	7					
TRIESTE	140.07	329.1	19	21	5				22 18	PP
RAVENSBURG	140.38	334.6	19	21	4					
STRASBOURG	140.48	336.9	19	14	-3				22 20	PP
BASLE	141.41	336.1							20 47	
PARIS	142.09	341.9	19	25	5				22 32	PP
BESANCON	142.26	337.3	19	19	-1				22 42	PP
ROME	143.33	325.7	19	22K	0				23 11	PKS
MESSINA	143.81	318.4	19	29	6				23 33	
ISOLA	144.32	333.3	19	26K	2				20 9	
MONACO	144.51	332.5	19	27	3					
CLERMONT-FD.	144.56	338.8	19	28	4					
SETIF	151.24	325.5	19	40	5			19 55	19 46	PKP2
SERRA PILAR	151.96	350.8	19	33A	-3				19 50	PKP2
ALGIERS UNI.	152.05	329.3	19	47	11					
TOLEDO	152.15	342.9	19	41	5				24 26	PP
RELIZANE	154.07	331.5	19	51	12				23 41	PP
GRANADA	154.49	339.8	20	30A	51				25 6	PP
MALAGA	155.17	340.8	19	48	8				23 44	PP
TAMANRASSET	159.01	299.1	19	50	5				24 10	PP
MBOUR	177.25	69.8	20	20	22				25 46	PP

AUGUST 27 10.H 17.M 20.S EPICENTRE 34.53 26.35 DEPTH= 42.KM

A= 0.73986 B= 0.36646 C= 0.56419 D= 0.4438 E=-0.8961
G= 0.5056 H= 0.2504 K=-0.8256 HT= 0.3

DEPTH OF FOCUS= 0.001R

SE= 3.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ATHENS	4.04	329.0	1	0A	-1	1	49	1			2	10 SG
HELWAN	6.27	136.4	1	29	-3	2	33	-11				
ISTANBUL UN.	6.83	17.0	1	44	4	3	17	19				
JERUSALEM	7.93	107.8	1	50	-6	3	16	-9				
KSARA	7.93	92.4	1	53	-3	3	20	-5				

SOFIA	8.50	344.8	2	8	5	3	58	19		
REGGIO CALA.	9.34	295.5	2	16	1				3	48
TARANTO	9.35	312.0				3	32	-27	6	12
MESSINA	9.45	295.9	2	14	-3				2	43 P*
BUCHAREST	9.88	359.0	2	22	-1	4	35	22		
CAMPULUNG	10.78	355.0							5	25 S*
BELGRADE	11.24	337.9	2	52A	11	6	29	103		
TIMISOARA	11.87	342.3	2	54	4				6	22
SIMFEROPOL	12.00	27.5	2	53	2					
ROME	13.15	308.1	3	7	0	5	46	14	4	6
ZAGREB	13.77	328.1							4	50
LJUBLJANA	14.61	325.5	3	24	-2	6	12	5		
HURBANOVO	14.66	337.8	3	53	27				5	6
TRIESTE	14.69	322.9	3	20	-7	6	49	40	7	49 SGSG
PRATO	15.05	312.9	4	14	43	6	40	23		
BRATISLAVA	15.28	335.9	3	33	-1				4	2 PPP
LWOW	15.38	354.3	3	40	4	6	1	-24		
PADOVA	15.51	318.8	4	10	33	7	35	67	6	42
TOLMEZZO	15.58	323.6	3	40	2				5	18
VIENNA-H.	15.60	334.5				6	21	-9	3	48 PP
TIFLIS	16.18	58.2	3	48	2					
KRAKOW	16.21	345.0	3	45	-1				4	1 PP
RACIBORZ	16.65	341.4							3	58 PP
PAVIA	16.91	314.1				7	35	34		
SETIF	17.17	281.6	3	59	1	6	57	-9	4	12 PP
MONACO	17.29	307.7	4	8	8				4	38
CHUR	17.68	319.2	4	6	1				6	43
PRUHONICE	17.71	334.3	4	3K	-2	7	21	3		
ISOLA	17.73	308.7	4	4K	-1				7	1
PRAGUE	17.82	334.2	4	11	4					
WARSAW	18.11	349.4	4	10	0	7	35	7	4	38 PPP
RAVENSBURG	18.22	321.6	4	9	-2					
MAKHACH-KALA	18.49	56.6	4	16	1	6	54	-42		
TUBINGEN	18.99	322.6	4	20	-1					
PLAUEN	19.02	331.3	4	17	-4	8	5	17	5	10 PP
STUTTGART	19.05	323.5	4	20	-1	7	54	5	5	16
ALGIERS UNI.	19.06	283.5	4	18	-4	7	48	-1	4	33 PP
BASLE	19.15	318.3	4	21K	-2				8	31 SSS
NEUCHATEL	19.20	316.3	4	20	-3				6	53
SONNEBERG	19.33	329.6	4	21	-3	8	9	14	4	46 PP
COLLMBERG	19.35	334.1	4	22	-3	7	49	-6	8	43 PCP
JENA	19.60	331.2	4	24	-3				6	11
STRASBOURG	19.69	321.1	4	27	-1	8	12	9	4 35 8	49 SS
HEIDELBERG	19.74	324.1	4	27	-2					
BESANCON	19.89	315.8	4	27	-4				7	7
HALLE	19.90	332.8	4	30	-1	8	17	10		
TEHERAN	20.50	79.4	4	37	0				10	58
CLERMONT-FD.	20.93	309.4	4	49	8	8	35	8		
RELIZANE	21.12	280.7	4	42	-1				5	6 PP
TORTOSA	21.36	294.7	4	45	-1	8	46	11		
BENSBERG	21.53	325.5	4	46	-1	8	55	16		
TAMANRASSET	21.66	242.8	4	48A	-1	8	51	10	5	16 PP
ALICANTE	21.89	287.9	5	0	9	9	3	18	5	28 PP
DOURBES	22.26	321.0	4	54	-1	8	54	2		
SHIRAZ	22.67	95.1	4	59K	0	7	32	-87	9	53 PCP
PARIS	22.71	316.2	4	58	-1	9	1	1		
UCCLE	22.80	322.2	5	0	0	9	2	0		
WITTEVEEN	23.04	328.5	4	10	-52					
DE BILT	23.22	325.6	5	4	0	9	10	1		
COPENHAGEN	23.23	339.8	5	6	2	9	16	7		
GRANADA	24.37	284.9	5	15K	0	10	9	40	5	33 PP
FOLINIERE	24.42	313.8	5	14	-2					
TOLEDO	24.73	291.4	5	27	8	9	42	7	5	38 PP
MALAGA	25.04	283.9	5	19A	-3	9	43	3	5	57 PP
GOTEBORG	25.12	341.7	5	22	-1					
JERSEY	25.57	313.6	4	52	-35				12	34
KEW	25.62	319.5	5	25	-2	10	2	12		
HELSINKI	25.67	356.4	5	25	-3					
UPPSALA	25.97	349.9	5	29	-2					
NURMIJARVI	26.02	358.1	5	25	-6	10	7	10		
ADDIS ABABA	27.82	152.9	5	50	3					
DURHAM	28.05	324.8	6	11	21	10	56	26		
ABERDEEN	29.71	328.4				11	10	14	12	40 SS
SKALSTUGAN	30.36	347.6	6	7	-3					
SODANKYLA	32.89	0.2	6	23	-9					
APATITY	33.32	4.9	6	34	-2				13	49
KIRUNA	33.52	355.9	6	35	-3					
QUETTA	34.41	85.7	6	46	1				8	2 PP

NAMANGAN	36.09	66.1	7 3	3				
ANDIJAN	36.64	66.4	7 6	2				
LWIRO	36.65	175.9	7 14	10				
WARSAK DAM	37.12	77.6	7 12	4				
SIDA	39.87	331.0	7 30	-1				10 5 PP
KHEYS	47.79	6.7						10 23
NORD	49.70	352.4	8 48	-2				11 20 PPP
CHATRA	52.19	80.9	9 8	-1				
SHAWINIGAN	71.46	314.0	11 18	0				
BREBEUF	72.51	313.4	11 36	12				
OTTAWA	73.81	314.2	11 32	0				
COLLEGE	80.83	357.5	12 10	-1				
MATUSIRO	85.02	48.6	12 30	-2				15 5
ST. LOUIS 1	86.47	315.4	12 39	-1				
HUNGRY HORSE	90.23	334.8	12 58	1				
FLAMING GRGE	94.58	328.0	13 30	13				
SOUTH POLE	124.35	180.0	18 54	-1				21 28 SKP
BYRD STATION	132.44	187.6	19 9	-1				22 36 SKP

AUGUST 27 18.H 16.M 15.S EPICENTRE 50.11 153.99 DEPTH= 186.KM

A=-0.57870 B= 0.28237 C= 0.76510 D= 0.4385 E= 0.8987
G=-0.6876 H= 0.3355 K=-0.6439 HT= -5.5

DEPTH OF FOCUS= 0.024R

SE= 2.65

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SEVERO-KUR.	1.46	66.5	0 30	-3				0 53
PETROPAVLOVK	4.12	43.1	1 4	0	1 54	1		1 41
KURILSK	6.39	222.6	1 31	-2	2 45	-1		
KLYUCHI	7.47	30.9	1 48	1	3 11	0		
OKHA	7.67	300.9	1 54	4	3 22	6		
UGLEGORSK	7.82	267.0	1 55	3	3 25	6		
NEMURO	8.90	223.6	2 3	-3	3 27	-17		
ABASHIRI	8.99	231.1	2 3	-4				
MAGADAN	9.64	350.3	2 18	2	4 12	10		
KUSIRO	9.71	226.4	2 13	-4	3 53	-10		
OBIHIRO	10.33	230.0	2 22	-3				
HIROO	10.76	227.4			4 15	-13		
URAKAWA	11.12	228.6	2 31	-4	3 26	-70		3 5
SAPPORO	11.18	235.8	2 35	-1	4 35	-3		
TOMAKOMAI	11.37	233.6	2 51	13	4 39	-3		
MURORAN	11.90	234.1	2 53	8	4 46	-8		
MORI	12.27	234.4	2 50	1				
HAKODATE	12.38	233.0	2 47	-4				4 54
HATINOHE	12.97	227.1			5 5	-15		
AOMORI	13.10	229.9	2 56	-4	5 11	-11		
MORIOKA	13.79	225.9	3 5	-4	5 23	-15		
MIZUSAWA	14.27	224.6	3 17	2	5 38	-11		
AKITA	14.28	228.6	3 16	1	5 36	-13		
ISINOMAKI	14.76	222.5	3 15	-6	5 43	-17		
SAKATA	15.06	227.3	3 29	4	6 17	11		
SENDAI	15.08	223.3	3 21	-4	5 59	-8		
HUKUSIMA	15.70	223.2	3 27	-5	6 6	-15		
NIIGATA	16.21	226.9	3 25	-14	6 37	5		
SHIRAKAWA	16.33	222.6	3 37	-3	6 25	-10		
VLADIVOSTOK	16.67	253.7	3 42	-2	6 40	-2		
MITO	16.85	220.6	3 39	-7	6 50	4		
UTUNOMIYA	16.96	222.3	3 40	-8	6 46	-3		
KAKIOKA	17.10	221.0	3 40	-9	6 44	-8		
TUKUBASAN	17.14	221.2	3 45K	-5	6 41	-12		
KUMAGAYA	17.51	222.7	3 55	1	6 51	-9		7 22
NAGANO	17.61	226.3	3 56	1	7 5	2		
WAZIMA	17.67	230.5	3 55	-1	7 6	2		
MATUSIRO	17.72	226.0	3 53	-3	7 4	-1		
OIWAKE	17.73	224.9	3 46	-10				
YAKUTSK	17.92	320.9	4 0	2	7 17	8		15 22 SCS
YOKOHAMA	18.01	220.9	4 5	6	7 44	33		
MATUMOTO	18.06	226.0	4 0	0	7 14	2		
TOYAMA	18.06	228.5	4 5	5	7 0	-12		
KOHU	18.28	223.7	4 4	2	7 17	1		
HUNATU	18.33	222.9	4 3	0	7 21	4		
SHIZUOKA	18.93	222.9						7 41

GIHU	19.32	227.0	4 21K	8	7 37	0		
NAGOYA	19.41	226.2	4 13	-1	7 39	1		
HIKONE	19.67	227.8	4 16	0	7 57	14		
KYOTO	20.12	228.4	4 19	-2	7 58	7		
ABUYAMA	20.32	228.4	4 22K	-1				
NARA	20.35	227.6	4 23	0	8 1	5		
CHANGCHUN	20.47	263.2	4 22K	-3			4 58	
SUMOTO	21.07	228.8	4 30	0				
TAKAMATU	21.51	230.4	4 35	0				
SAGA	24.27	235.0	5 1	0				
KUMAMOTO	24.39	233.7	5 7	5				
TIKSI	24.43	341.0	5 5	2	9 12	6	5 44	10 20 *SS
NAGASAKI	24.89	234.9	5 7K	0				
PEKING	28.27	263.8	5 37	-1			6 20	
IRKUTSK	30.72	293.5	5 59K	-1				7 16 PP
ZO-SE	30.97	244.6	6 1	-1				
NANKING	31.69	248.7	6 7	-1				
COLLEGE	33.20	41.5	6 21	0				11 28 PP
LANCHOW	38.50	268.2	7 7K	1				
CANTON	41.56	244.7	7 31K	0				
HONG KONG	41.70	243.1	7 31K	-1	13 3	-31	8 24	
CHENGTU	41.84	261.6	7 32K	-1	13 34	-2	8 13	
KHEYS	41.94	345.9	7 34	0				17 16 SCS
BAGUIO CITY	43.05	230.7	7 42	-1	13 54	0		
MANILA	44.30	228.8	7 56	3				8 38
SEMIPALATNSK	45.31	300.2	8 0	-1			8 39	
KUNMING	46.50	257.1	8 9K	-1			8 51	
RESOLUTE	47.48	19.7	8 19	1	15 1	4		16 5
ALMATA	51.10	293.8	8 46	1				
VICTORIA	51.19	57.8	8 46K	0				
SVERDLOVSK	51.80	315.7	8 51	0				
NHATRANG	52.57	240.1	9 56	60				11 10 SP
FRUNSE	52.73	294.7	8 58	0				
PENTICTON	52.76	55.1	8 57K	-1				
SHILLONG	53.10	266.6	10 0	60				
CORVALLIS	53.59	61.7	9 4A	0				
RABAUL	54.11	182.2	9 6	-2				9 40
APATITY	54.50	336.0	9 9	-2			9 53	10 10 PCP
CHITTAGONG	55.41	263.9	9 18K	1	16 49	4	10 11	11 31 PP
HUNGRY HORSE	56.28	53.3	9 23	0			10 2	14 1 SCP
SODANKYLA	56.34	338.3	9 22	-2			10 5	10 17 PCP
SHASTA	56.54	64.9	9 26A	1			10 4	
TASHKENT	56.77	296.3	9 27	0			10 11	10 20 PCP
MINERAL	57.22	64.8	9 30A	0			10 9	
KIRUNA	57.35	340.9	9 30	-1				
BERKELEY	58.45	67.4	9 39K	0			10 17	
BUTTE	58.54	54.6	9 40	1			10 17	
RENO	58.79	64.4	9 41	0				
DUZHANBE	58.86	294.1	9 41	0				
BOZEMAN	59.57	54.1	9 49	3			10 27	
VINEYARD	59.72	67.8	9 48K	1			10 26	
LAHORE	60.20	284.6	9 49K	-1				
WARSAK DAM	60.25	288.5	9 50	-1				
FRESNO	60.65	66.8	9 53	0				10 14
EUREKA	61.04	62.2	9 57	1			10 35	12 10 PP
PULKOVO	61.36	331.3	9 58	0	18 5	3		10 38 PCP
MOSCOW	62.02	325.0	10 1	-2				10 39 PCP
NURMIJARVI	62.42	334.4	10 3	-2				12 19 PP
SALT LAKE C.	62.47	58.7	10 6	0			10 45	
HELSINKI	62.62	334.1	10 5	-2				10 44
SKALSTUGAN	62.73	341.8	10 5	-2				
PORT BLAIR	62.81	255.0	10 8	0				
PASADENA	63.41	67.9	10 11	-1	18 34	6	10 49	11 5 *SP
FLAMING GRGE	63.70	57.1	10 14	0			10 51	39 1 PKPPKP
BOULDER CITY	64.10	64.3	10 17	1			10 56	
RAPID CITY	64.69	51.0	10 21	1	18 49	5	10 59	38 54 PKPPKP
UPPSALA	64.84	337.4	10 20	-1				10 51
ASHKABAD	65.26	300.0	10 23	-1				14 34 PPP
GLEN CANYON	65.27	61.5	10 24	0				
QUETTA	65.70	288.4	10 25K	-2			11 17	10 57 PCP
GOTEBORG	68.10	339.1	10 40	-2				11 5
TUCSON TELE.	69.08	64.5	10 48	0			11 24	38 53 PKPPKP
TUCSON	69.08	64.6	10 48	0			11 28	38 53 PKPPKP
LEMBANG	69.46	230.1	10 48K	-2				
TIFLIS	69.59	311.0	10 52	1			11 38	
MADRAS	69.76	266.1	11 12	20				
CHARTERS TS.	70.22	187.7	10 53	-2				11 33
GORIS	70.51	308.6	10 57	1	20 27	34		15 21 PPP
TEHERAN	70.69	302.7	10 58	1				

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LWOW	71.64	328.5	11	3	0	20	9	3			
SIMFEROPOL	71.88	319.6	11	5K	1						
KRAKOW	72.77	331.0	11	10	0					11	25 PCP
DURHAM	73.51	345.5	11	12A	-2	20	34	7			
COLLMBERG	73.66	335.7	11	14K	-1				12 1	11	27 PCP
HALLE	73.75	336.4	11	14	-1	20	33	4			
JENA	74.36	336.4	11	18	-1					12	5
PRUHONICE	74.43	334.2	11	19K	0				12 3	21	56 PS
PLAUEN	74.61	335.8	11	18	-2						
SHIRAZ	74.63	297.8	11	21A	1	20	43	4		21	10 PS
FLORISSANT	74.95	46.8	11	23	1	20	44	1			
SONNEBERG	74.97	336.4	11	23	1						
ST. LOUIS 1	75.14	46.9	11	24K	1	20	48	3	12 4		
FAYETTEVILLE	75.24	51.0	11	24A	0				12 5		
BRATISLAVA	75.30	331.8	11	26A	2					11	32 PCP
BENSBERG	75.41	339.0	11	25	0						
VIENNA-H.	75.45	332.3	11	25K	0						
OTTAWA	75.55	33.7	11	25	-1						
SHAWINIGAN	75.57	31.3	11	25K	-1						
UCCLE	76.19	340.7	11	30	1					12	45 *SP
BREBEUF	76.20	32.3	11	29	0					12	11
KEW	76.47	343.8	11	29	-2					11	57
HEIDELBERG	76.50	337.5	11	31	0						
DOURBES	76.80	340.3	11	33	0						
STUTTGART	76.94	336.9	11	34	1	21	6	2		11	44 PCP
BRISBANE	77.16	181.1	11	41	6					12	17
ISTANBUL KA.	77.17	320.5	11	32A	-3						
BELGRADE	77.19	328.1	11	35K	0					12	21
TUBINGEN	77.21	336.9	11	35	0						
STRASBOURG	77.49	337.8	11	36K	0				12 9	14	30 PP
EBINGEN	77.56	336.9	11	37	0						
RAVENSBURG	77.77	336.3	11	40	2						
SOFIA	78.01	325.1	11	39	0						
TOLMEZZO	78.11	333.6	11	33	-7						
BASLE	78.51	337.5	11	43	1						
TRIESTE	78.57	332.8	11	42	0						
CHUR	78.65	336.0	12	43	60						
FOLINIERE	79.09	343.1	11	45	0						
BESANCON	79.16	338.4	11	46	1						
NEUCHATEL	79.16	337.7	11	45	0						
PADOVA	79.34	333.9	11	55	9						
PALISADES	80.01	34.8	11	41	-9	21	37	0		26	53 SS
KSARA	80.14	311.8	11	52K	1					14	56 PP
HALIFAX	80.14	26.2	11	51A	0						
CLERMONT-FD.	81.22	339.8	11	58	2						
ISOLA	81.77	336.6	12	1	2	22	0	5			
ATHENS	81.96	322.5							12 58		
MONACO	82.10	336.2	12	1	0						
JERUSALEM	82.12	311.1	12	2	1					15	12 PP
ROME	82.37	332.0	12	1K	-1	22	4	3		15	51 PP
COLUMBIA	83.16	43.3	12	7	1						
HELWAN	85.57	312.8	12	18	0					13	40
ADELAIDE	85.78	192.5	12	19	0						
MELBOURNE	87.92	187.1	12	30A	0				13 11		
MUNDARING	88.31	211.4	12	30	-2						
TOLEDO	88.33	343.3	12	31A	-1						
SETIF	89.69	335.1	12	38	0						
KARAPIRO	89.70	163.1	12	39	1						
ALGIERS UNI.	89.77	337.0	12	38	0				13 29		
MALAGA	91.46	342.8	12	44A	-2						
TAMANRASSET	102.24	330.4	13	36	1				14 28	17	51 PP
CAPE HALLETT	122.65	174.2	18	34	1						
BROKEN HILL	123.51	289.0	18	38K	3						
BULAWAYO	127.75	284.3	18	32	-11						
SCOTT BASE	127.93	176.6	18	47	3				19 28		
PRETORIA	132.09	279.7	19	26	34						
LA PAZ	132.39	60.6	18	56	4					22	6 PKS
PIETERMZBURG	133.35	274.1	19	6	12						
KIMBERLEY	136.35	279.7	18	49	-10						
WINDHOEK	136.59	293.2	18	52	-8						
BYRD STATION	138.29	164.8	18	54	-9				19 47	22	18 SKP
SOUTH POLE	139.92	180.0	18	57	-9					22	23 SKP

AUGUST 28 6.H 5.M 23.S EPICENTRE 3.85 -82.56 DEPTH= 116.KM

A= 0.12916 B=-0.98937 C= 0.06676 D=-0.9916 E=-0.1295
G= 0.0086 H=-0.0662 K=-0.9978 HT= 7.1

DEPTH OF FOCUS= 0.013R

SE= 3.99

	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
BALBOA HTS.	5.88	30.3	1	29	3	2	43	10				
CHINCHINA	7.01	80.6	1	36A	-5	2	53	-7				
BOGOTA	8.50	84.6	1	58	-4	3	25	-11				
FUQUENE	8.95	79.3	2	4A	-4	3	32	-15				
GALERAZAMBA	9.98	46.0	2	22	1							
CARACAS	16.85	66.1	3	43A	-7	6	47	-5				
HUANCAYO	17.36	155.6	4	0	4	7	23	20				
MERIDA	18.33	338.6	4	10	2						6	46
SAN JUAN	21.62	46.9	4	44	2						5	57
TRINIDAD	22.04	71.0	4	46	0							
TACUBAYA	22.42	314.9	4	57	7				5	24	5	47 PP
ST. VINCENT	22.98	65.0	4	58	3							
FORT FRANCE	23.70	61.5	5	4	2							
LA PAZ	24.75	145.2	5	13	1	9	59	36				
COLUMBIA	30.03	2.5	6	0	0							
FAYETTEVILLE	33.83	342.9	6	31A	-2				6	56	7	3 *SP
ST. LOUIS 1	35.32	349.6	6	44	-2	12	18	8				
FLORISSANT	35.50	349.5				12	20	7				
MORGANTOWN	35.69	3.5	6	51	2							
PALISADES	37.80	10.7	7	18	11	12	55	7			8	37 PP
TUCSON TELE.	38.72	320.3	7	16	2							
TUCSON	38.73	320.1	7	16	2						7	40
SANTA LUCIA	38.77	164.0				13	13	10				
WESTON	39.65	13.1	7	23	1	13	29	13			16	17 SS
OTTAWA	41.81	7.2	7	40A	0							
BREBEUF	42.21	9.4	7	43	0							
GLEN CANYON	42.38	324.8	7	46	2							
SHAWINIGAN	43.37	9.8	7	54	2							
BOULDER CITY	43.67	321.2	7	57	2							
RAPID CITY	44.01	338.6	8	0	3							
FLAMING GRGE	44.09	330.6	8	0	2						11	3
SEVEN FALLS	44.28	11.5	8	3	3							
PASADENA	44.76	316.7	8	7	4	14	52	21			18	19 SS
EUREKA	46.61	324.1	8	20	2						8	45
FRESNO	47.34	318.6	8	31	7							
BOZEMAN	48.51	333.5	8	40	7							
LICK	48.88	318.2	8	31A	-5							
RENO	48.97	321.6	8	38	2							
BUTTE	49.46	332.7	8	44	4							
BERKELEY	49.58	318.4				15	57	18			19	49 SS
MINERAL	50.55	321.4	8	49	0							
HUNGRY HORSE	51.87	333.7	9	0	2							
COLLEGE	76.19	336.5	11	40	3							
MALAGA	78.22	53.4	12	4	16							
TOLEDO	78.72	50.3	11	54	3							
GRANADA	78.89	53.0	12	16K	24	22	2	23				
DURHAM	81.66	35.3				22	0	-8				
KEW	82.16	38.7	12	16	7	22	28	15				
DOURBES	85.25	40.2	12	33	8	22	46	2				
BYRD STATION	85.79	186.0	12	29	2							
TAMANRASSET	86.76	67.5	12	37	5							
ISOLA	87.06	46.1	12	38	4							
STUTTGART	88.35	41.4	12	42	2							
COLLMBERG	90.50	38.7	12	55	5							

AUGUST 29 18.H 0.M 40.S EPICENTRE 34.04 26.54 DEPTH= 122.KM

A= 0.74284 B= 0.37107 C= 0.55722 D= 0.4469 E=-0.8946
G= 0.4985 H= 0.2490 K=-0.8304 HT= 0.5

DEPTH OF FOCUS= 0.014R

SE= 4.93

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ATHENS	4.54	330.5	0	55	-13	1	39	-21				
ISTANBUL UN.	7.25	14.8	1	56	11							
JERUSALEM	7.64	104.8	1	46	-4	3	11	-4				

KSARA	7.76	89.0	1 48	-4	3 20	2		
SOFIA	9.00	344.7	2 3	-5	3 50	2	2 42	
MESSINA	9.81	298.2	2 23	4	4 8	0	4 50	S*
BUCHAREST	10.37	358.2			4 29	7	5 49	
BELGRADE	11.74	338.2	2 44	-1	5 55	61		
SIMFEROPOL	12.36	25.9	2 56	3				
TRIESTE	15.17	323.6					7 0	
LWOW	15.87	354.0	3 43	5				
TIFLIS	16.31	56.6	3 44	1				
SETIF	17.43	283.1	3 53	-4			4 6	PP
MONACO	17.71	308.7	3 59	-1			4 32	
CHUR	18.15	319.9	4 25	20				
ISOLA	18.16	309.6	4 2	-3				
PRUHONICE	18.21	334.6	4 0	-6			4 46	
WARSAW	18.61	349.3					7 32	SS
MAKHACH-KALA	18.63	55.3	4 11	1	7 41	11		
ALGIERS UNI.	19.33	284.8	4 18	0	7 42	-3	4 30	
PLAUEN	19.52	331.7	4 12	-8	8 1	12		
STUTTGART	19.53	324.0	4 13	-7	7 43	-6	4 31	PPP
BASLE	19.62	319.0	4 4	-17				
COLLMBERG	19.86	334.4	4 17	-7			4 55	
JENA	20.10	331.6	4 20	-6	8 5	5	5 9	
STRASBOURG	20.16	321.7	3 59	-28			5 1	
BESANCON	20.35	316.5	4 29	0			8 3	
HALLE	20.41	333.1	4 24	-5			4 59	PPP
TEHERAN	20.44	78.2	4 30	1			5 55	
TAMANRASSET	21.59	244.2	4 40	-1	8 44	17	5 8	PP
SHIRAZ	22.47	94.1	4 54	4			9 5	PKS
DOURBES	22.74	321.5	4 50	-2	8 57	9		
MOSCOW	23.01	16.2	4 52	-3	8 55	3		
UCCLE	23.29	322.7	5 0	3	9 9	12		
GRANADA	24.66	286.0	5 41K	30	10 2	42		
FOLINIERE	24.88	314.4	5 7	-6				
TOLEDO	25.06	292.4	5 10	-4				
MALAGA	25.32	285.0	5 15	-2	9 37	6		
UPPSALA	26.48	349.9	5 17	-11				
NURMIJARVI	26.51	357.9	5 22	-6				
ADDIS ABABA	27.32	152.9	5 39	4				
SKALSTUGAN	30.87	347.6	6 1	-6				
SODANKYLA	33.37	0.1	6 18	-11				
APATITY	33.79	4.8	6 27	-5				
KIRUNA	34.01	355.9	6 30	-4				
QUETTA	34.29	85.1	7 4	28				
COLLEGE	81.32	357.6	12 3	-1				
MATUSIRO	85.22	48.4	12 32	8				
RAPID CITY	89.79	326.3	12 43	-3				
HUNGRY HORSE	90.73	334.9	12 51	1				
SOUTH POLE	123.86	180.0	18 50	6				

AUGUST 30 6.H 45.M 46.S EPICENTRE -21.00-113.36 DEPTH= 304.KM

A=-0.37044 B=-0.85785 C=-0.35620 D=-0.9181 E= 0.3964
G= 0.1412 H= 0.3270 K=-0.9344 HT= 4.4

DEPTH OF FOCUS= 0.043R

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
HUANCAYO	37.42	82.6	6 48	2	12 46	33		
SANTA LUCIA	39.70	117.4	7 6	1	13 14	28	9 4	PPP
TACUBAYA	42.47	20.0					18 37	
LA PAZ	42.95	91.9	7 32	1	14 7	34		
VERA CRUZ	43.36	24.1					21 34	
BALBOA HTS.	44.60	51.5	7 46	2	14 24	27		
CHINCHINA	45.12	59.4	7 50	1	14 34	30	17 36	SS
BOGOTA	46.18	61.0	7 58	1	14 52	33	17 57	SS
FUQUENE	46.94	60.3	8 2	-1				
TUCSON	53.00	2.7	8 47	-1				
TUCSON TELE.	53.09	2.8	8 47	-2				
PASADENA	55.03	355.1	9 1	-2	16 51	31	20 50	SS
CARACAS	55.32	60.0	8 58	-7	16 42	18		
AFIAMALU	55.93	267.1	9 14	5	17 30	58		
BOULDER CITY	56.68	358.6	9 14	0				
FRESNO	57.77	353.9	9 20	-2				

LICK	58.54	352.3	9 27A	0						
BERKELEY	59.15	351.8			17	40	27			
BYRD STATION	59.15	181.3	9 30	-1						
FAYETTEVILLE	59.60	18.0	9 32	-3						
EUREKA	60.21	357.7	9 38	-1					11	49 PP
RENO	60.52	354.3	9 42	1						
HONOLULU	60.64	311.1							21	42
SALT LAKE C.	61.46	1.3	9 46	-1						
MINERAL	61.51	352.8	9 46	-1						
FLAMING GRGE	61.72	3.4	9 49	0						
SHASTA	61.95	352.2	9 50	0						
COLUMBIA	62.76	30.0	9 56	1						
KARAPIRO	62.79	237.3	9 52	-4						
ST. LOUIS 1	63.16	20.2	9 55	-3	18	32	28			
FLORISSANT	63.26	20.0			18	34	29			
RAPID CITY	65.42	8.0	10 13	0						
CORVALLIS	65.88	352.2	10 20	5						
CAPE HALLETT	66.03	199.0	10 16	0	19	14	35			
BOZEMAN	66.38	1.8	10 18	-1						
SCOTT BASE	67.49	193.0	10 24	-1						
MORGANTOWN	67.91	27.3	10 29A	1						
HUNGRY HORSE	69.03	359.5	10 35	0						
SOUTH POLE	69.13	180.0	10 37	1					11	1
PENNSYLVANIA	69.77	28.0			19	54	31			
PALISADES	71.75	30.4	10 55	4	20	15	30		24	41 SS
WESTON	74.04	31.1	11 7	2	20	39	28			
COLLEGE	89.60	346.0	12 25	0						
ADELAIDE	91.89	231.4							21	42
TUKUBASAN	115.13	301.1							32	59 SS
MATUSIRO	116.69	301.2							35	29 SS
DURHAM	119.42	38.2	18 4	-10	25	5	25			
TAMANRASSET	123.61	76.0	18 27	5					20	17 PP
SVERDLOVSK	143.94	5.6	19 0	0						
SIMFEROPOL	144.12	40.7	19 3	3						
KSARA	149.97	58.3	19 22	13					24	6
ADDIS ABABA	150.63	109.7	19 27	17						
TIFLIS	152.31	36.8	19 26	13						
MAKHACH-KALA	152.85	31.8	19 34	21						
STALINABAD	162.39	354.5							20	29
QUETTA	170.85	358.3	19 39	8					24	51 PP

AUGUST 31 22.H 11.M 58.S EPICENTRE 39.10 36.07 DEPTH= 69.KM

A= 0.62897 B= 0.45811 C= 0.62811 D= 0.5887 E=-0.8083
G= 0.5077 H= 0.3698 K=-0.7781 HT= -1.4

DEPTH OF FOCUS= 0.006R

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	
KSARA	5.27	181.7	1	15	-3						2	19	SG
ISTANBUL UN.	5.76	291.9	1	19	-6						2	58	S*
SIMFEROPOL	6.02	346.7	1	24	-5	2	44	7					
TIFLIS	7.16	65.8	1	42	-3	3	13	8					
JERUSALEM	7.34	185.7	1	44	-3	3	6	-4					
GORIS	7.97	83.9	1	57	1								
BUCHAREST	9.15	308.7	2	19	7	4	14	20			5	19	SG
MAKHACH-KALA	9.46	62.2	2	16	0								
HELWAN	10.00	204.4	2	21	-2	4	18	3					
SOFIA	10.29	294.5	3	9	42	5	21	59			3	52	
TEHERAN	12.63	100.6	3	2	3						7	44	
TIMISOARA	12.82	306.0									6	50	
LWOW	13.72	325.3	3	10	-3	5	54	10					
KRAKOW	15.84	319.0	3	44	4						6	47	SS
BRATISLAVA	16.42	309.7									4	11	
SHIRAZ	16.51	119.8	3	45K	-4				3	52	10	14	SCS
MOSCOW	16.67	3.1	3	47	-4								
WARSAW	16.78	326.4									7	11	SS
VIENNA-H.	16.89	309.2	3	57	4						4	13	PP
LJUBLJANA	17.30	300.6	4	2	4								
TRIESTE	17.71	298.9									9	21	
ROME	18.14	286.4	4	7	-2	7	37	11					
PRUHONICE	18.73	312.5	4	13	-3	7	50	11					
PRAGUE	18.84	312.6	4	17	0								
COLLMBERG	20.22	314.6	4	25	-7						6	4	

PLAUEN	20.34	311.9	4	32	-1					
SONNEBERG	20.85	310.9	4	36	-2				9	37
JENA	20.86	312.5	4	36	-3				5	0 PP
HALLE	20.90	314.3	4	40	1	8	29	6	4	56
RAVENSBURG	20.99	303.0	4	41	1					
STUTTGART	21.48	305.5	4	46	1	8	41	7	5	55
EBINGEN	21.52	303.8	4	45	0					
TUBINGEN	21.55	304.7	4	47	2					
MONACO	21.92	291.4	5	10	21					
HEIDELBERG	22.02	306.8	4	51	1					
ISOLA	22.21	292.6	4	50	-2				5	21 PP
HELSINKI	22.22	345.3	4	52	0					
BASLE	22.28	301.5	4	46	-7					
STRASBOURG	22.39	304.3	4	59	5				6	39
NURMIJARVI	22.60	345.2	4	53	-3				9	23
COPENHAGEN	22.86	324.3	5	0	2	9	5	6		
BESANCON	23.29	300.3	5	5	2					
UPPSALA	23.82	336.7	5	7	-1					
SVERDLOVSK	23.97	34.2	5	8	-1					
GOTEBORG	24.31	327.8	5	10	-2					
SETIF	24.40	272.9	5	13	0				5	55 PPP
QUETTA	26.82	99.9	5	39	3					
NAMANGAN	27.21	74.6	5	44	5					
ANDIJAN	27.77	74.9	5	45	0					
SKALSTUGAN	28.32	337.6	5	51	1					
APATITY	28.54	357.9	5	48	-3	10	41	8	13	30
SODANKYLA	28.81	352.4	5	52	-2					
WARSAK DAM	28.84	89.0	5	57	3					
ADDIS ABABA	30.04	174.7	6	10	5					
KIRUNA	30.06	348.2	6	2	-3					
TAMANRASSET	30.65	246.9	6	9	-1					
CHATRA	44.06	90.3	8	3A	0					
SHILLONG	48.35	88.8	8	35	-2					
HALIFAX	69.74	311.4	11	3	-2					
MATUSIRO	76.08	54.2	11	41	-1					
COLLEGE	76.32	1.7	11	42	-1					
PALISADES	77.91	313.3							27	40 SS
HUNGRY HORSE	88.97	340.6	12	48	0					
EUREKA	97.71	338.5	13	29	0					
SOUTH POLE	128.91	180.0	19	1	1					
KARAPIRO	148.45	100.9	19	40A	5					

SEPTEMBER 1 7.H 34.M 47.S EPICENTRE -27.28-176.49 DEPTH= 102.KM

A=-0.88836 B=-0.05455 C=-0.45589 D=-0.0613 E= 0.9981
G= 0.4550 H= 0.0279 K=-0.8900 HT= 2.7

DEPTH OF FOCUS= 0.011R

SE= 3.02

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	10.22	331.7	2	17	-8	4	35	17				
ONERAHI	11.50	220.4	2	44	2							
KARAPIRO	12.56	210.3	2	48	-8						3	9
TUAI	12.66	203.3				5	4	-12				
AFIAMALU	14.01	19.2	2	59	-16	4	35	-73				
WELLINGTON	15.71	205.0	3	38	2	6	12	-15			7	48
NOUMEA	16.27	284.0	3	44	1						7	14
KAIMATA	18.12	209.9				7	8	-13				
GEBBIES PASS	18.59	205.4				7	13	-18				
BRISBANE	27.27	262.6	5	35	-1	10	47	41				
RIVERVIEW	28.55	248.8	6	5	17						9	44
CANBERRA	30.44	246.1	6	7	2							
MELBOURNE	33.94	242.1	6	34A	-1				8	10		
PORT MORESBY	38.63	290.4	7	13	-1							
ADELAIDE	38.85	247.3	7	15	-1						8	51
CAPE HALLETT	45.66	185.6	8	14	2	15	7	21				
SCOTT BASE	51.24	184.5	8	56	1						10	40 PP
BYRD STATION	57.76	170.0	9	41	-1				11	18		
WILKES	58.52	206.9									25	58
SOUTH POLE	62.88	180.0	10	16	-1				11	53		
MIRNY	65.51	206.1	10	33	-1	19	25	16				
MATUSIRO	76.47	323.9	11	38	-2	21	31	15			13	16
VINEYARD	82.11	41.7	12	22	12							

LICK	82.35	41.1	12	13K	1					13	48	
BERKELEY	82.35	40.4	12	9	-3	22	28	11		28	3	SS
PASADENA	82.36	45.4	12	10	-2	22	30	13		31	13	SS
FRESNO	83.06	42.5	12	15	0							
ZO-SE	83.10	310.1	12	14	-1	22	47	22				
HONG KONG	83.18	299.2	12	17	1	22	45	19				
SHASTA	84.22	38.2	12	21	0					13	57	
CANTON	84.25	299.5	12	22	1	23	2	26				
MINERAL	84.42	38.9	12	20K	-2					13	58	
RENO	84.89	40.4	12	24K	0							
NANKING	85.31	309.6	12	27A	1							
BOULDER CITY	85.64	45.7	12	29	1							
TUCSON	86.06	50.7	12	30	0				14	7		
TUCSON TELE.	86.18	50.7	12	30	-1				14	7		
EUREKA	87.11	42.4	12	34	-1				14	11	16	20
SANTA LUCIA	87.32	126.4									22	57
GLEN CANYON	88.31	46.5	12	41	0							
CHANGCHUN	88.58	322.0	12	42	0	23	43	25				
PEKING	91.65	314.9	12	57A	0	24	11	26				
FLAMING GRGE	92.01	44.3	13	26	28						14	32
BUTTE	93.11	38.8	13	9	6							
KUNMING	93.62	296.3	13	6	1	24	26	24				
HUNGRY HORSE	93.73	36.4	13	6	0				14	40		
COLLEGE	94.52	11.9	13	7	-3				14	43		
CHENGTU	95.26	301.7	13	13	0	23	51	13			24	39 S
RAPID CITY	97.56	44.1	13	23	0				14	59		
TOCKLAI	100.76	294.5									24	32
PALISADES	116.40	55.6				25	25	13			20	15 PP
QUETTA	124.94	289.1	18	48	0							
SHIRAZ	137.11	285.1	18	55	-16						22	49 SKP
LWIRO	141.85	223.7	18	22	-58							
MOSCOW	142.45	328.6	19	34	13						22	26 PKS
SKALSTUGAN	143.25	353.5	19	26	4							
NURMIJARVI	143.79	342.4	19	21	-2				20	59		
UPPSALA	146.02	347.3	19	27	0				21	4		
SOTCHI	146.62	308.7	19	29	1							
GOTEBORG	149.01	351.2	19	36	4				21	10		
SIMFEROPOL	149.88	313.9	19	38	5							
KSARA	151.45	291.2	19	36	1						23	33 PP
JERUSALEM	152.11	286.9	19	46	10							
DURHAM	152.28	6.4				25	38	-54			28	26 PKKP
COLLMBERG	154.96	345.9	19	50	10				21	48	22	29 *PKP2
HELWAN	155.46	282.6									21	11
JENA	155.60	347.6	19	37	-4						20	6
PRUHONICE	155.80	342.5	19	59	18						23	45 PP
BENSBERG	156.19	354.3									20	13
BRATISLAVA	156.61	336.7	19	35	-7							
STUTTGART	158.08	349.7	19	43	-1							
STRASBOURG	158.48	352.3	19	46	1						24	8 PP
PARIS	158.49	1.8	19	46	1							
LJUBLJANA	159.33	337.9	19	45	-1						20	23
TRIESTE	159.93	338.7	19	48	2							
TOLEDO	165.95	24.7	19	50	-2							
GRANADA	168.44	29.6	21	6A	72						24	55 PP
MALAGA	168.44	33.5	19	54	0						21	6 PKP2
TAMANRASSET	175.17	202.5	19	59A	2				22	1	25	32 PP

SEPTEMBER 1 9.H 28.M 24.S EPICENTRE -16.49 167.33 DEPTH= 95.KM

A=-0.93601 B= 0.21049 C=-0.28210 D= 0.2194 E= 0.9756
G= 0.2752 H=-0.0619 K=-0.9594 HT= 5.5

DEPTH OF FOCUS= 0.01OR

SE= 3.90

	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	
SUVA	10.73	100.5	2	35	3	4	48	17					
BRISBANE	17.29	228.7	3	54	-3	7	9	5					
RABAUL	19.25	307.7	4	19	0								
ONERAHI	20.20	163.2	4	35	6	8	19	13					
AFIAMALU	20.32	85.6	4	29	-1	8	36	28					
PORT MORESBY	20.88	287.2	4	37	1	8	34	16					
KARAPIRO	22.55	162.9	4	53	0						30	23	PKKP
RIVERVIEW	22.58	217.1	4	54K	1	8	53	4	5	2	5	23	PP
CHATEAU	23.74	164.0	5	6	2								

TUAI	23.84	160.7	5	6	1						
CANBERRA	24.89	217.7	5	16K	1	9	41	12		6	2 PP
WELLINGTON	25.53	166.9				10	14	35			
ROXBURGH	28.95	177.1				10	46	11		12	26 SS
MELBOURNE	28.97	218.4	5	55	2	10	48	13		6	48
FORT NELSON	31.38	208.8				11	23	10			
ADELAIDE	31.50	228.8	6	16	1	11	26	11			
GUAM	37.20	321.8	7	8	4						
MUNDARING	48.66	241.8	8	38	2						
PERTH	48.98	241.9	8	41	2	15	58	24		19	25 SS
MANILA	55.17	301.6	9	26	1	17	20	21			
CAPE HALLETT	55.84	178.9	9	33	3	17	25	17		19	24 SCS
BAGUIO CITY	56.52	303.1	9	36	1	17	32	15			
TUKUBASAN	58.41	334.3	9	51K	3	17	46	5	10 19	12	0 PP
LEMBANG	59.08	271.9	9	58	6	18	11	21			
ABUYAMA	59.32	329.8	10	0K	6						
MATUSIRO	59.48	332.9	9	56	1	18	7	12		19	54 SCS
DJAKARTA	60.00	272.4	10	1	2	18	11	9			
SCOTT BASE	61.39	180.1	10	10	2	18	32	12		11	56 PP
WILKES	61.96	202.5	10	18	6	18	37	10		22	40 SS
HONG KONG	64.76	305.0	10	36A	6	19	16	14		20	43 SCS
ZO-SE	64.84	316.9	10	35	4	19	16	13			
CANTON	65.83	305.3	10	44	7	19	31	16			
NANKING	67.03	316.3	10	42	-3						
VLADIVOSTOK	67.65	332.7	10	53K	4	19	52	15			
MIRNY	68.76	204.4	10	57	1	20	3	13			
PETROPAVLOVK	69.63	354.4	11	4	3	20	11	11			
MEDAN	70.66	279.9	11	19	12					12	49
BYRD STATION	70.96	169.8	11	10	1						
CHANGCHUN	71.27	329.2	11	14	3	20	33	14			
SOUTH POLE	73.61	180.0	11	26	1					11	55
PEKING	73.66	321.4	11	29	4	21	2	16			
KUNMING	75.28	302.2	11	39K	5	21	20	16			
CHENGTU	76.81	307.7	11	48	5	21	36	15			
PAOTOW	77.76	319.0	11	54	6	21	50	19			
LANCHOW	79.53	312.5	12	3	5						
CHITTAGONG	83.36	295.5	12	22	4	22	48	19		15	38 PP
YAKUTSK	83.70	343.2	12	22	3						
SHILLONG	84.46	298.6	12	27	4	22	55	15			
BERKELEY	85.29	48.4	12	29	2	22	55	7			
LICK	85.52	49.1	12	59	31						
CALCUTTA	86.42	294.6				23	22	23			
LHASA	86.61	302.1	12	39	5	23	18	17			
FRESNO	86.63	50.2	12	37	3						
MINERAL	86.80	46.4	12	39	4						
PASADENA	86.85	53.2	12	43	8	23	5	2		29	12 SS
IRKUTSK	87.42	326.8	12	42	4	23	22	13			
RENO	87.72	47.7	13	6	27						
COLLEGE	87.97	17.5	12	39	-1	23	12	-2			
CHATRA	88.86	298.3				23	21	-1			
BOKARO	89.08	295.1				23	22	-2			
COLOMBO	89.51	277.3				23	26	-2			
ARGENTINE I.	89.71	160.7	12	51	2						
BOULDER CITY	90.07	52.5	12	53	3						
EUREKA	90.45	48.9	12	55	3					16	17 PP
MADRAS	90.95	283.2				23	27	-14			
TUCSON	91.98	57.1	13	3	4						
TUCSON TELE.	92.09	57.0	13	2	2						
KODAIKANAL	92.72	279.8								23	10
FLAMING GRGE	95.69	49.1	13	17	1						
DEHRA DUN	97.54	299.3				24	10	18			
BOMBAY	99.33	287.0				24	15	14		25	11
ANDIJAN	104.26	308.7	18	4	250						
NAMANGAN	104.83	308.8	18	19	262						
SANTA LUCIA	105.71	132.6				24	40	9		26	4 S
QUETTA	106.90	297.1	14	8	777	24	58	22			
KHEYS	109.28	350.6				24	45	-1		19	0 PP
FLORISSANT	109.62	54.1				24	54	6		28	22 PS
ST. LOUIS 1	109.71	54.3				24	51	3		28	15 PS
LA PAZ	116.25	118.2				25	38	25		19	55 PP
BOGOTA	118.71	93.8				25	36	14		29	55 PS
SHIRAZ	119.29	295.0	19	13	35					21	8 PP
TEHERAN	120.36	302.0	18	47	7	25	47	19			
APATITY	121.06	341.1								28	16
PALISADES	122.26	51.7				25	50	16		20	20 PP
KIRUNA	124.47	345.4	18	53	5						
TIFLIS	124.97	309.6								18	55 PP
MOSCOW	125.40	327.7	18	55	5						

PULKOVO	126.76	334.5	18 59	7			22 22 PKS
SOTCHI	128.26	312.8					21 4 PP
NURMIJARVI	128.51	337.5	19 0	4			
UPPSALA	131.43	340.1					22 43 SKP
SIMFEROPOL	131.68	316.1	19 16	14			
KSARA	133.23	301.1	19 11	6			21 44 PP
JERUSALEM	134.08	298.4	19 12	6			21 41 PP
GOTEBORG	134.92	341.6					22 47 SKP
LWIRO	135.01	249.4	19 18	10			
LWOW	135.49	326.5	19 15A	6			29 47
KRAKOW	137.45	329.1					22 8 PP
HELWAN	137.66	296.4	19 21	8			22 9 PP
COLLMBERG	139.68	335.1	19 23	6			22 22 PP
SOFIA	139.71	317.9					22 16
PRUHONICE	140.01	332.6	19 19	2			22 19 PP
BRATISLAVA	140.09	328.8	19 11	-6			22 14 PP
JENA	140.53	335.9	19 21	3			19 48
DE BILT	141.75	342.2	19 26	6			41 16 SS
BENSBERG	142.11	339.5	19 22	1			
LJUBLJANA	142.82	328.2	19 24	2			22 36 PP
HEIDELBERG	142.86	336.8	19 23	1			
STUTTGART	143.15	335.6	19 22	-1			26 13 PPP
TUBINGEN	143.43	335.6	19 25	2			
TRIESTE	143.49	328.4	19 25	2			22 44 PP
KEW	143.74	346.9	19 23	-1			
RAVENSBURG	143.80	334.3	19 26	2			
STRASBOURG	143.89	336.8	19 27	3			22 36 PP
CHUR	144.57	333.4	19 28A	3			
PARIS	145.47	342.2	19 31	4			23 2 PP
NEUCHATEL	145.51	336.1	19 32	5			
BESANCON	145.67	337.3	19 32	5			
PRATO	146.07	328.5	19 36	8			22 36 PP
FOLINIERE	146.30	345.4	19 33	5			
ROME	146.72	324.7	19 39K	10	26 45 19		25 57
MESSINA	147.11	316.7	19 40	10			24 50
ISOLA	147.75	332.9	19 38	7			
MONACO	147.93	332.0	19 38	7			
CLERMONT-FD.	147.96	339.0	19 39	8			
BAGNERES	151.34	340.2	19 47	11			
TORTOSA	153.21	337.4					22 39
ALGIERS UNI.	155.46	328.4	19 49	7			23 52 PP
TOLEDO	155.51	343.8	19 44	2			23 32 PP
ALICANTE	155.73	336.2	19 51	9	26 56 19		23 59 PP
GRANADA	157.88	340.5	20 25A	40			24 12 PP
MALAGA	158.56	341.6	19 49A	3	26 37 -3		24 46 PP
TAMANRASSET	161.76	292.9	19 54	5		20 11	24 27 PP
MBOUR	175.36	116.3	20 5	7			25 30 PP

SEPTEMBER 1 10.H 35.M 5.S EPICENTRE -15.54 167.48 DEPTH= 0.KM

A=-0.94100 B= 0.20888 C=-0.26623 D= 0.2167 E= 0.9762
G= 0.2599 H=-0.0577 K=-0.9639 HT= 5.6

SE= 4.65

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	10.80	105.4	2 46	7				
BRISBANE	18.04	226.8	3 58	-16	7 16	-17		
RABAUL	18.81	305.2	4 26	3	8 7	16		
AFIAMALU	20.12	88.1	4 34	-4	8 39	20		
PORT MORESBY	20.76	284.7	4 43	-2	8 41	8		
ONERAHI	21.07	164.3	4 36	-12	8 23	-16		
KARAPIRO	23.41	163.8	4 57	-14				
RIVERVIEW	23.43	216.1	4 59K	-13				5 28 PP
CHATEAU	24.61	164.8	5 11	-12				
TUAI	24.68	161.7	5 7	-17				
CANBERRA	25.73	216.7	5 22	-12	9 46	-15		6 1 PP
WELLINGTON	26.41	167.6			10 20	8		
MELBOURNE	29.81	217.6	5 58	-13	10 48	-19		11 20 *SS
ROXBURGH	29.89	177.4			10 55	-13		
ADELAIDE	32.24	227.8	6 19	-13	11 25	-20		
FORT NELSON	32.29	208.2			11 25	-21		
PERTH	49.57	241.2	8 50	-5	16 0	-3		
MANILA	54.81	300.9	9 35	1	17 15	1		
BAGUIO CITY	56.13	302.4	9 41	-3	17 39	7		
CAPE HALLETT	56.78	179.0	9 36	-12	17 27	-13		19 25 SCS

TUKUBASAN	57.62	333.9	9	53K	-1	17	51	-1	10 23	12	4	PP
ABUYAMA	58.58	329.4	10	2A	1							
MATUSIRO	58.71	332.6	10	2	0	18	14	8		20	0	SCS
DJAKARTA	60.12	271.8	10	4	-7	18	20	-4				
SCOTT BASE	62.33	180.2	10	16	-10	18	42	-10		20	12	SCS
WILKES	62.89	202.3				18	43	-16		20	10	SCS
ZO-SE	64.25	316.5	10	40	1	19	22	6				
HONG KONG	64.35	304.5	10	39	-1	19	26	9				
CANTON	65.41	304.8	10	49	2	19	38	7				
NANKING	66.45	315.9	10	55K	2	19	50	7				
VLADIVOSTOK	66.88	332.4	10	56	0							
PETROPAVLOVK	68.70	354.3	11	8	1	20	19	9				
MIRNY	69.69	204.3	11	0	-13	20	7	-15				
CHANGCHUN	70.53	329.0	11	19	0	20	39	7				
MEDAN	70.65	279.5	11	24	5							
BYRD STATION	71.86	169.9	11	15	-12							
PEKING	73.02	321.2	11	34	1	19	7	-113				
SOUTH POLE	74.56	180.0	11	32	-10					12	4	
KUNMING	74.91	301.9	11	45	1	21	27	6				
CHENGTU	76.36	307.5	11	53	0	21	41	4				
PAOTOW	77.15	318.8	11	59	2	21	56	10				
LANCHOW	79.01	312.3	12	8	1	22	13	7				
YAKUTSK	82.84	343.1	12	27	-1							
CHITTAGONG	83.09	295.4	12	29	0	22	53	5				
SHILLONG	84.14	298.4	12	35K	1							
BERKELEY	84.55	48.4	12	34	-2	22	59	-4				
LICK	84.78	49.1	12	39	2							
SHASTA	85.63	45.8	12	42	0							
FRESNO	85.91	50.2	12	41	-2							
MINERAL	86.03	46.4	12	49	5							
PASADENA	86.16	53.2	12	39	-5	23	16	-2		23	24	S
CALCUTTA	86.17	294.5				23	23	4				
LHASA	86.23	302.0	12	46	1	23	24	5				
IRKUTSK	86.71	326.7	12	46	-1	23	28	4				
RENO	86.97	47.7	12	49	1							
COLLEGE	87.03	17.5	12	46	-2	23	34	7				
BOULDER CITY	89.37	52.4	12	56	-4							
COLOMBO	89.54	277.2				23	30	-20				
EUREKA	89.71	48.8	13	0	-1					16	33	PP
ARGENTINE I.	90.56	160.7	12	56	-9							
MADRAS	90.88	283.2				23	36	-26				
TUCSON	91.33	57.0	13	8	-1							
TUCSON TELE.	91.45	56.9	13	8	-1							
KODAIKANAL	92.71	279.8				23	47	-31				
FLAMING GRGE	94.95	49.0	13	30	5							
DEHRA DUN	97.21	299.4				23	15	-58				
ALMATA	100.86	312.0				24	33	2				
NAMANGAN	104.35	309.0	18	35	267							
QUETTA	106.60	297.3				24	57	-1				
SHIRAZ	119.02	295.5	18	51	0					21	10	PP
TEHERAN	119.98	302.5				25	55	5				
SODANKYLA	122.33	343.2	18	56	-1							
KIRUNA	123.60	345.7	19	1	1							
MOSCOW	124.68	328.1	20	53	111							
NURMIJARVI	127.69	337.8	19	9	1							
SOTCHI	127.73	313.4								21	10	PP
UPPSALA	130.59	340.5								22	39	SKP
KSARA	132.87	301.9	19	17	0					21	51	PP
JERUSALEM	133.76	299.2	19	18	-1							
HELWAN	137.37	297.3	19	26	0					22	19	PP
COLLMBERG	138.88	335.7	19	26	-2					22	29	PP
HALLE	139.13	336.7	19	20	-9				19 30	23	12	PP
PRUHONICE	139.24	333.3	19	26	-3					22	26	PP
BRATISLAVA	139.35	329.5	19	18	-11							
VIENNA-H.	139.65	330.1	19	25	-5							
JENA	139.73	336.4	19	27	-3					23	16	PP
PLAUEN	139.85	335.6								21	50	
BENSBERG	141.28	340.1	19	27	-6							
LJUBLJANA	142.09	329.0	19	29K	-5					22	39	PP
STUTTGART	142.35	336.3	19	29	-6					20	28	
TRIESTE	142.76	329.1	19	31	-4					29	0	SKKS
KEW	142.85	347.4	19	31	-4							
STRASBOURG	143.08	337.5	19	32	-4					22	55	PP
CHUR	143.79	334.1	19	34A	-3							
PARIS	144.61	342.8	19	38	0					24	54	PPP
NEUCHATEL	144.70	336.8	19	37	-2							
BESANCON	144.85	338.0	19	38	-1							
FOLINIERE	145.42	345.9	19	38	-2							

ROME	146.03	325.6	19 41K	0		
ISOLA	146.97	333.8	19 41	-1		19 50 PKP2
CLERMONT-FD.	147.13	339.7	19 45	2		22 55 PP
MONACO	147.17	332.9	19 43	0		
BAGNERES	150.50	341.0	19 51	3		
TOLEDO	154.65	344.7	20 1	7		23 54 PP
ALGIERS UNI.	154.73	329.7	19 52	-2		23 58 PP
LISBON	156.72	353.3	20 27K	30		
GRANADA	157.04	341.5	20 13K	16		
MALAGA	157.70	342.6	19 54K	-4		24 16 PP
TAMANRASSET	161.51	295.7	19 59	-3		24 35 PP
MBOUR	175.54	104.4	20 11	-1		25 35 PP

SEPTEMBER 1 15.H 37.M 13.S EPICENTRE 56.45-153.57 DEPTH= 0.KM

A=-0.49724 B=-0.24719 C= 0.83165 D=-0.4452 E= 0.8955
G=-0.7447 H=-0.3702 K=-0.5553 HT= -7.7
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	
COLLEGE	8.90	16.0	2 12	-1	4 20	25			
SITKA	10.04	79.0	2 27	-2	4 11	-13			
VICTORIA	19.87	100.7	4 34K	-2					
ARCATA	24.67	116.6	5 35	11					
HUNGRY HORSE	25.14	91.9	5 28	0				12 25	
SHASTA	25.65	114.6	5 33K	0				6 13	
MINERAL	26.31	114.1	5 38K	-1				7 23	
UKIAH	26.44	118.0	5 38	-3					
BUTTE	27.31	94.9	5 50	1				10 21	
PETROPAVLOVK	27.36	283.2	5 47	-2	10 23	-5		6 40	PCP
RENO	27.83	113.0	5 52K	-1				9 16	
SAN FRANCSCO	27.87	118.8	5 58	4					
BERKELEY	27.89	118.5	5 53	-1	10 11	-26		6 30	
BRANNER	28.28	118.9	5 56A	-1					
BOZEMAN	28.37	94.1	5 59	1	11 1	17			
RESOLUTE	28.54	28.4	6 1A	1	10 50	3			
LICK	28.61	118.3	5 59A	-1				9 28	
EUREKA	29.87	108.5	6 10	-2					
FRESNO	29.96	116.7	6 11K	-2					
RUTH	30.57	107.8	6 17	-1				11 22	
SALT LAKE C.	31.15	102.3	6 22	-1					
FLAMING GRGE	32.38	99.6	6 33	-1	11 48	0			
PASADENA	32.85	117.7	6 36	-2	11 56	1		8 1	PP
BOULDER CITY	33.10	111.6	6 40	0					
RAPID CITY	33.71	89.7	6 45	0					
GLEN CANYON	34.04	106.9	6 48	0				7 36	
TIKSI	34.24	326.6	6 51	1	12 16	-1			
KIPAPA	35.14	187.2	7 5	7				8 10	
HONOLULU	35.26	187.3	7 7	8	12 49	16		11 49	
YAKUTSK	37.48	311.0	7 16	-1				8 41	PP
TUCSON	38.07	111.2	7 22	0				8 51	PP
NORD	40.27	8.9	7 42A	1					
KHEYS	42.03	352.6	7 58	3				9 35	PP
CHIHUAHUA	43.42	109.5						12 1	
FAYETTEVILLE	44.21	91.4	8 11	-2	14 16	-31			
FLORISSANT	44.39	85.6	8 14	0	14 48	-1			
ST. LOUIS 1	44.58	85.7	8 15	-1	14 51	-1			
CLEVELAND	47.36	76.3	8 39A	1	15 30	-2			
VLADIVOSTOK	47.56	287.0	8 38	-1	15 32	-3			
OTTAWA	47.74	68.5	8 41K	0					
TUKUBASAN	47.97	274.4	8 40	-3	15 32	-9	8 49	8 54	*SP
SHAWINIGAN	48.46	65.5	8 46	0					
BREBEUF	48.75	67.1	8 49K	0	15 51	0			
SCORESBY SD.	48.75	19.5	8 50	1	15 54	2		10 46	PP
MATUSIRO	48.78	276.2	8 47A	-2	15 52	0		12 11	
SEVEN FALLS	49.05	63.8	8 52	1					
MORGANTOWN	49.51	77.0	8 54A	-1				12 24	PPP
PENNSYLVANIA	49.80	74.4	8 56	-1	16 7	1		11 3	
CHANGCHUN	50.51	292.1	9 1A	-1	16 15	-1			
ABUYAMA	51.46	276.7	9 9A	0					
PALISADES	51.75	71.4	9 12	0	16 33	0	9 19	11 23	PP
WESTON	52.12	68.5	9 14A	0	16 37	-1		20 27	SS
REYKJAVIK	54.17	23.8	9 38	8					
IRKUTSK	54.23	312.2	9 29A	-1				12 48	PPP

HALIFAX	54.38	61.5	9 31	0	17 4	-5				
TACUBAYA	54.55	109.7	9 29	-3	17 10	-1				
SIDA	55.31	22.2	9 37	-1						
KIRUNA	55.96	2.7	9 42	-1						
APATITY	56.21	356.8	9 43A	-1	17 29	-4	9 50	11 53	PP	
VERA CRUZ	56.34	106.9						29 23		
SODANKYLA	56.50	359.9	9 46	-1	17 36	-1		10 46	PCP	
PEKING	57.94	295.0	9 56	-1	17 58	2				
SKALSTUGAN	59.81	7.3	10 10	0						
PAOTOW	60.55	299.6	10 14A	-1	18 33	3				
ZO-SE	62.17	284.8	10 25	-1	18 53	2				
BERGEN	62.30	11.7	10 23	-4						
NANKING	62.70	287.3	10 27A	-2	18 58	1				
NURMIJARVI	63.38	1.0	10 33	-1	19 8	2				
HELSINKI	63.72	0.8	10 36	0	19 15	5				
SVERDLOVSK	63.75	339.9	10 35	-1						
UPPSALA	63.84	4.9	10 37	0				11 41		
PULKOVO	64.09	357.8	10 37	-1	19 15	0		12 57	PP	
ABERDEEN	64.43	16.8			19 23	4		19 52	PS	
SEMIPALATNSK	64.58	325.1	10 41	-1						
GOTEBORG	65.61	8.5	10 48	0						
SIAN	66.06	296.0	10 51	0	19 45	6				
DURHAM	66.81	17.2	10 54	-2	19 45	-3				
COPENHAGEN	67.66	8.5	11 2A	1	20 3	5				
MOSCOW	67.81	353.2	11 2	0	20 3	3				
WITTEVEEN	69.89	12.6	11 16	1						
KEW	70.20	17.4	11 17	0	20 32	4		20 51	PS	
DE BILT	70.41	13.7	11 20	2	20 39	8				
POTSDAM	70.98	8.6			20 49	12				
CHENGTU	71.40	297.4	11 23A	-1	20 43	1				
WARSAW	71.60	3.5	11 29	4	20 48	3		14 6	PP	
AFIAMALU	71.73	198.6	11 30	4	20 50	4				
HALLE	71.76	9.5	11 26	0	20 49	3	11 35	14 9	PP	
BENSBERG	71.78	12.7	11 26	-1				14 51	PP	
COLLMBERG	72.05	8.8	11 28A	0	20 55	5		14 12	PP	
JENA	72.29	9.8	11 30	0	20 53	1		14 12	PP	
CANTON	72.74	285.7	11 33A	1	21 1	3				
PLAUEN	72.78	9.5	11 32	0	20 56	-2				
FOLINIERE	72.78	18.3	12 1	29						
HONG KONG	72.94	284.5	11 33A	0	20 57	-3		24 53	SS	
PARIS	73.23	16.3	11 36	1	21 8	5				
PRAGUE	73.38	8.0	11 36	0	21 8	3		14 23	PP	
PRUHONICE	73.48	8.0	11 37A	0	21 10	4		14 27	PP	
SAN JUAN	73.49	81.7	11 38	1						
HEIDELBERG	73.50	12.0	11 37	0						
RACIBORZ	73.62	5.5	11 38	1						
KRAKOW	73.73	4.4	11 37	-1	21 11	2		14 22	PP	
LWOW	74.08	1.6	11 40	0	21 35	22		14 28	PP	
STUTTGART	74.18	11.7	11 41	0	21 13	-1		14 27	PP	
STRASBOURG	74.19	12.8	11 41A	0	21 20	6		14 26	PP	
BAGUIO CITY	74.21	275.9	11 39	-2	21 12	-2				
TUBINGEN	74.39	11.9	11 42	0						
SKALNATE PL.	74.62	4.2	12 46	63						
EBINGEN	74.73	12.0	11 44	0						
RABAUL	74.75	237.0	11 41	-3				14 29		
RAVENSBURG	75.20	11.6	11 47	1						
BESANCON	75.27	14.3	11 48	1				14 39	PP	
VIENNA-H.	75.34	6.9	11 47	0				11 55	PCP	
MANILA	75.35	274.4	11 49	2						
BRATISLAVA	75.46	6.4	11 41K	-7				14 28	PP	
TASHKENT	76.09	328.1	11 52	0	21 38	3		14 42	PP	
CLERMONT-FD.	76.29	16.6	11 54	1				14 44	PP	
KUNMING	76.59	295.1	11 53A	-1	21 40	0				
LJUBLJANA	77.39	8.5	12 3A	4				14 52	PP	
TRIESTE	77.72	9.1	12 0	-1	21 53	0		15 0	PP	
ZAGREB	77.73	7.5	12 1	0	22 1	8		15 9	PP	
LHASA	78.35	306.6	12 6A	2						
BAGNERES	78.40	19.3	12 5	1						
ISOLA	78.42	14.1	12 5	1				15 2	PP	
CHIAVARI	78.57	12.4			24 21	139		27 15	SS	
SIMFEROPOL	78.77	354.4						15 9	PP	
DUZHANBE	78.78	327.4	12 6	0	22 7	3				
BELGRADE	78.98	4.3	12 8K	0	22 7	1		15 23	PP	
PRATO	79.21	11.2	12 26	17	22 26	17				
CHINCHINA	79.22	97.3	12 8	-1				15 19	PP	
COIMBRA	79.30	26.5			22 9	0				
CARACAS	79.48	86.9	12 0	-10	21 55	-16				
BOGOTA	80.36	96.2	12 26	11				15 39	PP	

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LISBON	80.51	27.5	12	17A	1	22	26	4	15	16 PP
TOLEDO	80.63	23.3	12	16A	0	22	27	4	15	31 PP
TORTOSA	80.65	19.7	12	20	4	22	26	2		
TIFLIS	80.98	346.2	12	19	1	22	29	2	15	20 PP
SOFIA	81.19	2.3	12	24	5				15	59
ROME	81.31	10.5	12	22A	2	22	36	6	23	22
SHILLONG	81.46	303.8	12	19A	-2	22	47	15		
PORT MORESBY	81.67	239.0	12	21	-1	22	31	-3	12	49
WARSAK DAM	82.11	323.5	12	23	-1					
ASHKABAD	82.14	335.0	12	26	2				15	35 PP
CHATRA	82.48	308.2	12	27	1					
ALICANTE	82.85	21.0	12	30	2	22	50	4	15	43 PP
ISTANBUL UN.	82.86	358.1	12	29	1	22	50	4		
GORIS	82.94	344.6							22	51 SCS
DEHRA DUN	83.13	316.9	12	33	4	22	50	1	15	26 PP
GRANADA	83.31	23.7	12	30A	0	22	59	8	15	43 PP
LAHORE	83.39	320.4	12	31A	0					
MALAGA	83.57	24.5	12	32K	0	22	48	-5	15	46 PP
ALMERIA	83.88	22.9	12	32	-1	22	59	2		
CHITTAGONG	84.23	302.2	12	35	0	23	1	1	15	51 PP
ALGIERS UNI.	85.04	18.7	12	37	-2				15	40 PP
MESSINA	85.27	8.6	12	41	1	23	19	9	16	7 PP
RELIZANE	85.56	20.9	12	39	-3	23	16	3	16	13 PP
CALCUTTA	85.68	305.1							23	16
BOKARO	85.70	307.8	12	33	-9	23	9	-5		
TEHERAN	85.75	339.9	12	44A	1				16	6 PP
ATHENS	85.92	2.1	12	42	-1					
QUETTA	87.11	325.7	12	50	1	23	31	3	12 59	16 12 PP
KSARA	89.73	352.1	13	6	4	23	59	7	16	37 PP
SHIRAZ	91.42	337.5	13	11	1				16	49 PP
JERUSALEM	91.81	352.5	13	6	-5	24	21	10		
HELWAN	93.93	355.7	13	22	1	23	56	-33		
HYDERABAD	94.51	311.0	13	20	-4	23	56	-38	26	11 PS
BRISBANE	95.04	226.0	13	32	6	24	44	42		
BOMBAY	95.44	316.5							17	15
TAMANRASSET	99.12	19.5	13	44	-1	24	24	1	17	36 PP
LA PAZ	101.09	103.0							24	31 PP
RIVERVIEW	101.40	224.3							24	37
SANTA LUCIA	113.51	115.2							35	27
LWIRO	125.93	357.1	19	3	-2					
CAPE HALLETT	130.91	193.8	19	13	-1				21	32 PP
SCOTT BASE	136.24	191.3	19	24	0				22	54 SKP
BYRD STATION	137.62	171.7	19	19	-8				22	57 PP
BROKEN HILL	138.06	357.0	19	26	-1					
BULAWAYO	143.71	356.5	19	35A	-2					
SOUTH POLE	146.27	180.0	19	38	-4				23	3 PP
MIRNY	148.27	224.3	19	47	2					
PRETORIA	149.30	356.9	19	57	10					

SEPTEMBER 1 18.H 41.M 15.S EPICENTRE -15.94-179.06 DEPTH= 15.KM

A=-0.96191 B=-0.01584 C=-0.27292 D=-0.0165 E= 0.9999
G= 0.2729 H= 0.0045 K=-0.9620 HT= 5.6

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SUVA	3.26	227.2	0	47	-5						1	27
AFIAMALU	7.32	74.9	1	48	-1						2	4 PP
NOUMEA	15.08	243.0	3	36	1							
ONERAHI	20.60	195.3	4	43	2							
KARAPIRO	22.42	191.3	5	0	0							
CHATEAU	23.65	190.5	5	10	-2							
BRISBANE	28.48	241.7	5	54	-3	10	37	-5				
RABAUL	30.59	289.4	6	13	-3							
RIVERVIEW	32.20	230.9	6	45K	15						11	49
PORT MORESBY	33.57	277.0	6	41	-1							
CANBERRA	34.45	229.9	6	53	4							
MELBOURNE	38.45	228.4	7	22	-1							
ADELAIDE	42.20	235.2	7	52	-2							
GUAM	46.20	307.2	8	26	0							
CAPE HALLETT	56.71	183.9	9	45	-1							
SCOTT BASE	62.34	183.4	10	23K	-1							
MATUSIRO	65.96	323.2	10	45A	-3	19	50	16				
BYRD STATION	69.28	170.7	11	7	-2							

LEMBANG	72.16	267.8	11	25A	-1					
ZO-SE	74.02	309.6	11	37	0					
SOUTH POLE	74.16	180.0	11	36	-2					
VINEYARD	75.49	44.5	11	46	0					
BERKELEY	75.52	43.2	11	45	-1					
HONG KONG	75.62	298.5	11	46	0					
LICK	75.64	43.9	11	46A	0				12	57
NANKING	76.27	309.4	11	50A	0	21	44	11		
PASADENA	76.37	48.2	11	49	-2					
FRESNO	76.57	45.2	11	51	-1					
CANTON	76.64	298.9	11	52	0	21	48	11		
SHASTA	77.02	40.7	11	53	-1					
MINERAL	77.32	41.3	11	59A	3					
RENO	78.03	42.8	12	OK	0					
CHANGCHUN	78.19	322.4	12	0	-1	22	7	13		
BOULDER CITY	79.65	47.9	12	8	-1					
EUREKA	80.55	44.4	12	12	-1				15	15 PP
TUCSON	80.94	52.8	12	16	0					
VICTORIA	80.96	33.8	12	13	-3					
PEKING	81.95	315.5	12	20	-1					
GLEN CANYON	82.42	48.3	12	24	1					
MEDAN	83.55	275.6	12	22	-7					
SALT LAKE C.	83.94	44.8	12	31	0					
COLLEGE	84.00	12.9	12	28	-3					
ARGENTINE I.	85.54	157.5	12	36	-3					
FLAMING GRGE	85.69	45.4	12	40	0				15	49 PP
BUTTE	85.89	39.8	12	40	-1					
HUNGRY HORSE	86.12	37.3	12	39	-3					
KUNMING	86.38	297.2	12	44	1					
CHENGTU	87.19	302.8	12	48A	1					
FAYETTEVILLE	95.18	54.1	13	24K	0					
PALISADES	111.63	51.8							35	9 SS
QUETTA	118.38	296.0	18	43	-4					
SODANKYLA	125.96	348.0	19	1	-1					
KIRUNA	126.64	350.9	19	1	-2					
SHIRAZ	130.90	295.5	18	51	-20	26	23	5	21	32 PP
TEHERAN	131.08	303.7	19	12	0				22	41 PKS
NURMIJARVI	132.30	344.4	19	13	-1					
COLLMBERG	143.43	347.3	19	32	-2				19	34 PKP2
HALLE	143.45	348.4	19	34	0					
KSARA	143.88	306.0	19	34K	-1				23	5 PKS
PRUHONICE	144.30	344.9	19	34A	-2				20	58
BENSBERG	144.71	353.2	19	35K	-1					
JERUSALEM	145.09	303.1	19	37	0					
VIENNA-H.	145.37	341.8	19	38	0				20	13 PKP2
HEIDELBERG	146.03	350.9	19	40	1					
STUTTGART	146.55	350.0	19	39	-1				20	6
TUBINGEN	146.82	350.1	19	40	0					
STRASBOURG	146.97	351.7	19	41K	1					
LWIRO	147.06	239.2	19	42	2					
SOFIA	147.16	328.8	19	42	1					
EBINGEN	147.18	350.1	19	43	2					
PARIS	147.20	358.1	19	43	2					
FOLINIERE	147.24	1.7	19	41	0					
RAVENSBURG	147.45	349.1	19	39	-2					
LJUBLJANA	147.90	342.1	19	41K	-1					
BASLE	148.03	351.5	19	33	-9				21	30
TRIESTE	148.49	342.7	19	45	2				19	47 PKP2
BESANCON	148.50	353.4	19	46	3					
HELWAN	148.88	301.8	19	47	4				23	20 PP
CLERMONT-FD.	150.21	356.9	19	47	2					
ATHENS	150.26	321.9	19	50K	5					
ISOLA	151.38	350.8	19	48	1					
MONACO	151.76	350.0	19	47	-1					
ROME	152.29	341.3	19	48	-1				24	38
BAGNERES	152.95	1.3	19	56	7					
TAMANRASSET	171.94	328.3	20	9A	1				25	18 PP

SEPTEMBER 1 20.H 1.M 57.S EPICENTRE -15.89-179.05 DEPTH= 0.KM

A=-0.96213 B=-0.01589 C=-0.27214 D=-0.0165 E= 0.9999
G= 0.2721 H= 0.0045 K=-0.9623 HT= 5.6

SE= 2.70

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

	DEG.	DEG.	M S	S	M S	S	M S	M S	
SUVA	3.29	226.6	0 51	-3					
AFIAMALU	7.30	75.3	1 46	-5	2 47	-29		3 3	
NOUMEA	15.10	242.8	3 42	5	6 39	13			
ONERAHI	20.65	195.3	4 44	0	8 39	8			
KARAPIRO	22.46	191.2	5 3	1					
CHATEAU	23.70	190.5	5 17	2					
BRISBANE	28.50	241.6	5 56	-3				9 55	
RABAUL	30.57	289.3	6 11	-7				7 8	
RIVERVIEW	32.23	230.9	6 33	1	11 40	-6		21 50	
PORT MORESBY	33.57	277.0	6 43	-1	12 10	4			
CANBERRA	34.48	229.9	6 57	5					
MELBOURNE	38.48	228.4	7 25	-1	13 30	8		9 6	PP
ADELAIDE	42.23	235.2	7 55	-2					
GUAM	46.18	307.2	8 28	-1					
CAPE HALLETT	56.76	183.9	9 49	1	17 46	5			
SCOTT BASE	62.38	183.4	10 27A	0					
MATUSIRO	65.93	323.2	10 47A	-3	19 43	6		11 8	
ABUYAMA	66.36	320.3	10 53A	0					
BAGUIO CITY	67.65	295.6	10 59	-2					
BYRD STATION	69.32	170.8	11 9	-3					
PETROPAVLOVK	71.28	346.0	11 36	13	20 47	6			
LEMBANG	72.16	267.8	11 27K	-2	20 37	-14			
ZO-SE	73.99	309.6	11 41	2					
SOUTH POLE	74.21	180.0	11 37	-4					
MIRNY	74.75	204.5	11 42	0					
VINEYARD	75.45	44.5	11 50	2					
BERKELEY	75.48	43.2	11 53	5	22 7	39			
UKIAH	75.57	41.6	11 50	1				13 31	
HONG KONG	75.60	298.5	11 49	0	21 36	6			
LICK	75.60	43.9	11 53A	4					
NANKING	76.25	309.4	11 52	0					
PASADENA	76.34	48.2	11 57	4	22 45	67			
FRESNO	76.54	45.2	11 54	0					
SHASTA	76.98	40.7	11 56	-1					
RENO	78.00	42.8	12 3	1					
CHANGCHUN	78.15	322.4	12 3	0					
BOULDER CITY	79.62	47.9	12 10	-1					
EUREKA	80.51	44.4	12 14	-2				15 17	PP
TUCSON	80.91	52.8	12 24	6					
VICTORIA	80.92	33.8	12 17	-1					
TUCSON TELE.	81.03	52.8	12 19	0					
PEKING	81.92	315.4	12 22	-1					
GLEN CANYON	82.39	48.3	12 25	-1					
MEDAN	83.55	275.6	12 37	5					
COLLEGE	83.96	12.9	12 30	-4				17 57	
SIAN	84.63	307.7	12 38	1					
ARGENTINE I.	85.58	157.5	12 41	-1					
FLAMING GRGE	85.65	45.4	12 40	-2					
BUTTE	85.85	39.8	12 41	-2					
HUNGRY HORSE	86.08	37.3	12 43	-1					
KUNMING	86.36	297.2	12 48	2					
PAOTOW	86.37	313.8	12 48	2					
BOZEMAN	86.64	40.6	12 46	-1					
CHENGTU	87.17	302.8	12 51	1					
FAYETTEVILLE	95.15	54.1	13 26	-1					
SANTA LUCIA	96.02	127.1						31 27	
KHEYS	110.74	351.5						22 34	PP
PALISADES	111.60	51.8						28 47	PS
ANDIJAN	114.19	307.9						19 35	PP
QUETTA	118.36	296.0	18 58	8					
SODANKYLA	125.91	348.0	19 4	0					
KIRUNA	126.59	350.9	19 5	-1					
SHIRAZ	130.88	295.6	19 14	0				21 38	PP
PULKOVO	131.23	340.7	19 12	-3				22 39	PKS
MOSCOW	131.37	333.2	19 14	-1				22 43	PKS
MAKHACH-KALA	132.11	314.1						23 45	
NURMIJARVI	132.25	344.4	19 17	0					
LWOW	141.33	336.0	19 16	-17				26 9	PKS
COLLMBERG	143.38	347.3	19 33	-4				22 51	PP
KSARA	143.85	306.1	19 37K	0			20 26	23 0	PP
PRUHONICE	144.26	344.9	19 36K	-2				20 44	*SPKP
KEW	144.50	1.4	19 37	-2					
BENSBERG	144.66	353.2	19 37	-2				20 19	
JERUSALEM	145.07	303.1	19 39	-1					
BRATISLAVA	145.17	341.0	19 37	-3					
VIENNA-H.	145.33	341.8	19 39	-1					
HEIDELBERG	145.99	350.9	19 41	0					

STUTTGART	146.51	350.0	19 41	-1							
TUBINGEN	146.78	350.1	19 43	0							
BELGRADE	146.79	334.3	19 43A	0						24	9
STRASBOURG	1' .92	351.7	19 42	-1	20	28					
LWIRO	147.09	239.2	19 39	-4							
SOFIA	147.12	328.9	20 46	63						24	9 PP
EBINGEN	147.13	350.1	19 43	0							
PARIS	147.15	358.1	19 45	2							
FOLINIERE	147.19	1.7	19 42	-1						20	6
RAVENSBURG	147.41	349.1	19 43	-1							
LJUBLJANA	147.86	342.1	19 43A	-1							
BASLE	147.98	351.5	19 43	-2						21	36
TRIESTE	148.45	342.7	19 45	0						19	51 PKP2
BESANCON	148.46	353.4	19 46	1							
HELWAN	148.86	301.8	19 42	-4						22	12
CLERMONT-FD.	150.16	356.9	20 5	17							
ATHENS	150.22	322.0	19 51K	3							
ISOLA	151.33	350.8	19 55	5							
ROME	152.24	341.3	20 7	16						23	43 PP
BAGNERES	152.91	1.3	19 56	4	20	48					
TOLEDO	155.71	9.4	19 53	-3							
MALAGA	158.72	11.9	20 4K	4						20	40 PKP2
TAMANRASSET	171.90	328.5	20 10	-1	20	59				25	23 PP

SEPTEMBER 2 10.H 52.M 20.S EPICENTRE -15.55 167.37 DEPTH= 134.KM

A=-0.94055 B= 0.21073 C=-0.26639 D= 0.2186 E= 0.9758
G= 0.2599 H=-0.0582 K=-0.9639 HT= 5.6

DEPTH OF FOCUS= 0.016R

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
PORT VILA	2.35	157.4	0	36	-3	1	7	-2				
KOUMAC	5.79	210.1	1	23	-2						2	28
SUVA	10.90	105.3	2	41	8							
BRISBANE	17.96	226.6	4	3	1	7	24	9				
RABAUL	18.73	305.5	4	8	-3							
AFIAMALU	20.23	88.1	4	26A	0							
PORT MORESBY	20.66	284.8	4	33	2	8	22	13				
ONERAHI	21.09	164.0	4	38	3							
RIVERVIEW	23.36	215.9	4	59A	2						5	51 PP
KARAPIRO	23.43	163.6	4	58A	0							
CHATEAU	24.63	164.6	5	10	1							
TUAI	24.71	161.5	5	9	-1							
CANBERRA	25.66	216.5	5	20A	1				5	50	6	2 PP
COBB RIVER	25.86	170.7	5	23	2							
WELLINGTON	26.43	167.4	5	25	-1							
GEBBIES PASS	28.42	171.9	5	42	-2							
MELBOURNE	29.74	217.5	5	56K	0							
ADELAIDE	32.15	227.7	6	17	0							
MUNDARING	49.15	241.1	8	36	0							
CAPE HALLETT	56.77	179.0	9	31K	-1							
MATUSIRO	58.67	332.7	9	45	-1	17	33	-5			10	20
SCOTT BASE	62.32	180.1	10	10K	0							
HONG KONG	64.27	304.6	10	24	1	18	54	6				
CANTON	65.33	304.9	10	31	1	19	8	7	11	4		
NANKING	66.38	316.0	10	37	0	19	16	2	11	7		
CHANGCHUN	70.48	329.0	11	2	0							
BYRD STATION	71.87	169.9	11	30	20				12	12		
PEKING	72.96	321.3	11	18	1	20	35	4	11	48		
SOUTH POLE	74.55	180.0	11	25	-1				12	7	14	25 PP
KUNMING	74.82	301.9	11	30	3	20	57	6	12	0		
LANCHOW	78.93	312.3	11	53A	3							
MAWSON	81.16	202.1	12	0	-2							
LICK	84.87	49.2	12	21K	0						12	51
SHASTA	85.71	45.9	12	25	0							
FRESNO	86.00	50.3	12	26	0						12	58
MINERAL	86.12	46.4	12	24K	-3							
PASADENA	86.25	53.2	12	27	-1						12	58
RENO	87.06	47.7									13	19
COLLEGE	87.07	17.5	12	28	-4							
BOULDER CITY	89.46	52.4	12	43	0				13	16		
EUREKA	89.80	48.9	12	43	-2				13	15	16	28 PP

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ARGENTINE I.	90.58	160.7	12 47	-1				
TUCSON	91.43	57.0	12 52	0		13 24		
GLEN CANYON	92.25	52.3	12 55	-1		13 27	16 38	PP
FLAG GRGE	95.04	49.1	13 9	0		13 40	16 46	PP
HUANCAYO	112.16	110.2			26 17 88			
SHIRAZ	118.93	295.5	18 50	17			29 10	SP
PALISADES	121.64	51.2					22 38	PPP
SODANKYLA	122.31	343.2	18 38	-1				
KIRUNA	123.58	345.6	18 41	-1				
NURMIJARVI	127.66	337.8	18 51	1				
SAN JUAN	128.91	78.8	18 50	-2				
SKALSTUGAN	129.00	346.0	18 52	0				
ADDIS ABABA	129.46	269.0	18 58	5				
UPPSALA	130.56	340.4	18 55	0			22 8	SKP
WINDHOEK	132.22	218.2					24 0	
TRINIDAD	132.33	89.7	19 2	4				
ANTIGUA	132.85	80.9	19 35	36				
ST. VINCENT	132.90	86.3	19 13	13				
BARBADOS	134.49	86.8	19 32	30				
LWIRO	135.38	250.3	19 6	2				
COLLMBERG	138.85	335.6	19 11	1			22 15	PP
VIENNA-H.	139.61	330.0	19 13	1				
HEIDELBERG	142.01	337.3	19 14	-2				
LJUBLJANA	142.04	328.9	19 17	1			22 45	
STUTTGART	142.32	336.2	19 14	-3		20 9	20 58	
STRASBOURG	143.05	337.4	19 16	-2				
BASLE	143.99	336.5	19 18	-2				
PARIS	144.59	342.7	19 22	1				
NEUCHATEL	144.67	336.6	19 21	0				
BESANCON	144.82	337.8	19 20	-1			20 9	
FOLINIERE	145.40	345.8	19 23	1			20 11	
ROME	145.98	325.5	19 25A	2		20 18		
ISOLA	146.93	333.6	19 28	3				
CLERMONT-FD.	147.10	339.5	19 29	4				
MONACO	147.12	332.7	19 28	3				
BAGNERES	150.47	340.8	19 31	1				
TOLEDO	154.63	344.5	19 36	0		20 1		
ALGIERS UNI.	154.68	329.5	19 37	1				
TAMANRASSET	161.42	295.6	19 46A	2			24 20	PP

SEPTEMBER 2 13.H 46.M 9.S EPICENTRE 28.75 98.50 DEPTH= 28.KM

A=-0.12973 B= 0.86849 C= 0.47842 D= 0.9890 E= 0.1477
G=-0.0707 H= 0.4732 K=-0.8781 HT= 2.2

SE= 3.28

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
TOCKLAI	3.85	239.8	1 8K	9	1 59	15		1 14	PP
CHENGTU	5.16	67.0	1 21	3	2 27	10			
KUNMING	5.23	132.6	1 20	1	2 26	7			
LHASA	6.58	279.6	1 37K	-1	2 55	2			
SHILLONG	6.70	243.4	1 36K	-3	2 44	-12		1 43	PP
LANCHOW	8.56	30.4	2 5A	0					
CHITTAGONG	8.76	225.0	2 6	-2	3 43	-4		2 13	PP
CHATRA	10.21	261.9	2 24	-4	4 16	-7			
SIAN	10.45	55.7	2 35A	4					
CALCUTTA	11.03	238.2	2 36K	-3	4 30	-13		2 56	PPP
BOKARO	12.39	249.7	2 53A	-5	5 13	-3		3 12	PPP
CANTON	14.49	109.5	3 25A	0	6 8	2			
PAOTOW	15.13	35.7	3 32	-2	6 19	-2			
HONG KONG	15.53	110.9	3 39K	0	6 51	21			
VIZIANAGRAM	17.37	235.8	4 0	-2				7 24	
NANKING	17.81	74.3	4 11	3	7 39	16			
DEHRA DUN	17.86	280.0	4 12	4	7 27	3		7 46	SS
PEKING	18.39	47.6	4 12A	-3					
ZO-SE	19.80	77.6	4 33	2	8 19	12			
SEHORE	20.03	258.8	4 49	15				8 47	
LAHORE	21.08	283.6	4 42	-3	8 30	-3			
HYDERABAD	21.57	242.9	4 48	-2	8 43	1		5 21	PP
MADRAS	23.15	231.2	5 5	0	9 22	11		5 37	PP
WAPSAK DAM	23.56	289.7	5 11	2	9 24	6		5 49	PP
BAGUIO CITY	23.75	116.4	5 17	6	9 39	18			
IRKUTSK	23.90	8.9	5 12A	-1					
POONA	24.72	251.1	5 19	-1	9 44	6			

MEDAN	25.03	179.6	5	24	1	9	42	-1			
MANILA	25.16	119.1	5	38	13	10	2	17			
BOMBAY	25.40	253.0	5	28	1					9	53
SEMIPALATNSK	25.66	332.4	5	27	-2	9	57	3		10	3
CHANGCHUN	26.19	47.7	5	38	4	10	14	12			
DUZHANBE	26.51	299.5	5	38	1	10	12	4			
TASHKENT	26.88	305.6	5	41	0	10	16	2		10	31
KODAIKANAL	26.97	231.1								9	40
QUETTA	27.46	280.8	5	44	-2	10	24	1		6	27 PP
COLOMBO	27.96	222.6								10	40
VLADIVOSTOK	30.39	52.8	6	9	-3	11	0	-10			
MATUSIRO	34.15	66.5	6	43	-2	12	13	5		9	24
ASHKABAD	34.55	296.0	6	51	3	12	19	4		13	13 PCS
DJAKARTA	35.64	165.7	7	3	5	12	43	11			
LEMBANG	36.44	164.6	7	8	3	12	51	7			
SVERDLOVSK	38.67	327.3	7	21	-2					13	20 PCS
YAKUTSK	39.10	22.8								13	18 SCP
SHIRAZ	39.94	282.8	7	32	-2	13	22	-15	7 42		
TEHERAN	40.14	292.4	7	37	2	13	44	4			
GORIS	43.96	298.3	8	14	7	14	42	6			
TIKSI	46.06	12.9	8	20	-3	15	4	-2		10	0 PCP
MOSCOW	50.48	320.2	8	57	-1	16	9	1			
SIMFEROPOL	52.66	306.4	9	15	1	16	40	2			
KSARA	53.04	292.3	9	21	4	16	49	5		11	25 PP
JERUSALEM	54.05	290.0	9	29	4					12	34 PPP
APATITY	54.27	334.6	9	24	-2	16	59	-1			
KHEYS	54.44	352.5	9	24	-3	17	8	5		11	32 PP
SODANKYLA	56.84	333.9	9	42	-3						
ISTANBUL KA.	56.88	302.3	9	42	-3	17	35	0			
NURMIJARVI	57.54	325.7	9	49	-1						
HELWAN	57.79	288.9	9	54	3	17	51	4			
LWOW	58.88	313.2	9	58	-1						
ADDIS ABABA	59.21	263.2	9	58	-3						
KIRUNA	59.23	334.4	9	59	-2						
WARSAW	60.37	316.3				18	21	0		18	42 PPS
RABAUL	61.05	113.3	10	14	0					10	54
UPPSALA	61.09	325.3	10	12	-2					10	49
SKALNATE PL.	61.42	313.0	11	22	66						
KRAKOW	61.45	314.0				18	39	5			
RACIBORZ	62.53	314.3	10	29	5					11	11 PCP
MUNDARING	62.69	163.1	10	23	-2						
SKALSTUGAN	63.01	329.9	10	22	-5						
BRATISLAVA	63.68	312.4	10	34	3					11	6 PCP
GOTEBORG	64.39	323.5	10	34	-2						
COPENHAGEN	64.62	321.3	10	40	2	19	17	3			
PRUHONICE	64.84	314.8	10	43	4	19	22	5		23	45 SS
PRAGUE	64.89	314.9	10	40	1						
COLLMBERG	65.44	316.5	10	40	-3	19	24	0		13	8 PP
LJUBLJANA	65.95	310.7	10	44	-2						
HALLE	66.01	316.9	10	48	2	19	32	1		20	26 SCS
JENA	66.40	316.4	10	47	-2	19	36	0	11 14	12	8
TRIESTE	66.58	310.4	10	51	1	19	40	2			
MESSINA	67.69	302.3								19	51
TANANARIVE	68.31	232.3	11	2	1						
STUTTGART	68.49	314.7	11	1	-1	19	32	-29		12	13
RAVENSBURG	68.60	313.6	11	9	6						
HEIDELBERG	68.63	315.4	11	4	1						
ROME	68.66	306.9								20	2
TUBINGEN	68.70	314.5	11	6	3						
STRASBOURG	69.49	314.9	10	59	-9	20	18	5		11	38
DE BILT	69.80	319.0				20	21	5			
BESANCON	71.10	314.0	11	21	3						
ISOLA	71.56	310.7	11	25	4						
ABERDEEN	71.74	325.7								38	51
DURHAM	72.49	323.3	11	23K	-3						
KEW	73.20	319.8				20	57	2		25	49 SS
LWIRO	73.39	257.9	11	30	-2						
COLLEGE	73.62	24.1	11	30	-3	20	58	-2	11 43		
ADELAIDE	73.88	146.5	11	37	3						
FOLINIERE	74.45	317.3	11	36	-2						
BRISBANE	76.30	132.0	11	54	6	21	47	17			
RESOLUTE	76.46	3.6	11	48	-1	21	35	3			
BAGNERES	76.58	311.8	11	50	0						
TORTOSA	77.36	309.6				21	26	-15			
CANBERRA	79.55	140.1	12	11K	5						
RIVERVIEW	79.73	137.7	12	15	8					22	20
BROKEN HILL	80.10	247.6	12	8K	-1						
TOLEDO	80.87	310.5	12	11	-2	22	23	5		28	1 SS

TAMANRASSET	81.83	291.4	12	17	-1	22	27	-1		15	23 PP
MALAGA	82.68	307.8	12	16	-7						
BULAWAYO	83.11	242.7	12	24K	-1						
PRETORIA	86.56	238.3	12	49	7						
PIETERMZBURG	87.13	234.0	12	44	-1						
WINDHOEK	93.50	246.3	13	15	0						
VICTORIA	94.42	26.5	12	1	-78						
HUNGRY HORSE	97.90	21.2	13	34	-1					17	21 PP
EUREKA	104.91	27.0	13	39	-27					18	22 PP
CAPE HALLETT	111.80	161.8	19	15	43					29	57 PS
SOUTH POLE	118.58	180.0	18	43	-3						
BYRD STATION	126.28	172.3	19	3	2					19	44

SEPTEMBER 2 22.H 2.M 44.S EPICENTRE 52.21-171.51 DEPTH= 0.KM

A=-0.60861 B=-0.09083 C= 0.78825 D=-0.1476 E= 0.9890
G=-0.7796 H=-0.1164 K=-0.6154 HT= -6.2

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	17.56	34.7	4	8	0	7	33	10					
PETROPAVLOVK	18.08	284.4	4	15A	0	7	28	-6					
SITKA	21.33	62.5	4	53	2						5	27	
MAGADAN	22.12	304.2	5	3	4								
UGLEGORSK	29.21	282.6	6	7A	1								
VICTORIA	30.45	77.5	6	17	0						9	22	
TIKSI	32.19	329.1	6	29	-3	11	31	-14					
YAKUTSK	32.27	310.9	6	30	-3								
CORVALLIS	32.39	84.1	6	34A	0								
KIPAPA	32.46	156.1	6	36	2								
HONOLULU	32.56	156.3	6	31	-4	11	47	-4					
ARCATA	33.95	90.3	6	50A	3								
SHASTA	35.09	89.3	6	57K	0								
UKIAH	35.52	92.1	7	0	-1						7	23	
MINERAL	35.79	89.1	7	2K	-1								
HUNGRY HORSE	36.11	72.6	7	5	-1	12	43	-3			9	30	PCP
SAN FRANCSCO	36.84	93.3	7	13	1								
BERKELEY	36.90	93.0	7	12A	0	12	56	-2			8	40	PP
RESOLUTE	37.08	25.4	7	15	1	12	56	-5					
BRANNER	37.23	93.5	7	14K	-1								
RENO	37.37	88.8	7	22	6								
TUKUBASAN	37.42	264.2	7	16A	-1	13	3	-3	7	37	7	46	*SP
LICK	37.61	93.1	7	18A	0								
BUTTE	38.13	75.2	7	24	1						12	14	
VLADIVOSTOK	38.28	279.4	7	22A	-2								
MATUSIRO	38.37	266.2	7	24A	-1	13	18	-2			9	37	PCP
FRESNO	39.11	92.3	7	30	-1								
EUREKA	39.77	86.0	7	35	-2						12	26	
RUTH	40.53	85.6	7	44	1	13	52	-1					
ABUYAMA	41.09	266.5	7	47A	0								
SALT LAKE C.	41.51	81.5	7	51	0						13	35	
PASADENA	41.83	94.0	7	53	0	14	8	-4			10	43	
CHANGCHUN	41.85	284.5	7	54A	0	14	11	-1			9	32	PP
BOULDER CITY	42.67	89.3	8	0	0	14	25	1					
FLAMING GRGE	42.91	79.7	8	1	-1	14	21	-7			13	39	
GLEN CANYON	44.03	85.7	8	11	0						13	44	
KHEYS	44.59	349.8	8	15	-1								
TUCSON	47.63	90.0	8	39	-1	15	36	0					
TUCSON TELE.	47.64	89.8	8	39	-1				8	49	10	32	PP
IRKUTSK	48.68	305.5	8	46	-2	15	41	-10					
PEKING	49.57	286.0	8	54A	-1	15	59	-4			10	53	PP
GUAM	52.06	238.5	9	9	-5								
ZO-SE	52.50	274.0	9	16A	-1	16	40	-3					
PAOTOW	52.80	290.5	9	19	-1	16	47	0					
NANKING	53.30	276.7	9	22A	-1	16	49	-5					
FAYETTEVILLE	55.13	74.4	9	33K	-4	17	8	-11	9	49	11	44	PP
FLORISSANT	55.53	69.5	9	37K	-3	17	18	-6					
SCORESBY SD.	55.66	11.9				17	25	-1			19	28	SCS
ST. LOUIS 1	55.72	69.5	9	38	-3	17	20	-7					
SIAN	57.73	285.5	9	55	0								
CLEVELAND	58.65	61.6	10	2K	0	18	0	-5					
OTTAWA	58.96	54.9	10	2A	-2								
APATITY	59.10	349.1	10	5	0	18	5	-6			12	15	PP
LANCHOW	59.45	290.5	10	6A	-1	18	12	-4					
SHAWINIGAN	59.61	52.3	10	7	-1								

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BREBEUF	59.94	53.6	10	10K	-1	18	19	-3				
KIRUNA	59.95	354.8	10	9	-2						39	31 PKPPKP
SODANKYLA	59.96	352.0	10	9	-2						39	41 PKPPKP
SEVEN FALLS	60.14	50.7	10	11	-1							
PENNSYLVANIA	61.09	59.9	10	18	0	18	35	-2			20	3 SCS
PALISADES	63.02	57.3	10	32	1	18	58	-3	10	42	12	52 PP
CANTON	63.09	273.5	10	31	-1	19	0	-2				
HONG KONG	63.17	272.2	10	32A	0	19	3	0			20	56 SCS
CHENGTU	63.19	286.1	10	32A	-1	19	0	-3			12	47 PP
SVERDLOVSK	63.20	330.9	10	35	2	19	2	-2				
WESTON	63.34	54.7	10	32K	-1	19	1	-4			10	56 PCP
BAGUIO CITY	63.67	262.8	10	36	0	19	2	-7				
TACUBAYA	64.10	91.5	10	36	-3						18	43
COLUMBIA	64.25	67.3	10	39	0	19	8	-9				
SKALSTUGAN	64.51	358.1	10	37	-4						39	38 PKPPKP
MANILA	64.71	261.2	10	46	4	19	40	18				
HALIFAX	65.38	48.4	10	46	-1	19	24	-7				
AFIAMALU	65.84	180.3	10	54	4	19	28	-8				
NURMIJARVI	66.88	351.4	10	54	-2	19	50	1			39	23 PKPPKP
PULKOVO	66.99	348.2	10	55	-2	19	40	-10				
BERGEN	67.71	1.7	11	3	1							
KUNMING	68.03	282.9	11	3A	-1	20	0	-3				
UPPSALA	68.05	355.0	11	3	-1						39	19 PKPPKP
ALMATA	68.08	312.9	11	4	0							
MOSCOW	69.76	342.9	11	14	0	20	17	-6				
GOTEBORG	70.41	358.0	11	18	0						11	48
SUVA	70.61	190.1				20	29	-4				
ABERDEEN	70.64	6.1				20	32	-1			21	12 PS
PORT MORESBY	70.85	223.6	11	21	0	20	32	-4				
LHASA	71.43	294.4	11	25	1	20	40	-3				
TOCKLAI	71.51	289.8	11	30	5							
ANDIJAN	72.14	314.2	11	28A	-1							
NAMANGAN	72.26	314.8	11	30	1	20	43	-9				
COPENHAGEN	72.43	357.6	11	32	2						20	49 PS
DURHAM	73.06	6.1	11	31K	-3	20	51	-10				
SHILLONG	74.08	291.1	11	43A	3							
WITTEVEEN	75.33	1.1	11	50	3							
WARSAW	75.40	352.1				21	23	-4			21	56 SCS
CHATRA	75.76	295.3	11	49	-1	21	52	21				
DE BILT	76.03	2.1	11	57	6	21	36	2				
KEW	76.43	5.7	11	53	0	21	28	-11				
CHITTAGONG	76.59	289.0	11	55A	1	21	40	0			22	17 PS
HALLE	76.62	357.8	11	54	-1	21	41	0	12	17	14	59 PP
COLLMBERG	76.80	357.1	11	54	-2	21	40	-3			14	38 PP
BENSBERG	77.20	0.9	12	21	23							
JENA	77.20	358.0	11	58	0	21	40	-7			15	10 PP
LWOW	77.49	349.8	11	59	0						14	52 PP
PLAUEN	77.63	357.6	11	59	-1							
KRAKOW	77.66	352.5	12	2	2	21	59	7				
RACIBORZ	77.75	353.6	12	1	0						12	14 PCP
SONNEBERG	77.76	358.2	12	1	0						12	34
PRAGUE	77.97	356.1	12	4	2							
PRUHONICE	78.06	356.0	12	8	6	21	54	-2			22	49 PS
LAHORE	78.73	307.4	12	5A	-1	22	5	2			22	23 SCS
HEIDELBERG	78.77	359.8	12	6	0						12	42
BOKARO	78.88	294.4	12	11	4	22	5	0				
FOLINIERE	79.11	6.0	12	7	-1						13	8
PARIS	79.23	4.0	12	10	1						13	38
MAKHACH-KALA	79.37	332.0	12	10	0	22	7	-3				
STUTTGART	79.40	359.5	12	9	-1	22	9	-2			27	16 SS
STRASBOURG	79.59	0.5	12	10	-1	22	13	0			15	3 PP
TUBINGEN	79.64	359.6	12	12	1							
VIENNA-H.	79.69	354.7	12	12	1						13	42 PPS
BRATISLAVA	79.73	354.2	12	14	2							
EBINGEN	79.99	359.7	12	13	0							
RAVENSBURG	80.39	359.2	12	15	0							
BASLE	80.64	0.6	12	17	1							
SIMFEROPOL	80.73	341.9	12	16	-1							
SOTCHI	80.85	337.6	12	16	-2							
BESANCON	80.90	1.7	12	19	1						12	43
NEUCHATEL	81.16	1.1	12	20	1							
TIFLIS	81.29	333.4	12	21	1							
CHUR	81.32	359.3	12	20A	0							
LJUBLJANA	81.98	355.9	12	23	0							
CLERMONT-FD.	82.29	3.8	12	26	1							
TRIESTE	82.42	356.3	12	27	1	22	39	-3			23	35 SP
BUCHAREST	82.56	347.4	12	28	2	22	38	-5			15	46 PP
BELGRADE	82.80	351.4	12	28A	0	22	45	-1			14	20

GORIS	82.91	331.4	12	28A	0						
QUETTA	83.36	312.0	12	30A	-1	22	54	3		15	43 PP
ISOLA	83.98	1.0	12	36	2					16	9 PP
BALBOA HTS.	84.19	83.0	12	42	7	22	32	-28			
PRATO	84.26	358.1	12	48	13	22	16	-44			
MONACO	84.44	0.8	12	36	0						
SAN JUAN	84.72	66.8	12	37	0						
TEHERAN	84.74	326.2	12	37	-1	23	2	-3			
BAGNERES	84.83	6.1	12	38	0						
BRISBANE	85.21	211.4	12	41	1	23	5	-5			
GALERAZAMBA	85.37	78.5				23	7	-4			
ISTANBUL KA.	85.39	344.5	12	40	-1	23	5	-6			
SERRA PILAR	85.86	12.9	12	36A	-7				13 2	15	58 PP
ROME	86.21	357.0	12	47	2	23	17	-2		23	11 SKS
COIMBRA	86.80	12.9	12	46	-2	23	26	1			
MEDAN	87.08	272.0	12	50K	1	23	6	-22			
TORTOSA	87.09	6.1	13	34	45	23	24	-4			
TARANTO	87.38	353.3				22	49	-42		16	14 PP
TOLEDO	87.64	9.6	12	51	-1	23	31	-2		28	56 SS
HYDERABAD	88.09	296.2	12	52A	-2	23	16	-21		16	20 PP
ANTIGUA	88.12	64.3	12	54	0						
POONA	89.68	300.4	13	2	0	23	44	-8		25	10 PS
CHINCHINA	89.72	82.3	13	2	0	23	24	-28		23	48 SKKS
SHIRAZ	89.84	322.8	13	1	-1	23	44	-9		23	28 SKS
BOMBAY	89.92	301.4	13	4	1	23	45	-9			
GRANADA	90.36	9.6	12	58A	-7	23	57	-1			
KARAPIRO	90.47	190.2	13	4	-1						
FUQUENE	90.48	80.5	13	7	2	23	25	-34			
CARACAS	90.55	72.1	12	56A	-10	23	42	-18			
MALAGA	90.73	10.3	13	7A	1	23	59	-2		16	45 PP
BOGOTA	90.94	81.3	13	12	5	23	32	-31		25	15 PS
KSARA	91.04	337.5	13	9K	1	24	19	15		16	45 PP
ALGIERS UNI.	91.27	4.4	13	8	-1					16	50 PP
RIVERVIEW	91.69	210.3	13	8K	-3	23	29	-41		30	7 SS
RELIZANE	92.14	6.5	13	14	1						
JERUSALEM	93.15	337.4	13	18	0						
TRINIDAD	93.63	67.7	13	30	10						
CANBERRA	93.75	211.4	13	38	18						
COLOMBO	95.80	289.0				23	34	-32			
HELWAN	95.85	340.2	13	31	1	24	4	-2			
HUANCAYO	103.20	92.6								24	42
TAMANRASSET	105.29	2.8	14	13	777	24	54	2		18	35 PP
MBOUR	110.11	26.3	18	43	9	26	51	98			
LA PAZ	111.05	89.9				25	32	15		16	33
ADDIS ABABA	113.70	327.0	19	5	24					19	39 PP
SANTA LUCIA	121.96	104.6								37	26 SS
CAPE HALLETT	124.88	186.7	19	2	-1					20	57 PP
SCOTT BASE	130.49	185.9	19	13	0					22	31 SKP
WILKES	132.02	212.1								39	11 SS
BYRD STATION	135.24	168.7	19	21	-1					23	0 SKP
BROKEN HILL	139.09	329.6	19	26	-3						
PORT STANLEY	140.41	116.6	19	37	5						
SOUTH POLE	142.02	180.0	19	26	-8					23	7 SKP
ARGENTINE I.	142.35	138.8	19	32	-3						
BULAWAYO	144.36	326.3	19	27	-11						
PRETORIA	149.66	323.0	20	23	36						
WINDHOEK	149.68	344.1	19	50	3						
MAWSON	149.93	218.4	19	49	1						
PIETERMZBURG	152.22	315.8	20	0	9						
GRAHAMSTOWN	157.04	318.2	20	29	31						

SEPTEMBER 3 0.H 0.M 21.S EPICENTRE 39.32 41.42 DEPTH= 0.KM

A= 0.58171 B= 0.51317 C= 0.63109 D= 0.6615 E=-0.7499
G= 0.4733 H= 0.4175 K=-0.7757 HT= -1.4

SE= 3.07

	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	
EREVAN	2.53	69.1	0	41	-1						1	19	SG
BOGDANOVKA	2.56	39.9	0	43	0						1	23	SG
AKHALKALAKI	2.61	36.5	0	44	0						1	26	SG
ABASTUMANJ	2.66	23.5	0	45	1						1	28	SG
STEPANAVAN	2.82	52.6	0	47	0						1	33	SG
BAKURIANA	2.89	33.0	0	48	0						1	36	SG

BORZHOMI	2.92	30.2	0	48	0				1	36 SG
NAKHICHEVAN	3.09	91.0	0	51	0				1	40 SG
GEGECHKORI	3.11	13.2	0	53	2				1	45 SG
ZUGDIDI	3.22	6.1	0	53	1				1	46 SG
GORI	3.36	36.9	0	54	0				1	49 SG
TIFLIS	3.52	46.0	0	54	-3				1	52 SG
DUZHETI	3.72	41.1	0	57	-2				1	58 SG
GORIS	3.81	85.7	1	0	-1				2	3 SG
PIATIGORSK	4.87	14.2	1	15	-1				2	36 SG
GROZNY	5.16	37.8	1	32	12				2	54 SG
SHEMAKHA	5.69	74.4	1	40	13				3	7
MAKHACH-KALA	5.86	49.6	1	39	9				3	0
KSARA	7.07	220.8	1	48K	1	3	15	6	3	46 SG
SIMFEROPOL	7.81	318.4	2	5	8				3	47
TEHERAN	8.69	111.2	2	12	3				2	52
ISTANBUL KA.	9.61	284.4	2	25	3	4	22	10		
KIZYL-ARVAT	11.52	85.9	2	53	5				4	58
HELWAN	12.56	224.4	3	1	-1				7	6
SHIRAZ	13.29	133.2	3	6	-6	6	7	25	3	40
ASHKABAD	13.31	90.6	3	14	2				8	9
ATHENS	13.90	270.0	3	25	5				3	31 PP
LWOW	16.20	316.1	3	54	4				7	5
MOSCOW	16.61	352.5	3	52	-3				7	11
KRAKOW	18.60	312.2	4	20	0	7	52	7	4	49 PP
WARSAW	19.13	319.1	4	32	6	8	4	7	4	59 PP
BRATISLAVA	19.60	304.8	4	33	1					
RACIBORZ	19.62	310.8	4	32	0				4	46 PP
VIENNA-H.	20.09	304.6	4	37	0					
LJUBLJANA	20.83	297.6	4	45A	0					
DUZHANBE	21.26	83.3	4	55	5				8	47
TRIESTE	21.30	296.3	4	52	2	9	4	21		
TASHKENT	21.31	75.7	4	47	-3				8	57
TCHIMKENT	21.50	73.0	4	51	-1				10	2
SVERDLOVSK	21.59	29.4	4	50	-3					
PULKOVO	21.64	344.7	4	52	-1					
PRUHONICE	21.77	308.1	4	56	1	9	4	13		
PRAGUE	21.87	308.3	4	56	0				5	24 PP
ROME	22.08	286.0	5	20	22	9	10	13		
NAMANGAN	23.13	76.2	5	16	8					
COLLMBERG	23.14	310.5	5	8	0				5	47 PP
PLAUEN	23.39	308.1	5	12	1					
KHOROG	23.62	84.9	5	14	1					
NURMIJARVI	23.66	339.2	5	14	1	9	37	12		
ANDIJAN	23.69	76.6	5	13	-1				9	44
HALLE	23.83	310.4	5	16	1				5	53
JENA	23.87	308.9	5	15	0	9	33	4	6	7
SONNEBERG	23.94	307.4	5	17	1					
CHIAVARI	24.34	292.3							10	10
RAVENSBURG	24.41	300.7	5	20	-1					
STUTTGART	24.80	303.0	5	23	-1					
TUBINGEN	24.89	302.3	5	25	0					
EBINGEN	24.90	301.5	5	25	0					
HEIDELBERG	25.28	304.3	5	29	0					
UPPSALA	25.43	331.7	5	30	0					
BASLE	25.75	299.7	5	35	2					
STRASBOURG	25.75	302.1	5	35	2	10	13	12		
ISOLA	25.98	292.0	5	36	1					
GOTEBORG	26.47	323.7	5	34	-6					
BESANCON	26.81	298.8	5	42	-1					
APATITY	28.63	353.6	5	53	-7					
SODANKYLA	29.29	348.4	6	1	-5				9	4 PCP
SKALSTUGAN	29.83	334.0	6	3	-7					
ADDIS ABABA	30.25	185.2	6	14	0					
KIRUNA	30.82	344.6	6	15	-4				6	49
BAGNERES	31.05	290.4	6	18	-3					
TAMANRASSET	34.62	252.3	6	51A	-1				7	32 PP
CHATRA	39.92	94.0	7	34	-3					
TIKSI	52.45	23.5	9	14	-2					
HALIFAX	72.65	313.7	11	29	-2					
COLLEGE	75.89	4.1	11	46	-4					
HUNGRY HORSE	90.03	343.9	13	0	-2					
SOUTH POLE	129.13	180.0	19	6	-4					

SEPTEMBER 3 0.H 19.M 16.S EPICENTRE 43.17 145.26 DEPTH= 0.KM

A=-0.60124 B= 0.41693 C= 0.68168 D= 0.5698 E= 0.8217

G=-0.5602 H= 0.3885 K=-0.7317 HT= -2.9

SE= 3.21

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NEMURO	0.28	55.1	0 23	13	0 33	15		
KUSIRO	0.66	253.7	0 18	2	0 24	-3		
ABASHIRI	1.11	320.4	0 30	8	0 44	5		
OBIHIRO	1.53	261.4	0 29K	1	0 44	-5		
HIROO	1.68	238.8	0 30K	0	0 44	-9		
URAKAWA	2.09	241.8	0 36	0	1 0	-3		
TOMAKOMAI	2.76	260.0	0 47	1	1 15	-5		
SAPPORO	2.86	269.4	0 48K	1	1 17	-6		
MURORAN	3.26	256.4	0 54	1	1 26	-7		
WAKKANAI	3.42	312.4	1 0	5	1 41	4		
HAKODATE	3.59	249.4	0 57A	-1	1 32	-10		
MORI	3.62	254.5	0 59	1	1 35	-7		
SUTTSU	3.71	266.0	0 59	0	1 45	1		
HATINOHE	3.84	227.9	0 59	-2	1 37	-11		
AOMORI	4.08	236.4	1 5	0	1 44	-10		
MIYAKO	4.30	216.3	1 6	-2	1 45	-14		
MORIOKA	4.63	223.0	1 11	-1	1 54	-14		
MIZUSAWA	5.10	219.1	1 17	-2	2 6	-14		
AKITA	5.19	230.1			2 14	-6		
ISINOMAKI	5.60	213.6	1 23K	-3	2 18	-14		
SENDAI	5.91	215.6	1 28	-3	2 26	-14		
SAKATA	5.92	225.7			2 31	-9		
YAMAGATA	6.17	218.9	1 32	-2	2 33	-13		
HUKUSIMA	6.53	215.6	1 37	-2	2 42	-13		
NIIGATA	7.06	224.1			2 35	-25		
SHIRAKAWA	7.17	214.3	1 45	-3	2 57	-14		
MITO	7.72	210.1	1 52A	-4	3 10	-15		
UTUNOMIYA	7.80	213.9			3 9	-19		
KAKIOKA	7.96	211.1	1 53	-6	3 14	-17		
TUKUBASAN	8.00	211.5	1 54	-6	3 15	-17		2 55
TYOSI	8.18	206.1						2 19
MAEBASI	8.27	217.2	2 1	-3	3 29	-10		
KUMAGAYA	8.35	214.8			3 26	-15		
NAGANO	8.46	222.2	2 4	-2	3 30	-14		
MATUSIRO	8.55	221.7	2 4A	-4	2 32	-74		
OIWAKE	8.56	219.3						3 9
TOKYO C.M.O.	8.61	211.5			3 31	-16		
YOKOHAMA	8.86	211.2			3 38	-16		5 21
KOHU	9.10	216.9	2 18	3	3 46	-14		
VLADIVOSTOK	9.77	274.3	2 23	-1				
GIHU	10.17	223.1						4 8
YAKUTSK	21.00	339.4	4 58	11				
COLLEGE	42.36	35.7	8 1	4			8 12	
SHILLONG	46.63	265.8	8 27	-4				
RESOLUTE	55.92	16.2	9 43A	1				
LAHORE	56.01	283.3	9 39	-3				10 21
APATITY	58.34	335.2	9 56	-3				
SODANKYLA	60.47	337.0	10 12	-2				
KIRUNA	61.83	339.3	10 21	-2				
QUETTA	62.01	286.2	10 21	-3				
MOSCOW	64.10	323.2	10 36	-2				
HUNGRY HORSE	65.35	46.2	10 49	3				
NURMIJARVI	65.91	332.2	10 49	0				
SKALSTUGAN	67.26	339.2	10 57	-1				
UPPSALA	68.72	334.6	11 5	-2				
EUREKA	69.80	54.6	11 15	1			11 31	
SHIRAZ	72.24	294.1	11 25K	-4				13 58 PP
FLAMING GRGE	72.66	49.9	11 4	-27				
COLLMBERG	77.19	331.5	11 55A	-2				12 16
STUTTGART	80.61	332.2	12 15	-1				
FOLINIERE	83.62	338.0	12 30	-1				
FAYETTEVILLE	84.34	44.5	12 36A	1				
BREBEUF	85.18	26.3	12 41	2				
ISOLA	85.36	331.2	12 34	-6				
SOUTH POLE	132.97	180.0	19 17	0				
BYRD STATION	133.07	166.2	19 18	1				

SEPTEMBER 3 12.H 41.M 34.S EPICENTRE -6.24 154.63 DEPTH= 418.KM

A=-0.89831 B= 0.42591 C=-0.10790 D= 0.4284 E= 0.9036

G= 0.0975 H=-0.0462 K=-0.9942 HT= 6.9

DEPTH OF FOCUS= 0.061R

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	
RABAUL	3.18	309.4	1	7	0								
PORT MORESBY	8.05	246.5	1	59	2	3	37	8					
CHARTERS TS.	15.99	209.8	3	26A	2	6	16	7					
KOUMAC	17.04	147.6	3	35	0	6	34	6					
PORT VILA	17.58	131.7	3	40	0								
NOUMEA	19.63	145.6	4	1	1	7	17	3					
BRISBANE	21.11	184.6	4	16A	1	7	33	-7					
GUAM	21.90	333.4	4	2i	-i	7	52	-1	5	34	6	23	*SP
RIVERVIEW	27.65	186.3	5	13A	-1	9	27	2	6	29	6	35	PP
CANBERRA	29.40	189.4	5	29A	0	9	52	-1	6	43	6	52	PP
ADELAIDE	32.14	205.0	5	52A	-1	10	36	1	7	23	11	35	SCP
MELBOURNE	32.65	194.3	5	58A	1	10	41	-2	7	17	7	30	PP
AFIAMALU	33.90	105.6	6	7	-1	11	8	6	7	34	11	45	SCP
ONERAHI	34.53	151.0	6	13	0	11	15	3			15	51	SCS
MOORLANDS	36.65	189.2	6	31K	0						11	45	SCP
KARAPIRO	36.83	151.9	6	31A	-1						8	43	PCP
FORT NELSON	37.11	188.9	6	36	2	11	53	3					
TONGARIRO	37.85	153.1	6	42	1						11	54	SCP
CHATEAU	37.86	153.1	6	42	1						11	53	SCP
TUAI	38.28	151.1	6	44	0	12	5	-3			16	2	SCS
TORISIMA	39.01	340.2	6	51	1								
KAIMATA	39.07	160.2	6	52	1	12	16	-4			16	2	SCS
MANILA	39.22	302.2	6	53	1	12	17	-5					
WELLINGTON	39.25	155.8	6	48	-4	12	18	-4			14	46	*SS
BAGUIO CITY	40.52	304.2	6	57	-5	12	38	-3					
GEBBIES PASS	40.54	159.8	7	0	-3				8	21	12	4	SCP
ROXBURGH	41.13	164.3	7	8	1	12	48	-2			15	48	SS
YAKUSIMA	43.19	328.9	7	24	0								
MERA	43.25	342.2	7	24	0								
OSIMA	43.25	341.6	7	25	1	13	1	-19					
OMAESAKI	43.47	340.2	7	27	1	13	22	-1			16	31	
AJIRO	43.60	341.4	7	28	1								
TYOSI	43.70	343.7	7	28	0								
MISIMA	43.71	341.3	7	26	-2	13	21	-6					
OWASE	43.72	337.7	7	26	-2								
SHIZUOKA	43.75	340.6	7	26	-2								
YOKOHAMA	43.78	342.2	7	27	-1						7	56	
MUROTO	43.81	335.0	7	29	0								
MIYAZAKI	43.93	331.1	7	34	4	13	31	1					
SIMIDU	43.93	333.4	7	18	-12								
TOKYO C.M.O.	43.98	342.5	7	29	-1	13	17	-13					
MUNDARING	44.04	229.4	7	28A	-2	13	29	-2					
HUNATU	44.12	341.3	7	34	3						7	56	
KAMEYAMA	44.31	338.5	7	34	1	13	32	-3			8	30	
PERTH	44.32	229.7	7	34	1	13	44	9			9	28	PP
KOHU	44.34	341.2	7	32	-1	13	33	-3					
KOTI	44.34	334.5	7	33	0	13	32	-4			16	45	SCS
TOKUSIMA	44.35	336.0	7	34	1	13	38	2					
KAKIOKA	44.37	343.2	7	34	1								
TUKUBASAN	44.38	343.1	7	31K	-2	13	32	-4			9	24	PP
NARA	44.40	337.7	7	32	-1								
NAGOYA	44.42	339.2	7	33	0	13	37	0			9	5	
MITO	44.42	343.6	7	32	-1	13	36	-1					
IIDA	44.44	340.3	7	41	7								
SUMOTO	44.46	336.5	7	35	1	13	33	-4			9	9	
OSAKA	44.49	337.4	7	33K	-1	13	29	-9					
KUMAGAYA	44.53	342.3	7	33	-1	13	35	-3					
KOBE	44.65	337.0									13	38	
ABUYAMA	44.67	337.5	7	35K	0								
GIHU	44.70	339.1	7	36	0	13	52	11			8	8	
KYOTO	44.74	337.8	7	38	2	13	38	-3			8	48	
UTUNOMIYA	44.75	343.1	7	36	0	13	39	-2			7	55	
HIKONE	44.77	338.5	7	36	0	13	38	-4					
TAKAMATU	44.79	335.6	7	37	1	13	40	-2					
ONAHAMA	44.84	344.4	7	37	0	13	42	-1					
MAEBASI	44.85	342.1	7	37	0								
MATUYAMA	44.91	334.0	7	37	0	13	42	-2					
OOITA	44.92	332.4	7	37	0	13	44	0					
OIWAKE	44.95	341.5	7	38	0								
KUMAMOTO	45.01	331.1	7	41	3	13	45	0					
MATUMOTO	45.06	340.9	7	41	2	13	46	0					

ISURUGA	45.17	338.6	7 39	0					8 9	
SHIRAKAWA	45.19	343.7	7 41	2	13	48	1			
TAKAYAMA	45.21	340.1	7 40	0						
MATUSIRO	45.25	341.3	7 38	-2	13	48	0		9 11	PCP
NAGANO	45.37	341.4	7 41K	0	13	50	0			
HUKUI	45.47	339.0	7 46	4					8 44	
HIROSIMA	45.51	334.0	7 40K	-2	13	50	-2			
TOYOOKA	45.54	337.2	7 41	-1	14	8	16		16 52	SCS
HUKUSIMA	45.71	344.3	7 44	0	13	54	-1			
TOYAMA	45.72	340.3	7 44	0	13	54	-1			
TAKADA	45.75	341.6	7 44	0						
SENDAI	46.08	345.0	7 46	0	14	0	0		8 54	
HAMADA	46.12	334.1	7 44K	-3	14	1	0			
ISINOMAKI	46.13	345.5	7 47K	0	14	2	1		9 14	
YAMAGATA	46.21	344.4	7 46	-1	14	2	0			
NIIGATA	46.27	342.9	7 48	0	14	4	1			
AIKAWA	46.60	342.1	7 52	2						
LEMBANG	46.70	266.5	7 50	-1	14	10	1			
MIZUSAWA	46.84	345.6	7 52	0	14	1	-10			
SAKATA	46.96	344.2	8 0	7	14	17	5			
MIYAKO	47.13	346.6	7 52	-3					8 25	
MORIOKA	47.37	345.9	7 56	0	14	9	-9			
DJAKARTA	47.51	267.3	9 38	101					14 14	
AKITA	47.66	344.8	7 58	-1	14	20	-2			
HATINOHE	48.07	346.6	8 0	-2						
AOMORI	48.52	346.0	8 6	1						
HONG KONG	48.72	306.9	8 7K	0	14	37	1	9 28	10 7	PP
ZO-SE	49.00	321.2	8 8K	-1	14	41	1			
URAKAWA	49.35	348.4	8 13	2	14	48	3			
HAKODATE	49.47	346.4	8 11	-1	14	48	1		9 44	
CANTON	49.78	307.3	8 15	0	14	54	3		10 19	*SP
MORI	49.79	346.3	8 17	2						
KUSIRO	49.86	350.2	8 15	0	14	51	-1		13 26	
MURORAN	49.90	346.8	8 14	-1						
NEMURO	50.01	351.4	8 16	0						
OBIHIRO	50.01	349.0	8 16	0						
TOMAKOMAI	50.06	347.4	8 17	0						
SAPPORO	50.53	347.4	8 20	0					11 20	
NANKING	51.16	320.3	8 24K	-1	15	12	2	9 52	10 29	*SP
WUHAN	52.99	315.9	8 38	0						
VLADIVOSTOK	53.28	339.3	8 39	-1	15	40	2		17 50	
HONOLULU	53.83	58.0	8 44	0	15	47	1		18 22	*SS
KIPAPA	53.95	57.9	8 45	0					9 8	
CHANGCHUN	56.44	334.8	9 1K	-2	16	19	-1		11 5	*SP
MEDAN	56.71	278.4	9 3	-2	16	22	-1			
PEKING	58.09	325.8			16	41	0			
SIAN	59.03	316.2	9 19K	-1	16	55	2			
PETROPAVLOVK	59.13	2.8	9 19	-2	16	55	1		10 2	PCP
KUNMING	59.29	303.9	9 22K	0	16	59	3		11 32	*SP
CHENGTU	60.74	310.2	9 30	-2	17	14	-1		11 43	*SP
TERRE ADELIE	61.17	185.9	11 0	86	18	42	82			
PAOTOW	62.02	322.7	9 40K	0	17	33	2			
LANCHOW	63.52	315.4	9 50K	0	17	50	1			
PORT BLAIR	64.10	286.1							17 56	
MAGADAN	65.65	357.9	10 2	-1						
TOCKLAI	66.55	302.5	10 14	5						
CAPE HALLETT	66.70	174.9	10 9	-1	18	32	5	11 36	13 56	*PPP
WILKES	67.24	197.7			18	31	-3	11 43	19 25	SCS
CHITTAGONG	67.69	297.1	10 17	1	18	40	1		12 35	*SP
SHILLONG	68.62	300.4	10 18	-4	18	46	-4		11 3	
LHASA	70.62	304.3	10 33K	-1	19	13	0			
YAKUTSK	70.72	347.9	10 32	-2	19	6	-8			
SCOTT BASE	71.86	177.3	10 42K	1	19	32	5		12 12	PP
IRKUTSK	72.24	330.2	10 42	-1	19	32	1		10 57	PCP
CHATRA	73.02	300.4	10 48	0	19	39	-1		13 20	PP
MIRNY	73.27	201.6	10 48	-1						
BOKARO	73.42	297.0	10 54	4	19	46	2			
COLOMBO	75.73	278.7							20 11	
MADRAS	76.37	284.9	11 8A	2	20	15	-1		20 44	
KODAIKANAL	78.56	281.7							13 5	
HYDERABAD	78.78	289.1							20 44	
TIKSI	79.54	351.9	11 19	-4	20	47	-2		21 2	SCS
DEHRA DUN	81.65	301.8	11 36	2	21	10	-1			
COLLEGE	82.52	21.3	11 37	-2	21	12	-7		30 29	PKKP
BYRD STATION	83.18	169.9	11 43	1	21	33	7	13 18	13 2	*SP
POONA	83.28	289.4	11 43	0	21	23	-4		21 42	
SOUTH POLE	83.81	180.0	11 49	4	21	33	1	13 18	29 59	PKKP
BOMBAY	84.30	289.7							21 36	
SEMIPALATNSK	84.93	321.8	11 49	-2						

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

MAWSON	84.95	202.6	11	50	-1	21	32	-11	13	24	21	42 SCS
LAHORE	85.02	302.4	11	52	1	21	39	-5				
ARCATA	87.49	48.6	12	4A	1							
WARSAK DAM	87.74	304.4	12	4	0	22	6	-3				
UKIAH	87.83	50.4	12	5	0							
SAN FRANCSCO	88.20	51.9	12	7K	1							
BRANNER	88.36	52.3	12	8K	1							
BERKELEY	88.37	51.8	12	8K	1	22	18	3	13	47	14	22 *SP
CORVALLIS	88.71	45.1	12	9A	0							
SHASTA	88.72	49.0	12	9	0							
LICK	88.77	52.4	12	9K	0				14	3	14	48
VINEYARD	88.89	53.0	12	11K	1							
MINERAL	89.26	49.4	12	10K	-1						12	42
VICTORIA	89.31	41.2	12	11A	-1							
FRESNO	90.15	53.2	12	16	1						12	42
RENO	90.51	50.4	12	17K	0						14	11
TASHKENT	90.59	311.3	12	17	0	22	9	-26			24	45 PS
DUZHANBE	90.62	308.6	12	17	-1						22	37
QUETTA	91.10	300.1	12	19	-1	22	38	-1	13	56	14	47 *SP
PASADENA	91.14	55.9	12	21K	1	22	45	5	14	10	16	4 PP
EUREKA	93.45	50.8	12	31	0						13	28
BOULDER CITY	94.05	54.4	12	35	2	22	33	-32			13	12
HUNGRY HORSE	95.50	42.1	12	39	-1						16	29 PP
BUTTE	96.38	44.5	12	44	0							
SALT LAKE C.	96.69	49.8	12	46	1						16	38 PP
GLEN CANYON	96.72	53.6	12	47	1	22	46	5			16	46 PP
TUCSON	97.12	58.3	12	49	2						16	48 PP
KHEYS	97.19	350.5	12	46	-2						23	2 SKKS
TUCSON TELE.	97.22	58.3	12	50	2						16	50 PP
SVERDLOVSK	97.37	326.4	12	46	-3	23	29	45			16	54 PP
BOZEMAN	97.44	44.8	12	49	0							
FLAMING GRGE	98.56	49.6	12	54	0	22	53	3			39	52
ASHKABAD	98.75	307.3	12	55	0						16	56 PP
RESOLUTE	101.33	14.7	13	6	0	23	4	0				
RAPID CITY	103.05	46.3	13	14	0						17	32 PP
SHIRAZ	103.57	298.9	13	17	1	23	12	-2	15	32	16	38 *SP
TEHERAN	104.36	305.2	13	22	2	23	40	22				
THULE	106.07	9.6	17	38	777							
APATITY	107.30	339.9	17	39	777	23	30	-1			18	4 PP
GORIS	108.05	309.4	13	37	777	23	37	3			18	13 PP
TIFLIS	108.91	311.9	13	40	777						18	20 PP
SODANKYLA	109.66	341.1	17	44	777						18	14 PP
MOSCOW	110.14	327.5	13	55	-228						18	26 PP
FAYETTEVILLE	110.74	53.9	17	45	1						19	2 PP
KIRUNA	111.28	343.0	17	45	0						18	29 PP
PULKOVO	112.13	333.2	17	48	1						18	35 PP
FLORISSANT	113.30	50.5									18	48 PP
ST. LOUIS 1	113.44	50.6	17	48	-1						18	46 PP
NURMIJARVI	114.19	335.4	17	51	0	24	0	2			28	33 PKKP
SIMFEROPOL	115.75	317.2	17	54	0	24	10	6			19	9 PP
SCORESBY SD.	115.80	358.7				24	14	10			19	12 PP
ADDIS ABABA	116.44	277.0	18	3	8						34	26 SS
SKALSTUGAN	116.66	342.2	17	56	0						18	36
GRAHAMSTOWN	117.01	227.7									28	16
KSARA	117.25	304.8	18	4	7				19	36	19	22 PP
UPPSALA	117.40	337.2	17	56	-1							
JERUSALEM	118.19	302.7	18	1	2						19	23 PP
PRETORIA	119.08	236.1									28	16
CLEVELAND	119.15	45.6	18	0A	-1							
LWOW	120.09	325.4	18	4	2	24	25	5			19	41 PP
WARSAW	120.46	328.9				24	28	7			19	39 PP
ISTANBUL KA.	120.52	314.4	18	3	0	26	46	145				
BULAWAYO	120.83	242.2	18	5K	1							
GOTEBORG	121.02	337.7	18	4	0						21	1
BERGEN	121.21	342.8	18	8	3							
OTTAWA	121.57	39.5	18	5	0							
HERMANUS	121.63	223.0				24	33	8			28	54
COLUMBIA	121.73	53.8	18	7	1							
HELWAN	121.84	301.3	18	6	0				19	51		
PENNSYLVANIA	121.98	45.2	18	7	1							
REYKJAVIK	122.16	358.2	18	8A	2				20	5	21	4 *SPKP
KRAKOW	122.23	327.2	18	10	4						19	49 PP
COPENHAGEN	122.26	335.8	18	11	4	24	33	6			19	47 PP
SIDA	122.32	356.2	18	9A	2							
BROKEN HILL	122.79	248.5	18	9	1							
BREBEUF	122.84	38.6	18	8A	0							
SHAWINIGAN	122.85	37.2	18	7K	-1							
RACIBORZ	123.13	328.0	18	9	1							

SEVEN FALLS	123.71	35.8	18 10	1						
SOFIA	123.82	318.2	18 13	3					20 4	PP
HURBANOVO	124.39	325.8	18 26	15						
PALISADES	124.66	43.6	18 12	1	24 44	10			20 0	PP
BELGRADE	124.68	321.6	18 10A	-1					24 55	SKKS
BRATISLAVA	124.83	326.6	18 11	0					20 4	PP
COLLMBERG	124.98	331.6	18 12K	0	24 45	10			20 8	PP
PRUHONICE	125.08	329.6	18 12K	0	24 39	4	19 56			
VIENNA-H.	125.18	327.0	18 14	2					20 11	PP
LWIRO	125.26	262.8	18 15	3						
HALLE	125.34	332.3	18 14	2	24 55	19			20 11	PP
WESTON	125.77	41.0	18 14	1					20 9	PP
JENA	125.90	332.0	18 14	0			20 14		20 35	PP
PLAUEN	125.92	331.3	18 12	-2					20 13	PP
SONNEBERG	126.45	331.7	18 15	0			20 18		21 14	*SPKP
WITTEVEEN	126.67	336.3	18 19	4						
ZAGREB	126.80	324.8	18 13	-2						
HUANCAYO	127.10	110.1	18 20K	4					32 27	*PPS
LJUBLJANA	127.50	325.7	18 18A	1					20 17	PP
BENSBERG	127.85	334.5	18 18A	1					20 56	PP
DURHAM	127.96	342.8	18 17K	-1						
TOLMEZZO	128.11	326.9	18 27	9						
TRIESTE	128.17	325.7	18 20A	2			20 12		20 31	PP
HEIDELBERG	128.29	332.2	18 20	2					20 32	PP
STUTTGART	128.46	331.3	18 9	-9			20 9		20 32	PP
TUBINGEN	128.73	331.2	18 19	0						
RAVENSBURG	128.98	330.2	18 20	1					20 36	PP
EBINGEN	129.02	330.9	18 19	-1						
HALIFAX	129.29	34.8	18 22	2						
STRASBOURG	129.31	332.0	18 14	-6	24 55	8	20 8		20 36	PP
WINDHOEK	129.55	234.0	18 22	1					21 6	
CHINCHINA	129.99	88.7	18 22K	1					21 8	SKP
KEW	130.36	339.7							21 8	PP
PRATO	130.74	325.4	18 28	5					20 50	
NEUCHATEL	130.82	331.1	18 16	-7					21 9	
BESANCON	131.10	331.9	18 24	0					21 10	*SPKP
ROME	131.14	322.5	18 27A	3					20 47	PP
REGGIO CALA.	131.16	316.6							19 35	
MESSINA	131.17	316.7	18 26	2					21 13	PP
PARIS	131.45	335.7	18 25	1					21 13	PP
BOGOTA	131.50	89.3	18 25	1						
FUQUENE	131.90	88.2	18 26	1					21 18	SKP
LA PAZ	132.05	118.7	17 57	-28					21 23	PKS
FOLINIERE	132.65	337.8	18 14	-12					19 28	
ISOLA	132.75	328.3	18 16	-11					20 58	PP
MONACO	132.85	327.6	18 18	-9						
CLERMONT-FD.	133.53	332.6	18 30	2						
BAGNERES	136.96	332.4	18 25	-9			20 26			
SAN JUAN	138.50	69.3	18 28	-9					21 31	PP
CARACAS	138.69	81.2	18 19	-19					21 23	
ALGIERS UNI.	140.03	323.5	18 34	-6					21 39	PP
ALICANTE	140.87	328.4	18 37	-5	24 59	-10			21 45	PP
TOLEDO	141.41	333.4	18 37A	-6	25 27	17	20 23		21 40	PP
SERRA PILAR	142.16	339.2	18 42K	-3	25 0	-11	20 33		21 54	PP
RELIZANE	142.20	324.5	18 38	-7					21 42	PP
ANTIGUA	142.75	69.9	18 43	-3						
ALMERIA	143.04	328.7	18 42	-4					21 44	PP
GRANADA	143.35	330.2	18 46K	0	26 30	77			22 12	PP
FORT FRANCE	143.86	73.6	18 40	-7						
ST. VINCENT	143.98	76.2	18 46	-1						
TRINIDAD	144.11	80.5	18 47	-1						
MALAGA	144.11	330.6	18 45A	-3					22 3	PP
LISBON	144.49	337.9	18 49K	1					21 48	PP
BARBADOS	145.60	75.9	18 55	5						
TAMANRASSET	145.99	302.1	18 55	4			20 35		22 24	PP
PONTA DELGDA	148.65	0.5	18 56A	2					19 6	PKP2
MBOUR	168.44	315.1	19 21K	4					24 25	PP

SEPTEMBER 3 23.H 46.M 23.S EPICENTRE 44.81 149.48 DEPTH= 0.KM

A=-0.61317 B= 0.36153 C= 0.70237 D= 0.5079 E= 0.8614
G=-0.6050 H= 0.3567 K=-0.7118 HT= -3.5

SE= 2.92

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

	DEG.	DEG.	M	S	S	M	S	S	M	S	M	S
KURILSK	1.21	290.8	0	26	2	0	45	4				
NEMURO	3.17	243.6	0	53	1	1	31	0				
ABASHIRI	3.81	259.8	1	3	2	1	55	8				
KUSIRO	4.10	245.3	1	4A	-1	1	52	-2				
OBIHIRO	4.92	249.6	1	19	3	2	15	0				
HIROO	5.14	242.7	1	18	-2	2	14	-7				
URAKAWA	5.55	243.7	1	25	0	2	27	-4			2	51
WAKKANAI	5.55	279.0	1	31	6	2	47	16				
SAPPORO	6.12	256.3	1	38K	5	2	46	1				
TOMAKOMAI	6.12	251.9	1	40	6							
UGLEGORSK	6.63	312.7	1	44	3	3	7	9				
MURORAN	6.65	251.0	1	39	-2	2	55	-4				
SUTTSU	6.98	256.5	1	52	6						2	45
MORI	7.02	250.4	1	51	5	3	1	-7				
HAKODATE	7.03	247.8	1	45	-1	3	1	-7			2	34
HATINOHE	7.25	236.6	1	47	-2	3	3	-10				
SEVERO-KUR.	7.37	34.9	1	56	5	3	23	7			3	37
AOMORI	7.53	241.1	1	52	-1	3	17	-4				
MIYAKO	7.59	229.8	1	50	-4	3	9	-13				
MIZUSAWA	8.42	230.5	2	3	-3	3	26	-17				
AKITA	8.61	237.1	2	22	14						3	38
ISINOMAKI	8.82	226.6	2	5	-6	3	36	-17				
SENDAI	9.16	227.5	2	13	-3	3	45	-16				
SAKATA	9.31	234.0				3	55	-10				
YAMAGATA	9.47	229.4	2	18	-2	3	52	-17				
OKHA	9.74	336.3	2	28	4	4	23	8			2	30
HUKUSIMA	9.78	226.9	2	22	-3	4	1	-15				
ONAHAMA	10.18	222.5	2	48	18	4	10	-16				
PETROPAVLOVK	10.19	33.0	2	33	3						4	26
SHIRAKAWA	10.39	225.5	2	29	-4	4	13	-18				
NIIGATA	10.42	232.3	2	29	-4	4	14	-18			6	13
AIKAWA	10.81	235.0	2	38	-1						5	40
MITO	10.85	222.2	2	36	-3	4	27	-16				
UTUNOMIYA	11.01	224.7	2	40	-1	4	35	-11				
KAKIOKA	11.11	222.7	2	41	-2	4	32	-17				
TUKUBASAN	11.15	222.9	2	36A	-7	4	49	-1			2	46 PP
TYOSI	11.21	218.9				4	34	-18				
TAKADA	11.45	231.6	2	44	-3							
MAEBASI	11.53	226.8	2	46	-2	4	47	-12				
KUMAGAYA	11.56	225.1	2	48	-1	4	47	-13				
TOKYO C.M.O.	11.75	222.5	2	52	0	4	51	-14				
NAGANO	11.79	230.3	2	51	-1	5	29	23				
TITIBU	11.85	225.5	2	50	-3	4	53	-14				
OIWAKE	11.86	228.2	3	0	7							
MATUSIRO	11.88	229.8	2	48A	-5	5	7	-1				
YOKOHAMA	12.00	222.1	3	8	13	5	0	-11			6	0
WAZIMA	12.04	236.3	2	56	1							
MATUMOTO	12.23	229.6	3	10	12							
TOYAMA	12.33	233.2	2	55	-4						6	55
MERA	12.34	220.1									5	6
KOHU	12.35	226.1	3	4	4	5	5	-14				
HUNATU	12.38	225.0	3	11	11	5	6	-14				
MISIMA	12.59	223.4	3	7	4	5	10	-15				
OSIMA	12.67	221.1									4	59
SHIZUOKA	12.98	224.6									5	21
OMAESAKI	13.37	224.1									4	11
NAGOYA	13.57	229.1				5	44	-5			3	26
KLYUCHI	13.58	27.9	3	18	2						6	13
TSURUGA	13.72	232.8	3	17	-1						4	13
HIKONE	13.89	231.2	3	17	-3							
KAMEYAMA	14.08	229.5	3	30	7						5	3
KYOTO	14.36	231.8	3	23	-3	6	38	31				
TOTOOKA	14.52	235.4	3	24	-4						7	29
NARA	14.56	230.7	3	23	-6							
ABUYAMA	14.56	231.8	3	25A	-4							
OSAKA	14.75	231.3	3	39	8						6	30
MAGADAN	14.79	2.6	3	35	3						3	51 *SP
OWASE	14.82	228.2	3	40	8							
KOBE	14.92	232.2	3	49	15							
SUMOTO	15.32	232.0	3	37	-2	6	56	26				
TAKAMATU	15.82	233.8	3	42	-3	6	49	7				
TORISIMA	16.03	209.9	3	51	3	6	26	-21				
HAMADA	16.60	239.4	4	2	7	7	12	12				
KOTI	16.68	233.1	3	58	2	7	18	16				
HIROSIMA	16.74	237.3	3	55	-2	7	9	6				
MATUYAMA	16.90	235.3	4	0	1	7	17	10			9	21
CHANGCHUN	17.31	275.3	4	3	-1	7	31	15				

SIMIDU	17.56	232.5	4	8	1	7	31	9			
OOITA	18.02	236.2	4	12	-1	7	37	5			
HUKUOKA	18.52	239.3	4	19	0	7	45	1			
KUMAMOTO	18.85	237.0	4	24	1						
MIYAZAKI	19.08	233.7	4	34	8	8	4	8			
NAGASAKI	19.41	238.3	4	28A	-2	8	5	1			
KAGOSIMA	19.84	234.7	4	33	-2	8	28	15			
YAKUTSK	20.72	333.2	4	43	-1	8	31	0			
PEKING	24.94	270.7	5	24A	-2	9	46	-1	5	43	
ZO-SE	26.02	248.0	5	35A	-1	10	7	1	5	53	
NANKING	27.03	252.5	5	44	-1	10	18	-4	6	4	
TIKSI	28.67	346.6	5	59	-1	10	42	-7			6 52 PP
PAOTOW	29.10	275.7	6	3A	-1	10	55	0			
IRKUTSK	30.39	300.6	6	12	-4	11	7	-9			
WUHAN	30.83	254.5	6	18	-1						
SIAN	32.71	265.4	6	34	-2	11	49	-3			
LANCHOW	35.43	271.9	6	59A	0	12	31	-4			
CANTON	36.56	245.7	6	58	-11						
HONG KONG	36.59	243.9	7	7K	-2	13	5	13			
BAGUIO CITY	37.31	229.9	7	13	-2	12	57	-6			
CHENGTU	38.13	264.1	7	21A	-1	13	8	-8	7	39	
MANILA	38.48	227.7	7	26	1	13	14	-7			
COLLEGE	39.24	36.9	7	32	1	13	31	-2			9 7 PP
KUNMING	42.37	258.4	7	57	0	14	13	-6	8	17	
SEMIPALATNSK	45.47	302.9	8	18	-4						13 46 SCP
KHEYS	46.37	346.9	8	27	-2						10 16 PP
SITKA	46.56	46.7	8	34	3						
LHASA	47.94	272.3	8	41A	-1	15	33	-6			10 33 PP
KIPAPA	48.80	100.7	9	1	13						
RABAUL	48.85	176.4	8	46	-3						
SHILLONG	49.77	267.4	8	51	-5	15	58	-7			
CHITTAGONG	51.82	264.3	9	11	0	16	33	0			11 10 PP
CHATRA	52.34	272.0	9	16	1	16	39	-1			
RESOLUTE	53.47	17.4	9	23A	-1	16	54	-2			
SVERDLOVSK	53.52	316.9	9	23	-1	16	51	-5			12 35 PPP
NORD	53.62	357.5	9	23	-2						
PORT MORESBY	54.00	182.8	9	25	-3	16	57	-6			19 17
BOKARO	55.16	270.1	9	38A	2						
TASHKENT	56.41	297.0	9	44	-1	17	34	-1			9 56 *SP
THULE	56.67	10.0	9	45	-2						
DEHRA DUN	56.71	281.3	9	40	-7	17	35	-4			
VICTORIA	56.73	52.6	9	47	0						
APATITY	58.10	336.0	9	54A	-3	17	51	-6			13 28 PPP
DUZHANBE	58.25	294.5	9	56	-2	17	55	-4			
PENTICTON	58.41	50.2	9	58	-1						
LAHORE	58.57	284.7	9	58	-2	17	58	-6			
CORVALLIS	58.94	56.4	10	20	17						
WARSAK DAM	59.03	288.6	10	2	-2	18	6	-4			
SODANKYLA	60.12	338.0	10	10	-1						10 55 PCP
KIRUNA	61.34	340.4	10	18	-1						10 57
SHASTA	61.72	59.6	10	24	2						
HUNGRY HORSE	62.00	48.7	10	24	0	18	47	-1			
BERKELEY	63.49	62.1	10	34A	0	19	11	5			
LEMBANG	63.67	227.7	10	32A	-3	19	4	-5			
RENO	63.99	59.4	10	39A	2						
LICK	64.20	62.3	10	37	-1						
BUTTE	64.21	50.0	10	40	2						
QUETTA	64.44	287.9	10	38A	-2	19	15	-3			13 0 PP
PULKOVO	64.51	330.7	10	39	-1						10 55 *SP
MOSCOW	64.57	324.5	10	39	-2	19	11	-9			11 13 PCP
CHARTERS TS.	64.65	183.3	10	39	-2						
SCORESBY SD.	64.86	356.8	10	44	1						
ASHKABAD	65.22	299.5	10	45	0	19	25	-3			
BOZEMAN	65.25	49.6	10	49	4						
NURMIJARVI	65.84	333.6	10	47	-2	19	34	-1			
MADRAS	66.28	264.8	10	54	2	19	41	0			13 20 PPP
SKALSTUGAN	66.76	340.7	10	53	-2						
POONA	67.07	273.7	10	56	-1	20	5	15			
RUTH	67.11	57.1	11	6	9	19	51	0			
BOMBAY	67.56	274.7	11	31	31	19	53	-3			
SALT LAKE C.	67.95	54.1	11	2	0						
SUVA	67.99	150.2				20	3	2			
AFIAMALU	68.20	139.1				20	1	-3			
PASADENA	68.39	63.0	11	2	-3	20	6	0			11 31 PCP
UPPSALA	68.49	336.2	11	5	-1						11 35
NOUMEA	68.56	163.1	11	6	0						11 50
FLAMING GRGE	69.25	52.7	11	11	1	20	16	0			
BOULDER CITY	69.30	59.6	11	11	0	20	40	23			

RAPID CITY	70.48	46.9	11	18	0	20	31	0				
GLEN CANYON	70.61	57.0	11	19	0							
TIFLIS	70.69	309.9	11	20	1	20	35	2				
TEHERAN	70.91	301.5	11	22A	1	20	35	-1				
BERGEN	71.15	342.1	11	21	-1							
REYKJAVIK	71.19	356.0	11	24K	2					13	11	
SIDA	71.31	354.2	11	26A	3							
GORIS	71.35	307.3	11	23	0	20	37	-4		11	45	PCP
GOTEBORG	71.89	337.6	11	26	0							
BRISBANE	71.91	176.9	11	27	0	20	48	1				
COPENHAGEN	73.51	336.3	11	35	-1	21	5	-1		21	42	SKS
WARSAW	73.65	329.9	11	38	1	21	3	-4		16	2	PPP
SIMFEROPOL	73.85	318.1	11	38A	0	21	5	-4		11	55	PCP
TUCSON	74.25	60.2	11	40	0	21	26	12		21	51	
TUCSON TELE.	74.26	60.1	11	41	1							
SHIRAZ	74.30	296.2	11	39	-2	21	10	-4		13	52	PP
LWOW	74.47	326.8	11	41	-1	21	10	-6		11	57	PCP
KRAKOW	75.83	329.2	11	50	1	21	27	-4		12	5	PCP
RACIBORZ	76.43	330.1	11	52K	-1					12	2	PCP
COLLMBERG	77.13	333.7	11	55K	-2	21	42	-4		14	52	PP
HALLE	77.29	334.4	11	57	0	21	49	2		12	15	PCP
WITTEVEEN	77.64	337.9	11	57	-2							
CAMPULUNG	77.70	323.4	12	1	1							
PRUHONICE	77.77	332.1	11	59K	-1	21	49	-3		22	36	PS
DURHAM	77.79	343.3	12	0	0	21	52	-1		12	16	PCP
JENA	77.90	334.3	12	1	0	22	1	7		15	21	PP
BUCHAREST	77.92	322.3	12	4	3	21	41	-13		13	36	PP
PLAUEN	78.10	333.7	11	59	-3							
HURBANOVO	78.28	328.9	12	3	0					12	17	PCP
RIVERVIEW	78.28	178.6	11	58K	-5	22	2	4		12	20	
CHEB	78.39	333.4								15	5	
SONNEBERG	78.50	334.2	12	4	0					15	7	PP
VIENNA-H.	78.62	330.1	12	6	1	22	1	-1				
DE BILT	78.68	338.5	12	7	2	22	5	3				
TIMISOARA	78.88	325.9	12	6	0	22	5	1				
BENSBERG	79.17	336.8	12	7K	-1					12	46	
ISTANBUL KA.	79.21	318.4	12	8	0					14	58	PP
CANBERRA	79.76	180.4	12	11	0				12 25	12	43	PCP
BELGRADE	79.96	325.8	12	11K	-1	22	16	0		18	49	
ADELAIDE	80.00	189.0	12	12	0							
HEIDELBERG	80.12	335.2	12	12	-1					12	29	
SOFIA	80.50	322.9	12	15	0	22	22	1		12	41	PP
STUTTGART	80.51	334.6	12	15A	0	22	14	-7		22	56	PS
KEW	80.61	341.4	12	15A	-1	22	18	-4		27	44	SS
TUBINGEN	80.79	334.6	12	17	1					12	35	
ZAGREB	80.83	329.1	12	14	-3	22	21	-4				
FLORISSANT	80.86	43.2	12	17	0	22	22	-3				
FAYETTEVILLE	81.02	47.3	12	16A	-2	22	0	-27				
ST. LOUIS 1	81.05	43.2	12	17K	-1	22	23	-4				
EBINGEN	81.13	334.5	12	18	0							
STRASBOURG	81.13	335.4	12	18A	0	22	24	-4		12	48	
LJUBLJANA	81.16	330.1	12	18A	0					13	3	
KSARA	81.26	309.5	12	15A	-4	22	31	2		15	27	PP
RAVENSBURG	81.28	333.9	12	19	0					12	36	
OTTAWA	81.66	30.3	12	21	0							
SHAWINIGAN	81.69	28.0	12	21	0							
TRIESTE	81.77	330.3	12	21A	-1	22	32	-2		22	47	SKS
SEVEN FALLS	81.82	26.5	12	16	-6							
CHUR	82.13	333.5	12	25A	2							
MUNDARING	82.20	208.1	12	23	-1							
BREBEUF	82.31	29.0	12	25K	1	22	40	0				
MELBOURNE	82.36	183.6	12	25	0	22	42	2				
PARIS	82.39	338.7	12	26	1	22	38	-3				
CLEVELAND	82.71	36.1	12	28K	2	22	40	-4				
NEUCHATEL	82.80	335.2	12	27	0							
BESANCON	82.86	335.9	12	27	0					13	52	
FOLINIERE	83.16	340.5	12	29	0							
PAVIA	83.73	333.0	12	48	16					16	28	PP
ATHENS	84.17	319.9	12	32K	-2							
PRATO	84.24	331.1	12	37	3	22	53	-6				
CLERMONT-FD.	85.02	337.1	12	40	2					23	31	SP
ISOLA	85.30	333.9	12	40	0				12 51			
ROME	85.49	329.3	12	42A	1	23	2	-10	12 53	29	18	SS
MONACO	85.59	333.4	12	41	0							
KARAPIRO	85.66	159.6	12	42	1							
WESTON	85.85	29.0	12	43K	1					23	13	
PALISADES	86.12	31.4	12	46A	2	23	13	-5		16	25	PP
HALIFAX	86.23	23.0	12	45	1							
HELWAN	86.77	309.9	12	47	0	23	22	-2				

MOORLANDS	86.89	181.7	13 2	15				
BAGNERES	88.32	338.0	12 54	0			16 1	
TORTOSA	90.32	337.0	12 56	-8	23 58	1		
ROXBURGH	91.61	166.2			24 15	7		
TOLEDO	92.39	339.9	13 12	-1	24 5	-10	16 56	PP
ALGIERS UNI.	93.30	333.6	13 17	0			17 2	PP
GRANADA	94.83	338.7	13 27K	2			25 4	
RELIZANE	95.01	335.1	13 36	11			14 15	
MALAGA	95.47	339.2	13 26A	-1			17 16	PP
ADDIS ABABA	97.99	291.1	13 44	5	24 21	4	17 45	PP
TAMANRASSET	105.12	325.8	14 11	777	24 36	-15	18 23	PP
LWIRO	112.97	291.0	19 9	30				
CAPE HALLETT	117.72	173.0					20 19	PP
BROKEN HILL	121.96	281.8	18 58	2				
BULAWAYO	125.70	276.7	19 14K	11				
HUANCAYO	129.77	63.8	19 14	3			22 32	PP
BYRD STATION	133.93	166.0	19 17	-2			22 44	SKP
SOUTH POLE	134.62	180.0	19 3	-17			22 9	SKP
LA PAZ	137.67	60.4	19 28	2	26 39	4		

SEPTEMBER 6 14.H 3.M 1.S EPICENTRE -20.57 169.35 DEPTH= 44.KM

A=-0.92089 B= 0.17317 C=-0.34924 D= 0.1848 E= 0.9828
G= 0.3432 H=-0.0645 K=-0.9370 HT= 4.5

DEPTH OF FOCUS= 0.002R

SE= 1.73

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
PORT VILA	2.99	340.8	0 47	1	1 25	4			
NOUMEA	3.20	236.9	0 48	-1					
KOUMAC	4.75	269.2	1 9	-2					
SUVA	8.90	75.9	2 9	0				4 44	
BRISBANE	16.59	242.7	3 49A	-2	7 1	8			
KARAPIRO	18.12	164.1	4 10K	0					
AFIAMALU	19.19	72.8	4 22K	0					
TONGARIRO	19.32	165.4	4 24	0					
TUAI	19.38	161.4	4 24	0					
COBB RIVER	20.65	172.7	4 38	0					
RIVERVIEW	20.85	226.9	4 41K	1	8 36	11	4 52	5 7	PP
WELLINGTON	21.15	168.6	4 44	1				8 45	
CHARTERS TS.	21.66	267.2	4 50	2	8 47	7			
KAIMATA	21.96	175.9	4 59	8					
CANBERRA	23.15	226.3	5 5	2	9 9	2	5 15	5 41	PP
GEBBIES PASS	23.23	173.9	5 2	-2					
RABAUL	23.33	311.9	5 4	-1	9 35	25			
PORT MORESBY	24.11	294.1	5 14	2	9 47	23	5 24	10 0	PS
ROXBURGH	24.85	180.1			9 55	18			
MELBOURNE	27.24	225.6	5 42K	0	10 25	9			
MOORLANDS	28.69	215.6	5 54A	-1				9 4	PCP
ADELAIDE	30.52	235.5	6 13	2					
GUAM	41.58	322.4	7 45	0				9 34	PP
MUNDARING	48.57	245.1	8 39	-2				10 4	
TERRE ADELIE	49.58	194.1	8 52	4				10 5	
CAPE HALLETT	51.76	179.7	9 4	-1					
SCOTT BASE	57.34	180.7	9 44K	-2					
MANILA	58.95	302.5	9 53	-4					
BAGUIO CITY	60.36	303.9	10 5	-2					
LEMBANG	61.19	273.5	10 12A	0	18 22	-5			
ABUYAMA	63.79	329.4	10 30A	0					
MATUSIRO	63.97	332.4	10 30A	-1	19 4	2		20 25	SCS
MIRNY	65.89	205.2	10 41	-2					
BYRD STATION	66.62	169.6	10 45	-3				29 7	PKKP
HONG KONG	68.67	305.3	11 1	0	20 8	9			
ZO-SE	69.11	316.8	11 2	-1	20 8	4			
SOUTH POLE	69.56	180.0	11 5	-1	20 7	-2		29 27	PKKP
NANKING	71.29	316.2	11 17A	1	20 34	5			
VLADIVOSTOK	72.13	332.1	11 22	1					
MEDAN	73.27	280.4	11 29	1					
CHANGCHUN	75.73	328.7	11 43A	1	21 24	4			
PEKING	78.03	321.1	11 56A	1	21 49	5			
KUNMING	79.06	302.1	12 3A	2	22 3	8			
SIAN	79.20	312.8	12 3	1					
CHENGTU	80.81	307.5	12 12A	2	22 18	4			

LANCHOW	83.68	312.1	12	27A	2	22	46	3				
ARGENTINE I.	85.25	160.1	12	30	-3							
BERKELEY	86.58	47.5	12	40A	1							
LICK	86.76	48.2	12	41A	1							
CHITTAGONG	86.84	295.1	12	43	2				12	54	16 8	PP
PASADENA	87.78	52.3	12	44A	-1	23	48	25			16 1	PP
FRESNO	87.78	49.4	12	45	0							
SHASTA	87.88	45.0	12	46	0							
SHILLONG	88.08	298.1	12	46A	-1							
YAKUTSK	88.14	342.5	11	46	-61	23	6	-20				
MINERAL	88.23	45.6	12	48	1							
RENO	89.06	46.9	12	52A	1							
CORVALLIS	89.22	41.3	12	53K	1							
BOULDER CITY	91.04	51.9	13	1	0						16 33	PP
VICTORIA	91.13	37.8	13	0A	-1							
COLLEGE	91.28	16.9	12	59	-3						13 20	
EUREKA	91.69	48.3	13	3	-1							
IRKUTSK	91.86	326.1	13	3	-1							
CHATRA	92.46	297.6	13	8	1							
TUCSON	92.59	56.6	13	9	1							
GLEN CANYON	93.82	52.0	13	14	1							
HUNGRY HORSE	96.63	40.8	13	28	2							
FLAMING GRGE	96.89	49.0	13	27	0							
PORT STANLEY	97.05	152.6	13	27	-1							
TACUBAYA	97.91	72.3	13	55	23	23	56	-9			17 36	PP
QUETTA	110.42	295.5	18	27	0							
KIMBERLEY	120.22	216.1	19	9	23							
OTTAWA	121.74	48.7	18	48A	-1							
SHIRAZ	122.69	292.6	18	51	0						20 29	PP
PALISADES	123.19	53.9									33 7	SKKS
BREBEUF	123.21	48.5	18	50K	-2							
SHAWINIGAN	123.72	47.2	18	2A	-51							
BULAWAYO	124.21	226.0	18	55A	1							
SEVEN FALLS	124.98	46.3	18	54	-1							
APATITY	125.52	340.8	18	55K	-1							
SODANKYLA	127.63	342.8	18	59	-1							
SAN JUAN	127.87	82.3	19	0	-1							
KIRUNA	128.88	345.4	19	6	3							
TIFLIS	129.00	307.5	19	4	1						22 27	PKS
MOSCOW	129.85	326.6	19	4	-1							
TRINIDAD	130.31	93.4	19	7	1							
HALIFAX	130.36	48.4	19	6K	0							
NURMIJARVI	132.99	337.0	19	5	-6						22 38	PKS
HELSINKI	133.10	336.5	19	10	-1							
SKALSTUGAN	134.30	345.9	19	13	0							
UPPSALA	135.89	339.9	19	16	0							
SIMFEROPOL	135.91	314.0									22 6	PP
KSARA	136.90	297.8	19	20	2						22 8	PP
JERUSALEM	137.62	294.9	19	21	2						22 7	PP
HELWAN	141.09	292.3	19	21	-5						22 40	
SKALNATE PL.	142.29	326.6	19	25	-3							
RACIBORZ	142.74	329.1	19	30	2							
SOFIA	143.98	315.5	19	30	0						22 42	
COLLMBERG	144.16	334.5	19	29A	-2						22 6	
HALLE	144.42	335.6	19	30	-1				19	42	22 54	PP
PRAGUE	144.48	332.0	19	32	1							
PRUHONICE	144.50	331.8	19	31A	0						22 49	PP
BRATISLAVA	144.54	327.5	19	31K	0						19 43	PKP2
VIENNA-H.	144.86	328.2	19	33K	1						19 43	PKP2
JENA	145.02	335.3	19	33	1						23 10	PP
PLAUEN	145.13	334.3	19	31	-1				19	41	19 56	
WITTEVEEN	145.13	341.6	19	33A	1							
DURHAM	145.17	350.8	19	31K	-2						23 2	PP
ATHENS	145.61	307.8	19	33A	0							
DE BILT	146.20	342.4	19	35	1						23 14	PP
LJUBLJANA	147.27	326.8	19	39	3							
HEIDELBERG	147.34	336.3	19	35	-1							
STUTTGART	147.64	335.1	19	37	0						20 6	
TUBINGEN	147.91	335.0	19	41A	4							
TRIESTE	147.94	326.9	19	41	4						19 50	PKP2
KEW	148.11	347.7	19	41A	4							
EBINGEN	148.24	334.7	19	41	3							
RAVENSBURG	148.29	333.6	19	37	-1							
STRASBOURG	148.37	336.4	19	42A	4						22 42	PP
CHUR	149.05	332.6	19	44A	5							
BASLE	149.31	335.5	19	3A	-36							
PARIS	149.91	342.6	19	46	6						19 57	
NEUCHATEL	149.99	335.6	19	46	6							
BESANCON	150.15	336.9	19	47	6							

FOLINIERE	150.70	346.2	19 42	1			
ISOLA	152.23	332.0	19 51	7		20 16	PKP2
MONACO	152.41	330.9	19 53	9		20 2	
CLERMONT-FD.	152.43	338.9	19 52	8			
BAGNERES	155.80	340.4	19 48	-1		40 15	
ALGIERS UNI.	159.91	326.4	19 46	-8			
TOLEDO	159.94	345.1	19 54	0		20 34	PKP2
RELIZANE	161.96	329.3	19 57	1		20 44	PKP2
TAMANRASSET	164.81	281.3	20 0	1		24 46	PP

SEPTEMBER 6 15.H 24.M 40.S EPICENTRE 42.06 142.66 DEPTH= 70.KM

A=-0.59210 B= 0.45172 C= 0.66735 D= 0.6066 E= 0.7950
G=-0.5306 H= 0.4048 K=-0.7447 HT= -2.4

DEPTH OF FOCUS= 0.006R

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
URAKAWA	0.13	43.4	0 10A	-1	0 17	-3		
HIROO	0.54	65.2	0 12A	-3	0 21	-5		
OBIHIRO	0.95	24.6	0 19A	0	0 34	1		
TOMAKOMAI	0.99	306.0	0 19	0	0 34	0		
MURORAN	1.28	282.5	0 22K	-1	0 38	-2		
SAPPORO	1.40	316.8	0 24K	-1	0 43	0		
HAKODATE	1.44	260.8	0 24K	-1	0 43	-1		
MORI	1.56	272.3	0 27	0	0 46	-1		
KUSIRO	1.58	53.7	0 26K	-1	0 46	-1		
HATINOHE	1.75	209.6	0 26K	-3	0 47	-4		
AOMORI	1.88	229.5	0 30	-1	0 52	-2		
SUTTSU	1.95	293.3	0 32	0	0 56	0		
ABASHIRI	2.30	30.6	0 40	3	1 10	6		
MIYAKO	2.46	192.5	0 36	-3	1 3	-5		
NEMURO	2.50	58.4	0 40	0	1 9	0		
MORIOKA	2.61	206.1	0 41A	0	1 10	-2		
AKITA	3.03	220.6	0 47A	0	1 24	1		
MIZUSAWA	3.15	202.2	0 50	1	1 27	2		
WAKKANAI	3.44	348.4	0 55	2	1 46	13		
ISINOMAKI	3.76	196.2	0 56A	-1	1 37	-4		
SAKATA	3.82	215.3	1 1	3	1 39	-3		
SENDAI	4.01	200.2	0 59	-2	1 42	-5		
YAMAGATA	4.19	205.7	1 2	-1	1 50	-2		
HUKUSIMA	4.62	202.1	1 9A	0	1 58	-4		
KURILSK	4.94	48.2	1 13	-1	2 12	2		
NIIGATA	4.97	215.0	1 12	-2	2 10	-1	1 58	
AIKAWA	5.26	221.5	1 28	10	2 26	8		
SHIRAKAWA	5.28	201.7	1 18	0	2 18	0		
ONAHAMA	5.28	195.5	1 15	-3	2 10	-8		
UTUNOMIYA	5.91	202.4	1 24	-3	2 27	-7	2 0	
MITO	5.92	197.4	1 24	-3	2 30	-4		
TAKADA	6.01	216.0	1 27	-1				
KAKIOKA	6.13	199.1	1 27	-3	2 34	-6		
TUKUBASAN	6.16	199.7	1 26K	-4	2 35	-5	1 48	
MAEBASI	6.30	207.4	1 31	-1	2 49	5		
NAGANO	6.39	214.2	1 36	2	3 1	15		
KUMAGAYA	6.42	204.4	1 37	3	2 45	-2		
WAZIMA	6.44	225.4	1 36	2				
TYOSI	6.48	193.2	1 31	-4	2 40	-8		
MATUSIRO	6.50	213.5	1 34A	-1	2 45	-4		
OIWAKE	6.55	210.5	1 38	2				
TITIBU	6.68	205.8	1 46	8				
HONGO	6.72	200.5	1 34	-4			2 49	
TOKYO C.M.O.	6.76	200.6	1 38	-1	2 51	-4	2 44	
TOYAMA	6.82	220.1	1 39	-1	2 52	-5		
MATUMOTO	6.85	213.7	1 42	2				
YOKOHAMA	7.02	200.5	1 43	1	2 58	-4	2 38	
UGLEGORSK	7.04	356.8	1 45	2	3 4	2		
KOHU	7.13	208.0	1 46	2	3 4	0	3 23	
HUNATU	7.22	206.1	1 47	2	3 9	3		
KANAZAWA	7.22	222.1	1 44	-1				
TAKAYAMA	7.24	217.3	1 48	2				
MERA	7.46	198.2	1 51	2				
MISIMA	7.51	203.9	1 50	1	3 10	-4		
AJIRO	7.53	202.9	1 50	1	3 9	-5		

IIDA	7.54	211.6	1	54	4	3	28	14						
SHIZUOKA	7.82	206.6	1	56	3	3	17	-4						
VLADIVOSTOK	8.01	281.2	1	58	2	3	34	8						
GIHU	8.08	216.6	1	57K	0	3	27	-1						
NAGOYA	8.19	214.8	2	1	2	3	35	5						
OMAESAKI	8.22	206.5	2	16	17									
HIKONE	8.43	218.6	2	3	1									
KAMEYAMA	8.68	216.0	2	5	0	3	56	14				2	23	
KYOTO	8.87	219.9	2	8	0	4	2	15						
TOYOOKA	8.94	225.7	2	9	0									
ABUYAMA	9.07	220.1	2	10A	-1									
NARA	9.11	218.3	2	8	-3									
OSAKA	9.27	219.4	2	21	8	4	9	12						
OWASE	9.46	214.6	2	23	7									
SUMOTO	9.82	220.9	2	26	5							5	46	
TOKUSIMA	10.20	221.2	2	25	-1									
TAKAMATU	10.27	224.0	2	25	-2							6	20	
KOTI	11.14	223.3	2	39	0	5	11	29						
OOITA	12.41	228.3	2	54A	-2							3	52	
CHANGCHUN	12.84	283.8	3	0	-1	5	23	0				3	18	PP
PETROPAVLOVK	15.35	38.9	3	38	4									
PEKING	20.06	273.1	4	27A	-3	8	5	-2				4	48	PP
ZO-SE	20.37	244.5	4	31	-2	8	11	-2						
NANKING	21.45	250.1	4	41	-3	8	32	-1						
PAOTOW	24.47	277.6	5	12	-2									
IRKUTSK	27.69	304.9	5	43A	-1	10	22	3						
TIKSI	30.43	351.4	6	7	-1									
LANCHOW	30.55	271.7	6	7A	-2									
CANTON	30.89	241.4	6	13	1									
HONG KONG	30.91	239.3	6	11	-1	11	14	4				11	42	*SS
CHENGTU	32.88	262.5	6	29	-1	11	39	-2						
KUNMING	36.92	255.6	7	4A	0	12	46	3						
SEMIPALATNSK	42.82	303.4	7	52	-1	14	13	2	8	10				
LHASA	43.04	270.5	7	56A	2	14	19	4						
COLLEGE	44.38	34.9	8	5	0	14	35	1						
SHILLONG	44.63	265.0	8	6A	-1									
CHITTAGONG	46.55	261.4	8	24	1									
CHATRA	47.42	269.7	8	30	1	15	20	3						
KHEYS	47.95	347.3	8	33	-1							10	2	PP
TASHKENT	53.17	295.6	9	12	-1							17	7	PS
LAHORE	54.39	282.6	9	21A	-1									
DUZHANBE	54.81	292.8	9	54	29									
WARSAK DAM	55.13	286.6	9	27	0									
NORD	56.11	356.4	9	32	-3									
RESOLUTE	57.51	15.4	9	43	-1									
LEMBANG	58.22	222.1	9	47A	-2							11	2	
APATITY	58.54	334.8	9	50K	-2									
QUETTA	60.46	285.3	10	4A	-1	18	23	16	10	22		10	40	*SP
SODANKYLA	60.73	336.5	10	5	-2				10	27		10	49	PCP
CHARTERS TS.	61.92	176.2	10	14	-1							13	0	
ASHKABAD	62.16	297.2	10	17	1									
KIRUNA	62.18	338.7	10	15	-1									
POONA	62.21	270.4	10	16	-1									
VICTORIA	62.31	48.5	10	16A	-1									
MOSCOW	63.83	322.5	10	26	-1				10	45				
CORVALLIS	64.58	52.1	10	34K	2									
NURMIJARVI	65.99	331.4	10	40	-1									
HELSINKI	66.11	331.0	10	40	-2									
SCORESBY SD.	67.22	354.4	10	49	0									
SHASTA	67.38	55.1	10	47	-3									
HUNGRY HORSE	67.49	44.6	10	52	1									
SKALSTUGAN	67.60	338.4	10	50	-1							11	30	
TEHERAN	68.00	298.7	10	59A	5									
MINERAL	68.07	55.1	10	54	0									
TIFLIS	68.52	307.2	10	58	1				11	15				
UPPSALA	68.88	333.7	10	56	-3							11	17	
GORIS	68.95	304.5	11	0	0									
RENO	69.66	54.8	11	5	1									
BRISBANE	69.73	170.4	11	22	17									
SHIRAZ	70.92	292.9	11	11K	-1	20	50	30	11	30		13	48	PP
EUREKA	72.00	52.9	11	18	0									
BERGEN	72.10	339.3	11	20	1									
SIMFEROPOL	72.44	315.1	11	21	0									
SALT LAKE C.	73.56	49.7	11	28	1									
COPENHAGEN	73.88	333.2	11	29A	0									
LWOW	73.90	323.7	11	30	1									
PASADENA	74.07	58.4	11	28	-2									
FLAMING GRGE	74.83	48.3	11	36	1									
KRAKOW	75.49	325.9	11	39	1							11	55	PCP

RAPID CITY	75.93	42.7	11	42	1						
SKALNATE PL.	76.02	325.2	11	48	7				12	13	
RACIBORZ	76.18	326.8	11	43	1						11 56 PCP
CANBERRA	77.22	174.7	11	50	2						
COLLMBERG	77.23	330.3	11	42A	-6				12	7	14 30 PP
HALLE	77.45	331.0	11	49	0						14 38 PP
HUNDARING	77.58	202.8	11	50	0						
PRUHONICE	77.71	328.7	11	56A	5						14 44 PP
JENA	78.05	330.8	11	53	0				12	8	13 30
BRATISLAVA	78.12	326.2	11	54K	1				11	59	
PLAUEN	78.20	330.3	11	51	-3						
DURHAM	78.83	339.8	11	52	-5	21	32	-16			
KSARA	79.01	305.7	12	0A	2				12	25	14 59 PP
BENSBERG	79.57	333.2	12	1A	0						12 20
HEIDELBERG	80.35	331.5	12	6	1						
STUTTGART	80.68	330.8	12	8A	1						13 6
JERUSALEM	80.81	304.6	12	8	0						15 13 PP
LJUBLJANA	80.88	326.3	12	8A	0						
TUBINGEN	80.95	330.8	12	9	1						
EBINGEN	81.28	330.7	12	10	0						
STRASBOURG	81.38	331.6	12	11	0						
RAVENSBURG	81.38	330.1	12	11	0						
KEW	81.45	337.6	12	11	0						
ATHENS	82.87	315.8	12	17A	-1						
PARIS	82.95	334.7	12	19	0						
BESANCON	83.14	331.9	12	20	0						
FOLINIERE	83.90	336.5	12	24	0						
HELWAN	84.53	305.6	12	27A	0						14 8
ISOLA	85.38	329.7	12	32	1				13	3	
CLERMONT-FD.	85.41	332.9	12	33	2						
SHAWINIGAN	86.32	23.6	12	35	-1						
SEVEN FALLS	86.37	22.2	12	36	0						
ST. LOUIS 1	86.38	38.7	12	37	1	23	8	4			
OTTAWA	86.43	26.0	12	36	0						
FAYETTEVILLE	86.47	42.8	12	37A	1				13	4	
BREBEUF	87.01	24.6	12	40K	1						
BAGNERES	88.79	333.5	12	47	0						
WESTON	90.54	24.5	12	57K	1						
HALIFAX	90.56	18.4	12	57K	1						
TOLEDO	93.03	335.0	13	8A	1				13	26	
TAMANRASSET	104.29	319.6	13	59	1						18 7 PP
SOUTH POLE	131.86	180.0	19	7	1						22 27 SKP
BYRD STATION	132.44	166.5	19	16	9						22 38 SKP
ARGENTINE I.	152.23	155.8	19	49	8						

SEPTEMBER 7 1.H 17.M 37.S EPICENTRE -37.02 -15.72 DEPTH= 0.KM

A= 0.77047 B=-0.21680 C=-0.59948 D=-0.2709 E=-0.9626
G=-0.5771 H= 0.1624 K=-0.8004 HT= -0.6

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	
HERMANUS	28.40	95.3									11	57	SS
WINDHOEK	31.73	72.3	6	27	-1								
PORT STANLEY	33.02	230.0	6	37	-2								
KIMBERLEY	34.78	88.3	7	20	26								
PRETORIA	38.82	86.0	7	54	26								
PIETERMZBURG	38.93	92.9	7	34	5								
ARGENTINE I.	39.93	209.4	7	38	1								
BULAWAYO	42.00	78.9	7	52K	-2								
SANTA LUCIA	44.49	257.6	8	14K	-1	14	51	1					
BROKEN HILL	45.20	72.1	8	20K	0								
LA PAZ	50.39	279.3	9	1	0	16	16	2					
MBOUR	51.13	358.4	9	6	0	16	27	3					
MAWSON	52.09	151.6	9	14	0								
SOUTH POLE	53.17	180.0	9	21	-1						10	14	PCP
LWIRO	53.58	60.5	9	24A	-1						24	37	
BYRD STATION	56.15	191.8	9	44	0						11	37	PP
TANANARIVE	57.72	90.2	9	56	1						10	34	
HUANCAYO	58.64	278.8	10	3A	2						19	16	
TAMANRASSET	62.76	22.1	10	28A	-1	19	2	5			23	29	SS
MIRNY	63.47	154.9	10	32	-2						21	8	
TRINIDAD	63.92	308.5	10	38	1								
SCOTT BASE	65.39	180.6	10	46	0	19	37	7			20	47	SCS

ST. VINCENT	65.78	310.3	10	50	1						
CARACAS	67.38	303.9	10	58A	-1	19	53	-1			
BOGOTA	68.25	294.0	11	6A	2	20	10	5			
ADDIS ABABA	68.54	59.8	11	8	2						
FUQUENE	68.57	294.9	11	6A	0				20	34	PS
CHINCHINA	69.62	293.1	11	11A	-2						
CAPE HALLETT	70.89	181.9	11	20	-1				14	19	PP
SAN JUAN	72.75	310.0	11	31	-1						
GALERAZAMBA	73.31	297.8	11	37	2	21	17	13			
RELIZANE	73.95	13.6	11	36	-3				14	23	
MALAGA	74.11	9.4	11	36K	-4	21	14	2	14	32	PP
ALMERIA	74.52	11.0	11	41K	-1	21	29	12	14	50	PP
GRANADA	74.67	10.0	11	42A	-1				14	26	PP
BALBOA HTS.	75.18	293.5	11	45	-1						
ALGIERS UNI.	75.45	15.5	11	46A	-1				14	35	PP
LISBON	75.61	5.3	11	46K	-2				12	7	PCP
ALICANTE	76.30	12.3	11	55	3	21	40	3	14	49	PP
COIMBRA	77.13	5.7	11	58	1						
TOLEDO	77.27	9.2	11	57	-1	21	46	-1	14	50	PP
SERRA PILAR	78.04	5.5	12	3A	1				15	0	PP
HELWAN	79.82	40.2	12	11A	-1	22	17	3			
MESSINA	80.22	24.5	12	4	-10	22	4	-15			
BAGNERES	81.01	11.7	12	18	0						
ROME	82.66	20.8	12	26A	0	22	26	-18			
ATHENS	83.03	30.4	12	27K	-1						
JERUSALEM	83.37	41.7	12	30	0	23	0	9			
ISOLA	83.41	16.3	12	31	1						
CLERMONT-FD.	84.14	13.1	12	33	-1						
KSARA	85.31	40.9	12	42K	2	23	10	0	15	57	PP
BESANCON	86.11	14.6	12	43	-1						
BASLE	86.71	15.6	12	45A	-2						
SOFIA	86.95	27.7	12	49	1				16	16	PP
RAVENSBURG	87.40	16.8	12	50	0						
STRASBOURG	87.75	15.4	12	52K	0	23	37	4	13	43	
BELGRADE	87.78	24.9	12	53	1				15	27	
ISTANBUL KA.	87.87	32.2	12	51	-1	23	24	-11			
TUBINGEN	87.98	16.2	12	53	0						
STUTTGART	88.26	16.2	12	53	-1	23	40	2	14	45	
HEIDELBERG	88.73	15.7	12	56	-1						
KEW	89.14	9.6	12	59A	1	23	53	7			
VIENNA-H.	89.58	20.8	13	1	0						
BENSBERG	89.89	14.2	13	4K	2				13	31	
DE BILT	90.61	12.7	13	7	2	24	11	11	30	3	SS
PRUHONICE	90.66	19.0	13	5A	-1	24	7	7	25	39	PPS
JENA	90.81	16.9	13	6	0	24	1	0	16	33	PP
HALLE	91.42	16.9	13	9	0	24	13	6	16	45	PP
COLLMBERG	91.49	17.6	13	9	0				16	44	PP
HALIFAX	92.08	328.0	13	14	2						
SHIRAZ	92.10	54.0	13	12	0	24	25	12	16	54	PP
DURHAM	92.23	8.1	13	21	8	23	44	-30			
SIMFEROPOL	93.18	32.9	13	16	-1	24	25	3			
COLUMBIA	93.21	310.9	13	18	1						
LWOW	93.33	24.5	13	17	-1	24	29	5			
WESTON	93.87	322.2	13	20	0				24	39	
PALISADES	94.16	319.8	13	21	-1	24	35	4	17	11	PP
WARSAW	94.48	21.7				24	37	3			
COPENHAGEN	95.42	15.6	13	30	3	24	11	8			
TEHERAN	95.47	48.8	13	28	0	24	56	53			
TIFLIS	95.89	40.9	13	31	1	24	59	53			
MAKHACH-KALA	98.19	41.5	16	48	188						
QUETTA	102.20	61.5	14	0	2	24	41	4	18	16	PP
FAYETTEVILLE	102.83	305.5	17	14	193						
MOSCOW	102.95	27.8	18	15	254						
STALINABAD	108.18	55.2	18	52	777						
NAMANGAN	111.35	54.3	19	18	42						
ANDIJAN	111.68	54.8	19	20	44						
TUCSON TELE.	112.22	294.4	18	57	20						
TUCSON	112.26	294.2	19	16	39						
GLEN CANYON	115.12	298.4	18	44	1				19	41	PP
FLAMING GRGE	115.47	303.1	18	43	-1				19	49	PP
BOULDER CITY	116.97	296.0	19	45	58						
SALT LAKE C.	117.06	302.0	18	47	0				19	58	PP
PASADENA	118.56	292.8	20	6	76						
BOZEMAN	118.66	307.3	18	53	3						
EUREKA	119.33	299.1	18	52	1				20	13	PP
CHARTERS TS.	120.71	160.2	18	56	2						
HUNGRY HORSE	121.59	309.2	18	56	0				20	27	PP
KHEYS	123.69	10.9							20	41	

IRKUTSK	135.98	50.0	19 22	-1	
COLLEGE	140.46	330.2	19 22	-9	22 26 PP
GUAM	150.75	138.2	19 52	4	
VLADIVOSTOK	154.58	66.0	20 3	9	
MATUSIRO	159.13	83.4	20 38	38	45 8 SS
UGLEGORSK	159.86	46.2	20 4	4	
PETROPAVLOVK	163.52	12.1	20 5	1	

SEPTEMBER 7 11.H 44.M 58.S EPICENTRE 44.63 149.27 DEPTH= 49.KM

A=-0.61378 B= 0.36485 C= 0.70011 D= 0.5110 E= 0.8596
G=-0.6018 H= 0.3577 K=-0.7140 HT= -3.4

DEPTH OF FOCUS= 0.003R

SE= 1.69

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KURILSK	1.16	301.6	0 20	0				
UGLEGORSK	6.65	314.6	1 41	4	3 5	12		
SEVERO-KUR.	7.60	34.9	1 52	2	3 22	6		
MIZUSAWA	8.19	230.7			3 21	-10		
OKHA	9.84	337.3						2 39
PETROPAVLOVK	10.42	33.0	2 30	1				4 46
TUKUBASAN	10.92	222.9	2 29	-7	4 24	-14		
MATUSIRO	11.65	229.9	2 42K	-4	4 41	-15		5 23
VLADIVOSTOK	12.63	269.2	3 0	1				5 22
KLYUCHI	13.81	28.0	3 13	-2				
MAGADAN	14.97	3.0	3 31	1				
CHANGCHUN	17.18	275.8	4 1	3				
YAKUTSK	20.82	333.6	4 38	-1				
PEKING	24.80	271.0	5 18	0	9 39	4		
ZO-SE	25.82	248.0	5 30	2	10 0	8		
NANKING	26.84	252.6	5 37	0	10 11	3		
TIKSI	28.81	346.7	5 54	-1				
PAOTOW	28.97	275.9	5 57	0				
LANCHOW	35.29	272.0	6 52	0				
CHENGTU	37.97	264.2	7 14	0	13 5	3		
COLLEGE	39.47	36.7	7 26	-1	13 26	1	7 38	
KUNMING	42.19	258.4	7 50	1	14 8	2		
KHEYS	46.52	346.9						10 51 PPP
LHASA	47.80	272.4	8 35	1				
RABAUL	48.68	176.1	8 41	0				
SHILLONG	49.61	267.4	8 45A	-3				
CHITTAGONG	51.65	264.2	9 4	0				
CHATRA	52.20	272.0	9 7	-1				
SVERDLOVSK	53.55	316.9	9 18	0				
RESOLUTE	53.69	17.3	9 18	-1				
TASHKENT	56.36	297.0	9 37	-1				9 53 *SP
DUZHANBE	58.19	294.5	9 50	-1	17 52	5		
APATITY	58.21	336.0	10 7	16				
LAHORE	58.47	284.7	9 52	-1				
PENTICTON	58.64	50.0	9 52	-2				
WARSAK DAM	58.95	288.6	9 57	1				
CORVALLIS	59.16	56.3	10 14	16				
SODANKYLA	60.23	337.9	10 2	-3				
KIRUNA	61.46	340.3	10 11	-2				
HUNGRY HORSE	62.22	48.5	10 18	-1				
RENO	64.21	59.2	10 46	14				
QUETTA	64.35	287.8	10 31	-2				12 57 PP
MOSCOW	64.64	324.4	10 34	0				
ASHKABAD	65.19	299.4	10 39	1				
BOZEMAN	65.48	49.4	10 40	0			10 54	
NURMIJARVI	65.94	333.5	10 40	-3				
HELSINKI	66.10	333.1	10 41	-3				
EUREKA	66.58	57.2	10 46	-1			11 0	
SKALSTUGAN	66.89	340.6	10 49	0				
SALT LAKE C.	68.18	53.9	10 59	2				
UPPSALA	68.60	336.1	10 57	-2				
PASADENA	68.61	62.8	11 13	13	21 8	71		29 20 SSS
FLAMING GRGE	69.48	52.5	11 6	1			11 19	13 9
BOULDER CITY	69.51	59.5	11 5	0				
TIFLIS	70.70	309.8	11 13	1				
RAPID CITY	70.71	46.7	11 12	0				
GLEN CANYON	70.83	56.8	11 12	-1				
TEHERAN	70.88	301.5	11 14	1				

GORIS	71.35	307.3	11 16	0	20 34	5					
SIMFEROPOL	73.89	318.0	11 31	0	21 2	4					
SHIRAZ	74.25	296.1	11 32	-1			11 46				
TUCSON	74.47	60.0	11 34	-1							
LWOW	74.54	326.7	11 35	0							
KRAKOW	75.91	329.1	11 45	2					29 50	SSS	
SKALNATE PL.	76.51	328.4	11 51	5					12 3	PCP	
RACIBORZ	76.51	330.0	11 47	1					12 0	PCP	
COLLMBERG	77.23	333.6	11 50	0					12 13		
HALLE	77.39	334.3	11 51	0					12 26		
WITTEVEEN	77.75	337.8	11 54	1							
PRAGUE	77.82	332.1	11 55	1							
PRUHONICE	77.86	332.0	11 54A	0					12 56		
JENA	78.00	334.2	11 54	0					12 19		
BRATISLAVA	78.51	329.6	11 59	2					12 6	PCP	
ISTANBUL KA.	79.24	318.3	12 1	0							
BENSBERG	79.28	336.7	12 2	0							
STUTTGART	80.61	334.5	12 8	-1							
STRASBOURG	81.24	335.3	12 12	0					12 52		
LJUBLJANA	81.24	330.0	12 13K	1							
FAYETTEVILLE	81.25	47.2	12 11A	-1			12 25				
KSARA	81.27	309.4	12 14	2							
ST. LOUIS 1	81.28	43.1	12 11	-1							
OTTAWA	81.89	30.2	12 13	-2							
SHAWINIGAN	81.91	27.8	12 14	-1							
MELBOURNE	82.17	183.4	12 34K	17							
PARIS	82.51	338.6	12 20	2							
BREBEUF	82.54	28.9	12 18K	-1							
BESANCON	82.96	335.8	12 21	0							
JERUSALEM	83.16	308.4	12 34	12							
FOLINIERE	83.29	340.4	12 22	0							
ISOLA	85.40	333.8	12 34	1							
KARAPIRO	85.54	159.4	12 50	16							
WESTON	86.08	28.9	12 36K	0							
PALISADES	86.35	31.3						23 10	2		
BYRD STATION	133.79	166.0	19 12	1							
SOUTH POLE	134.44	180.0	19 14	1							

SEPTEMBER 8 11.H 7.M 54.S EPICENTRE 6.22 126.34 DEPTH= 154.KM
A=-0.58916 B= 0.80081 C= 0.10770 D= 0.8055 E= 0.5926
G=-0.0638 H= 0.0868 K=-0.9942 HT= 6.9

DEPTH OF FOCUS= 0.019R

SE= 2.08

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BAGUIO CITY	11.60	331.4	2 44	2	5 22	33		
GUAM	19.49	67.0	4 17	0	8 6	22		
HONG KONG	19.84	324.9	4 19A	-2	7 58	7		
CANTON	20.93	324.6	4 34A	2	8 17	6		
LEMBANG	22.74	235.5	4 48	-2	8 48	5		
DJAKARTA	23.05	238.0	4 51A	-2	9 1	13		
ZO-SE	25.22	349.6	5 15A	2	9 34	9		
PORT MORESBY	25.90	126.6	5 19	-1	9 42	6		5 59
WUHAN	26.59	336.8	5 28	2	9 58	11		
NANKING	26.66	345.6	5 28	2	9 59	11		
RABAUL	27.79	111.3	5 35	-2				
KUNMING	29.39	312.3	5 51	0	10 39	7		
ABUYAMA	29.75	15.4	5 53K	-1				
MATUSIRO	32.07	18.2	6 12A	-3	11 11	-3		12 49 SCP
CHENGTU	32.10	322.0	6 14	-1	11 17	2		
SIAN	32.21	332.3	6 17	1				
TUKUBASAN	32.41	21.0	6 13	-5				7 52
CHARTERS TS.	32.67	143.6	6 20A	0	11 29	6		
PORT BLAIR	33.63	281.7						7 22
PEKING	34.88	346.3	6 38	-1	12 4	6		
LANCHOW	36.16	328.3	6 51	2				
TOCKLAI	36.33	307.8						7 55
CHITTAGONG	36.97	299.3	6 55	-1			7 9	8 24 PP
VLADIVOSTOK	37.07	6.8	6 54	-3	12 4L	9		
PAOTOW	37.20	339.3	6 59	1				
SHILLONG	38.14	304.1	7 9	3	12 56	9		
MUNDARING	39.19	193.7	7 13A	-2				

PERTH	39.26	194.2	7 16	1							
CALCUTTA	40.03	297.8								9 9	
BRISBANE	42.08	143.8	7 40A	2	13 50	4					
CHATRA	42.52	303.4	7 59	17						13 12	
ADELAIDE	42.60	164.9	7 44A	1	14 0	7				9 28	PP
BOKARO	42.68	298.6	7 43	0						9 27	
UGLEGORSK	44.73	14.7	8 0	0	14 30	6					
MADRAS	45.95	282.0	8 9	0						14 48	
COLOMBO	46.16	273.6	7 47	-24						15 26	
RIVERVIEW	46.25	151.1	8 6K	-6	15 0	14				18 19	SS
CANBERRA	46.51	154.3	8 15A	1						13 37	
MELBOURNE	47.14	159.8	8 20A	1			8 27			10 10	PP
HYDERABAD	48.05	287.8								15 17	
NOUMEA	48.43	127.1	8 28	-1						18 31	
IRKUTSK	49.36	342.3			15 39	10					
DEHRA DUN	51.24	304.1	8 53	3						16 2	
MOORLANDS	52.02	160.5	8 58A	2						10 58	PP
POONA	52.53	288.5	8 57	-3							
BOMBAY	53.54	288.8								9 46	
PETROPAVLOVK	53.60	23.7	9 7	-1	16 36	9					
LAHORE	54.65	304.4	9 9	-6							
YAKUTSK	55.73	1.9	9 23	0							
MAGADAN	56.38	14.7	9 27	-1	17 13	9					
SUVA	56.80	116.3			17 22	12					
WARSAK DAM	57.58	306.5	9 37	1	17 24	4					
ANDIJAN	59.05	314.2	9 45	-1	17 46	7					
KARACHI	59.59	295.1	9 43	-7							
NAMANGAN	59.63	314.3	9 49	-1	17 54	8					
QUETTA	60.52	301.1	9 54A	-2	18 2	4	10 8			12 4	PP
STALINABAD	61.00	310.8	10 0	0	18 10	6					
KARAPIRO	63.40	138.0	10 16	0							
TONGARIRO	64.08	139.2	10 23	3							
AFIAMALU	64.58	108.5	10 26	3	18 51	2					
TIKSI	65.35	0.9	10 31	3							
SVERDLOVSK	71.65	328.1	11 5	-2	20 23	11					
SHIRAZ	72.89	299.0	11 13K	-1	20 28	2				13 51	PP
TERRE ADELIE	73.67	173.8	11 16	-3	20 35	0					
TEHERAN	74.18	305.3	11 24	2						21 25	
HONOLULU	74.33	69.7	11 26	3						12 21	
MIRNY	76.49	193.1	11 35	0							
MAKHACH-KALA	77.62	312.5	11 41	0							
GORIS	78.37	308.9	11 45	0	21 33	7					
TIFLIS	79.58	311.2	11 51	-1	21 43	4					
KHEYS	80.41	351.1	11 58	2	21 56	8					
TANANARIVE	81.48	249.9	12 4A	2						13 8	
COLLEGE	82.63	25.4	12 7	-1	22 15	5				27 46	PKKP
CAPE HALLETT	83.31	167.7	12 13K	2	22 32	15				15 27	PP
MOSCOW	84.18	325.4	12 14	-1	22 25	-1					
APATITY	85.41	337.4	12 21A	0	22 47	9	12 46			16 0	PP
MAWSON	85.94	200.1	12 21	-3							
ADDIS ABABA	86.65	278.7	12 30	3							
SCOTT BASE	86.84	172.1	12 29K	1	23 45	54				23 2	SKS
KSARA	86.96	303.5	12 28	-1	23 10	18	12 54			13 6	*SP
SIMFEROPOL	87.22	314.7	12 30	0	22 49	-6					
PULKOVO	87.70	329.8	12 33	0	22 49	-10					
JERUSALEM	87.72	301.6	12 33	0						13 18	PCP
SODANKYLA	88.03	337.6	12 34	0	23 8	6				22 50	SKS
KIRUNA	90.22	338.6	12 44	0	23 13	-9				13 10	
HELSINKI	90.27	330.6	12 44	-1							
NURMIJARVI	90.34	331.0	12 44	-1	23 27	3				23 4	SKS
NORD	90.59	354.9	12 47	1							
HELWAN	91.27	300.1	12 49	0	23 11	-21					
BUCHAREST	92.96	315.1								23 21	
LWOW	93.17	320.7	12 59	1						16 23	
UPPSALA	93.90	331.4	13 1	0							
SKALSTUGAN	94.88	335.8	13 2	-4							
SOUTH POLE	96.18	180.0	13 7	-5						30 0	PKKP
PRUHONICE	98.98	322.6	13 24A	0	23 54	7				24 24	SKKS
COLLMBERG	99.41	324.2	13 26	0						17 16	PP
HALLE	99.94	324.7	13 29	0	23 59	8	13 38				
BYRD STATION	100.19	170.7	13 38	8						29 51	PKKP
LJUBLJANA	100.38	318.9	13 30A	-1							
TRIESTE	101.02	318.7								17 55	PP
MESSINA	102.22	311.1			24 6	4				17 51	PP
STUTTGART	102.62	322.9	14 1	20						18 6	PP
HUNGRY HORSE	104.34	36.8	13 50	2							
DURHAM	105.44	331.7	13 58	777	25 57	100					
BUTTE	106.29	38.4	13 59	777							

EUREKA	106.82	45.7	14 3	777			17 30	PP
PASADENA	107.13	51.6			24 42	18	18 13	PP
FLAMING GRGE	110.72	42.0	14 21	-233			18 18	PP
TAMANRASSET	115.38	298.7	18 28A	4			19 12	PP
ARGENTINE I.	120.60	174.8	18 41	7				
FAYETTEVILLE	123.29	39.0	18 42A	3			28 30	
SEVEN FALLS	124.75	14.2	18 44	2				
SHAWINIGAN	124.78	16.0	18 44A	2				
OTTAWA	124.94	18.8	18 45	3				
BREBEUF	125.50	17.2	18 46	3				
HALIFAX	128.60	9.1	18 53A	4			22 6	
WESTON	129.02	16.8	18 53K	3			22 9	PKS
PALISADES	129.45	19.8	18 55	4			21 30	PP
BALBOA HTS.	150.10	60.0	19 31	4				
SAN JUAN	152.64	26.5	19 33	2			19 53	
CHINCHINA	155.42	63.6	19 39A	4			30 27	SKKS
FUQUENE	156.84	60.3	19 42A	5			30 34	SKKS
BOGOTA	156.95	62.6	19 46	9	26 49	23	30 33	SKKS
HUANCAYO	157.84	106.7	19 46	8			20 20	PKP2
CARACAS	158.77	38.6	19 43	4			24 26	PP
ST. VINCENT	159.30	21.4					20 22	PKP2
TRINIDAD	161.55	24.7	19 48	6			20 31	PKP2
LA PAZ	162.53	127.0	19 50	7			24 33	PP

SEPTEMBER 8 14.H 31.M 57.S EPICENTRE 52.61 159.00 DEPTH= 0.KM

A=-0.56929 B= 0.21852 C= 0.79256 D= 0.3584 E= 0.9336
G=-0.7399 H= 0.2840 K=-0.6098 HT= -6.4

SE= 2.05

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PETROPAVLOVK	0.46	332.6	0 24K	10				
MAGADAN	8.32	329.9	2 11	6				
UGLEGORSK	11.27	258.5	2 53K	8	5 10	17		
YAKUTSK	18.24	312.5	4 18	2	7 45	7		
VLADIVOSTOK	20.40	253.1	4 36	-5				
TUKUBASAN	21.13	226.6	4 49A	0	8 39	-1		
MATUSIRO	21.73	230.5	4 57A	2	8 54	3		
ABUYAMA	24.34	232.5	5 23A	2				
COLLEGE	29.22	44.4	6 6	0				
IRKUTSK	32.66	291.7	6 34	-2				
SITKA	36.78	56.3	7 13	2				
KHEYS	40.29	345.6	7 42	1				
RESOLUTE	44.02	21.6	8 12A	1				
HONG KONG	45.61	246.0	8 23	-1				
ALBERNI	46.03	62.1	8 28	1				
PENTICTON	48.77	59.3	8 49	0				
CORVALLIS	49.67	66.3	8 57	1				
SVERDLOVSK	52.17	316.5	9 13	-2				
HUNGRY HORSE	52.27	57.4	9 16	1			10 27	
SHASTA	52.67	69.6	9 20A	2				
MINERAL	53.35	69.4	9 24A	1				
APATITY	53.45	337.1	9 22K	-2				
SAN FRANCSCO	54.60	72.3	9 33	0				
BERKELEY	54.64	72.1	9 33A	0			10 35	
RENO	54.92	69.0	9 36A	1				
BRANNER	54.99	72.5	9 36A	1				
SODANKYLA	55.13	339.6	9 34	-2			10 35	PCP
LICK	55.36	72.2	9 39A	1			10 20	
VINEYARD	55.92	72.5	9 41	-1				
KIRUNA	55.96	342.4	9 41	-1				
SHILLONG	56.34	268.9	9 48A	3				
FRESNO	56.82	71.5	9 49K	0				
RABAUL	56.89	188.1	9 49	0				
EUREKA	57.13	66.6	9 51	0				
NAMANGAN	57.37	296.1					10 46	
CHATRA	58.28	273.6	9 55	-4				
SALT LAKE C.	58.50	63.0	10 1	1				
CHITTAGONG	58.75	266.4	10 3	1				
PASADENA	59.60	72.5	10 9A	1	10 25			
RAPID CITY	60.67	55.0	10 16	1				
SKALSTUGAN	61.26	343.7	10 18	-1				
GLEN CANYON	61.34	65.9	11 21	61			11 38	
NURMIJARVI	61.45	336.2	10 18	-3			11 0	PCP
MOSCOW	61.71	326.7	10 21	-1				

UPPSALA	63.66	339.4	10 34	-1	
BERGEN	65.38	346.0	10 45	-2	
QUETTA	67.82	290.8	11 0	-2	11 27 PCP
COPENHAGEN	68.59	340.4	11 6A	-1	
TIFLIS	70.23	313.5	11 16	-1	
FAYETTEVILLE	71.22	55.0	11 22A	-1	
OTTAWA	71.68	37.3	11 24A	-2	
SHAWINIGAN	71.75	34.8	11 25A	-1	
SEVEN FALLS	71.92	33.3	11 26A	-1	
BREBEUF	72.36	35.9	11 28A	-2	
WITTEVEEN	72.41	342.8	11 30	0	
COLLMBERG	72.57	338.4	11 30A	-1	11 51 PCP
HALLE	72.62	339.1	11 31	0	14 18 PP
MUNSTER	73.05	342.0	11 35	!	
JENA	73.23	339.2	11 34	-1	12 10
CHARTERS TS.	73.24	192.5	11 34	-1	
PRAGUE	73.39	337.1	11 37	1	
PRUHONICE	73.44	336.9	11 35A	-1	13 31
BENSBERG	74.10	341.9	11 39A	-1	
BRATISLAVA	74.48	334.6	11 43	1	11 51 PCP
VIENNA-H.	74.60	335.1	11 42	-1	
KEW	74.84	346.8	11 44	0	
HEIDELBERG	75.28	340.4	11 47A	0	
STUTTGART	75.76	339.9	11 49A	0	12 25
WESTON	75.89	36.0	11 50A	0	
TUBINGEN	76.04	339.9	11 51	0	
PALISADES	76.13	38.4	11 51	-1	27 51 SS
SHIRAZ	76.14	300.7	11 50K	-2	
STRASBOURG	76.26	340.8	11 51A	-1	12 31
EBINGEN	76.39	339.9	11 53	0	
HALIFAX	76.45	29.8	11 53A	0	
RAVENSBURG	76.63	339.3	11 55A	1	
ZAGREB	76.95	334.4	11 57	1	
PARIS	77.00	344.3	11 58	2	
LJUBLJANA	77.11	335.5	11 56A	-1	
BASLE	77.30	340.6	12 3	5	
CHUR	77.53	339.1	11 59A	0	
TRIESTE	77.68	335.8	11 59	-1	
BESANCON	77.88	341.6	12 1	0	
NEUCHATEL	77.93	340.8	12 2	0	
CLERMONT-FD.	79.84	343.1	12 13A	1	
BRISBANE	.84	185.6	12 13	1	
ISOLA	80.61	339.9	12 16	0	
MONACO	80.96	339.5	12 17A	-1	
ATHENS	81.77	325.8	12 20K	-2	
JERUSALEM	82.73	314.5	12 26	-1	
BAGNERES	82.96	344.5	12 28	0	
HELWAN	86.04	316.4	12 43A	-1	
TOLEDO	86.72	347.0	12 47	0	
CANBERRA	88.00	188	12 54	1	
ADELAIDE	88.99	19E.	12 57K	-1	
MELBOURNE	90.89	191.1	13 8K	1	
TAMANRASSET	101.45	335.1	13 54	-1	17 55 PP
LWIRO	115.10	302.6	18 45	2	
BROKEN HILL	125.48	295.3	19 5A	2	
BULAWAYO	129.98	290.9	19 13A	1	
SCOTT BASE	130.28	177.9	19 12A	-1	21 14 PP
BYRD STATION	139.88	164.5	19 21	-9	22 59 SKP
SOUTH POLE	142.43	180.0	19 29	-6	23 5 SKP
ARGENTINE I.	154.93	137.1	20 3	8	

SEPTEMBER 9 10.H 5.M 22.S EPICENTRE 36.70 71.61 DEPTH= 184.KM

A= 0.25354 B= 0.76265 C= 0.59504 D= 0.9489 E=-0.3155
G= 0.1877 H= 0.5647 K=-0.8037 HT= -0.5

DEPTH OF FOCUS= 0.024R

SE= 2.17

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KHOROG	0.78	355.3	0 29	1	0 51	2		
KULYAB	1.91	309.5	0 36	-1	1 1	-5		
MURGAB	2.49	47.2	0 47	3				
OBI-GARM	2.51	323.4	0 44	0	1 15	-3		
GARM	2.52	336.1	0 45	1	1 16	-2		

DZERGETAL	2.53	353.3	0	45	1	1	18	0			
WARSAK DAM	2.70	181.1	0	45	-1	1	16	-6			
DUZHANBE	2.93	310.5	0	47	-2	1	21	-5			
FERGANA	3.68	2.0	0	57	-1	1	39	-4			
ANDIJAN	4.09	8.1	1	4	1	1	52	0	1	20	
NAMANGAN	4.27	0.6	1	7	1	1	55	-1	1	15	
SAMARKAND	4.70	310.5	1	9	-2	1	59	-7			
TASHKENT	4.96	339.2	1	14	-1	2	5	-7	2	10	
LAHORE	5.61	155.5	1	21K	-2	2	22	-5			
TCHIMKENT	5.80	345.1	1	26	0	2	28	-4			
NARYN	5.83	34.5	1	26	0						
FRUNSE	6.55	19.8	1	36	1						
RYBACHE	6.74	30.2	1	40	2				3	17	
QUETTA	7.58	212.2	1	46A	-3	3	7	-7	2	41	*SP
BAIRAM-ALI	7.63	279.6	1	45	-5	3	4	-11			
ALMATA	7.73	30.3	1	53	2	3	19	2	4	14	
PRZHEVALSK	7.79	40.2							2	21	
ALMATA-2	7.91	32.2	1	55	2	3	25	3	4	24	
KURMENTY	8.11	37.1	1	57	1						
DEHRA DUN	8.33	138.0	1	59	0	3	28	-3	2	8	PP
ASHKABAD	10.64	280.7	2	31	2				2	38	
KIZYL-ARVAT	12.37	286.3	2	48	-3				5	5	
KARACHI	12.46	199.6	2	46A	-6	4	53	-15			
SEMIPALATNSK	15.04	21.7	3	28	3						
TEHERAN	16.35	272.7	3	49	8	6	39	3			
CHATRA	16.47	122.3	3	42	0	6	36	-2			
SHIRAZ	17.45	251.7	3	51K	-2	7	0	1	4	47	8 1 PCP
POONA	18.21	173.2							24	1	
MAKHACH-KALA	19.51	296.1	4	18	3				5	15	
GORIS	20.07	285.7	4	21	0				5	14	
SHILLONG	20.54	117.0	4	27	1						
TIFLIS	21.33	291.8	4	35	2				8	23	
SVERDLOVSK	21.44	343.4	4	34	-1						
MADRAS	24.82	159.8							9	53	
KSARA	29.21	275.1	5	51	4						
SIMFEROPOL	29.33	298.1	5	33	-15				9	33	
MOSCOW	29.81	320.5							6	33	
JERUSALEM	30.36	271.5	5	56	-1						
HELWAN	34.17	270.4	6	28	-2						
LWOW	36.44	306.4	6	50	1						
APATITY	37.62	337.1	6	58	-1						
HELSINKI	37.70	323.5	7	0	1						
NURMIJARVI	37.95	324.0	7	2	0	12	37	-2	7	43	9 28 PP
HONG KONG	39.40	99.3	6	50	-24	13	10	9			
SODANKYLA	39.76	334.7	7	17	0						
ADDIS ABABA	40.56	235.5	7	24	1						
UPPSALA	41.22	321.7	7	28	0				9	6	*SP
KIRUNA	42.12	333.8	7	36	0				8	16	
PRUHONICE	42.56	306.8	7	40	1				8	39	
LJUBLJANA	43.02	301.0	7	44K	1						
COLLMBERG	43.45	308.8	7	46	-1				9	29	PP
HALLE	44.09	309.2	7	50	-2				11	0	
SKALSTUGAN	44.31	326.6	7	53	0						
TIKSI	45.40	22.0	8	1	-1				8	48	
STUTTGART	46.12	305.6	9	24	76						
PARIS	50.52	306.8	8	41	-1						
KEW	51.67	310.7	8	49	-1						
MATUSIRO	52.42	68.8	8	53	-3				9	39	
FOLINIERE	52.43	307.4	8	54	-2						
BAGNERES	53.69	300.4	9	4	-1						
TAMANRASSET	58.01	275.9	9	33A	-3				10	23	
BROKEN HILL	65.13	226.9							10	22	PCP
BULAWAYO	69.60	223.1							10	49	PCP
COLLEGE	74.16	16.4	11	19	1						
CHARTERS TS.	90.18	115.0	12	41	0						
SOUTH POLE	126.52	180.0	18	40	-1				26	33	
SCOTT BASE	126.64	164.8	18	42	0						
CAPE HALLETT	127.11	157.7	18	43A	0						
BYRD STATION	136.34	177.2	18	58	-2				22	12	SKP

SEPTEMBER 9 16.H 19.M 16.S EPICENTRE 72.01 -0.99 DEPTH= 0.KM

A= 0.31062 B=-0.00535 C= 0.95052 D=-0.0172 E=-0.9999
G= 0.9504 H=-0.0164 K=-0.3107 HT=-12.2

SE= 2.65

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KIRUNA	8.44	109.3	2	6	-1	3	47	3					
SKALSTUGAN	9.81	143.0	2	24	-2	4	7	-11					
NORD	10.21	347.0	2	32	1	4	14	-14			2	52	
SODANKYLA	10.58	102.4	2	33	-3	4	28	-9					
BERGEN	11.93	164.7	2	53	-2								
APATITY	12.57	93.8	2	58	-5	5	20	-5			3	4	*SP
UPPSALA	14.27	139.2	3	22	-4	6	26	20					
ABERDEEN	14.91	182.4									7	45	
NURMIJARVI	15.29	125.7	3	37	-2	6	25	-5					
KHEYS	15.45	31.9	3	50	9						6	50	
HELSINKI	15.67	125.9	3	41	-3								
DURHAM	17.32	181.2	4	3	-2								
COPENHAGEN	17.35	153.8	4	5	0								
PULKOVO	17.42	118.5	4	3	-3						7	20	SS
THULE	17.84	314.6	4	9	-3								
MUNSTER	20.48	164.7	4	40	-2								
KEW	20.62	178.3	4	48	4	8	26	-4					
HALLE	21.38	157.4	4	52	0	8	17	-28			5	31	PPP
BENSBERG	21.44	165.8	4	51	-1						5	18	PP
COLLMBERG	21.70	155.8	4	53A	-2	9	2	11			5	30	PP
JENA	21.90	158.3	4	55	-2	8	59	4			5	42	PPP
WARSAW	22.09	142.2	4	57	-2	8	59	1			5	29	PP
PLAUEN	22.40	157.6	4	59	-3								
MOSCOW	22.91	114.9	5	7	0						5	39	PP
PRAGUE	23.10	154.1	5	12	3								
HEIDELBERG	23.12	163.7	5	8	-1								
PRUHONICE	23.20	154.0	5	9A	-1	9	20	2					
FOLINIERE	23.32	179.2	5	10	-1								
RACIBORZ	23.65	148.1	5	16	2						5	36	PP
STUTTGART	23.79	163.0	5	15	0	9	33	4			6	22	
STRASBOURG	23.86	165.5	5	22	6	10	1	31			6	38	
KRAKOW	23.98	145.5	5	17	0	9	35	3			6	9	PPP
TUBINGEN	24.01	163.4	5	17	-1								
EBINGEN	24.35	163.7	5	26	5								
RAVENSBURG	24.81	162.8	5	32	7								
BASLE	24.89	166.1	5	27	1								
LWOW	24.97	139.5	5	27	0	9	51	2			5	59	PP
BESANCON	25.06	168.7	5	33	5								
BRATISLAVA	25.34	150.9	5	24	-6								
CLERMONT-FD.	26.40	173.5	5	41	1								
SVERDLOVSK	28.93	88.7	6	5	2								
BAGNERES	29.03	178.3	6	6	2								
ROME	30.91	160.2									11	29	
SIMFEROPOL	31.82	129.2	6	30	1						13	14	SS
TOLEDO	32.25	184.4	6	33	0	11	45	-1			12	55	SS
TARANTO	32.90	153.9									15	57	
TIKSI	33.03	26.5	6	44	5								
ISTANBUL KA.	34.37	137.9	6	45	-6	12	14	-5					
MESSINA	34.92	156.9	7	11	15						8	19	
GRANADA	34.93	183.6									9	20	
GORIS	40.08	117.9	7	43	4	13	46	0			9	9	PP
SHAWINIGAN	40.99	271.7	7	47	0								
COLLEGE	41.54	339.4	7	53	2						9	35	PP
YAKUTSK	42.05	32.3	7	56	1						14	18	
KSARA	42.82	132.7	8	2	0	14	20	-7			9	40	PP
KIZYL-ARVAT	43.21	107.3	8	9	4						9	47	PP
TCHIMKENT	44.44	92.1	8	17	2	14	54	4			9	58	PCP
JERUSALEM	44.63	134.3	8	17	1						9	57	PP
ASHKABAD	44.98	105.8	8	20	1	14	59	1					
TASHKENT	45.23	93.0	8	25	4								
IRKUTSK	45.62	56.0									9	44	
HELWAN	45.65	139.5	8	24	0								
PALISADES	46.34	269.4	8	32	2	15	20	3			10	28	PP
DUZHANBE	47.59	95.0	8	43	3								
KULYAB	48.51	94.4	8	50	3								
TAMANRASSET	49.40	172.1	8	53	-1	16	2	1					
SHIRAZ	51.05	115.9	9	6	0	16	18	-5			11	4	PP
HUNGRY HORSE	51.17	308.0	9	6	-1								
RAPID CITY	52.30	297.1	9	15	-1								
BOZEMAN	52.92	304.4									10	30	
QUETTA	54.80	100.8	9	35	1	17	19	5			11	44	PP
FLAMING GRGE	56.91	300.9	9	49	0								
FAYETTEVILLE	57.09	285.6	9	48	-3								
MBOUR	58.40	198.3	9	2	-58								
EUREKA	59.98	305.9	10	11	0								

SHASTA	60.37	311.7	10	13	-1							
MINERAL	60.52	310.9	10	12A	-3							
RENO	60.86	309.1	10	17	0							
BOULDER CITY	62.99	303.6	10	31	0							
FRESNO	63.49	308.2	9	27	-68							
CHATRA	64.17	82.8	10	40	1							
TUCSON TELE.	65.34	298.7	10	47	0							
PASADENA	65.58	305.9	10	44	-4							
MATUSIRO	68.03	34.6	11	4K	0						11	27
KARAPIRO	145.80	4.9	19	43	2							
SOUTH POLE	161.90	180.0	20	49	46							

SEPTEMBER 9 20.H 4.M 33.S EPICENTRE 71.90 -1.16 DEPTH= 0.KM

A= 0.31254 B=-0.00632 C= 0.94988 D=-0.0202 E=-0.9998
G= 0.9497 H=-0.0192 K=-0.3126 HT=-12.2

SE= 2.46

	DELTA DEG.	AZ. DEG.	P M	P S	P C-C S	S M	S S	S C-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KIRUNA	8.45	108.2	2	5	-2	3	35	-9					
SKALSTUGAN	9.75	142.1	2	23	-1	4	6	-10					
NORD	10.31	347.3	2	27	-5						4	14	
SODANKYLA	10.61	101.6	2	33	-3								
BERGEN	11.83	164.2	2	51	-2	4	52	-15			2	58	PP
APATITY	12.61	93.1	2	59A	-4	5	23	-3			3	6	*SP
UPPSALA	14.22	138.6	3	21	-4						6	32	
ABERDEEN	14.80	182.0									5	28	
NURMIJARVI	15.27	125.1	3	36	-2						6	36	
KHEYS	15.58	31.7	3	50	8						8	15	SS
DURHAM	17.20	180.8	4	2A	-1								
COPENHAGEN	17.27	153.3	4	4K	0								
PULKOVO	17.41	118.0	4	3	-3						4	19	PPP
THULE	17.88	314.8	4	8	-4								
WITTEVEEN	19.46	165.6	4	30	-1								
DE BILT	20.07	168.6	4	27	-11	8	27	9					
MUNSTER	20.38	164.3	4	40	-1								
KEW	20.51	178.5	4	43	1	8	27	0					
HALLE	21.29	157.0	4	50	0						5	20	PPP
BENSBERG	21.34	166.4	4	51	0	8	51	7					
COLLMBERG	21.62	155.4	4	53A	-1	9	2	13			5	24	PP
JENA	21.81	157.9	4	55	0						5	14	PP
WARSAW	22.03	141.8	4	57	-1	8	59	2			5	18	PP
SONNEBERG	22.30	158.8	5	0	0								
PLAUEN	22.31	157.2	4	59	-1								
MOSCOW	22.91	114.4	5	5	-1						5	33	PP
PRAGUE	23.02	153.7	5	10	3						5	42	PP
HEIDELBERG	23.02	163.3	5	8	1								
PRUHONICE	23.12	153.6	5	9A	1						5	46	PP
FOLINIERE	23.21	178.9	5	9	0								
RACIBORZ	23.58	147.7	5	14	1						5	58	PPP
STUTTGART	23.70	162.6	5	15	1	9	36	10			5	39	PP
STRASBOURG	23.76	165.2	5	16	1						10	12	
KRAKOW	23.91	145.1	5	17	1	9	37	7					
TUBINGEN	23.92	163.1	5	17	1								
EBINGEN	24.25	163.4	5	21	2								
RAVENSBURG	24.71	162.4	5	27	3								
BASLE	24.78	165.8	5	26	1								
LWOW	24.92	139.1	5	28	2						10	14	
BESANCON	24.95	168.4	5	27	1								
VIENNA-H.	25.07	151.6	5	30	3								
BRATISLAVA	25.26	150.6	5	26K	-3								
BAGNERES	28.91	178.0	6	1	-2								
SVERDLOVSK	28.99	88.3	6	4	1								
SIMFEROPOL	31.79	128.9	6	29	1						11	42	
TIKSI	33.16	26.3	6	43	3								
ISTANBUL KA.	34.33	137.6	6	48	-2	12	21	3					
GRANADA	34.81	183.4	7	24K	30								
MESSINA	34.83	156.6									8	17	
SEVEN FALLS	39.82	270.3	7	37	1								
GORIS	40.07	117.6	7	44	5	13	47	2			9	10	PP
SHAWINIGAN	40.94	271.7	7	46	0								
COLLEGE	41.63	339.3	7	53	2						9	48	
YAKUTSK	42.17	32.1	7	56	0						14	16	
KSARA	42.78	132.4	8	2	1						9	40	PP

OTTAWA	42.89	273.7	7	57K	-5					
TCHIMKENT	44.49	91.9	8	16	1					
JERUSALEM	44.59	134.0	8	16	1				10 1	PP
ASHKABAD	45.00	105.6	8	20	1					
TASHKENT	45.28	92.7	8	22	1					
PALISADES	46.29	269.3				15	23	7	10 35	PPP
TAMANRASSET	49.29	171.9	8	53	1	16	2	3		
SHIRAZ	51.05	115.6	9	7K	1	16	3	-20	11 4	PP
HUNGRY HORSE	51.20	307.9	9	7	0					
RAPID CITY	52.30	297.0	9	16	1					
BUTTE	53.00	305.7	9	21	0					
QUETTA	54.83	100.6	9	35	1	17	17	3	21 1	SS
COLUMBIA	54.94	272.5	9	35	0					
FLAMING GRGE	56.92	300.8	9	49	0					
CORVALLIS	56.94	313.8	9	50	1					
RENO	60.90	309.0	10	17A	0					
GLEN CANYON	61.22	301.1	10	18	-1					
BOULDER CITY	63.01	303.5	10	31	0					
TUCSON TELE.	65.35	298.6	10	47	1					
PASADENA	65.61	305.8	10	45	-3					
MATUSIRO	68.16	34.4	11	4K	0				11 29	
BROKEN HILL	88.41	151.4							6 52	
KARAPIRO	145.92	4.7	19	43	2					
SOUTH POLE	161.78	180.0	19	58	-4				20 49	

SEPTEMBER 10 0.H 19.M 9.S EPICENTRE 34.46 26.32 DEPTH= 0.KM

A= 0.74067 B= 0.36632 C= 0.56321 D= 0.4433 E=-0.8964
G= 0.5048 H= 0.2497 K=-0.8263 HT= 0.3

SE= 3.90

	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	
ATHENS	4.08	329.8	1	5K	0						2	6	S*
HELWAN	6.24	135.7	1	33	-2	2	37	-11					
ISTANBUL KA.	6.95	17.5	1	45	0						3	3	SG
JERUSALEM	7.93	107.2	1	56	-3	3	21	-10					
KSARA	7.96	91.9	1	58	-1	3	24	-7					
SOFIA	8.55	345.0	2	10	2	3	53	7			2	17	PP
TARANTO	9.37	312.4	2	4	-15						2	36	
MESSINA	9.45	296.4	2	21	1	4	21	13			3	59	
BUCHAREST	9.95	359.1				4	31	10			3	9	
BELGRADE	11.29	338.2	2	58A	13	5	7	14			4	40	
TIMISOARA	11.93	342.5	3	12	18						6	17	S*
SIMFEROPOL	12.07	27.5	3	3	7								
ROME	13.17	308.4									4	56	
ZAGREB	13.82	328.3	3	32	13						7	19	
LJUBLJANA	14.65	325.7	3	29	-1	6	16	2			3	42	PP
TRIESTE	14.73	323.1				6	14	-2			4	40	PGPGPG
BRATISLAVA	15.33	336.1	3	39	0	7	6	36			3	59	PPP
LWOW	15.44	354.4	3	51K	11	6	46	13					
VIENNA-H.	15.65	334.7	3	45	2						4	3	PP
TIFLIS	16.24	58.1	3	53	2								
KRAKOW	16.27	345.2	3	51	0	6	57	5					
GORIS	16.76	66.7	3	59	2	7	15	11					
MONACO	17.31	307.9	4	6	2								
CHUR	17.71	319.3	4	9	0								
ISOLA	17.75	308.9	4	10	0						4	24	PP
PRUHONICE	17.75	334.4	4	10	0	7	26	0					
PRAGUE	17.87	334.4	4	22	11								
WARSAW	18.17	349.5	4	21	6	7	43	7			4	37	PP
RAVENSBURG	18.26	321.8	4	16	0								
MAKHACH-KALA	18.55	56.5	4	20	0								
EBINGEN	18.85	321.9	4	21	-2						5	1	
ALGIERS UNI.	19.05	283.6	4	25	-1	7	58	2			4	42	PP
PLAUEN	19.07	331.4	4	23	-3	8	10	14					
STUTTGART	19.09	323.6	4	25	-1	8	0	3			4	47	PP
NEUCHATEL	19.23	316.4	4	27	-1								
SONNEBERG	19.37	329.8	4	26	-3								
COLLMBERG	19.40	334.2	4	19	-11						4	44	PP
JENA	19.64	331.4	4	28	-5	8	9	0			4	46	PP
STRASBOURG	19.72	321.3	4	32	-2	8	24	13			6	41	
HEIDELBERG	19.78	324.3	4	33	-1								
BESANCON	19.92	316.0	4	35	-1								
HALLE	19.95	333.0	4	34	-2	8	25	9			5	6	PPP
TEHERAN	20.54	79.2	4	44	2	8	36	8					

CLERMONT-FD.	20.95	309.6	4	47	0				11	51	
RELIZANE	21.11	280.9	4	43	-5				5	7	PP
TORTOSA	21.37	294.9	5	2	11	8	52	8			
BENSBERG	21.57	325.7	4	52	-1				9	3	
TAMANRASSET	21.60	242.9	4	52	-1	8	47	-1	9	2	
ALICANTE	21.88	288.0	4	56	0	8	55	1	9	32	SS
MUNSTER	22.07	328.1	4	58	0						
BAGNERES	22.07	300.7	5	3	5				5	34	
MOSCOW	22.66	16.7	5	2K	-2	9	13	5			
SHIRAZ	22.69	94.9	5	5K	1	9	16	7	5	33	PP
PARIS	22.74	316.3	5	5	1						
WITTEVEEN	23.08	328.6	4	57	-11						
DE BILT	23.26	325.7	5	9	-1	9	27	8			
COPENHAGEN	23.29	339.9				9	22	3			
ALMERIA	23.48	284.2	4	59A	-13	9	5	-17	5	34	PP
GRANADA	24.36	285.1	5	23A	3				9	57	
FOLINIERE	24.45	313.9	5	20	-1						
TOLEDO	24.73	291.6	5	12	-12	9	43	-1			
MALAGA	25.03	284.1	5	25A	-2	9	51	2	8	45	PCP
JERSEY	25.59	313.7							10	19	
KEW	25.65	319.6	5	43	10	10	7	8			
HELSINKI	25.74	358.5	5	29	-4						
UPPSALA	26.04	350.0	5	34	-2						
NURMIJARVI	26.09	358.1	5	35	-2						
ADDIS ABABA	27.77	152.8	5	56	4						
DURHAM	28.09	324.8	6	8	13	11	3	24			
SERRA PILAR	28.25	294.0	5	57A	1						
SKALSTUGAN	30.42	347.6	6	14	-2						
SVERDLOVSK	32.26	35.5	6	31	-1						
SODANKYLA	32.95	0.2	6	36	-2						
APATITY	33.39	5.0	6	38	-4						
KIRUNA	33.59	356.0	6	41	-3						
STALINABAD	34.15	70.5							7	17	
QUETTA	34.44	85.6	6	47	-4				8	16	PPP
NAMANGAN	36.14	66.0	7	8	3						
LWIRO	36.59	175.8	7	10	1						
MBOUR	43.79	253.8	10	7	118						
KHEYS	47.87	6.7							12	18	
NORD	49.76	352.5	8	51	-5						
CHATRA	52.23	80.8	9	14	-1						
SHILLONG	56.59	80.1	9	45	-2						
WINDHOEK	57.38	190.1	10	22	30						
SEVEN FALLS	70.05	313.9	11	18	3						
SHAWINIGAN	71.49	314.1	11	25	1						
BREBEUF	72.54	313.4	11	31	1						
WESTON	72.73	309.7	11	32A	1						
OTTAWA	73.84	314.2	11	39	1						
COLLEGE	80.89	357.5	12	17	0						
SAN JUAN	81.77	286.5	12	24	2						
MATUSIRO	85.08	48.6	12	39	0						
RAPID CITY	89.34	326.2	13	0	1						
HUNGRY HORSE	90.27	334.8	13	3	-1						
BOZEMAN	91.42	331.6	13	11	2						
FLAMING GRGE	94.62	327.9	13	27	3						
SOUTH POLE	124.28	180.0	19	1	0						

SEPTEMBER 10 10.H 44.M 55.S EPICENTRE 3.97 122.60 DEPTH= 631.KM

A=-0.53755 B= 0.84043 C= 0.06869 D= 0.8424 E= 0.5388
G=-0.0370 H= 0.0579 K=-0.9976 HT= 7.1

DEPTH OF FOCUS= 0.094R

SE= 1.91

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	10.74	352.1	2	12	-15						4	10	
BAGUIO CITY	12.54	351.0	2	42	-2								
HENGCHUN	18.02	354.4	3	42	6								
LEMBANG	18.40	234.4	3	37K	-3	5	31	-65					
DJAKARTA	18.70	237.5	3	39K	-3	6	41	0					
TAITUNG	18.73	355.8	3	44	1						5	27	
TAINAN	19.06	353.3	3	52	6								
ALISHAN	19.52	355.0	3	49	-1	6	58	4					
HWALIEN	19.91	357.4	3	58	4								
HONG KONG	19.97	336.6	3	53K	-1	6	19	-43			7	4	PCP

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CANTON	21.02	335.6	4	3	-1					6	35 *SP
GUAM	23.80	65.3	4	27	-1					10	30 SCP
ZO-SE	27.02	357.3	4	57K	0	8	54	1		7	35 *SP
PORT MORESBY	27.83	118.6	5	2	-2	9	4	-2		8	5 PPP
NANKING	28.18	353.1	5	7K	1	9	12	1		7	46 *SP
KUNMING	28.41	319.7	5	9K	1	9	17	2	6 42	7	49 *SP
PORT BLAIR	30.55	286.2	5	24	-3	9	44	-4			
RABAUL	30.64	105.0	5	27	0					10	53
CHENGTU	31.83	328.6	5	37K	0	10	5	-2	7 17	8	17 *SP
SIAN	32.71	338.7	5	46	1	10	21	0			
CHARTERS TS.	33.34	136.7	5	49A	-1	10	29	-1			
TOCKLAI	34.95	313.2	6	7K	4	11	3	9			
CHITTAGONG	34.98	304.3	6	3K	-1	10	57	2	7 43	7	46 PP
MATUSIRO	35.46	21.9	6	5K	-3	10	55	-7		15	8 SCS
TUKUBASAN	35.92	24.5	6	9	-2	10	59	-10		8	26 PCP
MUNDARING	36.25	189.2	6	13K	-1	11	12	-1			
LANCHOW	36.32	333.9	6	16K	1	11	13	-1	7 58		
PEKING	36.37	351.7	6	14K	-1	11	13	-2	7 55	8	55 *SP
SHILLONG	36.49	309.1	6	16K	0	11	16	-1			
CALCUTTA	37.93	302.2	7	27K	59					11	41
PAOTOW	38.17	344.4	6	29K	-1						
LHASA	39.30	314.0	6	40K	1	12	0	2			
CHANGCHUN	39.77	3.1	6	41K	-2	12	1	-4		15	40 SCS
VLADIVOSTOK	39.85	10.6	6	42	-1	12	5	-1	8 24		
BOKARO	40.61	302.6	6	49K	0	12	17	0		7	41 *SP
CHATRA	40.78	307.5	6	50	-1	12	20	1		7	19
ADELAIDE	41.59	159.9	6	56A	-1	12	31	1		8	47 PP
COLOMBO	42.63	275.8	7	8	3						
BRISBANE	42.66	138.7	7	6A	1	12	43	-3			
MADRAS	42.85	284.8	7	7	0	12	50	2		9	0 PP
KODAIKANAL	45.18	280.4	7	27	2						
HYDERABAD	45.27	290.6	7	25K	0	13	23	1		17	5 SS
RIVERVIEW	46.26	146.6	7	35A	2	13	42	6	9 23	9	34 PP
CANBERRA	46.27	149.8	7	33	0	13	39	3	9 29	9	35 PP
MELBOURNE	46.48	155.4	7	35A	0	13	42	3	9 33	13	48 SP
DEHRA DUN	49.52	307.1	8	0	3	14	24	4	9 37	17	43 *SS
POONA	49.78	290.9	7	59	0	14	24	0		9	43 PP
PORT VILA	49.98	117.0	8	3	2					13	32
NOUMEA	50.18	123.4	8	1	-1					12	9
IRKUTSK	50.48	345.5	8	4	0	14	36	3		16	50 SCS
BOMBAY	50.80	291.1	8	5	-2	14	33	-4	9 56	18	5 *SS
FORT NELSON	51.77	157.0				14	52	2			
LAHORE	52.94	307.0	8	21K	-1	15	6	0			
WARSAK DAM	56.00	308.8	8	44	1	15	49	4			
PETROPAVLOVK	57.18	25.0	8	52	1	16	3	3	10 45	17	38 SCS
KARACHI	57.23	297.0	8	52	1				10 47		
YAKUTSK	58.17	3.9	8	56	-2	16	12	-1	10 56	17	43 SCS
SEMIPALATNSK	58.36	329.6	8	57	-2	16	16	1	10 51	9	41 PCP
QUETTA	58.55	303.1	9	0K	0	16	20	2	10 50	11	27 PP
SUVA	59.23	113.7				16	31	5		18	0
MAGADAN	59.54	16.2	9	7	0	16	34	4		17	59 SCS
DUZHANBE	59.72	312.9	9	7	-1	16	37	5			
TASHKENT	60.39	316.0	9	12	0	16	44	3	11 12	11	35 PP
KAIMATA	63.93	141.7	9	38	3						
COBB RIVER	63.99	139.8	9	36	1						
KARAPIRO	64.32	135.6	9	39A	1						
TONGARIRO	64.91	136.8	9	42	1						
CHATEAU	64.91	136.8	9	37	-4						
GEBBIES PASS	65.33	142.3	9	44	0						
ASHKABAD	67.38	309.5	9	57	1	18	10	6	12 11	14	21 PPP
AFIAMALU	67.45	106.7	9	57A	0						
TIKSI	67.69	2.1	9	54	-4	18	4	-4		21	33 *SS
WILKES	70.68	185.1	10	17	1	18	42	0	12 16	22	13 SS
SHIRAZ	70.75	299.9	10	15A	-1				12 54	10	22 PCP
SVERDLOVSK	71.63	329.3	10	19	-2	18	51	-1		19	26 SKS
TEHERAN	72.46	306.1	10	26K	0	19	4	3			
GORIS	76.90	309.5	10	52	1	19	52	3		20	9 SCS
TANANARIVE	77.21	249.7	10	54K	2				11 2		
TIFLIS	78.27	311.6	10	59	1	20	7	4	13 2		
HONOLULU	78.60	69.2	11	4	4	20	18	11			
CAPE HALLETT	81.94	166.8	11	18K	1	20	44	4	13 22	14	33 PP
KHEYS	82.06	351.4	11	18	0	20	42	1			
MAWSON	82.57	199.5	11	20	0	20	44	-2	13 26		
ADDIS ABABA	83.31	278.6	11	27	3	20	57	4			
MOSCOW	83.91	325.5	11	26	-1	21	2	3	13 43		
KSARA	85.09	303.5	11	34K	2	21	4	-6	14 36	16	45
SCOTT BASE	85.15	171.5	11	34K	1	21	15	4	13 39	14	52 PP
JERUSALEM	85.71	301.4	11	36	1					15	9 PP

APATITY	86.05	337.4	11	36K	-1	21	25	6		21	15 SKKS
SIMFEROPOL	86.15	314.6	11	37K	0	21	20	0	13 44	15	15 PP
COLLEGE	86.26	25.3	11	37	-1	21	15	-6	13 46	29	25 PKKP
PULKOVO	87.76	329.6	11	44	-1	21	38	3	14 3	21	14 SKS
SODANKYLA	88.67	337.4	11	48	-1	21	45	2	14 5	15	29 PP
HELWAN	89.15	299.7	11	52	0	21	53	6			
ISTANBUL KA.	90.09	311.0	11	54	-2	21	29	-26			
HELSINKI	90.39	330.3	11	55	-2						
NURMIJARVI	90.49	330.7	11	56	-2	22	2	3		21	30 SKS
KIRUNA	90.93	338.2	11	58	-2					21	29
NORD	92.48	354.5	12	6	-1						
LWOW	92.52	320.1	12	7	0	21	44	-32	14 30	16	6 PP
SOUTH POLE	93.94	180.0	12	14	1	22	53	25	14 22	16	1 PP
LWIRO	93.95	268.0	12	14	1					14	9
WARSAW	93.96	322.8	12	19	5	22	35	6		16	12 PP
UPPSALA	94.06	330.7	12	13	-1					16	3 PP
SOFIA	94.13	313.2	12	13	-1						
ATHENS	94.57	308.4	12	14A	-2	21	53	-41			
BROKEN HILL	94.97	255.9	12	19K	1						
KRAKOW	95.08	320.8	12	19	0					12	46
BULAWAYO	95.09	250.2	12	18K	-1						
SKALSTUGAN	95.37	335.1	12	19	-1						
PRETORIA	95.69	244.6	12	23	2						
BELGRADE	95.81	315.6	16	31A	249					20	41
RACIBORZ	96.16	321.1	12	24	1						
BRATISLAVA	97.32	319.4	12	29	0						
VIENNA-H.	97.78	319.6	12	28	-3					25	59 PPS
PRUHONICE	98.46	321.6	12	35K	1					16	47 PP
PRAGUE	98.51	321.8	12	40	6						
BYRD STATION	98.57	171.0	12	40	6				14 49	29	1 PKKP
ZAGREB	98.66	317.3				22	23	10			
COLLMBERG	99.01	323.2	12	36K	0	22	21	7	14 49	16	51 PP
HALLE	99.57	323.6	12	38	-1	22	20	3		16	56 PP
LJUBLJANA	99.58	317.8	12	39	0					16	55 PP
JENA	99.98	323.1	12	40	-1					16	59 PP
TRIESTE	100.21	317.6								17	1 PP
SONNEBERG	100.39	322.7	12	42	0						
MESSINA	100.85	309.9				22	22	-1		16	56 PP
PADOVA	101.54	317.7								17	5
STUTTGART	102.11	321.6	12	50	0	23	16	-13		17	14 PP
ROME	102.15	314.2				22	36	7			
HEIDELBERG	102.23	322.3	12	51	0					17	15 PP
RAVENSBURG	102.24	320.6	12	51	0						
TUBINGEN	102.33	321.4								17	17 PP
EBINGEN	102.51	321.1	12	57	5						
STRASBOURG	103.11	321.8	17	11	257					19	43
DE BILT	103.26	325.8								17	23 PP
BESANCON	104.73	321.0								17	34
ARCATA	104.75	46.1	17	18	256						
ISOLA	105.18	317.7	14	5	777					17	43 PP
DURHAM	105.59	330.2								17	35 PP
SHASTA	106.02	45.8	17	14	777					19	55
PARIS	106.22	323.4	17	17	777					17	43
KEW	106.59	326.8				22	53	4			
MINERAL	106.71	45.9	16	54	777					19	57
BERKELEY	107.06	48.5				22	57	6		17	31 PP
LICK	107.70	48.9	17	21	777						
RENO	108.28	46.2	17	22	777						
HUNGRY HORSE	108.35	35.9	17	12	777					28	32 PKKP
FRESNO	109.28	48.9	17	54	777						
BAGNERES	110.22	318.8								18	10 PP
BUTTE	110.35	37.6	17	15	-7					20	5
ALGIERS UNI.	110.74	311.7								18	12 PP
EUREKA	111.04	45.0	17	27	4				20 5	18	24 PP
PASADENA	111.44	51.0	27	28	4						
BOZEMAN	111.45	37.4	17	26	2						
RELIZANE	113.00	311.5								18	28 PP
TAMANRASSET	113.13	296.7	17	31	4	23	24	8		18	30 PP
BOULDER CITY	113.29	48.1	17	0	-28					28	16 PKKP
TOLEDO	114.48	317.3	17	33	3					18	42 PP
ALMERIA	114.76	313.7	17	27K	-4	23	37	15		18	42 PP
FLAMING GRGE	114.87	41.2	17	33	2				20 13	18	31 PP
GLEN CANYON	115.23	45.9	17	34	2				20 13	28	10 PKKP
GRANADA	115.42	314.5	19	5A	93						
MALAGA	116.20	314.3	17	28	-5					18	50 PP
SERRA PILAR	116.84	320.4	17	28K	-7						
RAPID CITY	116.98	35.4	17	38	3						
TUCSON	117.85	50.3	17	40	3						

TUCSON TELE.	117.90	50.2	17 41	4					28 6	PKKP
ARGENTINE I.	118.64	176.7	17 39	1	23 38	2	20 20			
FAYETTEVILLE	127.36	37.6	17 56K				20 20			
FLORISSANT	127.67	32.5							36 34	SS
ST. LOUIS 1	127.86	32.5	18 3	7					36 35	SS
SHAWINIGAN	127.89	13.4	17 58A	2						
OTTAWA	128.21	16.4	17 54	-3					20 23	
BREBEUF	128.67	14.6	17 54	-4					20 26	PP
HALIFAX	131.32	5.9	18 5	2					20 35	
PENNSYLVANIA	131.67	20.8					20 36			
WESTON	132.17	13.9	18 8	4					20 39	
PORT STANLEY	132.43	179.6							20 40	PP
PALISADES	132.76	17.0	18 8	3					20 41	PP
TACUBAYA	132.79	59.0							20 36	SKP
VERA CRUZ	135.48	57.5							20 49	SKP
MBOUR	135.97	295.3	18 19	8					20 48	PP
SANTA LUCIA	148.18	158.7	18 39	7					20 45	
SAN JUAN	156.19	20.9	18 51	7			21 29		19 20	
CHINCHINA	159.75	44.2	18 52	4			21 13		29 7	*PPPP
HUANCAYO	160.52	115.4	18 55	6					19 41	PKP2
FORT FRANCE	161.06	11.3	18 50	1						
FUQUENE	161.19	60.2	18 54	4			21 6		29 16	*PPPP
BOGOTA	161.29	63.0	18 57	7			21 29		29 15	*PPPP
ST. VINCENT	162.55	12.7							19 45	
CARACAS	162.78	33.4	18 56A	5					23 38	PP
GRENADA	163.52	15.1	18 45	-7					19 36	
LA PAZ	163.68	140.5	18 58	6					23 40	PP
TRINIDAD	164.94	15.3	18 57	4					19 56	

SEPTEMBER 12 12.H 17.M 16.S EPICENTRE 27.62 128.44 DEPTH= 81.KM

A=-0.55164 B= 0.69496 C= 0.46122 D= 0.7832 E= 0.6217
G=-0.2867 H= 0.3612 K=-0.8873 HT= 2.6

DEPTH OF FOCUS= 0.008R

SE= 3.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
YAKUSIMA	3.34	32.1	0	48A	-3	1	26	-4				
KAGOSIMA	4.34	24.5	1	5K	0	2	1	6				
TOMIE	4.99	3.2	1	14	0	2	13	2				
MIYAZAKI	5.00	30.4	1	13	-1	2	18	7				
NAGASAKI	5.24	13.4	1	16K	-1	2	18	1				
UNZENDAKE	5.32	16.7	1	23A	4	2	24	5			2	10
KUMAMOTO	5.53	20.1	1	22	0	2	39	14				
ASOSAN	5.73	22.7	1	24	0	2	43	14				
SAGA	5.83	15.5	1	27	1						3	3
HUKUOKA	6.17	15.2	1	32	2	2	55	15				
OOITA	6.22	25.4	1	30K	-1	2	52	10				
SIMIDU	6.46	36.2	1	38	4	2	55	8				
UWAZIMA	6.62	31.4	1	40	3	3	0	9				
ILAN	6.65	246.2	1	38	1	2	53	1				
TAIPEI	6.73	249.0	1	36	-2	3	4	10				
HWALIEN	7.14	240.9	1	49	5	3	36	32				
ZO-SE	7.22	300.4	1	45	0							
MATUYAMA	7.23	30.0	1	42	-3	3	17	11				
HSINCHU	7.28	248.9	1	56	10	3	38	31				
KOTI	7.36	35.3	1	43	-4	2	55	-14				
MUROTO	7.48	40.1	1	43	-5	3	39	27				
HIROSIMA	7.54	26.0	1	46	-3	3	35	21			2	19 PP
TAICHUNG	7.80	245.4	1	55	2	3	35	15				
HAMADA	7.89	22.3	1	58	4	3	42	19				
ALISHAN	8.02	241.1	1	50	-6							
TAKAMATU	8.23	34.4	1	56	-3	3	22	-9				
TOKUSIMA	8.31	37.9	1	56	-4	3	22	-11				
SIOMISAKI	8.58	45.6	1	58	-5	3	41	2				
SUMOTO	8.69	38.1	2	OK	-5	3	36	-6			2	33
TAINAN	8.75	240.1	2	24	18	3	48	4				
YONAGO	8.84	27.1	2	7	0						4	37
HENGCHUN	8.95	233.0	2	6	-2							
OWASE	9.26	44.2	2	11	-2							
TOTTORI	9.26	30.5	2	9	-4							
OSAKA	9.27	39.2	2	9	-4	4	10	14			2	55
ABUYAMA	9.45	38.4	2	11A	-4							
NARA	9.46	40.2	2	10	-5							

NANKING	9.48	300.1	2	14	-2	4	9	8			
TOYOOKA	9.57	33.0	2	12	-5	4	8	4			
KYOTO	9.65	38.4	2	13	-5					2	47
TU	9.88	42.5	2	27	6						
KAMEYAMA	9.95	41.7	2	21	-1	4	13	0			
HIKONE	10.12	39.2	2	30	6					5	10
TSURUGA	10.31	37.2	2	25	-2	4	24	3		3	16
NAGOYA	10.47	42.0	2	26	-3					3	52
GIHU	10.51	40.4	2	26	-4						
HUKUI	10.69	36.3	2	30	-2					2	47
OMAESAKI	10.88	47.9	2	41	6					6	21
MISIMA	11.68	47.6	3	2	17					3	24
OSIMA	11.76	50.0	2	59	13						
KOHU	11.77	44.5	2	59	13						
HUNATU	11.79	45.7	2	55	8	5	27	30			
MATUMOTO	11.80	40.9								3	33
WAZIMA	12.06	34.1	2	59	9						
MATUSIRO	12.14	40.5	3	0A	9	5	33	28		6	16
OIWAKE	12.20	42.1	3	1	9						
NAGANO	12.23	40.0	2	57	4	5	41	33			
YOKOHAMA	12.32	48.1	3	1	7					6	0
WUHAN	12.48	286.7	2	57	1	5	26	12			
MAEBASI	12.56	43.2	3	10	13						
TAKADA	12.56	38.8	2	52	-5						
KUMAGAYA	12.59	44.8	3	4	7	5	37	21			
TUKUBASAN	13.09	46.2	2	59A	-5	5	32	4		3	16 PPP
KAKIOKA	13.14	46.3	3	14	9						
UTUNOMIYA	13.15	44.6	3	24	19					5	50
BAGUIO CITY	13.31	214.8	3	2	-5	5	38	5			
MITO	13.42	46.4	3	14	6	5	37	1			
SHIRAKAWA	13.73	43.4	3	17	5						
HONG KONG	13.98	250.9	3	12	-4	5	58	9		3	32 PP
ONAHAMA	14.04	45.4	3	14	-2	6	0	10			
HUKUSIMA	14.29	42.0	3	17	-2	6	6	10			
CANTON	14.38	255.1	3	23	2	6	13	15			
SAKATA	14.72	37.3	3	20	-5						
SENDAI	14.89	41.4	3	24	-3	6	15	5			
AKITA	15.46	35.8	3	34	-1						
VLADIVOSTOK	15.71	9.4	3	36	-2						
PEKING	16.01	323.7	3	42A	0	6	47	11			
CHANGCHUN	16.37	351.9	3	47A	1	6	56	12			
AOMORI	16.63	34.5	4	8	19						
HATINOHE	16.80	36.7	3	47	-4						
HAKODATE	17.37	32.3	3	57	-1					4	19
MORI	17.51	31.3	3	59	-1					5	3
SIAN	17.99	296.3	4	7	1	7	36	15			
URAKAWA	18.62	35.2	4	12	-1	7	54	19			
SAPPORO	18.63	30.8	4	10	-3	7	52	17			
OBIHIRO	19.40	34.3	4	21	-1						
KUSIRO	20.05	36.0	4	25	-4	8	16	11			
GUAM	20.74	129.5	4	30	-6	8	22	4			
CHENGTU	21.54	283.9	4	42	-2	8	41	8			
LANCHOW	22.49	298.1	4	53A	0						
KUNMING	23.15	269.7	4	59A	-1						
IRKUTSK	30.51	330.4								7	14 PP
SHILLONG	32.69	274.9	6	24A	-3	11	38	2			
LHASA	32.80	282.5	6	28A	0						
CHITTAGONG	33.52	269.3	6	33A	-1	11	54	5	6 50	7	50 PP
PETROPAVLOVK	33.82	33.1	6	35	-1	11	56	3		7	52 PP
YAKUTSK	34.40	1.1	6	39	-2					8	3 PP
MAGADAN	35.43	19.5	6	47	-3	12	17	-1			
CALCUTTA	36.53	271.1								12	48
MEDAN	37.12	235.2	7	5	1	12	58	14			
RABAUL	39.05	140.4	7	18	-2	13	12	-1	7 26		
DJAKARTA	39.57	215.1	7	24	-1	13	28	7			
LEMBANG	39.73	213.5	7	25A	-1	13	27	3			
PORT MORESBY	41.02	151.2	7	35	-2	13	43	0	7 45	16	47
SEMIPALATNSK	42.87	315.5	7	50	-2					9	33 PP
DEHRA DUN	43.88	286.0	8	0	0	14	26	1			
TIKSI	44.05	0.2	7	57	-4	14	25	-2		9	42 PP
LAHORE	46.83	288.5	8	23	0						
MADRAS	47.25	262.1	8	28	1						
WARSAK DAM	48.75	292.2	8	40	2						
TASHKENT	49.76	302.1	8	46	0	15	50	2		10	46 PP
DUZHANBE	50.39	298.6	8	50	-1	16	5	8			
CHARTERS TS.	50.47	158.1	8	49	-3	15	58	0			
POONA	50.69	272.0	8	51	-2						
QUETTA	53.32	288.4	9	13A	0	16	41	4	9 24	11	18 PP

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KARACHI	54.65	282.0	9 23A	0			9 42			
SVERDLOVSK	55.29	321.7	9 27	0						
ASHKABAD	58.58	299.4	9 50	-1				13 32	PPP	
BRISBANE	59.48	154.8	9 57	0	18 2	4				
MUNDARING	60.40	192.0	10 0	-3						
COLLEGE	62.72	28.5	10 17	-2				39 9	PKPPKP	
TEHERAN	64.54	298.6	10 31	0						
RIVERVIEW	64.80	159.2	10 44A	12	19 11	6				
SHIRAZ	65.49	291.9	10 36K	-1	19 17	4		13 1	PP	
CANBERRA	65.55	161.6	10 36	-1			10 47			
APATITY	66.67	335.4	10 43A	-1	19 28	0				
MELBOURNE	66.93	165.8	10 44	-2			10 55			
GORIS	67.27	303.8	10 48	0				15 32	PCS	
TIFLIS	67.71	306.5	10 51	0				13 21	PP	
MOSCOW	68.09	322.4	10 52	-1						
SODANKYLA	69.21	336.1	10 59	-1						
NORD	69.56	354.9	11 0A	-2						
PULKOVO	70.46	327.9	11 7	-1						
AFIAMALU	71.12	117.5	11 11	-1						
KIRUNA	71.18	337.6	11 11	-1						
TARRALEAH	71.54	166.0	11 12A	-2			11 25			
MOORLANDS	71.83	165.5	11 25A	9			11 36			
NURMIJARVI	72.77	329.8	11 21	0						
HELSINKI	72.78	329.4	11 21	0						
SIMFEROPOL	73.90	312.5	11 27A	-1	20 54	2		11 50	PCP	
RESOLUTE	74.15	10.9	11 29A	0	20 57	2				
THULE	75.68	4.0	11 36	-2						
UPPSALA	76.17	330.9	11 39	-2				11 55		
SKALSTUGAN	76.26	335.6	11 40	-1						
KSARA	77.14	301.5	11 47A	1	21 40	13		14 43	PP	
LWOW	77.97	320.1	11 51	0	21 42	6		12 7	PCP	
JERUSALEM	78.51	299.8	11 54	0				14 56	PP	
KARAPIRO	78.74	143.8	12 4	9						
ISTANBUL KA.	78.90	310.5	11 54	-2						
ISTANBUL UN.	78.96	310.5	11 55A	-1						
ALBERNI	79.57	39.6	12 0	0						
TONGARIRO	79.68	144.7	12 9	9						
CHATEAU	79.69	144.7	12 1	1						
SCORESBY SD.	79.92	350.3	12 2	0						
KRAKOW	80.16	321.7	12 3	0						
VICTORIA	80.74	39.8	12 6A	0						
COPENHAGEN	80.80	329.0	12 6A	0						
RACIBORZ	81.09	322.3	12 10	2				12 21	PCP	
SOFIA	81.89	314.0	12 13	1				12 36		
HELWAN	82.35	299.6	12 14A	0				12 36		
POTSDAM	82.45	326.0	12 18	3						
BELGRADE	82.59	317.0	12 16A	1				16 8		
BRATISLAVA	82.73	321.1	12 17	1	22 26	0		15 17	PP	
CORVALLIS	82.88	43.2	12 18A	1						
PRUHONICE	83.09	323.5	12 27A	9				15 40	PP	
VIENNA-H.	83.10	321.4	12 20A	2				13 8		
PRAGUE	83.11	323.6						12 35	PP	
COLLMBERG	83.13	325.2	12 18A	0				15 31	PP	
HALLE	83.53	325.7	12 21	1	22 39	5	12 33			
ATHENS	84.01	309.8	12 21K	-2						
PLAUEN	84.04	324.8	12 21	-2						
JENA	84.06	325.4	12 23	0	22 41	2	12 33	15 49	PP	
SONNEBERG	84.59	325.1	12 27	1						
ZAGREB	84.69	319.5	12 27	1						
WITTEVEEN	85.24	328.8	12 31	2						
MUNSTER	85.35	327.8	12 30	1			12 41			
LJUBLJANA	85.39	320.3	12 30A	1						
SHASTA	85.52	46.1	12 30A	0				13 3		
ADDIS ABABA	85.59	277.8	12 34	4						
HUNGRY HORSE	85.98	36.4	12 34	2				30 32	PKKP	
TRIESTE	86.06	320.3	12 32	-1	23 10	11				
BENSBERG	86.22	327.2	12 34A	0	23 8	8				
DE BILT	86.40	328.9	12 36	2	23 14	12				
HEIDELBERG	86.46	325.4	12 35	0						
STUTTGART	86.57	324.6	12 35	0	23 20	16		13 45		
TUBINGEN	86.83	324.5	12 37	0						
TARANTO	86.93	314.6						21 1		
RAVENSBURG	87.02	323.7	12 39	2						
SAN FRANCSCO	87.07	48.6	12 39	1						
EBINGEN	87.10	324.3	12 38	0						
BERKELEY	87.14	48.4	12 38A	0	23 11	2				
PADOVA	87.26	320.9	12 14	-25				12 44		
BRANNER	87.44	48.7	12 40A	0						
STRASBOURG	87.46	325.1	12 40	0	23 20	8		15 34		

CHUR	87.65	323.0															14	5	
UCCLE	87.66	328.3	12	40	-1	23	8	-6											
RENO	87.81	46.0	12	42A	1														
LICK	87.84	48.6	12	42A	1												16	5	PP
BUTTE	88.21	37.6	12	44	1														
BASLE	88.24	324.4	11	42	-61														
VINEYARD	88.34	49.0	12	44	0														
PRATO	88.63	320.0	12	48	3														
ROME	89.03	317.8	12	49K	2	23	49	22									24	50	PS
BESANCON	89.24	324.9	12	48	0														
BOZEMAN	89.26	37.2	12	49	1														
KEW	89.29	330.8	12	48	0														
MESSINA	89.31	313.5	12	46	-2												25	40	
FRESNO	89.38	48.2	12	49	0														
PARIS	89.90	327.6	12	52	1														
EUREKA	90.26	44.3	12	48	-5												31	3	PKKP
ISOLA	90.70	322.1	12	54	-1							13	8						
MONACO	90.78	321.6	12	55	0														
TANANARIVE	90.90	249.2	12	58	2												13	14	
RUTH	91.02	44.0	12	51	-5	23	53	8											
FOLINIERE	91.32	329.0	12	58	0														
SALT LAKE C.	91.95	41.3	13	1	0														
PASADENA	91.97	49.6	13	1	0	23	39	-14									14	26	PP
BOULDER CITY	93.09	46.5	13	5	-1												16	45	PP
FLAMING GRGE	93.26	40.0	13	8	1	23	48	-16									16	48	PP
RAPID CITY	94.42	34.5	13	13	1														
GLEN CANYON	94.52	44.1	13	14	2												17	22	PP
TERRE ADELIE	94.66	174.9	13	8	-5												16	50	
BAGNERES	95.11	324.7	13	24	9														
TUCSON	98.00	47.4	13	30	2												13	48	
TUCSON TELE.	98.02	47.2	13	25	-3												17	27	PP
LWIRO	99.58	272.5	13	36	1														
TOLEDO	99.59	324.9	13	35	0							13	48						
MALAGA	102.13	322.9															18	1	PP
CAPE HALLETT	103.70	167.9															18	8	PP
FAYETTEVILLE	104.97	34.6	13	59	0												18	9	
TAMANRASSET	105.52	306.5	14	5	777												18	25	PP
PALISADES	108.64	17.7															28	22	PS
KIMBERLEY	113.87	248.9	16	14	-135														
SOUTH POLE	117.47	180.0	18	36	0												19	47	PPP
BYRD STATION	120.81	169.1	18	43	0							18	56				28	49	PKKP
SAN JUAN	132.14	18.8	19	5	0														
HUANCAYO	152.88	59.9	19	45	5												20	42	
LA PAZ	161.09	57.6	19	55	5												20	45	PKP2

SEPTEMBER 12 16.H 2.M 11.S EPICENTRE -7.00 117.18 DEPTH= 634.KM

A=-0.45348 B= 0.88299 C=-0.12115 D= 0.8895 E= 0.4568
G= 0.0553 H=-0.1078 K=-0.9926 HT= 6.9

DEPTH OF FOCUS= 0.095R

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	9.50	270.5	2	12K	-2	4	2	0					
DJAKARTA	10.32	274.0				4	12	5			7	26	
MEDAN	21.25	299.1									14	10	SCS
MANILA	21.88	10.2	4	11	1						5	51	
BAGUIO CITY	23.52	8.2									4	23	PG
MUNDARING	24.85	182.0	4	34	-3						8	14	
HONG KONG	29.27	354.3	5	15A	0	9	27	0	6	48	12	42	*SS
PORT MORESBY	29.75	96.7	5	19	0	9	30	-4					
CANTON	30.14	352.9	5	23	1	9	39	-1					
CHARTERS TS.	31.04	117.7	5	31K	1	9	54	0					
GUAM	34.09	53.4	5	56	1	10	41	1					
KUNMING	34.89	336.7	6	3A	1	10	54	2	7	46			
WUHAN	37.40	356.3	6	23	0	11	29	0					
ZO-SE	38.08	5.6	6	29A	1	11	39	0	8	16			
NANKING	38.87	2.2	6	36A	2	11	53	2	8	26			
CHENGTU	39.52	342.0	6	30A	-10	11	58	-2	8	29			
MELBOURNE	39.70	144.7	6	42K	1	12	5	2	8	33	11	26	
CANBERRA	40.58	138.5	6	47K	-1	12	15	0	8	35	11	27	SCP
SHILLONG	40.67	323.7	6	48A	-1								
RIVERVIEW	41.20	135.1	6	53K	0	12	26	2			15	57	SS

SIAN	41.77	349.7	6 58	1	12 33	1						
TARRALEAH	43.65	148.3	7 13K	1			9 6					
MOORLANDS	44.13	147.9	7 16	0					7 26			
LHASA	44.26	326.7	7 18A	1	13 8	1	9 9					
CHATRA	44.47	320.4	7 18	0	13 6	-4						
LANCHOW	44.63	344.5	7 20A	0	13 14	2						
ABUYAMA	45.12	21.5	7 24A	1								
PEKING	46.81	358.9	7 35A	-1	13 41	-1	9 25					
MATUSIRO	47.59	23.0	7 40A	-2	13 52	-1	9 34		9 42	PP		
TUKUBASAN	48.08	25.0	7 43	-3	13 56	-4						
CHANGCHUN	51.13	7.6	8 7A	-1	14 39	-2	10 0					
VLADIVOSTOK	51.65	13.7	8 11A	-1	14 49	2						
LAHORE	56.07	315.6	8 39	-4			10 34					
KAIMATA	59.30	135.8	9 4	0								
UGLEGORSK	59.95	18.6			16 38	4						
IRKUTSK	60.06	350.9	9 9A	0	16 38	3						
GEBBIES PASS	60.56	136.7	9 12	-1								
QUETTA	60.71	310.3	9 14	0	16 41	-2			20 13	*SS		
KARAPIRO	60.92	129.6	9 16	1					9 51	PCP		
TONGARIRO	61.25	131.0	9 17	0								
CHATEAU	61.25	131.0	9 17	0								
WELLINGTON	61.27	133.5	9 16	-1								
MIRNY	61.74	190.7	9 19	-1								
ALMATA	61.92	327.7					11 22					
TERRE ADELIE	61.99	169.4	9 17	-5	16 54	-5						
ANDIJAN	62.86	323.0	9 28	1	17 10	0						
NAMANGAN	63.42	322.8	9 32K	1	17 15	-1						
STALINABAD	63.82	319.2	9 33	0	17 18	-3						
TANANARIVE	68.53	252.5	10 5A	3			12 12					
PETROPAVLOVK	69.34	25.3	10 8A	1	18 29	4						
YAKUTSK	69.50	6.3	10 8	0	18 26	-1						
AFIAMALU	69.99	102.2	10 12	1								
MAWSON	70.50	199.3	10 14	0								
SHIRAZ	71.93	304.2	10 22	0	18 52	-2	12 15		13 29	*SP		
CAPE HALLETT	72.67	165.2	10 28A	2								
SCOTT BASE	75.24	170.4	10 41A	0								
SVERDLOVSK	78.49	332.1					13 4					
TIKSI	78.85	3.8	10 56K	-4	20 3	-5						
ADDIS ABABA	79.74	280.5	11 9	4			13 17					
TIFLIS	81.69	313.9	11 18	3	20 38	2						
SOUTH POLE	83.04	180.0	11 21	0	20 46	-3	13 26					
PIETERMZBURG	83.80	241.0	11 48	23								
BULAWAYO	86.29	250.3	11 39K	2								
KSARA	86.68	304.5	11 41	2	21 11	-13	13 49					
GRAHAMSTOWN	86.71	237.0	11 37	-2								
JERUSALEM	86.86	302.4	11 39	-1			13 51					
BROKEN HILL	87.04	255.9	11 41K	0								
BYRD STATION	88.61	171.6	11 49	1			14 5					
KIMBERLEY	88.77	241.3	11 49	0								
HELWAN	89.87	300.0					14 5		14 31			
MOSCOW	89.89	326.2			21 54	2	14 3					
SODANKYLA	96.63	337.1	12 25	1								
HELSINKI	97.13	329.8	12 28	1								
NURMIJARVI	97.29	330.1	12 28	1								
BRATISLAVA	101.91	317.7	13 1	13								
TAMANRASSET	112.63	291.7	17 29	4					18 32	PP		
PASADENA	122.39	53.9	17 48K	4	26 11	144			30 53	SS		
FLAMING GRGE	126.59	43.3	17 56	4					20 16			
GLEN CANYON	126.62	48.6	18 0	8					27 29	PKKP		
FAYETTEVILLE	139.24	40.2	18 13	-3					20 58			
SEVEN FALLS	139.44	8.4	18 11	-6					20 59			
HALIFAX	142.53	0.9	18 22A	-1					21 7			
LA PAZ	156.06	167.4	18 47	5					19 20	PKP2		
HUANCAYO	157.35	146.6	18 51	7					19 26	PKP2		

SEPTEMBER 13 3.H 9.M 13.S EPICENTRE 27.23 140.28 DEPTH= 436.KM

A=-0.68490 B= 0.56902 C= 0.45512 D= 0.6390 E= 0.7692
G=-0.3501 H= 0.2908 K=-0.8904 HT= 2.7

DEPTH OF FOCUS= 0.064R

SE= 2.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	3.24	0.3	1	6	-2	1	56	-6				

SIOMISAKI	7.32	328.9	1	50	1	3	19	4		
OSIMA	7.56	354.4	1	50A	-1	3	15	-5		
OMAESAKI	7.56	347.0	1	50	-1	3	19	-1		
OWASE	7.67	333.7	1	53	0	3	23	1		
MERA	7.68	357.2	1	50	-3	3	16	-6		
SHIZUOKA	7.88	348.7				3	28	-8		
MISIMA	7.95	352.1	1	54	-2	3	23	-4		
YOKOHAMA	8.19	356.4	1	56	-2				3	58
KAMEYAMA	8.27	337.7	2	1	2	3	33	-1		
HUNATU	8.35	351.5	1	59	-1	3	32	-3		
NARA	8.35	333.9	2	1	1	3	38	3		
TOKUSIMA	8.40	325.6	2	3	2					
NAGOYA	8.41	341.1	2	2	1	3	37	0	4	32
TOKYO C.M.O.	8.44	357.1	2	2	1	3	33	-4		
OSAKA	8.45	332.3	2	3	2	3	40	3		
SUMOTO	8.46	328.2	2	3A	2	3	41	3	5	24
TYOSI	8.48	3.1	2	0	-2	3	35	-3		
KOHU	8.54	350.5	2	1	-1	3	37	-2		
KOTI	8.58	318.9	2	4	1	3	42	2		
GIHU	8.68	340.6	2	4	0	3	43	1		
KYOTO	8.69	334.5	2	5	1	3	44	2		
HIKONE	8.72	337.7	2	8	4	3	46	3		
TITIBU	8.78	353.6	2	4	-1	3	39	-5		
TAKAMATU	8.87	324.4	2	7	1	3	51	5		
KUMAGAYA	8.93	355.3	2	6	-1	3	44	-3		
TUKUBASAN	8.96	359.1	2	3A	-4	3	43	-5		
KAKIOKA	8.97	359.5	2	5	-2	3	45	-3		
MIYAZAKI	9.02	303.3	2	11	3	3	58	9		
MITO	9.12	1.0	2	9A	0	3	50	-1		
TSURUGA	9.13	337.9	2	14	5	3	55	4		
OIWAKE	9.19	351.2	2	6	-4	3	49	-3		
MAEBASI	9.20	353.9	2	9	-1	3	49	-4		
MATUMOTO	9.21	348.2	2	10	0	3	54	1		
MATUYAMA	9.23	317.4	2	11	1	4	0	7		
UTUNOMIYA	9.30	358.0	2	9	-2	3	50	-5		
HUKUI	9.45	339.6				4	0	2	2	36
MATUSIRO	9.45	349.8	2	9A	-4	3	56	-2	3	30
TOYOOKA	9.50	331.9	2	13	0	3	51	-8		
KAGOSIMA	9.52	299.3							3	1
NAGANO	9.58	349.9	2	16	2	4	0	0		
OOITA	9.58	310.7	2	16	2	4	15	15		
ONAHAMA	9.71	2.9	2	21	6	3	59	-4		
TOYAMA	9.80	345.3				4	5	0	2	37
HIROSIMA	9.81	318.4	2	18	1	4	10	5		
SHIRAKAWA	9.86	359.7	2	13	-4	4	3	-3		
KUMAMOTO	10.00	306.2	2	21	2	4	17	8		
HAMADA	10.39	319.4	2	25	2	4	24	7		
HUKUSIMA	10.49	0.8	2	23A	-1	4	17	-2		
NAGASAKI	10.55	303.8	2	25K	0	4	26	6		
HUKUOKA	10.63	308.9	2	26	0	4	31	9		
NIIGATA	10.71	354.8	2	25	-2	4	23	0	5	3
SAIGO	10.72	328.3	2	11	-16	4	29	5		
AIKAWA	10.89	351.5							3	40
YAMAGATA	10.99	0.3	2	29	-1	4	28	-1		
SENDAI	11.02	2.6	2	29	-1	4	27	-3		
ISINOMAKI	11.20	4.2	2	31A	-1	4	33	-1		
MIZUSAWA	11.89	3.2	2	41	1	4	47	-1		
AKITA	12.46	359.4							5	1
MORIOKA	12.46	3.2	2	46	0	5	0	1		
MIYAKO	12.47	6.1							4	59
HATINOHE	13.31	4.1							5	15
AOMORI	13.56	1.6	3	0	2	5	23	2		
GUAM	14.32	162.2	3	0	-6	5	31	-4		
HAKODATE	14.55	1.4	3	8K	0	5	46	6		
MORI	14.84	0.8	3	13	2	5	51	6		
URAKAWA	15.03	7.2	3	16	3	5	54	5	6	13
HIROO	15.22	8.6	3	17	2					
SUTTSU	15.54	359.9				6	3	5		
SAPPORO	15.83	2.9	3	12	-9	6	8	4		
OBIHIRO	15.83	7.9	3	22	1	6	10	6		
KUSIRO	16.07	11.0	3	22	-2	6	5	-3		
ZO-SE	17.12	287.5	3	32	-2	6	26	-2	5	14 *SP
VLADIVOSTOK	17.25	338.9	3	38K	2	6	35	5		
WAKKANAI	18.19	3.2							6	28
NANKING	19.29	289.6	3	54	-2	7	11	5	5	45 *SP
BAGUIO CITY	21.19	243.5	4	11	-3	7	35	-3		
MANILA	21.82	238.9	4	19	-1				7	50
UGLEGORSK	21.86	3.2	4	20K	0	7	55	6		
WUHAN	22.75	284.4	4	25	-3	8	4	0	6	22 *SP

PEKING	23.70	308.7	4	35	-2	8	19	-1	5	48	6	30 *SP
HONG KONG	24.19	264.0	4	41	0	8	29	2			6	35 *SP
CANTON	24.71	266.4	4	46	0	8	37	1	5	59	6	40 *SP
SIAN	27.77	292.3	5	12	-1	9	25	1				
PETROPAVLOVK	29.17	23.0	5	26	1	9	48	2				
CHENGTU	31.84	284.9	5	47K	-1	10	24	-3			7	49 *SP
MAGADAN	33.12	9.8				10	49	2				
KUNMING	33.68	275.0	6	4K	0	10	56	0			8	8 *SP
YAKUTSK	35.50	351.4	6	19	0	11	24	1				
IRKUTSK	36.68	322.8	6	29K	0							
LHASA	43.11	285.2	7	22K	1	13	17	2			9	26 *SP
CHITTAGONG	44.05	274.7	7	29	0				8	51	9	25 PP
TIKSI	44.90	354.9	7	34A	-1	13	40	0				
CHATRA	47.00	282.3	8	3	11							
CHARTERS TS.	47.39	172.4	7	53	-2						12	38
ALMATA	52.93	305.1	8	36K	0							
BRISBANE	55.62	166.5									10	10
ANDIJAN	56.61	302.5	9	2K	0	16	24	5				
COLLEGE	58.02	28.6	9	10	-1	16	30	-7	10	41	11	12 PP
STALINABAD	59.74	300.6	9	22	-1	17	2	3				
POONA	61.21	277.1	9	31	-2							
KHEYS	62.05	349.4	9	38	0							
CANBERRA	62.75	172.0	9	42	-1						11	5
QUETTA	63.33	291.8	9	46	0	17	45	2	11	19	12	16 PP
NORD	70.75	356.5	10	32	0							
APATITY	71.27	337.2	10	35K	0							
RESOLUTE	72.33	13.2	10	41K	0							
KARAPIRO	72.76	151.4							12	8		
SODANKYLA	73.65	338.3	10	48	-1							
TEHERAN	73.82	302.1	10	50	0							
VICTORIA	74.04	43.4	10	52	1							
MOSCOW	74.63	325.1	10	54K	-1							
SHIRAZ	75.27	295.9	10	58A	0	19	57	-4	12	35		
KIRUNA	75.35	340.1	10	58	-1							
CORVALLIS	75.69	47.1	11	2A	2							
PULKOVO	76.19	330.7	11	2	-1							
ARCATA	76.68	50.8	10	44K	-22							
SHASTA	77.92	50.5	11	13K	0							
NURMIJARVI	78.17	332.9	11	14	0							
HELSINKI	78.24	332.5	11	13	-1							
MINERAL	78.62	50.5	11	17K	1							
BERKELEY	79.24	53.0	11	20K	0							
HUNGRY HORSE	79.72	40.7	11	24	2	20	53	5	12	56		
LICK	79.91	53.3	11	24K	1							
RENO	80.21	50.6	11	27A	2							
SKALSTUGAN	80.69	339.1	11	26	-1						14	38
UPPSALA	81.35	334.5	11	29	-2						14	43
FRESNO	81.48	53.1	11	33	2							
SIMFEROPOL	81.69	316.4	11	33	1							
SCORESBY SD.	81.74	354.0	11	34A	1						26	25 SS
BUTTE	81.75	42.3	11	34	1						12	2
EUREKA	82.85	49.3	11	39	1				13	11		
RUTH	83.64	49.1	11	43	1							
PASADENA	83.89	54.8	11	44	1	20	23	-66			12	7 PCP
LWOW	84.74	324.3	11	47K	-1							
SALT LAKE C.	84.92	46.5	11	50	2							
COPENHAGEN	86.23	333.4	11	54A	-1							
FLAMING GRGE	86.41	45.4	11	56	0	21	59	6	13	31		
GLEN CANYON	87.10	49.7	12	1	2							
RACIBORZ	87.51	326.9	12	2	1							
RAPID CITY	88.34	40.2	12	6	1							
COLLMBERG	89.10	330.0	12	7	-1						15	55 PP
PRUHONICE	89.32	328.4	12	14K	5						15	44 PP
HALLE	89.42	330.6	12	9	-1						12	31
VIENNA-H.	89.63	326.3	12	11	0							
JENA	90.00	330.4	12	11	-1				15	40		
PLAUEN	90.05	329.8	12	11	-2							
TUCSON	90.15	53.3	12	9	-4							
TUCSON TELE.	90.18	53.2	12	15	2							
WITTEVEEN	90.63	333.9	12	16	1							
BENSBERG	91.85	332.5	12	21	0							
DURHAM	92.00	339.0	12	21A	-1							
LJUBLJANA	92.05	325.6	12	21K	-1							
HEIDELBERG	92.37	330.7	12	23	0							
STUTTGART	92.59	330.0	12	25	1						16	8 PP
TRIESTE	92.72	325.6	12	24	-1							
TUBINGEN	92.86	330.0	12	25	-1							
EBINGEN	93.17	329.8	12	26	-1							

RAVENSBURG	93.17	329.2	12 27	0							
STRASBOURG	93.40	330.6	12 28	0						13	22
BASLE	94.28	330.0	12 29K	-3							
BESANCON	95.19	330.7	12 39	3							
TAMANRASSET	113.79	314.3	17 50	2						18	48 PP
SOUTH POLE	117.07	180.0	17 54	0	24 34	29				28	20 PKKP
BYRD STATION	118.40	168.7	17 43	-14						28	4 PKKP
HUANCAYO	143.38	72.7	18 44K	0						21	46 PP
LA PAZ	151.62	73.8	19 0	4						19	18 PKP2

SEPTEMBER 14 0.H 34.M 31.S EPICENTRE 16.85 122.41 DEPTH= 69.KM

A=-0.51321 B= 0.80847 C= 0.28807 D= 0.8443 E= 0.5359
G=-0.1544 H= 0.2432 K=-0.9576 HT= 5.4

DEPTH OF FOCUS= 0.006R

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BAGUIO CITY	1.80	256.6						0 23 P*
MANILA	2.52	210.7	0 37	-2	1 8	-1		
HENGCHUN	5.36	343.3	1 29	10				
TAWU	5.65	345.7	1 30	7				
TAITUNG	5.99	348.8	1 25	-3	2 0	-36		
HWALIEN	7.12	354.2	1 43	0				
ILAN	7.90	355.7	1 51	-3	2 50	-33		
HONG KONG	9.47	306.2	2 12K	-3	3 59	-2		2 37
ZO-SE	14 23	355.7	3 24	5	6 14	19		
NANKING	15.50	348.4	3 37	2	6 40	15		
KUNMING	20.11	297.4	4 31A	1	8 23	16		
SIAN	21.13	327.6	4 41	0	8 41	14		
ABUYAMA	21.46	30.8	4 45K	1				
GUAM	21.81	95.8	4 50	3	9 3	24		
MATUSIRO	24.10	32.5	5 8K	-2	9 41	22		5 44 PP
LANCHOW	25.26	322.8	5 21A	0	9 55	16		
CHANGCHUN	27.01	4.6	5 36	-1				
VLADIVOSTOK	27.40	15.2	5 23	-18				
CHITTAGONG	29.30	285.7	5 49	-9				
LHASA	31.40	299.6	6 15	-1				
CHATRA	34.08	293.1	6 39	0				
UGLEGORSK	35.91	22.2	6 29	-26				
DEHRA DUN	42.55	296.6	7 56	6	14 11	4		
CHARTERS TS.	43.55	146.5	7 59	1				
YAKUTSK	45.41	4.8	8 11	-2				
LAHORE	45.87	297.8	8 15	-2				
PETROPAVLOVK	45.88	29.8	8 17K	0	15 1	6		
POONA	46.18	279.7	8 18	-1				
WARSAK DAM	48.51	300.7	8 38	1				
MUNDARING	48.90	187.0	8 38	-2				
ANDIJAN	49.11	309.6	8 43A	1	15 50	9		
NAMANGAN	49.68	309.8	8 46	0	15 55	6		
STALINABAD	51.40	306.1	8 59	0	16 21	9		
QUETTA	52 10	295.3	9 4	-1	16 24	2		11 5 PP
BRISBANE	52.93	145 7	9 11	0	19 11	158		
ADELAIDE	53.81	163.4	9 16A	-1			9 30	
TIKSI	54.91	2.5	9 21	-4				
RIVERVIEW	57.37	151.6	10 44	61	17 42	9		
CANBERRA	57.69	154.3	9 45	0				
SVERDLOVSK	60.69	326.3	10 5	-1				
SHIRAZ	64.63	295.2	10 30A	-2	19 10	5	10 45	12 53 PP
TIFLIS	69.83	308.8	11 4	-1	20 9	2		
AFIAMALU	71.81	111.2	11 19	2				
MOSCOW	73.33	324.0	11 25	-1	20 55	7		
KARAPIRO	73.86	138.8	11 30	1				
APATITY	74.18	336.5	11 30K	-1	21 22	25		
TONGARIRO	74.62	139.9	11 35	2				
CHATEAU	74.63	139.9	11 34	1				
COLLEGE	74.80	26.3	10 33	-61				14 27 PP
PULKOVO	76.65	328.7	11 43	-2	21 25	1		
SODANKYLA	76.80	336.7	11 45	0				
SIMFEROPOL	77.11	313.3	11 47	0	21 33	4		
KSARA	78.00	301.8	11 54	2				
KIRUNA	78.98	337.8	11 57	-1				12 41
JERUSALEM	78.99	299.9	11 58	0				

HELSINKI	79.19	329.7	11 59	0			
NURMIJARVI	79.25	330.1	11 59	0			
NORD	79.72	354.4	12 1	0			
ADDIS ABABA	81.39	276.8	12 15	5			
LWOW	82.58	319.7	12 20	4			
HELWAN	82.70	298.9	12 28	11	13 27		
UPPSALA	82.80	330.5	12 17	-1			
SKALSTUGAN	83.67	335.0	12 21	-1			
TERRE ADELIE	84.61	172.6	12 24	-3			
KRAKOW	85.02	320.8	12 28	-1	12 43	PCP	
SOFIA	85.22	313.1	12 30	0			
MIRNY	85.99	191.4	12 33	-1			
BELGRADE	86.49	315.8			20 43		
COPENHAGEN	87.00	327.8	12 41	3			
BRATISLAVA	87.43	319.7	12 35	-6			
PRUHONICE	88.2	322.1	12 45	1	13 19		
COLLMBERG	88.60	323.7	12 45	-1	13 55		
ZAGREB	89.05	317.9			28 3		
HALLE	89.10	324.1	12 49	1	15 54		
JENA	89.57	323.7	12 53	2	13 19		
LJUBLJANA	89.89	318.5	12 53	1			
SONNEBERG	90.03	323.4	12 54	1			
TRIESTE	90.55	318.3	12 59	4			
STUTTGART	91.88	322.5	13 2	1	33 38	SSS	
VICTORIA	92.61	37.4	13 6	1			
STRASBOURG	92.85	322.8	13 7	1			
CAPE HALLETT	94.45	166.9	13 14	1			
CORVALLIS	94.59	40.8	13 17	3			
HUNGRY HORSE	97.96	34.1	13 31	2			
FLAMING GRGE	105.11	38.1	14 22	777			
SOUTH POLE	106.74	180.0	18 30	777	14 9	P	
TAMANRASSET	106.78	300.7			18 8	PP	
BYRD STATION	111.24	170.5	18 33	8			
PALISADES	120.48	14.3			36 51	SS	
SAN JUAN	144.00	13.9	19 27	0			
PORT STANLEY	145.23	179.7	19 30	1			
DOMINICA	147.84	6.9	19 20	-14			
CARACAS	151.30	19.4	19 47	8			
TRINIDAD	152.42	8.1	19 47	6			
HUANCAYO	162.18	76.8	19 59	6			
LA PAZ	169.90	89.5	20 5	6			

SEPTEMBER 14 1.H 53.M 25.S EPICENTRE 19.55 -70.12 DEPTH= 15.KM

A= 0.32068 B=-0.88687 C= 0.33260 D=-0.9404 E=-0.3400
G= 0.1131 H=-0.3128 K=-0.9431 HT= 4.8

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
SAN JUAN	3.96	106.4	0 57	-5	1 41	-8		8 14
DOMINICA	9.33	115.6	1 56	-21				
CARACAS	9.51	160.6	2 18A	-2	3 57	-10		
GALERAZAMBA	10.03	210.4	2 40	13				
ST. VINCENT	10.60	125.4	2 31	-3	4 35	1		
GRENADA	10.99	131.5	2 38	-2	4 33	-11		3 6 PP
BARBADOS	11.95	120.8	2 54	1				
TRINIDAD	12.21	135.2	2 55	-1	5 4	-9		
BALBOA HTS.	13.94	222.3	3 21	2				
FUQUENE	14.43	194.6	3 26	0	6 11	4		
BOGOTA	15.33	195.1	3 38	1	6 25	-3		
CHINCHINA	15.45	201.0	3 39A	0	6 34	3		
COLUMBIA	17.36	328.2	4 0	-3	6 58	-17		
WASHINGTON	20.20	344.1	4 59	22				5 35 PP
PALISADES	21.64	352.2	4 52K	0	8 39	-7		8 7
PENNSYLVANIA	22.20	344.3	4 56	-1	8 56	0		
PITTSBURGH	22.46	340.1			9 0	-5		
WESTON	22.78	357.7	5 15	12	9 9	2		
CLEVELAND	23.92	338.5	5 15K	1	9 41	14	5 30	
HALIFAX	25.58	10.8	5 26	-4				
BREBEUF	26.04	354.4	5 33	-1			6 3	
OTTAWA	26.19	351.0	5 33	-3				
FAYETTEVILLE	26.81	312.9	5 39K	-2	10 13	-2	5 59	6 12 *SP
SHAWINIGAN	27.02	356.0	5 40	-3				
HUANCAYO	31.81	189.7	6 24A	-2	11 45	10		

LA PAZ	35.87	176.7	7	3	2					15	9
RAPID CITY	36.86	319.0	6	59	-11						
TUCSON TELE.	38.44	297.6	7	16	-7	12	32	-45			
TUCSON	38.52	297.5	7	22	-1					7	57
FLAMING GRGE	39.62	311.2	7	19	-14					9	4
GLEN CANYON	40.08	304.5	6	35	-61						
SALT LAKE C.	41.33	310.0	7	49	2						
BOZEMAN	42.55	317.2	7	54	-3						
BUTTE	43.66	317.1	8	3	-3						
EUREKA	44.03	307.0	8	6	-3					10	14
PASADENA	44.87	299.0	8	13	-3	17	57	185		22	41 SS
HUNGRY HORSE	45.49	319.6	8	16	-4						
FRESNO	46.51	302.4	8	26	-3						
RENO	46.95	306.2	8	55	23						
LICK	48.04	303.0	8	38K	-3						
MINERAL	48.44	307.0	8	41K	-3						
SHASTA	49.09	307.3	8	45	-4						
CORVALLIS	50.46	312.1	8	56	-3						
MBOUR	50.94	87.1	9	6	3	16	22	4			
VICTORIA	51.45	317.0	9	0	-7						
MALAGA	59.36	58.3								12	21 PP
TOLEDO	59.55	54.7	10	6	1						
GRANADA	59.98	57.8	10	22A	14						
ALMERIA	60.91	58.1	10	15K	1	18	22	-8	10 32	11	42
BAGNERES	62.64	51.0	10	26	0				10 47		
COLLEGE	67.26	333.1	10	50	-6						
STRASBOURG	67.66	44.6	10	58	-1						
STUTTGART	68.64	44.3	11	3	-2						
SKALSTUGAN	69.31	28.3	11	9	0						
TAMANRASSET	69.89	72.2	11	9	-3						
JENA	69.90	41.8	11	12	0					13	47 PP
HALLE	70.07	41.2	11	13	0						
COLLMBERG	70.74	41.3	11	17	0					12	16
PORT STANLEY	71.75	172.0	11	19	-4						
PRUHONICE	71.91	42.6	11	23	-1					12	25 *SP
TRIESTE	72.08	47.1	11	29	4						
UPPSALA	72.19	32.0	11	26	0						
KIRUNA	72.29	23.5	11	25	-2						
SODANKYLA	74.71	23.5	11	36	-5						
NURMIJARVI	75.51	30.6	11	46	1						
HELSINKI	75.75	30.9	11	43	-4						
ARGENTINE I.	84.65	177.5	12	31	-3						
BYRD STATION	102.75	187.7	13	56	-5						
CHARTERS TS.	145.81	262.8	19	37	-1						
ADELAIDE	150.25	233.0	19	49K	4						

SEPTEMBER 14 3.H 49.M 52.S EPICENTRE 30.23 138.26 DEPTH= 486.KM

A=-0.64573 B= 0.57622 C= 0.50100 D= 0.6658 E= 0.7461
G=-0.3738 H= 0.3336 K=-0.8654 HT= 1.7

DEPTH OF FOCUS= 0.071R

SE= 2.19

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	1.78	81.6	1	4	1	1	52	-2				
HATIDYOZIMA	3.14	24.2	1	10	-2						2	8
SIOMISAKI	3.84	327.2	1	17	0	2	19	1				
OWASE	4.20	336.0	1	9	-11	2	24	1				
OMAESAKI	4.35	359.6	1	21K	0	2	26	0				
OSIMA	4.62	11.6	1	23	-1	2	26	-4				
SHIZUOKA	4.72	1.4	1	30	5							
KAMEYAMA	4.84	342.3	1	27	1	2	34	1				
MERA	4.86	15.5	1	27	1	2	30	-4				
NARA	4.88	335.8	1	26	0	2	35	1				
TOKUSIMA	4.93	321.8	1	25	-2	2	37	2				
OSAKA	4.97	333.1	1	28	1	2	36	1				
SUMOTO	4.98	326.2	1	26K	-1	2	35	-1				
NAGOYA	5.04	347.9	1	28	1	2	37	0				
ABUYAMA	5.15	334.6	1	29A	0							
SIMIDU	5.18	300.7	1	28	-1	2	36	-3				
KOTI	5.20	310.7	1	28	-1	2	38	-1				
HUNATU	5.27	4.6	1	30	0	2	39	-2				
HIKONE	5.30	341.9	1	29	-1	2	40	-1				
GIHU	5.30	346.7	1	30	0	2	40	-1				

YOKOHAMA	5.31	12.4				2	37	-4			
TAKAMATU	5.41	319.9	1	31	0	2	44	1			
KOHU	5.43	2.6	1	32	1	2	41	-2			
TOKYO C.M.O.	5.57	12.6	1	46	13	2	42	-4			
TITIBU	5.77	6.7	1	36	1	2	47	-2			
MATUYAMA	5.88	309.1	1	35	-1	2	52	1			
TYOSI	5.89	21.0	1	33	-3	2	48	-3			
KUMAGAYA	5.97	8.8	1	37	0	2	48	-5			
MATUMOTO	6.00	357.8	1	38	1	2	51	-2			
TOYOOKA	6.02	332.2	1	36	-1	2	52	-2			
OIWAKE	6.08	2.2	1	39	1	2	50	-5			
MIYAZAKI	6.10	287.7	1	39	1	3	0	5			
TUKUBASAN	6.17	14.0	0	35A	-63	1	50	-66			
MAEBASI	6.19	6.1	1	38	-1	2	52	-5			
KAKIOKA	6.19	14.6	1	32	-7	2	47	-10			
MATUSIRO	6.29	359.7	1	35A	-5	2	54	-5			
MITO	6.40	16.2	1	38	-3	2	55	-6			
NAGANO	6.42	359.6	1	41	0	2	58	-3			
UTUNOMIYA	6.44	11.7	1	42	1	2	54	-7			
TOYAMA	6.51	352.5	2	0	18						
YAKUSIMA	6.71	273.8	1	45	1						
HAMADA	6.99	313.3	1	46	-1	3	12	1			
SHIRAKAWA	7.06	12.9	1	46	-2	3	8	-5			
HUKUOKA	7.48	298.5	1	49	-3	3	19	-2			
NAGASAKI	7.57	291.3	1	52A	-1	3	22	0			
NIIGATA	7.69	4.7							3	12	
HUKUSIMA	7.72	13.2	1	54	0	3	20	-5			
SENDAI	8.31	14.6	2	1	0	3	32	-4			
ISINOMAKI	8.56	16.4	2	3A	0	3	38	-3			
MIZUSAWA	9.18	14.1	2	9	-1	3	52	-1			
AKITA	9.58	8.6				4	1	0			
MORIOKA	9.74	13.4	2	18	2	4	2	-2			
MIYAKO	9.87	17.0	2	14	-3	4	3	-4			
HATINOHE	10.61	13.7	2	24	-1	4	20	-1			
AOMORI	10.76	10.3	2	26	-1	4	22	-2			
HAKODATE	11.73	9.2	2	37	0	4	50	7			
MORI	11.99	8.3	2	42	2	4	51	3			
URAKAWA	12.44	15.8	2	47	3	5	0	3			
HIROO	12.69	17.3							4	6	
SAPPORO	13.05	10.1	2	51	0	5	8	0			
OBIHIRO	13.27	16.0	2	56	3	5	16	4			
KUSIRO	13.64	19.5				5	24	5			
BAGUIO CITY	21.23	233.6	4	8	-3						
LEMBANG	47.14	223.7							9	34	
CHARTERS TS.	50.62	170.3	8	14	-1				9	53	
COLLEGE	56.26	29.6	8	54	-1				10 59	11 51	*SP
NORD	67.65	356.1	10	8	-1						
SODANKYLA	70.21	337.5	10	23	-2						
KIRUNA	71.93	339.3	10	34	-1						
SHIRAZ	72.39	294.4	10	36	-1					19 24	
NURMIJARVI	74.69	332.0	10	50	0						
HELSINKI	74.76	331.6	10	50	-1						
KARAPIRO	76.24	150.5	11	0	1						
SKALSTUGAN	77.25	338.2	11	3	-2					14 5	
UPPSALA	77.88	333.6	11	7	-1						
HUNGRY HORSE	78.60	40.4	11	13	1				12 58		
EUREKA	82.23	48.7	11	32	1				13 18		
FLAMING GRGE	85.55	44.7	11	49	2				13 35		
PRUHONICE	85.84	327.4	11	48	0				13 41		
LJUBLJANA	88.58	324.6	12	1	0						
STUTTGART	89.11	329.0	12	3	-1						
SOUTH POLE	120.07	180.0	17	54	-1						
BYRD STATION	121.69	168.4	17	58	0						

SEPTEMBER 14 4.H 57.M 10.S EPICENTRE -35.38-106.04 DEPTH= 0.KM

A=-0.22586 B=-0.78534 C=-0.57640 D=-0.9610 E= 0.2764
G= 0.1593 H= 0.5539 K=-0.8172 HT= -0.0

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
SANTA LUCIA	29.18	96.5	6	5K	0	11	6	9				
HUANCAYO	36.21	57.7	7	7A	1	12	55	8				
PORT STANLEY	37.79	130.8	7	18	-2							

LA PAZ	38.63	70.8	7	27	0	13	25	1			
ARGENTINE I.	38.80	153.4	7	27	-1						
BYRD STATION	45.07	183.3	8	19	0				10	19	PP
CHINCHINA	49.28	41.7	8	50K	-2	16	0	1	19	33	SS
BOGOTA	49.85	43.7	8	54	-3	16	10	4	11	2	PP
BALBOA HTS.	50.70	34.7	9	0	-3	16	19	1			
FUQUENE	50.73	43.4	9	1A	-3	16	19	0	19	45	SS
GALERAZAMBA	54.35	38.2	9	28	-3	17	15	7			
SOUTH POLE	54.80	180.0	9	33	-1				10	5	
CAPE HALLETT	54.83	201.8	9	33	-1	17	20	6	19	26	SCS
TACUBAYA	54.86	7.9							26	39	
VERA CRUZ	55.09	11.4							25	54	
SCOTT BASE	55.13	194.9	9	36	0						
CARACAS	58.72	46.5	9	59A	-3	18	2	-4			
CHATEAU	60.64	240.9	10	12	-3						
TONGARIRO	60.64	240.9	10	13	-2						
KARAPIRO	61.15	242.2	10	16A	-2						
ONERAHI	62.90	244.0	10	28	-2						
SAN JUAN	65.51	42.0	10	43	-4				11	1	
TERRE ADELIE	66.09	203.6	11	14	23						
TUCSON	67.42	355.6	10	58	-1				11	34	PCP
TUCSON TELE.	67.51	355.7	10	58	-2						
PASADENA	70.09	349.3	11	15	-1	20	30	3	24	48	SS
FAYETTEVILLE	71.96	10.1	11	24A	-3						
COLUMBIA	72.88	21.6	11	30	-3	21	4	5			
FRESNO	72.91	348.5	11	34	1						
LICK	73.79	347.1	11	38K	0				12	50	
BERKELEY	74.42	346.7	11	40	-2	21	45	29	17	56	
CONCORD	74.48	346.9	11	40A	-2						
RUTH	74.70	352.8	11	44	1						
WILKES	74.78	194.4				21	22	2	22	3	PS
EUREKA	75.05	352.1	11	44	-1				12	0	
RENO	75.62	349.1	11	48K	-1						
UKIAH	75.82	346.3	11	40	-10				11	58	
SALT LAKE C.	75.96	355.5	11	52	2						
FLAMING GRGE	76.00	357.4	12	49	58				14	43	
MINERAL	76.71	347.8	11	54K	-1						
MIRNY	77.34	187.7	11	56	-2	21	38	-10			
RAPID CITY	79.13	2.1	12	7	-1						
RIVERVIEW	80.29	235.4				22	21	1	23	8	PS
BOZEMAN	80.80	356.4	12	15	-2						
CANBERRA	80.83	233.2	12	16	-1						
CORVALLIS	81.11	347.6	12	18	-1						
BUTTE	81.24	355.4	12	18	-1						
PALISADES	81.55	24.0	12	22	1	22	32	-1	27	34	SS
BRISBANE	82.94	241.5	12	25	-3	23	6	19			
HUNGRY HORSE	83.66	354.7	12	30	-2						
OTTAWA	84.96	20.9	12	36	-2						
SHAWINIGAN	86.88	22.3	12	45	-3						
CHARTERS TS.	92.10	243.6	13	11	-1				16	48	
TAMANRASSET	119.94	82.1	18	53	0				20	14	PP
LWIRO	123.60	121.7	19	10	10						
DURHAM	126.02	43.9	19	10	6						
BESANCON	129.10	54.5	19	16	6						
STUTTGART	131.57	53.1	19	16	1				22	40	SKP
JENA	133.32	50.4							22	46	
COLLMBERG	134.24	50.0	19	18	-2				22	8	
PRUHONICE	135.13	52.0							21	51	PP
SODANKYLA	138.23	25.3	19	25	-2						
NURMIJARVI	139.87	35.6	19	31	1						
HELWAN	143.89	86.4	19	38	1				23	2	
JERUSALEM	147.67	85.1	19	47	3				23	46	PP
MOSCOW	147.97	39.2	19	50	6						
SIMFEROPOL	148.37	60.1	19	50	5						
KSARA	148.74	81.7	19	50	5	26	59	7	23	19	PP
TIFLIS	156.40	65.7	19	8	-48						
SHIRAZ	161.06	101.5	20	6	4				23	29	PP
NAMANGAN	174.13	17.2	20	24	13						

SEPTEMBER 14 23.H 18.M 36.S EPICENTRE -21.07-174.19 DEPTH= 0.KM

A=-0.92916 B=-0.09460 C=-0.35736 D=-0.1013 E= 0.9949
G= 0.3555 H= 0.0362 K=-0.9340 HT= 4.4

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AFIAMALU	7.48	18.3	1	48K	-5	3	14	-6					
SUVA	7.54	291.4	2	6	12								
KARAPIRO	19.01	205.7	4	26	0								
CHATEAU	20.11	203.8	4	37	-1								
COBB RIVER	22.83	206.2	5	10	4								
GEBBIES PASS	25.09	202.9	5	31	3								
BRISBANE	30.71	251.6	6	55	36	10	13	-68					
RIVERVIEW	33.12	240.0	6	41K	1						14	49	
RABAUL	36.73	292.5	7	26	15	13	52	57					
CHARTERS TS.	36.98	264.3	7	10	-3						8	45	
PORT MORESBY	38.96	281.4	7	26	-3	13	52	23					
ADELAIDE	43.44	241.0	8	4	-2								
CAPE HALLETT	52.03	186.0	9	14K	1	16	44	7			19	5	SCS
TERRE ADELIE	53.68	200.1	9	26	0								
SCOTT BASE	57.57	184.7	8	53K	-61								
MUNDARING	62.29	244.1	10	24	-2								
BYRD STATION	63.51	170.9	10	33	-1								
WILKES	65.00	205.5	10	40	-4	19	25	0					
SOUTH POLE	69.06	180.0	11	9	-1								
MIRNY	71.99	204.9	11	26	-1								
MATUSIRO	72.82	321.5	11	30	-2	20	46	-12			21	39	SCS
VINEYARD	76.08	41.2	11	53	2								
BERKELEY	76.27	39.9	11	53K	1								
LICK	76.30	40.6	11	54K	2								
PASADENA	76.51	45.0	11	54	0	21	44	5			26	26	SS
UKIAH	76.53	38.4	11	55	1								
LEMBANG	76.59	267.8	11	50	-4								
FRESNO	77.07	42.0	11	57	0								
PETROPAVLOVK	77.45	343.6	11	57A	-2						22	1	
SHASTA	78.05	37.6	12	3	1								
MINERAL	78.28	38.3	12	3A	0								
RENO	78.81	39.8	12	7A	1								
ARGENTINE I.	79.04	156.2	12	6	-1								
TUCSON	80.50	50.2	12	17	2						13	4	
TUCSON TELE.	80.62	50.1	12	16	0								
ZO-SE	80.82	308.3	12	16	-1								
EUREKA	81.12	41.7	12	17	-2								
MAWSON	82.21	198.9	12	24	0								
GLEN CANYON	82.51	45.8	12	29	3								
VICTORIA	82.77	31.3	12	27A	0								
NANKING	83.07	308.0	12	28A	-1	22	17	-31					
CANTON	83.13	297.8	12	28	-1								
FLAMING GRGE	86.09	43.4	12	45	1								
BUTTE	86.96	37.9	12	47	-1								
HUNGRY HORSE	87.49	35.4	12	50	-1								
COLLEGE	88.04	10.9	12	53	0						13	37	
PEKING	88.82	313.9	12	58A	1								
SANTA LUCIA	89.25	125.6									23	30	PS
SIAN	91.42	306.2	13	10	1								
KUNMING	92.79	295.7	13	17A	1								
HUANCAYO	93.82	104.4	13	24	4								
CHENGTU	93.82	301.3	13	24	4	24	6	-22					
FAYETTEVILLE	94.48	53.1	13	22A	-1								
LANCHOW	95.96	306.2	13	35K	5								
LA PAZ	98.45	111.2	18	33	292								
BOGOTA	101.08	89.3				24	31	-1					
LHASA	104.09	296.6	14	7	0								
PALISADES	111.08	52.9				25	24	7			19	24	PP
QUETTA	124.69	292.7	19	2	0								
KIRUNA	132.35	352.6	19	17	1								
SHIRAZ	137.17	291.2	19	15	-10						21	57	PP
MOSCOW	138.04	333.5	19	28	1								
NURMIJARVI	138.41	346.1	19	22	-6								
HELSINKI	138.64	345.6	19	22	-6								
UPPSALA	140.35	350.7	19	23	-8								
TIFLIS	141.30	311.1	18	46	-47								
DURHAM	145.89	7.6	19	42A	1								
ADDIS ABABA	146.08	254.3	19	46	5								
SIMFEROPOL	146.67	322.2	19	45	3								
WARSAW	146.73	342.9	19	44	2						19	48	PKP2
LWIRO	147.69	226.9	19	48A	4								
LWOW	147.88	337.6	19	49	5								
WITTEVEEN	148.30	359.0	19	54	9								
KRAKOW	148.99	342.2	19	52	6								
MUNSTER	149.12	357.8	19	51	5								
HALLE	149.25	352.5	19	52	6						20	28	

COLLMBERG	149.31	351.1	19 47A	1	24 29	PP
RACIBORZ	149.43	344.2	19 52	6		
JENA	149.85	352.7	19 54	7	20 18	
PRUHONICE	150.33	348.6	19 49	1	23 40	PP
SONNEBERG	150.44	353.0	19 55	7		
KSARA	150.56	301.9	19 49	1	23 33	PP
BRATISLAVA	151.47	344.1	19 52	2		
VIENNA-H.	151.58	345.1	19 57	7		
HEIDELBERG	151.63	356.0	19 57	7		
JERUSALEM	151.67	298.2	19 58	8		
FOLINIERE	151.90	8.9	19 57	7		
ISTANBUL KA.	151.97	320.6	19 53	3		
STUTTGART	152.22	355.1	19 51	0	23 45	PP
STRASBOURG	152.51	357.2	19 59K	8	20 18	
BASLE	153.56	357.3	19 59	6		
BESANCON	153.88	359.7	20 15	22		
LJUBLJANA	154.08	346.0	19 54	1		
TRIESTE	154.63	346.9	19 54	0	20 28	PKP2
HELWAN	155.39	296.0	19 56	1	20 22	
TOLEDO	159.44	22.0	20 40	40		
GRANADA	161.98	25.0	20 55K	52	34 25	SS
MALAGA	162.04	27.5			20 54	PP
ALGIERS UNI.	164.17	8.2	20 6	1	21 0	PKP2
RELIZANE	164.66	16.4	20 0	-5	24 56	PP
SETIF	164.92	1.3	20 7	1	25 13	PP
TAMANRASSET	178.27	9.0	20 13A	1	25 59	PP

SEPTEMBER 15 17.H 57.M 43.S EPICENTRE 21.57 143.04 DEPTH= 335.KM

A=-0.74382 B= 0.55963 C= 0.36542 D= 0.6012 E= 0.7991
G=-0.2920 H= 0.2197 K=-0.9308 HT= 4.3

DEPTH OF FOCUS= 0.048R

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	8.22	168.4	1	55	-2	3	21	-9				
TORISIMA	9.21	345.0	2	6	-3	4	9	18				
HATIDYOZIMA	11.85	346.6	2	44	3						4	53
SIOMISAKI	13.48	333.0	3	1	1	5	27	3				
OSIMA	13.54	347.0	3	5K	4	5	22	-4			5	42
MERA	13.60	348.7	3	0K	-2	5	26	-1				
OMAESAKI	13.66	342.9	3	0	-3	5	19	-9				
OWASE	13.84	335.6	3	4	-1	5	38	6				
SHIZUOKA	13.96	344.0	3	14	8	5	31	-4				
MISIMA	13.97	346.0	3	3K	-3	5	32	-3				
MUROTO	14.04	327.8	3	8	1	5	43	7				
YOKOHAMA	14.13	348.6	3	6	-2	5	35	-3				
TYOSI	14.23	352.7	3	8K	-1	5	35	-5				
TU	14.29	337.7	3	12K	2							
SIMIDU	14.31	323.4	3	15K	5	5	45	3				
YAKUSIMA	14.32	310.7	2	42	-28	5	20	-22				
TOKYO C.M.O.	14.36	349.1	3	8K	-3	5	40	-3				
HUNATU	14.38	345.8	3	10	-1	5	40	-3				
HONGO	14.38	349.2	3	12	1	5	46	3				
KAMEYAMA	14.44	337.8	3	11	0	5	43	-2				
TOKUSIMA	14.52	330.8	3	13	1	5	50	4				
NARA	14.52	335.6	3	14	2	5	42	-4				
NAGOYA	14.56	339.8	3	13	0	5	43	-4			4	4
KOHU	14.59	345.4	3	12	-1	5	45	-3				
SUMOTO	14.61	332.3	3	14A	1	5	49	1			3	48
KOTI	14.61	326.8	3	14	1	5	50	2				
OSAKA	14.62	334.7	3	12	-1	5	49	1				
MIYAZAKI	14.62	317.3	3	18	5	5	58	10				
TITIBU	14.77	347.3	3	12	-3	5	50	-1				
KOBE	14.78	333.8	3	10	-5	6	14	22				
ABUYAMA	14.79	335.2	3	14K	-1							
KAKIOKA	14.82	350.9	3	16	0	5	51	-1				
TUKUBASAN	14.83	350.7	3	13K	-3	5	47	-5			4	30 *SP
GIHU	14.84	339.6	3	16	0	5	55	2				
KYOTO	14.86	336.0	3	15	-1	5	49	-4				
KUMAGAYA	14.88	348.4	3	16	0	5	54	0				
UWAZIMA	14.88	323.5	3	18	2	6	5	11				
HIKONE	14.90	337.9	3	17	0	5	54	0			14	44
MITO	14.93	351.9	3	16A	-1	5	55	0				

KAGOSIMA	14.96	314.3	3	20	3	6	3	8				
TAKAMATU	14.97	330.0	3	18	1	6	0	4			3	53 PP
MAEBASI	15.18	347.7	3	17	-3	5	59	-1				
UTUNOMIYA	15.19	350.2	3	19	-1	5	57	-3				
MATUYAMA	15.22	325.6	3	21A	1	5	36	-24				
OIWAKE	15.22	346.1	3	21	1	6	1	1				
MATUMOTO	15.29	344.3	3	21	0	6	3	1				
TSURUGA	15.30	338.0	3	20	-1	6	2	0			3	51
OOITA	15.41	321.3	3	24A	2	6	10	6			11	57 SCP
ONAHAMA	15.44	353.5	3	23K	1	6	5	0				
MATUSIRO	15.50	345.3	3	20K	-3	6	0	-6			11	4 SCP
HUKUI	15.61	339.1	3	25	1	6	8	0				
NAGANO	15.63	345.4	3	23	-1	6	7	-2				
TOYOOKA	15.67	334.4	3	26	1	6	7	-2				
KUMAMOTO	15.68	318.2	3	25	0	6	13	4				
SHIRAKAWA	15.69	351.6	3	24	-1	6	10	0				
HIROSIMA	15.82	326.0	3	27A	1	6	10	-2				
TOTTORI	15.91	332.7	3	14	-13							
TOYAMA	15.91	342.6	3	32	5	6	17	3				
TAKADA	16.03	346.0	3	27	-2	6	16	0				
NAGASAKI	16.14	316.3	3	29A	-1	6	20	2				
SAGA	16.21	318.6	3	25	-6	6	28	8				
YONAGO	16.21	330.5				6	23	3			4	12
HUKUSIMA	16.28	352.7	3	31A	0	6	25	4				
HUKUOKA	16.39	319.6	3	42	10	6	28	5				
HAMADA	16.41	326.4	3	34	1	6	28	4				
WAZIMA	16.63	342.7				5	26	-62			3	38
NIIGATA	16.66	348.9	3	32	-3	6	31	3			6	6
SENDAI	16.75	354.1	3	37	1	6	32	2				
YAMAGATA	16.79	352.6	3	36	-1	6	34	3				
SAIGO	16.86	331.9	3	43	6	6	41	9				
ISINOMAKI	16.87	355.3	3	37	-1	6	38	5				
AIKAWA	16.91	346.9	3	36	-2	6	31	-2				
SAKATA	17.50	351.6	3	52	8						5	52
MIZUSAWA	17.58	355.1	3	45	0	6	51	5				
MIYAKO	18.05	357.3	3	54	5	7	0	5				
MORIOKA	18.15	355.4	3	51	1	7	1	4				
AKITA	18.27	352.7				7	5	6				
HATINOHE	18.95	356.4	4	0	2	7	16	5				
AOMORI	19.29	354.8				7	23	6				
HAKODATE	20.28	355.1	4	12A	0	7	39	4				
URAKAWA	20.53	359.4	4	17	3	7	46	7			8	17
MORI	20.58	354.8	4	18	4	7	41	1				
HIROO	20.66	0.6									7	40
TOMAKOMAI	21.04	357.0									4	52
OBIHIRO	21.29	0.3				8	30	38			4	38
SUTTSU	21.30	354.3									7	55
KUSIRO	21.38	2.7	4	40	18	8	38	44				
SAPPORO	21.49	356.6	4	24	1	7	57	1				
ZO-SE	21.74	300.4	4	25A	-1	8	0	0	5	16	5	55 *SP
BAGUIO CITY	21.84	260.3	4	27	0	8	6	4				
MANILA	21.96	255.5	4	29	1						7	33
VLADIVOSTOK	23.42	339.1	4	42A	1	8	32	4				
NANKING	23.99	300.9	4	45A	-2	8	36	-1	5	39	6	19 *SP
CHANGCHUN	26.64	330.6	5	9	-2	9	17	-3	6	7		
HONG KONG	26.78	277.0	5	12A	0	9	24	2			6	43 *SP
RABAUL	27.12	159.7	5	14	-1	9	28	0	5	19	11	36
CANTON	27.50	278.8	5	18	0	9	34	0	6	20	6	55 *SP
PEKING	29.35	314.9	5	33A	-2	9	58	-5	6	32	7	7 *SP
PORT MORESBY	31.03	172.1	5	49	0	10	29	0			11	50
SIAN	32.54	300.2	6	1	-1							
PETROPAVLOVK	33.61	17.1	6	12A	1	11	9	0				
NHATRANG	33.62	259.5	6	10A	-1							
CHENGTU	36.05	292.8	6	31A	-1	11	42	-4			8	8 *SP
LANCHOW	37.01	301.7	6	41A	1							
KUNMING	37.08	283.5	6	41A	1	12	2	0			8	18 *SP
YAKUTSK	41.46	350.6	7	16	0	13	3	-3				
CHARTERS TS.	41.52	175.4	7	17K	0	13	3	-4				
IRKUTSK	42.73	325.5	7	26	0							
LEMBANG	44.76	234.8	7	43A	0	13	51	-3				
MEDAN	46.62	253.8	7	58A	1	14	22	2				
SHILLONG	46.85	285.3	7	59A	0							
LHASA	47.26	290.9	8	3A	1	14	31	2			9	42 *SP
CHITTAGONG	47.32	281.0	8	3	0	14	27	-3	9	19	10	0 PP
BRISBANE	49.57	168.6	8	20K	0	14	58	-3				
TIKSI	50.75	354.2	8	24K	-4	15	13	-4				
CHATRA	50.90	287.6	8	29	0							
KIPAPA	54.54	78.5	8	57	1							

ADELAIDE	56.37	184.3	9	9K	0	16	43	11			
AFIAMALU	56.64	124.5	9	11K	0						
CANBERRA	56.85	174.2	9	13	1						
ALMATA	58.32	308.3	9	23	1						
DEHRA DUN	58.41	293.1	9	23	0	17	1	3			
MELBOURNE	59.10	178.2	9	27	-1						10 13 PCP
MUNDARING	59.11	206.6	9	27	-1						
MADRAS	60.30	273.0	9	36	0						11 30
COLLEGE	61.84	26.9	9	44	-2						
NAMANGAN	62.37	305.9	9	50A	1	17	52	4			
WARSAK DAM	63.33	298.2	9	56	0						
TARRALEAH	63.62	177.2	9	58A	0						12 6
MOORLANDS	63.80	176.6	10	2	3						
FORT NELSON	64.29	176.5	10	1A	-1						12 31
POONA	64.59	280.9	10	3	-1						
STALINABAD	64.87	303.5	10	4	-2	18	20	1			
KARAPIRO	66.60	152.4	10	17	1						12 11
TONGARIRO	67.66	153.2	10	23	0						
CHATEAU	67.67	153.2	10	23	0						
QUETTA	67.88	294.9	10	25A	1	18	58	3			13 12 PP
KHEYS	68.05	349.9	10	24	-1						
SVERDLOVSK	68.11	324.0	10	26	0						
ALBERNI	75.32	42.6	11	9	1						
VICTORIA	76.42	43.1	11	16A	1						
NORD	76.52	357.0	11	13	-2						
APATITY	77.44	338.2	11	19A	-1	20	42	0			
CORVALLIS	77.69	46.9	11	22A	1						
TEHERAN	79.01	304.1	11	29A	0	19	24	-94			
UKIAH	79.49	52.1	11	31	0						
SHASTA	79.57	50.4	11	33	2						
SODANKYLA	79.82	339.4	11	32	-1	21	7	0			13 23 *SP
SHIRAZ	80.07	297.9	11	34K	0	21	7	-2	13	3	14 29 PP
MINERAL	80.26	50.5	11	36A	1						12 47
THULE	80.37	7.2	11	35	-1						
BERKELEY	80.62	53.1	11	37A	0						
MOSCOW	80.71	326.5	11	38A	1	21	15	-1			
CONCORD	80.72	52.9	11	39	1				12	16	
BRANNER	80.83	53.5	11	39A	1						
LICK	81.26	53.4	11	41A	1						
KIRUNA	81.51	341.1	11	41	-1	21	24	0			
GORIS	81.53	309.0	11	42	0	21	26	2			
VINEYARD	81.66	53.9	11	43	1						
TIFLIS	81.82	311.5	11	44A	1	21	29	2			
RENO	81.83	50.8	11	44A	1						
HUNGRY HORSE	82.34	41.0	11	47	1	21	33	1	12	57	14 56 PP
PULKOVO	82.34	331.9	11	45	-1						
NURMIJARVI	84.34	334.1	11	54	-2	21	48	-4	13	17	
HELSINKI	84.41	333.7	11	56	0						
EUREKA	84.60	49.7	11	58	1						
PASADENA	85.05	55.4	12	0A	1	21	39	-20			
BOZEMAN	85.32	42.6	12	1	0						15 19
RUTH	85.40	49.7	11	58A	-3						
SKALSTUGAN	86.85	340.2	12	7	-1						
SALT LAKE C.	86.94	47.2	12	9	1						
UPPSALA	87.53	335.7	12	9	-2	22	20	-2			13 26
FLAMING GRGE	88.53	46.3	12	16	0	22	34	3			15 48 PP
GLEN CANYON	88.78	50.6	12	18	1				13	37	15 53 PP
WARSAW	90.89	328.6	12	25A	-2						
RAPID CITY	90.97	41.3	12	28	1						
GOTEBORG	91.15	336.1	12	26	-2						
TUCSON	91.43	54.5	12	26	-4						16 14 PP
TUCSON TELE.	91.48	54.4	12	32	2						
JERUSALEM	92.93	305.7	12	36	0						
RACIBORZ	93.62	328.0	12	39	-1						
REYKJAVIK	93.78	353.4	12	41A	1						
COLLMBERG	95.25	331.1	12	45A	-2						16 40 PP
CAPE HALLETT	95.44	171.9	12	49	1				14	37	
PRUHONICE	95.45	329.5	12	47A	-1						16 43 PP
HALLE	95.58	331.7	12	48	-1						16 42
JENA	96.15	331.5	12	50	-1						16 47
HELWAN	96.78	305.6	12	54	0						
LJUBLJANA	98.14	326.6	12	59A	-1						17 4 PP
HEIDELBERG	98.52	331.8	13	1	-1						
STUTTGART	98.74	331.1	13	2	-1						17 8 PP
UCCLE	99.28	334.9									17 25 PP
FAYETTEVILLE	101.17	44.0	13	13K	-1						17 25 PP
BESANCON	101.35	331.7									17 29 PP
MESSINA	102.79	320.1									25 31

PALISADES	108.91	28.7			28 29	PPS
SETIF	109.97	324.6	17 54	777	18 31	PP
SOUTH POLE	111.43	180.0	17 55	1	29 1	PKKP
BYRD STATION	112.39	169.2	17 58	2		
RELIZANE	112.84	327.5			18 54	PP
TAMANRASSET	119.53	314.2			18 13	PP
KIMBERLEY	124.19	249.2			20 16	PP
WINDHOEK	130.13	258.2			18 34	
ARGENTINE I.	132.82	164.7			21 36	PP
HUANCAYO	142.16	81.8	18 52	-1	22 3	PP
PORT STANLEY	145.81	156.7	19 1	2		
LA PAZ	150.13	85.7	19 11	5		

SEPTEMBER 17 7.H 52.M 59.S EPICENTRE 49.61 155.57 DEPTH= 91.KM

A=-0.59231 B= 0.26902 C= 0.75947 D= 0.4135 E= 0.9105
G=-0.6915 H= 0.3141 K=-0.6505 HT= -5.3

DEPTH OF FOCUS= 0.009R
SE= 3.31

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SEVERO-KUR.	1.12	17.5	0 19	-3	0 35	-3		
PETROPAVLOVK	3.92	28.3	0 58	-1	1 46	1		1 13 *SP
KURILSK	6.82	232.9	1 35	-4	2 53	-3		
KLYUCHI	7.44	23.4	1 48	0	3 21	10		
OKHA	8.80	301.4	2 10	4				3 56
UGLEGORSK	8.84	271.7	2 7	0	3 52	7		
NEMURO	9.32	231.4	2 5	-8	3 44	-13		
ABASHIRI	9.54	238.4	2 18	2				
KUSIRO	10.18	233.6	2 18	-7	4 1	-17		
WAKKANAI	10.29	251.2			4 29	8		
MAGADAN	10.34	346.3	2 28	1				4 33
OBIHIRO	10.86	236.7						2 51
HIROO	11.24	233.9	2 34	-5				
URAKAWA	11.61	234.9	2 40	-4	4 44	-8		
SAPPORO	11.80	241.7	2 45	-2	5 5	8		
TOMAKOMAI	11.95	239.6	2 49	0				
MURORAN	12.49	239.8	3 2	6				
SUTTSU	12.61	243.1	3 3	6				
MORI	12.86	240.0	3 0	-1	5 34	12		
HAKODATE	12.95	238.6			5 19	-5		
AOMORI	13.62	235.4	3 19	9				
MORIOKA	14.23	231.3	5 36	138				
MIZUSAWA	14.68	229.9	3 22	-2	5 54	-11		
AKITA	14.77	233.8	3 25	0	6 23	16		
ISINOMAKI	15.14	227.8	3 21A	-9	6 0	-15		
SENDAI	15.47	228.4	3 39	5	6 29	6		
YAMAGATA	15.75	229.6	3 30	-8	6 22	-7		
HUKUSIMA	16.08	228.2	3 42	0	6 26	-11		
ONAHAMA	16.52	225.5						6 52
NIIGATA	16.66	231.7	3 39	-10	7 0	10		
SHIRAKAWA	16.70	227.4						6 49
AIKAWA	17.00	233.6	3 58	5	7 2	4		9 58
MITO	17.18	225.4	3 49	-7	7 11	9		
UTUNOMIYA	17.33	227.0	3 54	-3	7 1	-4		
KAKIOKA	17.44	225.7	3 51	-8				
TUKUBASAN	17.49	225.9	3 52	-7	6 54	-15		
VLADIVOSTOK	17.54	257.3	3 56	-4	7 5	-5		4 10 PP
MAEBASI	17.83	228.4	4 0	-4	7 20	4		
KUMAGAYA	17.88	227.3	4 6	2				
NAGANO	18.05	230.8	4 5	-1	7 22	1		
TOKYO C.M.O.	18.09	225.6	4 6	-1	7 45	23		
DIWAKE	18.14	229.4	4 6	-1				
MATUSIRO	18.15	230.5	4 1	-6	7 26	3		8 3 PCP
TITIBU	18.17	227.6	4 4	-4				
YOKOHAMA	18.34	225.4	4 10	0	7 19	-9		
TOYAMA	18.54	232.8	4 23	11				
KOHU	18.66	228.1	4 13	0	7 49	14		
MISIMA	18.92	226.3	4 13	-3				
YAKUTSK	18.95	320.7	4 15	-1	7 51	10		
OSIMA	19.01	224.8	4 19	2				
SHIZUOKA	19.31	227.2	4 29	9				
OMAESAKI	19.69	226.9	4 28	4				
GIHU	19.77	231.1	4 22	-3	7 58	0		

NAGOYA	19.85	230.3	4	21	-5	8	2	3			
HIKONE	20.13	231.9	4	27	-2	8	15	10			
KAMEYAMA	20.35	230.7	4	36	5						
KYOTO	20.59	232.4	4	35	1					5	22
ABUYAMA	20.79	232.4	4	33A	-3						
NARA	20.81	231.6	4	27	-9						
OSAKA	20.98	232.1	4	40	2	8	22	1		8	50
OWASE	21.10	229.9	4	38	-1						
KOBE	21.14	232.8				8	29	5			
CHANGCHUN	21.45	266.0	4	42	0	8	30	0			
SUMOTO	21.55	232.7	4	41	-2	8	37	6			
TAKAMATU	22.01	234.1	4	48	0	8	49	9			
HAMADA	22.64	238.4	4	55K	1	9	1	10			
HIROSIMA	22.84	236.9	4	24	-32	8	30	-24			
KOTI	22.88	233.7	4	56	0	9	1	6			
OOITA	24.14	236.3	5	8A	0						
HUKUOKA	24.56	238.8	5	12	-1	9	29	5			
NAGASAKI	25.47	238.2	5	14A	-7	9	45	6			
PEKING	29.25	266.0	5	53	-3	10	39	-1			
ZO-SE	31.70	247.2	6	19A	2						
NANKING	32.49	251.2	6	22	-2	11	32	1			
COLLEGE	32.90	41.0	6	28	0	11	44	7			
LANCHOW	39.52	270.0	7	24A	1	13	21	2			
CANTON	42.30	246.9	7	47A	1	14	2	2			
HONG KONG	42.40	245.3	7	46	-1	14	7	6			
KHEYS	42.68	346.1								9	42 PCP
CHENGTU	42.79	263.5	7	52	2	14	13	6			
BAGUIO CITY	43.55	233.0	7	55	-1	14	21	3			
SEMIPALATNSK	46.44	301.3	8	18	-1					18	9 SCS
KUNMING	47.40	258.9	8	26A	-1	15	13	0			
RESOLUTE	47.60	19.8	8	30	1					15	24
NORD	48.97	358.5	8	39	0						
ALBERNI	49.40	58.0	8	44	2						
VICTORIA	50.59	58.2	8	51	-1						
SVERDLOVSK	52.87	316.6	9	8	-1					20	13 SS
CORVALLIS	52.92	62.3	9	12	3						
RABAUL	53.67	184.2	9	5	-10						
SHILLONG	54.10	268.3	9	16A	-2						
APATITY	55.37	336.7	9	24	-3	17	2	0		13	1
HUNGRY HORSE	55.75	53.8	9	29	-1	17	10	3			
SHASTA	55.82	65.5	9	32	2						
CHATRA	56.30	272.9	9	34	0						
CHITTAGONG	56.39	265.5	9	36	2	17	25	9	9 48	11	43 PP
MINERAL	56.50	65.4	9	35A	0						
SODANKYLA	57.18	339.0	9	38	-2						
BERKELEY	57.70	68.1	9	43	0	17	42	9			
TASHKENT	57.91	297.5	9	44	-1					18	6
BUTTE	57.99	55.2	9	45	-1						
RENO	58.08	65.1	9	47K	1						
KIRUNA	58.16	341.6	9	45	-2						
LICK	58.41	68.2	9	49K	1						
BOZEMAN	59.03	54.7	9	54	1	17	58	8		22	34 SS
PORT MORESBY	59.22	189.7	9	51	-3	17	54	1			
BOKARO	59.26	271.4				18	5	12		20	5
DUZHANBE	60.00	295.3	9	58	-1						
EUREKA	60.36	62.9	10	2	0	18	20	12			
RUTH	61.10	62.5	10	8A	1						
WARSAK DAM	61.38	289.7	10	7	-2						
SALT LAKE C.	61.85	59.4	10	11	-1	18	36	10			
PASADENA	62.64	68.7	10	16	-1	18	45	9		22	43 SS
MOSCOW	63.01	325.9	10	17	-3					10	55 PCP
FLAMING GRGE	63.10	57.8	10	20	0					14	39
NURMIJARVI	63.31	335.3	10	19	-3						
BOULDER CITY	63.39	65.1	10	22	0						
HELSINKI	63.51	334.9	10	21	-2						
SKALSTUGAN	63.52	342.6	10	22	-1						
PORT BLAIR	63.68	256.5	10	19	-5					23	5
RAPID CITY	64.20	51.7	10	27	0	19	7	11			
GLEN CANYON	64.60	62.3	10	31	1						
UPPSALA	65.68	338.2	11	1	24						
ASHKABAD	66.39	301.1	10	41	0						
QUETTA	66.83	289.7	10	44	0	19	31	3	10 55	19	58 PS
TUCSON	68.36	65.5	10	55	1						
HYDERABAD	68.62	272.0	10	57K	2	19	54	5		20	41
GOTEBORG	68.92	340.0	10	57	0						
CHARTERS TS.	69.88	189.3	11	0	-3					14	38
LEMBANG	69.95	231.7	11	3	0						
COPENHAGEN	70.66	338.9	11	8	0						

TIFLIS	70.68	312.1	11	9	1	20	19	6	15 28	PPP
POONA	70.81	276.2	11	8	-1					
BOMBAY	71.20	277.2	11	18	7	20	29	10		
WARSAW	71.45	332.5	11	13A	0	20	28	6	11 41	PCP
GORIS	71.62	309.7	11	15	1	20	33	9	13 58	PP
TEHERAN	71.82	303.9	11	16A	1	20	34	7		
LWOW	72.59	329.5	11	19	0				15 52	PPP
SIMFEROPOL	72.92	320.7	11	21A	0	20	42	3	15 51	PPP
KRAKOW	73.70	332.0	11	25	-1				11 52	PCP
RACIBORZ	74.19	333.0	11	29	0				11 40	PCP
DURHAM	74.24	346.5				21	18	24		
SKALNATE PL.	74.36	331.4	11	32	2					
COLLMBERG	74.53	336.7	11	30A	-1				14 27	PP
FLORISSANT	74.53	47.8	11	31A	0	21	4	7		
HALLE	74.61	337.4	11	31	0				12 46	
ST. LOUIS 1	74.72	47.8	11	32A	0	21	7	8		
FAYETTEVILLE	74.74	52.0	11	32A	0	21	6	7		
JENA	75.22	337.4	11	35	1				12 30	
PRUHONICE	75.32	335.2	11	36A	1	21	3	-3	14 19	PP
OTTAWA	75.38	34.6	11	35A	0					
SHAWINIGAN	75.45	32.2	11	36A	0					
SHIRAZ	75.76	299.0	11	38K	0	21	1	-9	14 16	PP
BREBEUF	76.06	33.3	11	39A	0					
BRATISLAVA	76.22	332.8	11	41	1					
VIENNA-H.	76.36	333.3	11	42A	1				11 53	PCP
BUCHAREST	76.50	325.3	11	41	-1					
BRISBANE	76.69	182.6	11	44	1	21	29	8		
UCCLE	76.99	341.7	11	46	2					
KEW	77.22	344.8	11	46A	0	21	31	5		
HEIDELBERG	77.34	338.5	11	47	1					
STUTTGART	77.79	337.9	11	49	0	21	38	6	13 45	
TUBINGEN	78.07	338.0	11	51	1					
BELGRADE	78.15	329.1	11	29	-22				15 53	
ISTANBUL KA.	78.20	321.6	11	51	0					
STRASBOURG	78.33	338.8	11	52	0	22	1	23	12 42	
EBINGEN	78.42	337.9	11	53	1					
PENNSYLVANIA	78.45	38.5	11	54	1	21	46	6	22 8	
ZAGREB	78.67	332.5	11	50	-4					
LJUBLJANA	78.89	333.5	11	55A	0				12 5	PCP
SOFIA	79.00	326.2	11	57	1				12 24 12 57	
PARIS	79.26	342.3	11	57	0	21	25	-23		
TRIESTE	79.48	333.8	11	59	1					
CHUR	79.52	337.1	11	59A	1					
WESTON	79.59	33.4	11	59	0				27 41	
PALISADES	79.83	35.8	12	0	0	22	26	32	15 20	PP
FOLINIERE	79.85	344.2	12	2	2					
BESANCON	80.00	339.5	12	2	1					
NEUCHATEL	80.01	338.8	12	3	2					
HALIFAX	80.13	27.3	12	3	1					
KSARA	81.23	313.0	12	8A	1	22	24	15	15 19	PP
CLERMONT-FD.	82.03	340.9	12	5	-7					
ATHENS	82.98	323.6	12	15A	-1					
TARANTO	83.09	329.3	12	8	-9	22	28	1		
RIVERVIEW	83.16	183.7	12	11A	-6	22	35	7		
JERUSALEM	83.22	312.3	12	19	1					
ROME	83.28	333.2	12	19	1					
CANBERRA	84.76	185.4	12	25	0					
BAGNERES	85.23	342.2	12	39	11					
ADELAIDE	85.53	193.8	12	28A	-1					
MESSINA	85.70	329.5	12	26	-4					
HELWAN	86.65	314.0	12	36	1				13 17	
MELBOURNE	87.57	188.4	12	39	0					
KARAPIRO	88.93	164.3	12	45	-1					
TOLEDO	89.10	344.5	12	47	1					
SETIF	90.57	336.3	12	53	0					
MALAGA	92.23	344.0	13	3	2	23	59	6	16 37	PP
TAMANRASSET	103.17	331.8	13	51	1	24	32	12	18 5	PP
CARACAS	109.52	44.8	18	21	777				30 51	PPS
CAPE HALLETT	122.05	174.8							20 23	PP
LA PAZ	131.72	62.6	19	6	3				21 24	PP
BYRD STATION	137.54	165.1	19	3	-10				23 8	
ARGENTINE I.	154.05	141.9	19	50	9					
PORT STANLEY	158.80	108.5	20	39	52					

SEPTEMBER 17 8.H 5.M 28.S EPICENTRE 49.55 155.67 DEPTH= 0.KM

A=-0.59340 B= 0.26835 C= 0.75886 D= 0.4120 E= 0.9112
G=-0.6914 H= 0.3127 K=-0.6513 HT= -5.2

SE= 2.93

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SEVERO-KUR.	1.15	13.9	0	30	7								
PETROPAVLOVK	3.94	27.2	1	9	6	1	56	5			1	24	*SP
KLYUCHI	7.47	22.9	1	58	5								
OKHA	8.88	301.6	2	19	6								
UGLEGORSK	8.90	272.1	2	18	5	4	3	8					
NEMURO	9.34	232.0	2	15	-4	3	53	-13					
ABASHIRI	9.57	239.0	2	23	1								
KUSIRO	10.20	234.1	2	29	-2	4	13	-14					
WAKKANAI	10.33	251.7				4	38	7			6	25	
MAGADAN	10.40	346.2	2	40	7	4	43	11					
OBIHIRO	10.88	237.1	2	44	4								
HIROO	11.25	234.4	2	49	4	4	43	-10					
URAKAWA	11.63	235.3	2	51	1	4	52	-10					
SAPPORO	11.83	242.2	2	54	1	5	22	15					
TOMAKOMAI	11.97	240.0	3	6	11								
MURORAN	12.51	240.2	3	1	-1								
SUTTSU	12.64	243.5	3	13	9								
MORI	12.89	240.4	3	10	3	5	45	13					
HAKODATE	12.97	239.0	3	8	0	5	25	-9					
HATINOHE	13.45	233.2	3	23	8	6	31	45			4	38	
AOMORI	13.64	235.8	3	12	-5								
MIYAKO	13.88	229.6	3	27	7	6	6	10					
MORIOKA	14.25	231.7	3	20	-5	5	50	-15					
MIZUSAWA	14.70	230.3	3	38	7	6	4	-12					
AKITA	14.79	234.2	3	38	6	6	30	12					
ISINOMAKI	15.14	228.1	3	32	-5	6	9	-17					
SENDAI	15.48	228.8	3	45A	4	6	37	3			6	20	
SAKATA	15.53	232.7									4	4	
YAMAGATA	15.76	230.0	3	42	-3	6	27	-14					
HUKUSIMA	16.09	228.6	3	52	3	6	40	-8					
ONAHAMA	16.53	225.9	3	55	0								
NIIGATA	16.67	232.0	4	0	4	7	26	24			5	44	
SHIRAKAWA	16.71	227.8	3	55	-2								
AIKAWA	17.01	233.9	3	41	-20						7	8	
MITO	17.19	225.7	3	59	-4	7	21	7					
UTUNOMIYA	17.34	227.4	4	3	-2	7	7	-10					
KAKIOKA	17.45	226.1	4	2	-4								
TUKUBASAN	17.49	226.2	4	1	-6						4	24	PPP
VLADIVOSTOK	17.59	257.6	4	8	0	7	20	-3			4	21	PP
TAKADA	17.71	231.9	4	11	2								
MAEBASI	17.84	228.8	4	9	-2	7	29	0					
NAGANO	18.07	231.1	4	15	1	7	42	8					
TOKYO C.M.O.	18.10	226.0	4	17	3	7	2	-32					
MATUSIRO	18.16	230.8	4	11	-4	7	35	-1			8	12	PCP
TITIBU	18.17	227.9	4	17	2								
WAZIMA	18.20	235.1	4	24	8	7	54	17			16	27	SCS
YOKOHAMA	18.35	225.7	4	16	-1	7	33	-7					
MATUMOTO	18.51	230.7	4	20	1	7	57	13					
TOYAMA	18.56	233.1	4	7	-13	7	30	-15					
KOHU	18.67	228.4	4	21	0	7	48	1					
MERA	18.69	224.4	4	18	-4								
HUNATU	18.71	227.7	4	22	0	7	56	8					
MISIMA	18.93	226.6	4	23	-2	7	52	-1					
YAKUTSK	19.03	320.7	4	27	1	8	2	7					
IIDA	19.15	229.6	4	29	2								
OMAESAKI	19.70	227.2	4	49	16						7	44	
GIHU	19.78	231.4	4	33A	-1	8	11	-1					
NAGOYA	19.86	230.6	4	34	-1	8	12	-2					
HIKONE	20.15	232.2	4	38	0	8	26	6			16	28	
KAMEYAMA	20.36	231.0	4	39	-2	8	37	13			12	31	
KYOTO	20.61	232.7	4	41	-2	8	26	-3					
ABUYAMA	20.81	232.7	4	44A	-1								
NARA	20.82	231.9	4	43	-2								
OSAKA	21.00	232.4	4	46	-1								
KOBE	21.16	233.0	4	49	0	8	36	-4					
CHANGCHUN	21.50	266.2	4	51A	-1	8	41	-6					
SUMOTO	21.56	232.9	4	51A	-2	8	48	0			5	44	PP
YONAGO	21.57	237.5	4	52A	-1	8	50	2					
SIOMISAKI	21.83	229.9	4	56	0	8	52	-1					
TOKUSIMA	21.94	233.1	5	0	3								
TAKAMATU	22.03	234.4	4	57	-1	8	58	1					
HAMADA	22.67	238.6	5	6A	2	9	8	0					

MUROTO	22.79	232.4	5	6	1	9	11	0				
HIROSIMA	22.86	237.1	5	5A	-1	9	4	-8				
KOTI	22.90	234.0	5	6	0	9	8	-4	5	30	13	6
MATUYAMA	23.07	235.7	5	9A	1	9	17	1				
SIMIDU	23.79	233.7	5	15	0	9	33	5				
OOITA	24.16	236.5	5	17	-2	9	39	4				
HUKUOKA	24.58	239.0	5	24	1	9	40	-2				
SAGA	24.87	238.6	5	26	1						6	35
MIYAZAKI	25.28	234.9	5	35	6	9	57	4				
NAGASAKI	25.50	238.4	5	32A	1	9	55	-2				
KAGOSIMA	26.02	235.7	5	29	-7	9	48	-18				
PEKING	29.30	266.2	6	5A	-1							
ZO-SE	31.73	247.4	6	29A	1							
NANKING	32.53	251.4	6	33A	-2	11	45	-5				
COLLEGE	32.90	41.0	6	39	1	12	4	8				
LANCHOW	39.58	270.1	7	34A	-1	13	31	-7				
SITKA	40.27	52.1	7	43	3							
CANTON	42.33	247.0	7	57A	0	14	13	-6				
HONG KONG	42.44	245.4	7	58	0	14	16	-5			9	47 PP
KHEYS	42.74	346.1									9	52 PCP
CHENGTU	42.85	263.6	8	1A	0	14	22	-5				
KIPAPA	46.00	110.5	8	40	13							
HONOLULU	46.04	110.7	8	38	11	15	12	-1				
SEMIPALATNSK	46.52	301.4									10	20 PP
KUNMING	47.45	259.1	8	37A	-1	15	24	-9			9	31 PP
RESOLUTE	47.63	19.8	8	40	0	15	35	0				
NORD	49.03	358.5	8	49	-1							
ALBERNI	49.38	58.1	8	55	2							
VICTORIA	50.56	58.2	9	2A	0							
THULE	51.20	12.2	9	7	0							
CORVALLIS	52.89	62.3	9	20A	0							
SVERDLOVSK	52.95	316.7	9	19	-1							
RABAUL	53.62	184.3	9	23	-2							
FRUNSE	53.94	296.0	9	26A	-2							
SHILLONG	54.16	268.4	9	27A	-2							
APATITY	55.44	336.8	9	36	-3							
HUNGRY HORSE	55.73	53.8	9	41	0	17	22	-5			39	37 PKPPKP
SHASTA	55.78	65.6	9	42	1							
UKIAH	56.28	67.5	9	58	14							
CHATRA	56.36	273.0	9	46	1	17	33	-2				
CHITTAGONG	56.44	265.6	9	46	0	17	36	0	9	54	11	52 PP
MINERAL	56.47	65.4	9	47A	1							
SODANKYLA	57.25	339.1	9	49	-2							
BERKELEY	57.66	68.1	9	54A	0	17	52	0				
CONCORD	57.71	67.9	9	53	-2							
BUTTE	57.97	55.2	9	57	0	17	46	-10				
TASHKENT	57.99	297.6	9	55	-2						17	8 PSP
RENO	58.05	65.1	9	57A	0							
KIRUNA	58.23	341.7	9	57	-1							
LICK	58.38	68.2	9	59A	0							
VINEYARD	58.92	68.5	10	3	0							
BOZEMAN	59.01	54.7	10	4	0						18	59
PORT MORESBY	59.18	189.8	11	1	56	18	6	-6				
BOKARO	59.33	271.5	10	0	-6						20	16
FRESNO	59.86	67.6	10	9	-1						10	25
DEHRA DUN	59.87	282.4	10	21	11	18	23	2			14	21
EUREKA	60.33	62.9	10	13	0	18	25	-2			39	14 PKPPKP
RUTH	61.07	62.5	10	19	1							
WARSAK DAM	61.46	289.8	10	18	-3							
SALT LAKE C.	61.82	59.4	10	23	0	18	47	1				
PASADENA	62.60	68.7	10	27	-1	18	14	-42	10	53	19	20 SCS
FLAMING GRGE	63.08	57.8	10	30	-1	18	57	-5			38	57 PKPPKP
MOSCOW	63.09	325.9	10	30	-1	18	56	-6			11	6 PCP
BOULDER CITY	63.36	65.2	10	33	0	19	30	25			39	28 PKPPKP
NURMIJARVI	63.38	335.3	10	31	-2						39	22 PKPPKP
HELSINKI	63.58	335.0	10	33	-2							
SKALSTUGAN	63.59	342.7	10	33	-2							
RAPID CITY	64.19	51.8	10	40	1	19	17	2			39	20 PKPPKP
GLEN CANYON	64.57	62.4	10	41	0						39	19 PKPPKP
UPPSALA	65.76	338.3	10	47	-2							
KIZYL-ARVAT	66.73	303.4	10	56	1						11	22 PCP
QUETTA	66.91	289.8	10	55	-1	19	38	-11	11	9	13	27 PP
TUCSON	68.33	65.5	11	6	1	20	9	3			11	51 PP
GOTEBORG	69.00	340.1	11	8	-1							
AFIAMALU	69.40	146.1	11	10	-2							
DJAKARTA	69.81	232.9	11	13A	-1	20	17	-6				
CHARTERS TS.	69.83	189.4	11	11	-3	20	14	-10				
LEMBANG	69.96	231.8	11	14	-1						21	22

SUVA	70.36	157.0				20	27	-3				
COPENHAGEN	70.73	338.9	11	19	-1	20	36	2				
TIFLIS	70.76	312.2	11	20	0	20	33	-1			15	35 PPP
MADRAS	70.81	267.6				20	31	-4			12	20
POONA	70.87	276.3	11	20	-1	20	35	-1			20	53 PS
BOMBAY	71.27	277.3	11	23	0	20	39	-1				
GORIS	71.71	309.7	11	26	0	20	42	-3			14	8 PP
TEHERAN	71.90	304.0	11	27A	0	20	43	-5				
ABERDEEN	72.06	347.5				20	38	-11			31	42
NOUMEA	72.17	169.5	11	27	-1							
LWOW	72.67	329.5	11	30	-1	20	49	-7			15	58 PPP
SIMFEROPOL	73.00	320.7	11	33A	0	20	58	-2			16	0 PPP
CHORZOW	73.84	332.7	11	38	0						21	31 PS
RACIBORZ	74.26	333.1	11	40	-1						21	40 PS
DURHAM	74.31	346.5				21	48	33				
FLORISSANT	74.52	47.8	11	42A	0	21	16	-1				
COLLMBERG	74.60	336.7	11	41A	-2	21	15	-3			14	7 PP
HALLE	74.68	337.4	11	42	-1	21	14	-5	12	7	14	26 PP
ST. LOUIS 1	74.72	47.8	11	43A	0	21	17	-2				
FAYETTEVILLE	74.73	52.0	11	43A	0	21	16	-3				
MUNSTER	75.26	340.2	11	47	1						12	12
JENA	75.30	337.4	11	46	-1	21	20	-6			15	42
PRAGUE	75.34	335.4	11	49	2	21	32	6				
PRUHONICE	75.39	335.2	11	47A	0	21	28	1			15	2 PP
OTTAWA	75.39	34.7	11	46A	-1							
SHAWINIGAN	75.47	32.2	11	48A	0							
PLAUEN	75.56	336.9	11	45	-3						14	22
COLOMBO	75.57	263.6									21	25
DE BILT	75.66	341.7	11	48	-1	21	32	2				
SHIRAZ	75.84	299.0	11	49K	-1						16	16 PPP
CHEB	75.88	336.6	11	53	3							
SONNEBERG	75.90	337.4	11	48	-2						12	15
BREBEUF	76.07	33.3	11	50A	-1						14	40 PP
BRATISLAVA	76.30	332.9	11	52K	0							
CLEVELAND	76.37	40.5	11	54A	1							
VIENNA-H.	76.44	333.4	11	54A	1						14	44 PP
BUCHAREST	76.58	325.4	11	52A	-2	21	36	-4			22	54 PS
BRISBANE	76.64	182.6	11	54	0	21	38	-2				
UCCLE	77.06	341.8	11	55	-2	21	42	-3				
KEW	77.29	344.9	11	57A	-1	21	43	-5			14	51 PP
HEIDELBERG	77.41	338.6	11	51	-7						12	23
STUTTGART	77.86	338.0	12	1A	0	21	49	-5			22	27 PS
TUBINGEN	78.14	338.0	12	2A	0						12	28
BELGRADE	78.22	329.2	12	4K	1	21	55	-3			22	43 PS
ISTANBUL KA.	78.28	321.7	12	6	3							
ISTANBUL UN.	78.34	321.7	12	2	-2							
STRASBOURG	78.40	338.9	12	4A	0	21	59	-1			16	23
PENNSYLVANIA	78.46	38.5	12	3	-1	21	56	-4			15	3 PP
EBINGEN	78.49	338.0	11	34	-30							
RAVENSBURG	78.70	337.4	12	6A	0						12	31
ZAGREB	78.75	332.5	12	5	-1							
LJUBLJANA	78.97	333.6	12	6A	-1						12	18 PCP
SOFIA	79.08	326.3	12	8	0				12	35	15	3 PP
PARIS	79.33	342.3	12	11A	2	22	1	-8				
BASLE	79.43	338.6	12	3	-7						13	59
TRIESTE	79.56	333.9	12	10	0	22	8	-4			15	14 PP
CHUR	79.59	337.1	12	11A	1							
WESTON	79.60	33.4	12	10	0						12	34
PALISADES	79.84	35.8	12	12	0	22	29	14			22	11 SKS
FOLINIERE	79.92	344.2	12	12	0							
BESANCON	80.07	339.6	12	13	0							
NEUCHATEL	80.08	338.8	12	13	0							
HALIFAX	80.15	27.3	12	12A	-1							
PADOVA	80.30	335.0									13	14
KSARA	81.31	313.0	12	18A	-2	22	31	1	12	47	15	27 PP
CLERMONT-FD.	82.10	341.0	12	25	1							
COLUMBIA	82.80	44.4	12	28	1	22	42	-3			15	40 PP
ATHENS	83.06	323.7	12	26A	-3							
RIVERVIEW	83.11	183.8	12	28A	-1	22	47	-1			23	5 *SS
ROME	83.36	333.2	12	31	1							
CANBERRA	84.71	185.5	12	36A	-1	23	0	-4			23	4 SCS
TACUBAYA	84.83	66.2	12	40K	2	23	5	-1			17	56 PPP
BAGNERES	85.30	342.3	12	39	-1							
ADELAIDE	85.49	193.9	12	40K	-1							
MESSINA	85.78	329.6	12	39	-3	22	59	-16			15	58 PP
VERA CRUZ	86.80	64.0	12	50	3	23	25	0			21	40
MELBOURNE	87.52	188.5	12	50	-1							
MUNDARING	88.42	212.7	12	53	-2							
KARAPIRO	88.86	164.4	12	55	-2							

MERIDA	89.13	58.1	13 5A	6	23 44	-2		24 17 SCS
TOLEDO	89.17	344.5	12 58	-1	23 28	-19		13 25 PCP
ALICANTE	89.97	341.5	13 4	2	23 56	2		18 38 PPP
SETIF	90.64	336.3	13 5	-1				16 36 PP
ALGIERS UNI.	90.69	338.3	13 3	-3	23 54	-7		16 44 PP
GRANADA	91.71	343.6	13 11A	1				
ALMERIA	91.82	342.6	13 9	-2	24 3	-8		13 34
TARRALEAH	91.83	186.8	13 7A	-4				
MOORLANDS	91.91	186.3	13 6	-5				
MALAGA	92.30	344.1	13 10K	-3	24 12	-3		16 46 PP
FORT NELSON	92.39	186.1	13 7	-7				
ADDIS ABABA	99.94	296.6	13 50	2	24 54	27		
SAN JUAN	102.90	40.5	18 12	251				
TAMANRASSET	103.25	331.8	14 2A	-1	25 41	59		30 9 PKKP
CHINCHINA	109.91	55.8			25 11	-1		19 9 PP
FUQUENE	110.49	53.8						19 9 PP
BOGOTA	111.03	54.6			25 17	1		19 17 PP
LWIRO	114.84	298.2	18 15	-28				
WILKES	120.59	199.4						30 8 SP
CAPE HALLETT	121.99	174.8	18 54K	-3				20 38 PP
HUANCAYO	123.94	66.4	19 3	3				
BROKEN HILL	124.72	290.1	19 3	1				
SCOTT BASE	127.32	177.1	19 4	-3				21 16 PP
MAWSON	135.48	213.1	19 22	0				
BYRD STATION	137.47	165.1	19 12	-14				24 18
SANTA LUCIA	142.41	82.4	19 35	0				40 52 SS
ARGENTINE I.	153.97	142.0	20 1	8				
PORT STANLEY	158.72	108.7	20 50	51				

SEPTEMBER 17 19.H 56.M 8.S EPICENTRE -21.06-174.30 DEPTH= 0.KM

A=-0.92939 B=-0.09270 C=-0.35727 D=-0.0993 E= 0.9951
G= 0.3555 H= 0.0355 K=-0.9340 HT= 4.4

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
SUVA	7.44	291.7	1 59	6				
AFIAMALU	7.51	19.1	1 44	-10	3 3	-18		
ONERAHI	17.70	211.7	4 14	4				
NOUMEA	17.93	262.5	4 15	2				5 52
KARAPIRO	18.97	205.4	4 26	0				
CHATEAU	20.07	203.5	4 36	-2				
TONGARIRO	20.08	203.6	4 41	3				
WELLINGTON	22.18	202.2	4 59	-1	8 50	-10		
KAIMATA	24.53	206.1	5 29	6				
BRISBANE	30.61	251.6	6 16	-2	11 14	-6		
RIVERVIEW	33.03	240.0	6 35	-5	11 56	-2		8 4 PPP
CANBERRA	35.11	238.2	6 56K	-1				8 45
CHARTERS TS.	36.87	264.3	7 10	-2	12 48	-9		
FORT NELSON	38.70	226.8	7 23	-5			7 33	
PORT MORESBY	38.85	281.4	7 27	-2	13 38	10		
TARRALEAH	39.08	228.1	7 27	-4				
ADELAIDE	43.35	241.0	8 5	-1				
KIPAPA	45.12	21.6	8 20	0				
CAPE HALLETT	52.02	185.9	9 13	-1	16 47	10		11 28 PP
GUAM	52.87	306.9	9 19	-1				
TERRE ADELIE	53.65	200.1	9 27	1	17 7	8		
SCOTT BASE	57.57	184.7	9 55	1	17 59	8		19 46 SCS
MUNDARING	62.20	244.1	10 24	-2			10 34	
PERTH	62.52	244.1	10 29	1				
BYRD STATION	63.53	170.8	10 34	-1				
WILKES	64.96	205.5	10 44	0	19 25	0	11 8	23 54 SS
SOUTH POLE	69.07	180.0	11 10	0				11 35
MIRNY	71.95	204.9	11 27	-1	20 51	2		
MATUSIRO	72.75	321.6	11 31	-1	20 47	-11		14 10 PP
ABUYAMA	73.20	318.8	11 35A	0				
VINEYARD	76.15	41.3	11 38	-14				
BERKELEY	76.34	40.0	11 52	-1	21 41	3		
LICK	76.37	40.7	11 54K	1				
LEMBANG	76.48	267.8	11 53A	-1				12 47
CONCORD	76.51	40.0	11 54	0				
PASADENA	76.58	45.1	11 49	-5	21 43	3		26 24 SS
UKIAH	76.60	38.5	12 36	42				
PETROPAVLOVK	77.42	343.7	12 2K	3	21 51	2		

SHASTA	78.11	37.7	12	4	1					
MINERAL	78.34	38.4	12	11K	7					
RENO	78.88	39.9	12	7A	0					
ARGENTINE I.	79.08	156.2	12	7	-1					
BOULDER CITY	79.87	45.2	12	12	0					
CORVALLIS	80.21	34.3	12	21	7					
TUCSON	80.58	50.2	12	16	0	22	23	0	15	42 PP
VLADIVOSTOK	80.76	323.2	12	17	0	22	28	3		
EUREKA	81.19	41.8	12	19	0	22	32	3		
RUTH	81.66	42.5	12	23	1					
HONG KONG	81.99	297.5	12	24A	0	22	58	20		
MAWSON	82.18	199.0	12	25	0					
GLEN CANYON	82.59	45.9	12	28	1					
ALBERNI	82.67	30.1	12	32	5					
VICTORIA	82.82	31.3	12	28	0					
NANKING	82.98	308.1	12	29	0					
CANTON	83.03	297.9	12	30	1					
TACUBAYA	83.76	66.6	12	57	24				17	34 PPP
SALT LAKE C.	84.51	42.6	12	35	-1					
CHANGCHUN	84.98	320.8	12	40A	1	23	12	4		
FLAMING GRGE	86.16	43.5	12	44	-1	23	12	-7		
BUTTE	87.02	37.9	12	46	-3					
HUNGRY HORSE	87.55	35.4	12	50	-1					
BOZEMAN	87.71	38.8	11	57	-55				12	52
COLLEGE	88.06	11.0	12	53	-1	23	33	-4		
PEKING	88.74	314.0	12	58	1					
SANTA LUCIA	89.34	125.7	13	2	2	23	28	-21	16	32 PP
RAPID CITY	91.70	43.0	13	11	0					
KUNMING	92.69	295.8	13	17A	1					
CHENGTU	93.72	301.3	13	21	1	24	33	5	23	58 SKS
YAKUTSK	93.93	336.9	13	20	-1					
FAYETTEVILLE	94.57	53.2	13	24	0	24	38	3	17	20 PP
LANCHOW	95.87	306.2	13	33	3					
ST. LOUIS 1	98.43	51.9							19	58 PP
LA PAZ	98.55	111.3	13	41	-1				26	28
CHINCHINA	99.86	88.5	13	49	1	24	26	-1	32	26 SS
TIKSI	100.18	344.4							17	53 PP
BOGOTA	101.19	89.3	13	56	2	24	30	-3	28	6 PS
IRKUTSK	101.29	321.7	13	53	-2					
LHASA	103.99	296.6	14	8	1					
PALISADES	111.17	53.0	15	5	-211	25	15	-2	19	25 PP
ANDIJAN	120.88	305.6	18	57	2					
NAMANGAN	121.42	305.9	18	58	2	26	0	5		
QUETTA	124.59	292.8	19	4	2				20	45 PP
SVERDLOVSK	126.40	326.0	19	5	0					
KIMBERLEY	127.16	201.1	19	8	1					
APATITY	130.35	346.4	19	14	1				21	27 PP
SODANKYLA	131.84	349.3	19	14	-2					
KIRUNA	132.33	352.5	19	16	-1					
SHIRAZ	137.07	291.3	19	27	1				22	37 PP
SKALSTUGAN	137.27	355.7	19	15	-11					
PULKOVO	137.54	341.8	18	38	-48					
MOSCOW	137.99	333.4	19	26	-1				23	4 PKS
NURMIJARVI	138.38	346.0	19	20	-8				23	3 PKS
HELSINKI	138.61	345.5	19	23	-5					
MAKHACH-KALA	138.91	311.9	19	30	1				23	6 PKS
UPPSALA	140.33	350.6	19	24	-8					
TIFLIS	141.21	311.1	19	35	2				23	15 PKS
GOTEBORG	143.12	354.4	19	33	-3					
COPENHAGEN	145.06	353.3	19	41	1					
DURHAM	145.90	7.5	19	40A	-1					
ADDIS ABABA	145.98	254.4	19	47	6					
SIMFEROPOL	146.60	322.1	19	45	3					
WARSAW	146.69	342.8	19	43	0				23	5 PP
LWIRO	147.62	227.1	19	47	3				23	17
LWOW	147.83	337.5	19	47	3				24	58
WITTEVEEN	148.29	358.9	19	56	11					
KRAKOW	148.95	342.1	19	50	4					
DE BILT	149.02	0.6	19	52	6				42	4 SS
MUNSTER	149.11	357.7	19	52	6				20	51
HALLE	149.23	352.4	19	52	5				23	22 PP
COLLMBERG	149.28	351.0	19	50A	3				23	21 PP
KEW	149.29	7.4	19	53	6					
RACIBORZ	149.40	344.1	19	53	6					
SKALNATE PL.	149.64	341.0	19	53	6					
JENA	149.84	352.6	19	52	4				23	40 PP
PRAGUE	150.24	348.6	19	54	6				20	20 PKP2
PRUHONICE	150.30	348.4	19	54A	6				20	18 PKP2

UCCLE	150.30	1.7	19 55	7			20 5	PKP2
SONNEBERG	150.42	352.9	19 54	6				
KSARA	150.47	301.9	19 51	2			23 27	PP
CHEB	150.56	351.2	19 58	9				
BUCHAREST	151.22	328.7	19 55	5				
BRATISLAVA	151.44	343.9	19 52	2				
VIENNA-H.	151.55	344.9	19 54	4			20 11	PKP2
JERUSALEM	151.57	298.2	19 58	8				
HEIDELBERG	151.62	355.8	19 58	8				
ISTANBUL KA.	151.89	320.5	20 18	27			20 50	PKP2
FOLINIERE	151.91	8.7	19 58	7				
ISTANBUL UN.	151.96	320.5	19 51	0				
PARIS	152.20	4.5	20 0	9			21 0	PP
STUTTGART	152.21	354.9	19 52	1	27 29	32	23 30	PP
STRASBOURG	152.49	357.0	20 0	8			23 52	PP
BESANCON	153.87	359.6	20 17	24				
ZAGREB	153.90	343.5	20 3	9				
LJUBLJANA	154.05	345.9	19 55	1				
TRIESTE	154.60	346.8	19 55	1			20 17	PKP2
HELWAN	155.29	296.0	19 59	4			24 7	PP
TARANTO	158.29	335.6					31 20	
ROME	158.45	346.1	20 29	30				
MESSINA	160.92	335.6	19 59	-3			24 31	PP
MALAGA	162.09	27.3	20 3K	0			24 37	PP
ALGIERS UNI.	164.18	7.8	20 6	1			24 44	PP
SETIF	164.91	0.9	20 8	2			22 8	PKP2
TAMANRASSET	178.28	5.4	20 15	2			25 55	PP

SEPTEMBER 18 9.H 40.M 33.S EPICENTRE -7.03 129.23 DEPTH= 96.KM

A=-0.62769 B= 0.76890 C=-0.12160 D= 0.7747 E= 0.6324
G= 0.0769 H=-0.0942 K=-0.9926 HT= 6.9

DEPTH OF FOCUS= 0.010R

SE= 1.96

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	17.89	98.8	4	3	0	7	18	1					
CHARTERS TS.	21.01	129.8	4	38	1	8	23	3					
LEMBANG	21.45	269.2	4	41	0	8	32	4					
DJAKARTA	22.26	270.9	4	50	1	8	52	9					
RABAUL	23.00	84.2	4	58	1								
BAGUIO CITY	24.82	339.9	5	14	0	9	20	-7					
GUAM	25.53	37.1	5	22	1						6	8	PP
MUNDARING	27.62	204.4	5	40	0				6	20			
PERTH	27.76	205.0	5	44	3	10	17	2			6	24	PP
ADELAIDE	29.15	163.9	5	54K	0	11	35	58	6	23			
BRISBANE	30.15	135.0	6	4K	1	10	52	-1					
HONG KONG	32.67	333.5	6	23A	-2	11	26	-7	7	1	12	36	SCP
RIVERVIEW	33.50	145.7	6	33K	1	11	44	-1	7	7	7	52	PP
CANBERRA	33.51	149.9	6	33K	1	11	43	-3	7	7	7	50	PP
CANTON	33.73	333.0	6	34A	0	11	41	-8					
MELBOURNE	33.83	157.3	6	36K	2	11	51	1			12	51	PCS
TARRALEAH	38.29	159.2	7	9A	-3						8	47	PP
MOORLANDS	38.68	158.6	7	12	-3						8	46	PP
ZO-SE	38.69	348.9	7	15	0				7	48	8	6	*SP
NOUMEA	38.94	116.9	7	18	1								
FORT NELSON	39.16	158.8	7	17A	-2						8	47	PP
NANKING	40.13	346.2	7	27A	0	13	19	-7	8	0	8	18	*SP
PORT BLAIR	40.79	296.9	7	32	-1	13	26	-10			17	18	
KUNMING	41.06	322.0	7	37A	2	13	34	-6	8	10	9	54	PPP
ABUYAMA	42.10	7.8	7	43A	-1								
MATUSIRO	44.15	10.4	7	58	-2	14	15	-10	8	31	17	40	SCS
TUKUBASAN	44.22	12.6	7	59K	-2	14	18	-8			8	49	
CHENGTU	44.59	328.5	8	3A	-1	14	22	-10	8	36	10	28	PPP
SIAN	45.33	336.2	8	10	0	14	37	-5			9	0	*SP
CHITTAGONG	46.85	309.6	8	23A	1	15	1	-3	8	45	10	17	PP
MIZUSAWA	47.23	12.6	8	26	1	14	49	-20					
TOCKLAI	47.36	316.5	8	30	4								
PEKING	48.35	346.6	8	32A	-1	15	17	-8	9	6	9	21	*SP
SHILLONG	48.67	313.1	8	34	-2	15	20	-9					
LANCHOW	49.05	332.6	8	40A	1								
VLADIVOSTOK	49.97	2.6	8	45	-1	15	43	-5					
ONERAHI	50.20	131.4	8	48	0								
CHANGCHUN	50.75	356.3	8	52	0	15	59	1	9	25	9	42	*SP

KAIMATA	51.28	140.5	9	0	4					
COBB RIVER	51.40	138.2	8	56	-1					
LHASA	51.73	316.7	9	0A	1	16	5	-7	9 33	9 51 *SP
BOKARO	52.32	307.3	9	2	-1	16	16	-4		
TONGARIRO	52.46	134.9	9	4	-1					14 3 SCP
CHATEAU	52.46	134.9	9	4	-1					9 42 PCP
MADRAS	52.63	292.1	9	5	-1					12 18
GEBBIES PASS	52.66	141.2	9	5	-1					
CHATRA	52.85	311.3	9	7	0	16	20	-7		
WELLINGTON	52.85	137.6	9	6	-2					
TUAI	53.44	133.8	9	12	0					
UGLEGORSK	57.00	10.0	10	11K	34					
AFIAMALU	58.29	102.0	9	45K	-2					
POONA	60.22	295.9	9	58	-2					
TERRE ADELIE	60.28	174.5	9	56	-4	17	56	-9		
WILKES	60.61	188.5				18	7	-2		25 1 SSS
BOMBAY	61.26	295.9	10	3	-4	18	7	-11		12 21 PP
DEHRA DUN	61.51	310.0	10	9	0	18	10	-11		
IRKUTSK	62.79	343.1	10	16	-1	18	33	-4		
MIRNY	64.41	195.2	10	27	-1	17	53	-64		
LAHORE	64.91	309.5	10	33A	2					
WARSAK DAM	68.08	310.8	10	51A	0	19	34	-7		
KARACHI	68.28	300.1	10	51A	-1					
YAKUTSK	68.84	0.2	11	13	17					
ALMATA	68.87	321.7	10	56A	0	19	47	-4		
CAPE HALLETT	69.83	167.7	11	2	0	19	57	-5		11 43 PCP
QUETTA	70.18	305.4	11	3A	-1	19	58	-8	11 25	13 33 PP
ANDIJAN	70.54	317.6	11	6	0	20	6	-4		
NAMANGAN	71.11	317.5	11	10A	1	20	10	-7		
STALINABAD	72.05	314.2	11	13	-2	20	20	-8		
SCOTT BASE	73.41	172.3	11	23A	0	20	38	-5		11 59 PCP
HONOLULU	76.60	66.2	11	44	3					12 23
KIPAPA	76.70	66.1	11	43	1					12 18
TIKSI	78.50	359.9	11	48K	-4	21	28	-11		
TANANARIVE	79.91	252.1	12	3	4					
SHIRAZ	82.02	301.2	12	9	-1	22	8	-7		23 4 PS
SOUTH POLE	83.02	180.0	12	15	0	22	17	-8		12 57
TEHERAN	84.29	306.9	12	22A	0					
SVERDLOVSK	84.40	329.1	12	31	9					
BYRD STATION	86.73	170.6	12	34	0	23	0	-2		13 12
MAKHACH-KALA	88.72	313.4	12	44	1					
GORIS	88.97	309.8	12	44	-1					
TIFLIS	90.48	311.8	12	53A	1	23	36	0		
ADDIS ABABA	91.53	278.9	13	0	3	23	27	-18		
COLLEGE	93.32	25.1	13	2	-3				13 38	
KHEYS	93.87	351.0								21 8
KSARA	96.64	303.2	13	21	1	23	50	4		17 9 PP
MOSCOW	96.66	325.3	13	18	-2	23	41	-6		
PRETORIA	96.83	243.1	13	21	0					
JERUSALEM	97.05	301.1	13	22	0					17 15 PP
BULAWAYO	97.48	248.7	13	13A	-11					
SIMFEROPOL	98.53	314.3				23	50	-6		17 31 PP
BROKEN HILL	98.59	254.3	13	38A	9					
APATITY	98.67	337.3	13	27	-2	23	49	-8		25 45 *SS
LWIRO	100.06	266.5	12	36K	-59					
HELWAN	100.29	299.0	13	55	19					17 40
SODANKYLA	101.30	337.3	13	37	-4					29 48 PKKP
ISTANBUL KA.	102.23	310.4	13	42	-3	25	23	69		
NURMIJARVI	103.25	330.5	13	49	-1	24	10	-9		29 44 PKKP
KIRUNA	103.53	338.3	13	48	-3					18 8 PP
LWOW	105.14	319.6	13	57	777					24 23
SOFIA	106.41	312.3	18	27	777					
UPPSALA	106.82	330.6	14	5	777					18 7 PP
SKALNATE PL.	107.67	319.4	17	46	777					
KRAKOW	107.72	320.3	18	24	777					18 38
SKALSTUGAN	108.06	335.2	14	8	777					18 37 PP
SHASTA	108.48	49.5	19	0	777					19 25
RACIBORZ	108.81	320.6	18	22	777					18 53
MINERAL	109.12	49.8	18	22	777					
LICK	109.44	53.0	18	22	777					21 31
BRATISLAVA	109.91	318.7	17	44	777					
VIENNA-H.	110.37	318.9	18	55	35					
RENO	110.59	50.5								18 48
FRESNO	110.96	53.4								19 0
PRUHONICE	111.12	321.0	18	1	-21					18 57 PP
ZAGREB	111.15	316.5								19 45 PP
COLLMBERG	111.72	322.7	18	24	1					19 18 PP
LJUBLJANA	112.10	316.9								19 4 PP

HALLE	112.29	323.1	18	50	26	24	52	-6	19 4	19 18 PP
PASADENA	112.60	56.0	18	26	1	24	57	-2		22 45 PP
JENA	112.68	322.6	18	16	-9					19 40 PP
TRIESTE	112.71	316.6								19 17 PP
HUNGRY HORSE	112.86	40.3	18	25	0					19 8 PP
EUREKA	113.53	50.0	18	27	1					21 49 PPP
STUTTGART	114.77	320.8	18	29	0					19 33 PP
HEIDELBERG	114.91	321.6								18 31 PP
TUBINGEN	114.98	320.6								19 33 PP
BOULDER CITY	115.05	53.6	18	31	2					
STRASBOURG	115.78	321.0								19 39
SALT LAKE C.	116.34	47.9	18	32	0				19 14	29 2 PKKP
BESANCON	117.37	320.1								19 48
GLEN CANYON	117.42	52.0	18	36	2					28 59 PKKP
FLAMING GRGE	118.10	47.2	18	36	1	25	16	-4		23 11
PARIS	118.93	322.7	18	38	1					20 10
TUCSON	118.97	57.1	18	39	2					19 58 PP
SETIF	121.23	308.2	18	41	0					20 7 PP
RAPID CITY	121.37	42.0	18	38	-4					
ALGIERS UNI.	122.88	309.5	18	45	1					20 22 PP
TAMANRASSET	123.72	292.6	18	48A	2				19 15	20 27 PP
ALMERIA	127.03	311.4	18	53K	1				19 6	20 51 PP
FAYETTEVILLE	130.94	47.5	19	0K	0					22 9 SKP
TACUBAYA	131.44	70.4								21 35 PP
FLORISSANT	132.34	42.4								22 14 SKP
ST. LOUIS 1	132.52	42.5	19	4	1					22 15 SKP
OTTAWA	136.09	25.4	19	9	-1					
SHAWINIGAN	136.32	22.0	19	11	1					
SEVEN FALLS	136.52	19.9	19	13	3					22 27
BREBEUF	136.87	23.5	19	10	-1					22 29 *PPP
PALISADES	140.38	27.8	19	11	-6				20 3	22 38 PP
HALIFAX	140.92	14.6	19	27	8					
COLUMBIA	141.26	42.0	19	20	1					22 40 PP
MBOUR	146.03	285.3	19	30A	3					22 54 PP
HUANCAYO	149.09	127.7	19	36	4					
LA PAZ	150.99	143.8	19	38	3					19 57 PKP2
CHINCHINA	155.21	93.4	19	42K	1					30 19 SKKS
BOGOTA	156.70	94.6	19	55	12					30 28 SKKS
SAN JUAN	161.28	51.5	19	48	0				20 33	21 15

SEPTEMBER 19 3.H 39.M 40.S EPICENTRE 15.39 119.28 DEPTH= 55.KM

A=-0.47181 B= 0.84134 C= 0.26369 D= 0.8722 E= 0.4891
G=-0.1290 H= 0.2300 K=-0.9646 HT= 5.7

DEPTH OF FOCUS= 0.003R

SE= 3.59

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BAGUIO CITY	1.62	50.4	0	10	-17	0	29	-18				
HENGCHUN	6.72	11.7				2	54	0				
TAWU	7.09	12.2				3	5	-1				
TAITUNG	7.53	13.3	1	59	9	3	6	-9				
TAINAN	7.62	6.5				3	32	15				
ALISHAN	8.21	9.8	2	0	1	5	36	125				
HONG KONG	8.41	325.6	1	40K	-22	3	30	-6				
TAICHUNG	8.82	8.4				3	42	-4				
HWALIEN	8.82	14.1	2	16	9							
CANTON	9.50	324.7	2	10A	-7	4	0	-3				
TAIPEI	9.82	12.0									3	29
ZO-SE	15.74	6.0	3	37	-2							
NANKING	16.60	358.5	3	47A	-3	6	57	5				
KUNMING	18.28	304.6	4	8K	-3	7	46	16				
CHENGTU	20.67	320.0	4	34K	-3	8	30	10				
SIAN	20.98	335.4	4	37	-4	8	31	5				
MEDAN	23.43	242.0	3	7	-118							
ABUYAMA	24.30	34.1	5	1A	-12							
DJAKARTA	24.73	210.8	5	24	7	9	52	19				
LANCHOW	24.78	329.0	5	16	-2	9	43	9				
LEMBANG	24.92	208.5	5	23	4	9	45	9				
TOCKLAI	25.46	300.4	5	35A	11							
PORT BLAIR	26.08	265.1	5	39	9	10	15	20			9	13
CHITTAGONG	26.87	289.2	5	38	1	10	6	-2	5	56	6	27 PP
MATUSIRO	26.98	35.2	5	33	-5	10	9	-1			6	37 PP

SHILLONG	27.55	296.0	5 41A	-3						
CHANGCHUN	28.81	9.1	5 52	-3						
LHASA	29.60	303.5	6 1	-1	11 1	9				
VLADIVOSTOK	29.68	18.8	5 57	-6						
CALCUTTA	30.05	288.4	6 4	-2					7 13	
CHATRA	31.96	296.2	6 21	-2	11 34	5				
BOKARO	32.58	290.2	6 28	0	11 42	3			7 30	
PORT MORESBY	37.00	130.0	7 4	-2	12 52	5				
MADRAS	37.95	271.5	7 19	5	13 13	12			8 47	
UGLEGORSK	38.42	24.2	7 13A	-5						
IRKUTSK	38.68	345.3	7 18K	-2						
HYDERABAD	39.17	278.8	7 26	2	13 20	0			8 59	PP
COLOMBO	39.52	262.1	7 26	-1	13 33	8				
DEHRA DUN	40.56	298.8	7 37	1	13 46	5			9 33	PP
KODAIKANAL	41.05	268.0	7 48	8						
POONA	43.49	280.8	8 4	4	14 34	10			17 15	
CHARTERS TS.	44.12	142.2	8 2	-3	14 36	3				
BOMBAY	44.44	281.4	7 55	-12	14 42	4			9 42	PP
ALMATA	45.50	316.4	8 16	0	15 0	7				
WARSAK DAM	46.70	302.4	8 23	-2						
YAKUTSK	47.16	6.7	8 24	-5						
MUNDARING	47.18	183.6	8 31	2						
NAMANGAN	48.35	311.5	8 39	1	15 41	8				
PETROPAVLOVK	48.65	30.7	8 38K	-2	15 32	-5				
MAGADAN	49.78	20.4	8 46	-3	15 55	2				
STALINABAD	49.87	307.7	8 50	0	15 58	4				
QUETTA	50.04	296.6	8 49	-2	15 53	-4	9 15		10 45	PP
ADELAIDE	53.37	160.1	9 14	-2						
BRISBANE	53.52	142.4	9 15	-2	16 46	2				
TIKSI	56.52	3.6	9 33	-6	17 21	-3				
RIVERVIEW	57.60	148.6	10 4K	17					17 53	
CANBERRA	57.77	151.4	9 46	-2						
SVERDLOVSK	60.26	327.3	10 1	-4	17 25	-48				
SHIRAZ	62.54	295.7	10 22	2	18 40	-2			12 40	PP
MAKHACH-KALA	66.40	310.5	10 44	-1	19 32	2				
GORIS	67.30	306.7	10 51	0						
TIFLIS	68.41	309.1	11 0	2	20 0	6				
KHEYS	70.35	351.2	11 10	0	20 0	-17				
MOSCOW	72.74	324.1	11 22	-2	20 43	-1				
APATITY	74.32	336.6	11 31	-2	21 0	-2			14 19	PP
KARAPIRO	74.79	137.0	11 37	1						
SIMFEROPOL	75.91	313.2	11 43A	1	21 15	-4				
KSARA	76.21	301.6	11 44	0	21 35	12			14 39	PP
PULKOVO	76.33	328.6	11 45	0	21 23	-1				
SODANKYLA	76.95	336.6	11 44	-4						
JERUSALEM	77.10	299.7	12 13	24	21 41	9				
COLLEGE	77.43	25.9	11 45	-6	21 30	-6				
ADDIS ABABA	78.57	276.3	12 4	7						
HELSINKI	78.92	329.5	11 58	-1						
NURMIJARVI	79.01	329.8	11 58	-2	21 53	0				
KIRUNA	79.19	337.6	11 56	-5						
ISTANBUL KA.	80.22	309.9	12 8	2	22 9	3				
HELWAN	80.76	298.4	12 12	3	22 20	9				
NORD	80.86	354.1	12 3	-7	22 13	1			12 9	PCP
BUCHAREST	81.63	313.7	12 15	1	22 26	6			24 9	PS
LWOW	81.74	319.3	12 16	2	22 24	3				
WILKES	81.75	183.6	12 14	0	22 27	6			15 28	PP
UPPSALA	82.57	330.1	12 16	-2						
WARSAW	82.96	322.2	12 20	0	22 34	0			12 26	PCP
TERRE ADELIE	83.59	171.4	12 22	-2	22 43	3				
SKALSTUGAN	83.70	334.5	12 23	-1						
MIRNY	84.00	190.3	12 28	2	22 56	12				
SOFIA	84.01	312.5	12 29	3						
KRAKOW	84.23	320.3	12 28	1					22 47	
RACIBORZ	85.28	320.6	12 35	3						
BELGRADE	85.42	315.1	12 36A	3	23 2	4			24 19	PPS
COPENHAGEN	86.61	327.1	12 40	1	23 5	-4			25 37	
VIENNA-H.	87.02	319.3	12 44A	3	23 4	-9				
PRUHONICE	87.54	321.3	12 43K	0	23 8	-10			16 11	PP
RESOLUTE	87.59	8.6	12 40	-3	23 20	1				
COLLMBERG	87.97	322.9	12 47	2	23 27	5			24 23	PS
BERGEN	88.04	333.0							44 37	PPS
ZAGREB	88.09	317.1			23 28	5			43 11	
HALLE	88.50	323.4	12 46	-2	23 11	-16			23 33	SCS
CHEB	88.80	321.9			23 34	4			13 37	
JENA	88.94	322.9	12 51	1	23 14	-17			16 21	PP
TRIESTE	89.61	317.5			23 20	-17			23 42	S
SCORESBY SD.	90.26	347.8			23 53	10				
MESSINA	91.03	310.1	13 2	2	23 26	-24	13 16		16 42	PP

LWIRO	91.05	268.0	13	4A	4						
STUTTGART	91.18	321.6	13	2	2	23	31	-20	16	37	PP
ROME	91.88	314.4	13	6A	3	23	37	-21	24	0	S
DE BILT	92.03	325.7	13	3	-1	23	40	-19	24	2	S
STRASBOURG	92.16	321.8	13	7	2	24	8	8	16	45	PP
ABERDEEN	93.01	332.2				23	20	-48	16	22	PP
CAPE HALLETT	93.74	166.2	13	12	0	24	29	15	16	56	PP
DURHAM	94.12	330.1				23	49	-28			
PARIS	95.14	323.7	13	22	4	23	54	6			
KEW	95.30	326.9				23	54	5	17	10	PP
JERSEY	97.51	325.6				24	30	30	19	37	
SHASTA	100.18	42.8	13	40	-1						
ALGIERS UNI.	100.67	312.9				24	21	5	17	51	PP
HUNGRY HORSE	100.84	33.0	13	46	2						
MINERAL	100.87	42.8	13	34	-10						
BERKELEY	101.69	45.3	13	53	5	24	28	7	26	58	PS
TAMANRASSET	104.91	299.1	18	25	263						
EUREKA	104.98	41.2	14	3	0				18	23	PP
SOUTH POLE	105.29	180.0	18	18	777				25	22	
RUTH	105.75	40.9	14	14	777						
MALAGA	105.83	316.0							18	17	PP
BYRD STATION	110.29	170.8	18	30	4				21	33	
PENNSYLVANIA	121.88	15.3							20	24	PP
PALISADES	122.57	11.8				25	7	-37	20	33	PP
SAN JUAN	146.03	9.2	19	37	4				20	8	
BALBOA HTS.	149.44	38.9	19	43	5						
FORT FRANCE	150.07	0.8	19	42	3						
CARACAS	153.55	13.8	19	46	2				42	50	SS
CHINCHINA	154.96	37.3	19	52	6						
FUQUENE	155.59	32.9	20	4	17						
BOGOTA	156.12	34.7	20	7	19				24	1	PP
HUANCAYO	165.42	78.7	20	7	9						
LA PAZ	172.78	99.8	20	10	7	26	36	-22			

SEPTEMBER 19 19.H 1.M 21.S EPICENTRE 6.97 -77.44 DEPTH= 0.KM

A= 0.21593 B=-0.96894 C= 0.12056 D=-0.9761 E=-0.2175
G= 0.0262 H=-0.1177 K=-0.9927 HT= 6.9
SE= 3.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHINCHINA	2.69	137.6	0	45	0								
BALBOA HTS.	2.89	313.4	0	45	-3	1	32	8					
BOGOTA	4.08	124.7	1	7	2								
GALERAZAMBA	4.35	29.3	1	16	7	2	5	4					
CARACAS	10.96	70.6	1	38	-63	4	37	-9					
SANTIAGO MA.	12.64	301.7	3	3	-1								
SAN SALVADOR	13.35	300.9	3	12	-1								
SAN JUAN	15.81	43.1	3	35	-11	6	19	-23					
TRINIDAD	16.26	75.9	3	48	-3								
GRENADA	16.29	70.8	3	49	-3								
ST. VINCENT	17.06	67.6	3	59	-3								
COMITAN	17.08	304.0	4	7	5	7	13	2			8	51	
FORT FRANCE	17.75	62.9	4	4	-6	7	42	15					
MERIDA	18.23	320.9	4	12	-4	7	45	8					
BARBADOS	18.59	69.4	4	21	0								
HUANCAYO	19.01	173.7	4	14A	-12	8	2	7					
OAXACA	21.36	299.6	4	52	1	8	55	11					
VERA CRUZ	21.86	305.6	4	59	3	9	5	11			5	34	PPP
PUEBLA	23.48	302.7									5	37	PP
TACUBAYA	24.49	302.4	5	22K	0	9	42	2					
COLUMBIA	27.10	353.4	5	47	1	10	45	21					
GUADALAJARA	28.53	301.1	5	59	0						15	11	
WASHINGTON	31.79	0.5	6	29	1	11	44	6					
MORGANTOWN	32.59	356.4	6	37	2								
FAYETTEVILLE	32.79	334.5	6	34K	-3	11	57	3	6	55			
PITTSBURGH	33.40	356.5	6	43	1	12	8	4			14	12	
ST. LOUIS 1	33.58	341.7	6	42K	-2	12	6	0					
PENNSYLVANIA	33.69	359.4	6	48	3	12	9	1					
FLORISSANT	33.77	341.7	6	43	-3	12	7	-2					
PALISADES	34.04	4.8	6	49A	1	12	2	-11	6	52	7	58	PP
CLEVELAND	34.56	354.6	6	53A	1	12	23	2					
CHIHUAHUA	34.58	312.1	6	53	0	12	33	11			17	7	
WESTON	35.68	7.8	7	3K	1	12	41	2			8	24	PP

OTTAWA	38.31	2.0	7 24A	0						
BREBEUF	38.52	4.3	7 26K	0	13	24	2			
SHAWINIGAN	39.64	5.0	7 35	0						
TUCSON	39.98	313.5	7 39	1	13	39	-5		9	11 PP
SEVEN FALLS	40.40	7.0	7 42	1						
SANTA LUCIA	40.70	171.3	7 58	14	13	56	1			
GLEN CANYON	43.10	318.9	7 57	-7	15	7	37		10	15
RAPID CITY	43.29	332.8	8 4	-1	14	26	-7		9	47 PP
SALT LAKE C.	45.54	323.0	8 23	0	15	7	1			
PASADENA	46.27	311.5	8 28	-1	15	20	4	9 18	9	53 PCP
RUTH	46.58	319.3	8 32	0	15	25	4			
EUREKA	47.36	319.1	8 36	-2	15	10	-22		10	28 PP
BOZEMAN	48.27	328.7	8 45	0	15	48	4			
FRESNO	48.64	313.9	8 46	-2						
BUTTE	49.29	328.1	8 51	-2	15	42	-17			
VINEYARD	49.77	313.1	8 56	0						
RENO	49.94	317.1	8 56K	-2						
LICK	50.21	313.7	8 59K	-1					9	29
BRANNER	50.63	313.5	9 2K	-1						
CONCORD	50.79	314.2	9 4K	0						
BERKELEY	50.88	314.0	9 4K	-1	16	22	1		20	33
MINERAL	51.54	317.2	9 8A	-2						
HUNGRY HORSE	51.57	329.5	9 9	-1	16	31	1			
UKIAH	52.10	315.1	9 13	-1					10	4
SHASTA	52.23	317.2	9 12	-3						
ARCATA	53.46	316.7	9 23A	-1						
CORVALLIS	54.67	321.0	9 32K	-1						
ANGRA DO HO.	55.08	47.2			17	38	20			
VICTORIA	56.72	325.1	9 46	-2						
MBOUR	59.74	77.5	10 10A	1	18	24	5			
PORT STANLEY	60.81	166.2	10 15	-1						
RESOLUTE	68.41	355.1	11 4	-2	20	2	-5			
REYKJAVIK	69.22	22.8	11 12A	1						
COIMBRA	69.52	49.8	11 15	2						
SERRA PILAR	69.53	48.8	11 5A	-8				11 31	11	28 PCP
THULE	69.59	2.3	11 26	13						
MALAGA	72.27	53.8	11 29K	0					15	43 PPP
SCORESBY SD.	72.39	16.9							21	13 PS
ARGENTINE I.	72.69	174.2	11 30	-2						
TOLEDO	72.82	50.5	11 33	1	21	0	2		11	56
GRANADA	72.95	53.4	11 34K	1	21	27	27			
ALMERIA	73.83	53.8	11 37A	-1					14	19 PP
JERSEY	75.17	41.0	11 42	-4						
COLLEGE	75.44	335.4	11 51	3	21	25	-3			
EDINBURGH	75.45	34.0			21	38	10		22	0 SCS
ALICANTE	75.48	52.3	11 44	-4	21	26	-2		14	38 PP
DURHAM	76.18	35.4	11 54K	2	21	37	1	12 41	21	56 SKS
FOLINIERE	76.19	41.6	11 51	-1						
BAGNERES	76.21	47.5	11 52	0						
RELIZANE	76.22	55.0	11 54	2					14	39 PP
ABERDEEN	76.23	32.9	11 54A	2	22	3	27		14	49 PP
TORTOSA	76.35	49.8	11 53	0	21	40	2			
KEW	76.55	38.8	11 53	-1	21	39	-1		14	46 PP
PARIS	78.16	41.7	12 3	0	21	56	-1			
ALGIERS UNI.	78.25	54.0	11 54	-9					14	48 PP
CLERMONT-FD.	78.46	44.8	12 5	1	22	13	13			
NORD	79.02	7.5	12 6	-1	22	3	-3			
UCCLE	79.45	39.7	12 13	3	22	11	0			
DE BILT	80.00	38.4	12 8A	-5	22	22	5		23	1 PS
SETIF	80.15	54.5	12 15	1				12 30	12	44 *SP
BESANCON	80.46	43.3	12 17	2						
TAMANRASSET	80.87	68.1	12 17	0	22	38	12		15	22 PP
WITTEVEEN	80.93	37.7	12 19	1						
BENSBERG	81.23	39.6	12 19	0					12	50
ISOLA	81.24	46.4	12 19	0				12 32		
MUNSTER	81.51	38.5	12 20	-1						
MONACO	81.52	46.9	12 23	2						
BASLE	81.54	43.0	11 15A	-66						
STRASBOURG	81.65	42.0	12 21	0	22	38	4		15	27 PP
HEIDELBERG	82.26	41.1	12 25	0						
EBINGEN	82.46	42.4	12 27	1						
TUBINGEN	82.51	42.0	12 25	-1						
STUTTGART	82.64	41.8	12 26	-1	22	44	0		15	35 PP
CHIAVARI	82.86	46.2			22	51	5		28	29 SS
CHUR	82.89	43.7	12 29	1					13	15
RAVENSBURG	82.91	42.7	12 27	-1						
SKALSTUGAN	83.68	26.7	12 31	-1					15	51
SONNEBERG	83.82	40.1	12 34	1						

GOTEBORG	83.85	32.7	12	33	0					
JENA	84.02	39.5	12	32	-2	22	57	-1	16	5 PP
HALLE	84.22	38.9	12	37	2	23	4	4	12 47	23 25 *SS
COPENHAGEN	84.23	34.7	12	37	2	23	4	4		
PLAUEN	84.42	39.9	12	36	0					
COLLMBERG	84.89	39.1	12	38	0	23	9	3		12 42 PCP
TOLMEZZO	85.32	44.0	12	40	0					
ROME	85.34	48.5	12	40	0	23	11	0		28 53 SS
TRIESTE	85.90	44.7	12	55	12	23	17	1		23 34 S
PRAGUE	85.91	40.2	12	43	0	23	15	-1		16 4 PP
PRUHONICE	85.99	40.3	12	43A	-1	23	19	2		16 7 PP
LJUBLJANA	86.39	44.2	12	46A	0					13 10
KIRUNA	86.56	22.1	12	45	-1					
UPPSALA	86.57	30.2	12	46	0					
VIENNA-H.	87.38	41.9	12	51	1	23	32	2		
ZAGREB	87.43	44.3	12	48	-3	23	24	-7		
BRATISLAVA	87.88	41.9	12	53	0				13 18	13 3 PCP
MESSINA	88.08	51.9	12	47	-7	23	17	-20		24 37 PS
SODANKYLA	88.98	22.1	12	57	-1					21 28 PP
TARANTO	89.08	49.5	13	11	13					22 11
KRAKOW	89.42	39.7	13	4	4	23	53	4		16 29 PP
BYRD STATION	89.44	186.7	12	59	-1					13 38
WARSAW	89.70	37.5	13	3	2	23	31	-21		16 40 PP
KHEYS	89.84	6.6								15 43 PP
NURMIJARVI	89.89	28.9	13	2	0					
HELSINKI	90.13	29.2	13	3	0					
BELGRADE	90.70	44.8	13	10A	4					24 2 SKKS
APATITY	91.40	21.0	13	10	1	23	42	-25		16 22 PP
LWOW	92.06	39.4	13	16	4	24	19	6		
PULKOVO	92.82	28.8	13	13	-3	24	6	-14		
SOFIA	93.17	46.5	13	20	3					14 8
WINDHOEK	96.81	111.9	13	34	0					
SOUTH POLE	96.92	180.0	12	51	-44					30 17 PKKP
ISTANBUL KA.	97.72	47.0	13	40	2	24	44	28		
MOSCOW	97.96	31.2	13	40	1					
HERMANUS	99.39	123.7				24	35	11		32 12 SS
TIKSI	99.66	351.8	14	1	14					
SIMFEROPOL	100.03	42.1	13	57	8	25	32	65		
SCOTT BASE	102.09	191.2								18 6 PP
HELWAN	102.57	57.4	18	12	252					25 51 PP
CAPE HALLETT	103.31	196.9	17	45	222	24	39	-4		18 15 PP
MAGADAN	103.47	337.0								23 48
PETROPAVLOVK	103.80	328.9								18 7 PP
KSARA	105.09	52.4	18	34	777	25	18	27		19 19 PP
JERUSALEM	105.22	54.5	14	34	777					29 25
LWIRO	106.38	90.3	17	56	777					
PRETORIA	107.04	114.7	17	14	777					
BROKEN HILL	107.07	102.9	18	34	777					
SVERDLOVSK	107.77	22.7	18	45	777	25	6	3		
YAKUTSK	108.08	346.9	18	18	777					
TIFLIS	108.45	41.9								18 59 PP
MAKHACH-KALA	109.60	39.7	19	0	777					25 46 SKKS
GORIS	110.52	43.4								21 34 PPP
ROXBURGH	111.18	223.9								35 19 SS
ADDIS ABABA	114.47	76.8								35 49 SS
TERRE ADELIE	114.63	195.8								19 39
SHIRAZ	119.71	50.2	18	55	3					20 16 PP
MIRNY	120.15	175.6								20 14
WILKES	120.47	183.7								21 18 PP
VLADIVOSTOK	123.47	334.5								19 47
TUKUBASAN	124.45	323.3				26	7	3		21 4 PP
NAMANGAN	124.49	28.1	19	4	2					
ALMATA	124.86	22.6								20 53 PP
STALINABAD	124.88	32.1								19 45
ANDIJAN	124.99	27.8								20 54 PP
MATUSIRO	125.32	324.9	19	4	1					27 44 SKKS
CHANGCHUN	125.41	339.9								20 55
RIVERVIEW	127.84	232.2	18	55A	-13					39 3 SS
CANBERRA	128.97	229.7	19	6	-4					
QUETTA	129.68	40.9	19	12	1				19 28	21 23 PP
WARSAK DAM	129.77	33.8	19	15	3					
RABAUL	130.57	270.4	19	13	0					22 35 PKS
LAHORE	133.15	33.6	19	21	3					
CHARTERS TS.	135.71	248.4	19	24	1					24 12
PORT MORESBY	135.82	263.7	19	34	11					
DEHRA DUN	136.09	31.2	20	24	61					
NANKING	138.22	339.2								23 2
CHENGTU	142.56	357.9	19	34	-1					
CHATRA	143.24	23.3	19	33	-3					

TOCKLAI	145.64	12.4	19	46	6						
SHILLONG	146.02	17.5	18	42K	-59						
KUNMING	148.10	359.7	19	50	6					23	7
CANTON	148.32	340.9	19	53	8						
HONG KONG	148.77	338.9	19	25	-21						
CHITTAGONG	149.01	19.6	19	49	3						
MANILA	151.72	319.5	20	3	13						
MUNDARING	152.05	205.3	19	51	0						
LEMBANG	174.98	271.3	20	20A	8					25	50

SEPTEMBER 20 3.H 5.M 5.S EPICENTRE -37.10 177.18 DEPTH= 203.KM

A=-0.79860 B= 0.03940 C=-0.60057 D= 0.0493 E= 0.9988
G= 0.5998 H=-0.0296 K=-0.7996 HT= -0.6

DEPTH OF FOCUS= 0.027R

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	
KARAPIRO	1.54	236.9	0	36	1								
TUAI	1.70	180.7	0	37	1	1	1	-3					
CHATEAU	2.46	211.0	0	43	-1	1	17	-1					
TONGARIRO	2.47	211.2	0	43A	-1								
ONERAHI	2.62	299.5	0	48	2	1	23	2					
WELLINGTON	4.58	203.4	1	6	-4	1	57	-7					
COBB RIVER	5.27	219.6				2	13	-6					
KAIMATA	7.00	217.5	1	48	7	2	49	-11					
GEBBIES PASS	7.44	206.2	1	42	-5	2	58	-12					
BRISBANE	22.74	288.2	4	47	2						5	25	
CANBERRA	22.77	266.0	4	49	4								
FORT NELSON	23.50	246.4	4	50A	-2								
MOORLANDS	23.59	247.6	4	48K	-5								
AFIAMALU	25.11	26.0	5	6	-1								
MELBOURNE	25.51	258.5	5	12K	1								
ADELAIDE	31.03	262.2	6	1A	1						8	50	PCP
CHARTERS TS.	31.81	293.6	6	8	1						8	52	
TERRE ADELIE	36.07	203.1	6	45	2								
PORT MORESBY	38.69	307.8	7	8	3								
RABAUL	39.97	319.0	6	19	-57								
SCOTT BASE	41.10	183.3	7	28A	3						8	9	PP
BYRD STATION	49.15	168.1	8	30	1								
MUNDARING	49.74	256.9	8	32	-1								
SOUTH POLE	53.09	180.0	9	0	2				9	45	18	23	SCS
MAWSON	64.62	202.7	10	16	-1								
ARGENTINE I.	67.43	156.4	10	36	1								
PORT STANLEY	79.34	148.7	11	43	-1								
MATUSIRO	81.68	329.2	11	55	-2								
EUREKA	97.88	45.9	13	16	3								
QUETTA	122.67	285.2	18	32	1								
TIFLIS	143.28	292.3	19	8	-2								
APATITY	143.34	337.6	19	7K	-3								
SODANKYLA	145.41	340.4	19	13	-1								
KIRUNA	146.56	344.2	19	15	0								
MOSCOW	147.08	317.5	19	18	2								
JERUSALEM	148.32	271.8	19	23	5								
KSARA	148.45	275.8	19	22	4								
PULKOVO	148.96	327.6	19	21	2								
HELWAN	150.73	265.8	19	28	6								
NURMIJARVI	150.79	332.1	19	27	5								
HELSINKI	150.90	331.4	19	29	7								
SKALSTUGAN	151.94	345.7	19	30	6								
UPPSALA	153.72	336.5	19	48	22								
GOTEBORG	157.18	339.3	20	3	32								
COPENHAGEN	158.72	335.7									20	11	PKP2
COLLMBERG	161.88	326.6	20	24K	48								
PRUHONICE	162.04	321.3	20	27K	51						20	51	
JENA	162.77	327.9	20	28	51								
TAMANRASSET	164.02	209.1	19	40	2						20	33	PKP2
HEIDELBERG	165.12	329.4									20	39	PKP2
STUTTGART	165.37	326.7									20	40	PKP2
STRASBOURG	166.16	329.3	20	43	63								
BASLE	167.05	326.9	20	43K	62								

SEPTEMBER 20 4.H 5.M 55.S EPICENTRE 50.24 88.48 DEPTH= 0.KM

A= 0.01701 B= 0.64188 C= 0.76662 D= 0.9996 E=-0.0265
G= 0.0203 H= 0.7663 K=-0.6421 HT= -5.5

SE= 2.23

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SEMIPALATNSK	5.28	274.9	1 23	1				
IRKUTSK	10.14	72.4						5 16
PRZHEVALSK	10.42	225.7	2 34	0	4 31	-2		5 25
ALMATA	10.54	233.0	2 37	1				5 29
BAYANDAI	10.96	68.5	2 43	2				5 47
KYAKHTA	11.49	82.4						6 2
KABANSK	11.56	74.0						6 5
KABANSK	11.56	74.0	6 5	195				
NARYN	12.37	229.3	2 59	-2				6 30
ANDIJAN	14.73	236.0	3 37	5				7 44
TCHIMKENT	15.25	245.9	3 36	-3	6 25	-4		7 31
TASHKENT	16.06	243.6	3 46	-3				4 0 PP
KHOROG	17.61	230.0	4 11	2				
SVERDLOVSK	17.73	302.5	4 8	-2				7 31
LANCHOW	18.02	136.1	4 10A	-4				
WARSAK DAM	20.44	223.8	4 38	-4				
LHASA	20.67	173.7	4 44	0				
DEHRA DUN	21.39	205.4						8 49
LAHORE	21.45	214.8	4 57	5				
SIAN	21.89	129.1	4 55	-2				
CHENGTU	22.77	143.4	5 7	2				
CHATRA	23.40	183.0	5 8	-4				9 26
SHILLONG	24.77	172.7	5 25K	0				
KIZYL-ARVAT	25.22	256.5	5 32	3				
YAKUTSK	25.35	46.6	5 28	-2				10 8
CHANGCHUN	25.71	90.1	5 35	1				
QUETTA	25.76	227.0	5 32	-2	10 5	3		
KUNMING	27.40	151.0	5 55	6				
TIKSI	28.10	25.9	5 55	-1				
MOSCOW	30.52	300.2	6 16	-1				12 53 SS
TIFLIS	31.14	271.2	6 23	0				
APATITY	31.89	323.4	6 30	1				
PULKOVO	33.63	309.1	6 43	-2				13 53 SS
SODANKYLA	34.50	323.0	6 51	-1				
HELSINKI	36.19	310.7	7 7	0				
NURMIJARVI	36.26	311.3	7 6	-1				
KIRUNA	36.84	324.0	7 12	0				
UPPSALA	39.82	311.9	7 43	6				
LWOW	40.23	295.2	7 42	2				
WARSAW	40.90	299.8						16 57 SS
SKALSTUGAN	41.05	318.6	7 51	4				
GOTEBORG	43.35	310.5	8 5	-1				
BRATISLAVA	45.03	296.3	8 21	2				
VIENNA-H.	45.41	296.7	8 24	2				
PRUHONICE	45.56	299.7	8 24A	0				10 15 PP
COLLMBERG	45.75	302.0	8 24	-1				10 46 PPP
PLAUEN	46.62	301.4	8 31	-1				
JENA	46.71	302.1	8 33	0				10 25
LJUBLJANA	47.65	295.1	8 39	-1				
MUNSTER	48.29	305.1	8 46	1				
HEIDELBERG	49.08	301.7	8 51	0				
STUTTGART	49.12	300.7	8 52	0				
PARIS	52.78	304.1	9 19	0				9 48
FOLINIERE	54.37	305.5	9 29	-2				
COLLEGE	57.24	25.0	9 50	-2				
SETIF	59.11	290.7	10 6	1				
ALGIERS UNI.	60.13	292.6	10 10	-2				
RELIZANE	62.31	293.4	10 28	1				
TAMANRASSET	68.42	279.9	11 4	-2				
HUNGRY HORSE	79.90	15.0	12 11	-1				
BROKEN HILL	83.06	237.7	12 30	1				
FLAMING GRGE	87.86	13.5	12 53	0				
EUREKA	88.10	18.7	12 52	-2				
SOUTH POLE	140.05	180.0	19 16	-15				
BYRD STATION	148.52	170.9	19 47	1				

SEPTEMBER 21 16.H 8.M 19.S EPICENTRE 26.49 124.86 DEPTH= 230.KM

A=-0.51231 B= 0.73536 C= 0.44360 D= 0.8205 E= 0.5716
G=-0.2536 H= 0.3640 K=-0.8962 HT= 2.9

DEPTH OF FOCUS= 0.031R

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
ILAN	3.29	239.4	0	58	2	1	33	-5				
TAIPEI	3.35	245.0	0	56	0	1	40	0				
HWALIEN	3.86	230.2	0	59	-3	1	47	-3				
HSINCHU	3.90	245.3	1	5	2	1	53	2				
TAICHUNG	4.44	239.3	1	9	0							
YUSHAN	4.65	230.7	1	8	-4	1	56	-11				
ALISHAN	4.72	232.2	1	2	-11	1	55	-14				
TAINAN	5.47	231.6	1	23	1							
TAWU	5.48	222.1	1	23	1	2	19	-7				
ZO-SE	5.62	325.7	1	25A	1	2	25	-4				
HENGCHUN	5.84	220.9	1	29	2	2	31	-3				
NANKING	7.68	317.7	1	52A	2	3	19	3				
HONG KONG	10.60	249.1	2	26A	-2	4	32	9				
BAGUIO CITY	10.78	202.5	2	28	-2	4	26	-2				
CANTON	11.00	254.6	2	32	-1	4	33	0				
MANILA	12.28	197.5	2	53	4	5	0	-2				
MATUSIRO	15.15	45.3	3	23	-1	6	10	4			11	28 SCP
PEKING	15.33	334.0	3	28K	2	6	19	9				
SIAN	15.77	303.2	3	34	2	6	29	9				
TUKUBASAN	16.21	49.6	3	34K	-3	6	28	-1				
CHANGCHUN	17.31	1.1	3	50K	1	6	59	7	4	27		
VLADIVOSTOK	17.56	17.3	3	51	-1	7	3	6				
MIZUSAWA	18.56	43.2	5	13	71	7	23	6				
CHENGTU	18.78	287.6	4	5	1	7	26	5				
KUNMING	19.97	271.0	4	18K	2	7	49	6	4	57		
LANCHOW	20.32	303.1	4	21K	1	7	57	7				
GUAM	22.69	121.0	4	44	1	8	33	2	5	25		
SHILLONG	29.62	275.7	5	46K	0							
LHASA	29.95	283.9	5	50	1	10	32	3	6	37		
IRKUTSK	30.04	334.5	5	49K	-1							
CHITTAGONG	30.32	269.4	5	41	-12							
CHATRA	33.61	279.2	6	22	1						8	58
YAKUTSK	35.68	3.9	6	36	-2	11	52	-5				
LEMBANG	37.10	209.2	6	51K	1	12	21	2				
DEHRA DUN	41.13	286.6	7	27	3	13	24	5				
PORT MORESBY	41.73	145.8	8	29	61	13	30	2				
TIKSI	45.24	1.8	7	58A	2							
ANDIJAN	45.33	302.1	7	58	1							
NAMANGAN	45.87	302.4	8	3	2							
WARSAK DAM	46.23	292.7	8	5	1							
POONA	47.54	271.4	8	13	-1							
STALINABAD	48.14	299.1	8	20	1							
QUETTA	50.65	288.4	8	38K	0	15	36	2	9	16	10	33 PP
CHARTERS TS.	50.74	153.7	8	39	0	15	39	4				
MUNDARING	58.71	188.6	9	35	-1							
BRISBANE	59.92	151.2	9	45	1						10	30
ADELAIDE	62.51	167.2	10	1K	-1							
COLLEGE	65.23	28.0	10	18	-1				11	11		
CANBERRA	65.57	158.5	10	22K	1							
APATITY	66.36	335.2	10	25	-1	18	56	0	11	19	20	30 *SS
MELBOURNE	66.70	162.8	10	29	0						10	49
MOSCOW	67.03	322.1	10	30	-1	19	0	-4				
SOTCHI	68.91	309.1	10	42	0	19	28	2				
SODANKYLA	68.94	335.8	10	41	-1				11	34		
PULKOVO	69.72	327.5	10	46	-1							
NORD	70.39	354.4	10	49K	-2							
KIRUNA	71.00	337.1	10	54	-1				11	47		
MOORLANDS	71.61	162.8	10	54	-4							
HELSINKI	72.11	328.8	11	1	0							
FORT NELSON	72.11	162.8	10	53	-9							
NURMIJARVI	72.13	329.2	11	1	-1							
SIMFEROPOL	72.30	311.8	11	2	-1							
KSARA	74.99	300.5	11	18K	0	22	12	97	12	13	14	12 PP
UPPSALA	75.59	330.1	11	20	-2				12	14		
SKALSTUGAN	75.95	334.8	11	22	-2				12	16		
JERUSALEM	76.28	298.8	11	26	1							
LWOW	76.77	319.2	11	28K	0						12	22
GOTEBORG	79.22	329.8	11	40	-1				12	34		

KARAPIRO	79.77	141.6	11 45	1						
RACIBORZ	80.00	321.2	11 40	-5					11 56	PCP
COPENHAGEN	80.09	327.9	11 46K	0						
HELWAN	80.11	298.4	11 46K	0			12 41			
SOFIA	80.35	312.9	11 47	0					12 43	
SCORESBY SD.	80.46	349.2	11 48	0						
PRUHONICE	82.07	322.3	11 57K	1			12 52			
COLLMBERG	82.20	324.0	11 56K	-1					14 14	
ADDIS ABABA	82.56	276.4	12 2	3						
HALLE	82.64	324.5	12 0	1					12 54	
JENA	83.15	324.2	12 1	-1					12 57	
VICTORIA	83.63	38.4	12 5K	1						
LJUBLJANA	84.18	319.0	12 7K	0						
BENSBERG	85.40	325.8	12 13	0						
HEIDELBERG	85.53	324.0	12 14	0			13 9			
STUTTGART	85.61	323.2	12 15	1			13 10			
DE BILT	85.68	327.5	12 10	-4						
TUBINGEN	85.86	323.1	12 15	0						
CORVALLIS	85.87	41.7	12 18A	3						
RAVENSBURG	86.00	322.3	12 15	-1			13 11			
EBINGEN	86.12	322.9	12 17	0						
STRASBOURG	86.53	323.7	12 19	0						
SHASTA	88.59	44.5	12 31	3						
HUNGRY HORSE	88.76	34.8	12 32	3	22 31	-23	13 26			
MINERAL	89.28	44.5	12 28A	-4						
RENO	90.87	44.4	12 41A	2						
BOZEMAN	92.06	35.5	12 47	3						
EUREKA	93.27	42.6	12 52	2						
PASADENA	95.12	47.9	12 59	1						
SETIF	95.49	315.0	12 59	-1						
FLAMING GRGE	96.15	38.2	13 5	2			13 58			
LWIRO	96.43	270.7	13 5	1						
TAMANRASSET	103.57	304.1	17 43	247						
SOUTH POLE	116.33	180.0	18 17	1					19 26	PP
BYRD STATION	120.29	169.5	18 25	1						
HUANCAYO	156.18	56.8	19 33	6					20 1	PKP2
LA PAZ	164.36	53.1	19 41	5					20 34	PKP2

SEPTEMBER 22 5.H 38.M 11.S EPICENTRE -3.52 28.96 DEPTH= 0.KM

A= 0.87329 B= 0.48336 C=-0.06100 D= 0.4843 E=-0.8749
G=-0.0534 H=-0.0295 K=-0.9981 HT= 7.1

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
LWIRO	1.27	352.6	0 27A	2	0 44	1		
BROKEN HILL	10.87	182.5	2 34K	-6	4 30	-13		
ADDIS ABABA	15.84	38.0	3 45	-1				
LUANDA	16.51	250.6	3 53K	-1	7 1	3		4 13 PP
BULAWAYO	16.52	181.2	3 47K	-7	6 47	-11		
PRETORIA	22.11	181.9	5 30	32				
WINDHOEK	22.15	210.3	4 58A	-1				
LCO. MARQUES	22.59	171.5	5 3A	0	8 43	-24		12 2 PCS
TANANARIVE	23.76	131.5	5 17K	3	9 45	18		
KIMBERLEY	25.40	188.6	5 27A	-3				
PIETERMZBURG	25.99	177.1	5 30	-6				
LOME	29.31	289.0	6 10	4	11 5	6		
HELWAN	33.28	3.7	6 40	-1	12 7	6		
TAMANRASSET	34.75	319.9	6 55	1	12 29	5		11 53
JERUSALEM	35.61	9.2	7 0	-1	12 31	-6		
KSARA	37.71	9.4	7 19	0	13 29	19		8 55 PP
SHIRAZ	39.96	32.8	7 39	2	13 35	-9		
ATHENS	41.57	353.7	7 52K	1				
MESSINA	43.33	344.6	8 7	2	14 36	3		9 49 PP
TEHERAN	44.35	26.4	8 14	1				
ISTANBUL UN.	44.35	0.0	8 12K	-1	14 58	10		
ISTANBUL KA.	44.38	0.1	8 13	-1				8 46
TARANTO	45.07	347.4						13 19
SETIF	45.24	332.9	8 21	1	14 58	-3		10 8 PP
SOFIA	46.29	354.3	8 32	3	15 30	14		10 22 PP
KARACHI	46.49	50.6	8 37	7				
ALGIERS UNI.	46.80	331.2	8 33	0				10 22 PP
RELIZANE	47.26	328.2	8 32	-4	15 6	-24		10 16 PP
TIFLIS	47.28	16.1	8 37K	0	15 37	7		

ROME	47.63	343.3	8	42A	3	15	35	0			10	36 PP
BUCHAREST	47.79	357.2	8	41A	0	15	41	4			18	39 SCS
SOTCHI	47.88	10.5	8	41	0							
SIMFEROPOL	48.47	4.9	8	45	-1	15	47	0				
BOMBAY	48.56	61.0	8	51	4	15	51	3				
BELGRADE	48.72	351.9	8	49K	1						15	56 [illegible]
MBOUR	48.88	292.4	8	52A	3	16	0	7				
MAKHACH-KALA	49.22	17.9	8	48	-4	16	0	3				
POONA	49.33	62.0	8	52	0							
QUETTA	49.41	44.6	8	54K	1	15	52	-8			10	44 PP
TIMISOARA	49.54	352.9	8	42	-12							
ALMERIA	49.70	326.7	8	57	2	16	8	4			10	57 PP
ALICANTE	49.78	329.6	8	56	0	16	6	1			10	56 PP
PRATO	49.85	343.1	8	36	-20	16	23	17				
KODAIKANAL	50.20	73.7									12	43
GRANADA	50.57	326.2	9	6K	4	16	7	-9			19	57 SS
MALAGA	50.69	325.2	9	4A	1	16	16	-2				
TRIESTE	50.79	346.3	9	6	2	16	22	3			11	2 PP
MONACO	50.87	339.9	9	5	1							
LJUBLJANA	50.99	347.1	9	5	0						11	3 PP
PADOVA	51.04	344.6	9	8	2						11	34
TORTOSA	51.23	332.4	9	6	-1	16	35	10				
ISOLA	51.40	339.9	9	11	3							
COLOMBO	51.86	78.5									16	40
BRATISLAVA	52.51	350.0	9	14A	-3							
VIENNA-H.	52.72	349.4	9	18K	0						11	18 PP
TOLEDO	52.76	328.2	9	19	0	16	51	5			11	19 PP
CHUR	53.01	343.4	9	17K	-3							
HYDERABAD	53.07	65.2	9	20K	-1	16	49	-1			20	31 SS
BAGNERES	53.17	333.8	9	22	0							
LWOW	53.30	356.0	9	24	1	16	55	1				
MADRAS	53.43	71.1	9	22	-2	16	56	1			12	37 PPP
RAVENSBURG	53.83	343.9	9	24	-2							
NEUCHATEL	53.92	341.5	9	27	0							
KRAKOW	53.92	352.8	9	25	-2	17	2	0				
CLERMONT-FD.	54.18	337.9	9	30A	1							
RACIBORZ	54.19	351.5	9	31	2	17	12	6				
BASLE	54.20	342.3	9	26	-3	16	58	-8				
EBINGEN	54.38	343.6	9	29	-1							
TUBINGEN	54.67	343.9	9	31	-2							
PRUHONICE	54.72	348.6	9	31K	-2	17	14	1			11	27 PP
WARSAK DAM	54.79	43.5	9	33	-1							
LISBON	54.81	323.8	9	37K	3							
STUTTGART	54.83	344.2	9	31	-3	17	16	2			11	36 PP
PRAGUE	54.83	348.6	9	34	0	17	17	3			11	34 PP
STRASBOURG	55.08	343.0	9	36A	0	17	18	0			11	39 PP
CHEB	55.27	347.1	9	33	-4	17	21	1				
COIMBRA	55.38	325.6	9	39	1							
LAHORE	55.46	47.5	9	42	4							
HEIDELBERG	55.55	344.1	9	38	-1							
PLAUEN	55.71	347.1	9	37	-3							
STALINABAD	55.72	37.4	9	40	0	17	32	6				
SONNEBERG	55.82	346.3	9	41	0							
WARSAW	55.95	354.1				17	30	1			19	35 SCS
SERRA PILAR	56.10	326.3	9	42K	-1	17	27	-4	9	53	11	51 PP
JENA	56.25	346.9	9	42	-2	17	34	1			11	51 PP
COLLMBERG	56.29	348.0	9	42K	-2						11	53 PP
HALLE	56.70	347.4	9	47	0						11	52 PP
PARIS	56.98	339.4	9	49	0	17	44	1				
DOURBES	57.39	341.6	9	53	1	17	48	0				
BENSBERG	57.39	343.8	9	52A	0						10	42
DEHRA DUN	57.68	50.6				16	35	-77			20	22
FOLINIERE	58.04	337.5	9	56	-1							
UCCLE	58.08	341.9	9	57	0	17	56	-1				
NAMANGAN	58.97	36.8	10	3	0	18	13	4				
DE BILT	58.97	343.1				18	13	4				
WITTEVEEN	59.20	344.5	10	5	0							
ANDIJAN	59.25	37.4	10	4	-1							
MOSCOW	59.48	5.7	10	5K	-2	18	16	0				
KEW	60.20	339.4	10	11K	-1	18	27	2			18	39
COPENHAGEN	60.54	349.3	10	16	2	18	32	3				
GOTEBORG	62.54	349.8	10	26	-2							
PULKOVO	63.11	0.8	10	31	0	19	1	-1				
DURHAM	63.36	340.8	10	34K	1	19	9	4			13	2 PP
CHATRA	63.73	57.9	10	33	-2	19	2	-8				
UPPSALA	63.81	353.7	10	36	0						11	5
NURMIJARVI	63.93	357.6	10	34	-3							
SVERDLOVSK	65.41	18.5	10	44	-2	19	31	1				

ABERDEEN	65.51	342.0				19	37	6			20	54	
CHITTAGONG	66.52	63.9	10	54K	1	19	44	0	11	5	13	24	PP
SHILLONG	67.39	60.6	10	58K	-1								
LHASA	67.86	56.1	11	1K	-1	20	1	1			13	33	PP
MAWSON	68.05	166.7	11	3	0								
SKALSTUGAN	68.09	352.0	11	2	-1								
MEDAN	70.03	84.9	11	14	-1								
SODANKYLA	70.75	359.0	11	17	-3								
APATITY	70.98	1.8	11	22	1	20	40	3					
KIRUNA	71.45	356.6	11	24	0								
MIRNY	76.66	158.3	11	54	0								
KUNMING	76.88	63.3	11	55K	0	21	47	4			14	49	PP
CHENGTU	78.99	58.0	12	7	0	22	7	1					
LANCHOW	79.90	52.6	12	12K	0								
WILKES	83.40	156.3	12	32A	2	22	56	5			23	10	SKS
SIAN	83.68	55.1	12	32	0								
IRKUTSK	83.86	36.7	12	31	-1								
CANTON	86.20	66.7	12	45K	1	23	24	5					
SOUTH POLE	86.50	180.0	12	46	0						16	2	PP
HONG KONG	86.89	67.6	12	50A	2	23	23	-2					
WUHAN	87.98	59.4	12	54	1								
PEKING	90.10	50.1	13	2	-1								
NANKING	91.69	58.2	13	11	1						23	45	
ZO-SE	93.70	59.2	13	19	0								
BYRD STATION	95.07	185.3	13	27	1						17	22	PP
SCOTT BASE	95.57	171.8	13	25	-3						17	17	PP
SAN JUAN	95.92	288.0	13	30	0								
CARACAS	96.42	280.1	13	22	-10						25	57	
CHANGCHUN	97.00	46.4	13	33	-1								
CAPE HALLETT	100.37	168.8									32	49	SS
PALISADES	102.02	311.0				24	36	0			27	16	PS
RIVERVIEW	114.13	129.5									27	25	
FLORISSANT	114.84	311.4									29	32	PS
COLLEGE	118.73	358.4	18	50	0						20	8	PP
HUNGRY HORSE	125.25	330.5	19	4	1						20	54	PP
FLAMING GRGE	127.23	320.8	19	8	2								
GLEN CANYON	130.83	317.7	19	17	4								
EUREKA	132.14	323.2	19	18	2						21	39	PP
TUCSON TELE.	132.59	311.9	19	20	3								
TUCSON	132.71	311.9	19	21	4								
RENO	134.32	325.9	19	26K	6								
MINERAL	134.72	328.1	19	22	1								

SEPTEMBER 22 9.H 5.M 33.S EPICENTRE -3.58 28.90 DEPTH= 0.KM

A= 0.87376 B= 0.48240 C=-0.06200 D= 0.4833 E=-0.8754
G=-0.0543 H=-0.0300 K=-0.9981 HT= 7.1

SE= 2.82

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LWIRO	1.32	355.5	0	26	0								
BROKEN HILL	10.81	182.2	2	33A	-6								
ADDIS ABABA	15.93	38.1	3	45	-2								
LUANDA	16.43	250.7	3	53K	0	7	1	5			4	15	PP
BULAWAYO	16.46	181.0	3	48A	-6	6	48	-9					
PRETORIA	22.06	181.7	4	56	-2								
WINDHOEK	22.07	210.2	4	59	1								
LCO. MARQUES	22.54	171.3	5	3	0	9	15	9			5	31	PP
TANANARIVE	23.77	131.3	5	17A	2	9	40	12			6	3	PP
KIMBERLEY	25.34	188.5	5	27	-3								
PIETERMZBURG	25.94	177.0	5	36	0								
LOME	29.27	289.1	6	10	4	11	2	3					
GRAHAMSTOWN	29.67	183.9	6	9	0								
HERMANUS	31.98	195.2				11	42	1			13	37	SS
HELWAN	33.34	3.8	6	39K	-3	12	0	-2					
TAMANRASSET	34.75	320.0	6	55	1	12	20	-4			9	16	PCP
KSARA	37.78	9.5	7	18K	-1	13	28	17			8	55	PP
SHIRAZ	40.05	32.8	7	38	0	13	41	-4			16	7	SS
ATHENS	41.62	353.8	7	51A	0	14	12	4					
REGGIO CALA.	43.25	344.7	8	6	1								
ISTANBUL UN.	44.40	0.1	8	14	0								
TEHERAN	44.42	26.4	8	15K	1	14	54	5					
ISTANBUL KA.	44.43	0.2	8	14	0	14	49	-1					
TARANTO	45.12	347.4				15	0	1			8	57	
SETIF	45.26	333.0	8	21A	0						10	2	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.

GORIS	45.77	18.9	8	26	1	15	21	12				
SOFIA	46.34	354.3	8	30	1	15	4	-13	8	53	11	5 PPP
KARACHI	46.57	50.6	8	34	3							
ALGIERS UNI.	46.82	331.3	8	34	1	15	24	0			10	26 PP
RELIZANE	47.28	328.3	8	33	-4	15	11	-19			10	31
TIFLIS	47.35	16.2	8	37	0	15	31	0			10	34 PP
ROME	47.67	343.4	8	40K	0	15	42	6			10	34 PP
BUCHAREST	47.85	357.3	8	41K	0	16	7	29			10	37 PP
SIMFEROPOL	48.54	4.9	8	46K	-1	15	47	-1			10	41 PP
BOMBAY	48.65	61.0	8	47	0	15	52	2			10	46
BELGRADE	48.77	352.0	8	50A	2						10	49 PP
MBOUR	48.84	292.5	8	54A	5	15	57	5				
POONA	49.41	62.0	8	52	-1	16	4	4			16	13 PPS
QUETTA	49.49	44.6	8	53	-1				9	3	9	9 *SP
ASHKABAD	49.52	30.7	8	54	0						10	54 PP
TIMISOARA	49.59	352.9	8	57	2	16	3	0				
ALMERIA	49.72	326.8	8	57	1	16	7	2			10	58 PP
ALICANTE	49.80	329.7	8	59	3	16	11	5			10	57 PP
PRATO	49.88	343.2	8	59	2	16	54	47				
KODAIKANAL	50.27	73.7	9	10K	10	16	46	34				
BOLOGNA	50.39	343.7	9	0	-1						19	30 SS
ZAGREB	50.51	348.3	9	1	-1	18	24	128				
GRANADA	50.58	326.3	9	5K	3	16	23	6			11	2 PP
MALAGA	50.70	325.2	9	2K	-1	16	26	8			11	12 PP
CHIAVARI	50.82	341.9	8	17	-47	16	17	-3			14	15
TRIESTE	50.83	346.3	9	5	1	16	20	0			11	7 PP
MONACO	50.90	340.0	9	4	-1						18	21 PP
LJUBLJANA	51.04	347.1	9	6K	0						11	10 PP
PADOVA	51.08	344.6	9	7	1	16	21	-2			11	8 PP
TORTOSA	51.25	332.4	9	10	3	16	32	6				
PAVIA	51.64	342.3	9	15	5						18	35
TOLMEZZO	51.71	346.0	9	11	0	16	5	-27			11	13 PP
COLOMBO	51.93	78.4	9	13	0	16	34	-1				
HURBANOVO	52.09	350.9	9	4	-10	16	52	15			10	40 PP
BRATISLAVA	52.56	350.1	9	9A	-8							
VIENNA-H.	52.77	349.5	9	18	-1	16	49	2			11	22 PP
TOLEDO	52.78	328.3	9	20	1	16	50	3			11	30 PP
CHUR	53.05	343.4	9	20K	-1							
SKALNATE PL.	53.08	352.9	9	22	1							
HYDERABAD	53.15	65.2	9	21A	-1	16	51	-1			18	51
BAGNERES	53.20	333.9	9	23	1						11	44
LWOW	53.35	356.1	9	22	-1	17	5	11			12	21 PPP
MADRAS	53.51	71.1	8	42	-42	17	3	6			11	26 PP
RAVENSBURG	53.87	344.0	9	25	-2							
KRAKOW	53.97	352.9	9	27	-1	17	2	-1				
CLERMONT-FD.	54.21	338.0	9	30K	1	17	7	1				
BASLE	54.23	342.3	9	26	-4						17	3
RACIBORZ	54.24	351.5	9	30A	0	16	58	-9			18	50
CHORZOW	54.33	352.2				17	9	1				
EBINGEN	54.41	343.7	9	31K	0							
TUBINGEN	54.71	344.0	9	33	0							
PRUHONICE	54.77	348.7	9	33K	-1	17	15	1			11	35 PP
LISBON	54.82	323.8	9	35K	1						11	57 PP
STUTTGART	54.87	344.2	9	34	0	16	55	-20			11	36 PP
WARSAK DAM	54.87	43.5	9	34	0							
PRAGUE	54.88	348.6	9	34	0	17	19	4			11	48 PP
STRASBOURG	55.12	343.0	9	36K	0	17	18	0			11	38 PP
COIMBRA	55.39	325.6	9	40	2	17	25	3			11	47 PP
LAHORE	55.55	47.5	9	38	-1							
HEIDELBERG	55.59	344.1	9	39	-1							
PLAUEN	55.75	347.1	9	38	-3							
DUZHANBE	55.81	37.4	9	39	-2	17	23	-5				
SONNEBERG	55.87	346.4	9	40	-2							
WARSAW	56.00	354.2	9	40	-3	17	39	9			10	49 PCP
SERRA PILAR	56.12	326.4	9	41A	-2	17	26	-6	9	52	11	48 PP
JENA	56.29	346.9	9	44	-1	17	32	-2	9	52	11	51 PP
COLLMBERG	56.33	348.1	9	44K	-1	17	38	3			11	55 PP
HALLE	56.74	347.4	9	47	-1	17	43	3			12	0 PP
PARIS	57.02	339.5	10	0	10	17	47	3				
DOURBES	57.43	341.7	9	51	-2	17	42	-7				
BENSBERG	57.43	343.9	9	53K	0	17	57	8				
DEHRA DUN	57.77	50.6	8	56	-59	16	12	-101			19	51 SS
TASHKENT	57.86	35.2	9	55	-1						13	25 PPP
FOLINIERE	58.07	337.5	9	56	-1							
UCCLE	58.12	341.9	9	57	-1	17	57	-1				
DE BILT	59.01	343.2	10	3	-1							
JERSEY	59.03	336.8	10	3	-1	17	59	-11				
WITTEVEEN	59.24	344.5	10	6	1							

MOSCOW	59.54	5.7	10	7	0	18	16	-1			12	16 PP
COPENHAGEN	60.59	349.4	10	15K	0	18	34	4				
BOKARO	61.69	60.6	10	26K	4	18	54	10			23	10 SS
GOTEBORG	62.59	349.9	10	28	0							
PULKOVO	63.17	0.8	10	31	-1						12	52 PP
DURHAM	63.39	340.8	10	34	1	19	12	6			12	55 PP
CALCUTTA	63.56	62.8	10	30	-5	19	18	10			14	25 PPP
HELSINKI	63.63	357.8	10	36	1						12	57 PP
CHATRA	63.82	57.9	10	34	-2	19	8	-3				
UPPSALA	63.86	353.7	10	45	9						11	41
NURMIJARVI	63.98	357.7	10	35	-2	18	56	-17			12	56 PP
EDINBURGH	64.86	340.7									19	22 PS
PORT BLAIR	65.23	75.5				19	42	14				
SVERDLOVSK	65.49	18.5	10	45	-2	19	30	-1				
ABERDEEN	65.54	342.0				19	34	2			20	14 PS
BERGEN	66.41	347.5	10	53	0							
CHITTAGONG	66.60	63.9	10	54K	0	19	44	-1	11	3	13	22 PP
ANGRA DO HO.	66.61	314.9				20	3	18				
SHILLONG	67.47	60.6	10	58	-2	20	4	8				
LHASA	67.94	56.1	11	2K	-1						13	30 PP
MAWSON	68.01	166.6	11	3	0	20	9	7	11	14	12	30 PP
SKALSTUGAN	68.14	352.1	11	2	-2						13	22
SEMIPALATNSK	69.43	32.3	11	11	-1	20	17	-2			13	45 PP
MEDAN	70.09	84.9	11	16K	0	20	31	4				
TOCKLAI	70.30	60.1	11	16	-1							
SODANKYLA	70.81	359.1	11	19	-1						13	41 PP
APATITY	71.04	1.8	11	21	-1	20	37	-1			11	26 PCP
KIRUNA	71.50	356.6	11	24	0							
MIRNY	76.63	158.3	11	54	0							
KUNMING	76.96	63.3	11	56K	0	21	48	4				
DJAKARTA	77.63	95.5	11	58	-2	21	49	-2				
LEMBANG	78.39	96.2	12	14	10	21	24	-35				
CHENGTU	79.07	58.0	12	8K	0	22	9	2				
LANCHOW	79.98	52.6	12	14K	1							
WILKES	83.37	156.3	12	32	2	21	59	-52				
SIAN	83.77	55.2	12	33	1							
IRKUTSK	83.94	36.7	12	33K	0						21	53
KHEYS	85.31	4.6	12	47	7							
PERTH	85.52	121.6	12	51	10						32	49
MUNDARING	85.84	121.7	12	46	3							
CANTON	86.28	66.7	12	47K	2	23	25	5			16	10 PP
SOUTH POLE	86.45	180.0	12	45	-1						15	12
HONG KONG	86.97	67.6	12	49K	1	23	26	0			15	12 PP
NORD	87.63	354.0	12	50	-1						22	11
WUHAN	88.06	59.4	12	55	2							
PEKING	90.18	50.1	13	8K	5							
NANKING	91.77	58.2				23	50	-20			13	11 *SP
BAGUIO CITY	92.61	73.8	12	46	-29	22	42	-95				
ZO-SE	93.78	59.2	13	22	2							
BYRD STATION	95.01	185.3	13	29	3						15	54
TERRE ADELIE	95.41	158.4	13	26	-1	24	58	55				
SCOTT BASE	95.52	171.8									26	40 PS
LA PAZ	95.72	253.1	13	35	6	24	16	11				
SAN JUAN	95.88	288.0	13	34	4							
CARACAS	96.37	280.1				24	10	2				
TIKSI	96.52	18.3	13	30	-3	24	58	49			17	3 PP
CHANGCHUN	97.09	46.4	13	35	0							
YAKUTSK	98.22	27.9	13	44	4						17	33 PP
CAPE HALLETT	100.32	168.8	13	57	7						26	57 PS
VLADIVOSTOK	101.92	46.8									18	7 PP
PALISADES	102.01	311.0	14	22	25	24	42	5			17	34 PP
BOGOTA	103.20	273.9									28	7 PPS
MATUSIRO	107.61	52.9	14	20	777						18	38 PP
COLUMBIA	108.49	304.6	14	8	777							
RIVERVIEW	114.14	129.5									19	43 PP
ST. LOUIS 1	114.78	311.1									19	50 PP
FLORISSANT	114.84	311.3									25	38 SKKS
FAYETTEVILLE	118.54	309.4	18	52A	2	28	12	147			20	14 PP
COLLEGE	118.79	358.4	18	52	2						20	7 PP
BANFF	124.01	333.8	19	3	3							
HUNGRY HORSE	125.27	330.5	19	6	3						20	53 PP
BOZEMAN	125.45	326.4	19	8	5							
BUTTE	126.05	327.5	19	53	49						28	27
FLAMING GRGE	127.23	320.7	18	59	-8						21	6 PP
VICTORIA	129.34	336.5	19	14	3							
CHIHUAHUA	130.52	305.1									31	27 SKSP
GLEN CANYON	130.83	317.7	19	16	3						21	30 PP
RUTH	131.70	322.2									22	49

EUREKA	132.15	323.1	19 19	3			21 41	PP
TUCSON TELE.	132.58	311.9	19 21	4				
TUCSON	132.71	311.8	19 22	5			21 44	PP
RENO	134.34	325.8	19 24	4				
MINERAL	134.74	328.0	19 24A	3			21 46	
SHASTA	134.90	329.0	19 30	9				
FRESNO	136.20	322.9	19 27	4				
BERKELEY	136.87	326.1					23 6	
LICK	136.89	325.0	19 29	4			21 52	
AFIAMALU	153.11	130.7	19 5	-47			20 7	PKP2

SEPTEMBER 22 9.H 14.M 55.S EPICENTRE -3.19 28.98 DEPTH= 0.KM

A= 0.87344 B= 0.48379 C=-0.05521 D= 0.4845 E=-0.8748
G=-0.0483 H=-0.0268 K=-0.9985 HT= 7.1

SE= 3.06

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
ADDIS ABABA	15.57	38.7	3 59	17					
TANANARIVE	23.97	132.1	5 16	0	9 36	5		8 53	PCP
TAMANRASSET	34.51	319.6	6 54	3					
JERUSALEM	35.27	9.2	7 1	3				9 42	
KSARA	37.38	9.5	7 19	3				8 49	PP
SHIRAZ	39.68	33.0	7 38	3	13 33	-6			
ATHENS	41.24	353.7	7 49K	1					
ISTANBUL UN.	44.01	0.0	8 7A	-3					
ISTANBUL KA.	44.04	0.1	8 7	-4					
SETIF	44.95	332.7	8 12	-6	14 49	-8		9 57	PP
SOFIA	45.96	354.2	8 28	2	15 1	-10			
ALGIERS UNI.	46.52	331.1	8 32	2	15 18	-1		15 30	PS
TIFLIS	46.95	16.2	8 36	2				10 7	PCP
RELIZANE	46.99	328.0	8 30	-4	15 8	-18		10 19	PP
ROME	47.31	343.2	8 41	4					
SIMFEROPOL	48.14	4.9	8 44K	1				10 39	PP
BELGRADE	48.40	351.9	8 46A	1				10 39	
MBOUR	48.77	292.2	8 52	4					
QUETTA	49.16	44.8	8 52	1			9 4	10 43	PP
TIMISOARA	49.21	352.8	8 56	5					
ALMERIA	49.44	326.6	8 56K	3	16 4	4		10 54	PP
ALICANTE	49.50	329.4	9 0	6	16 10	9		10 56	PP
GRANADA	50.30	326.0	9 4A	4	16 24	12		11 1	PP
MALAGA	50.43	325.0	9 0A	-1	16 14	0		11 4	PP
TRIESTE	50.47	346.2	9 3	2	16 25	10		11 0	PP
LJUBLJANA	50.67	347.0	9 2	-1				11 2	PP
PADOVA	50.73	344.5	9 5	2	16 18	0			
TORTOSA	50.94	332.2	9 7	2	16 33	12			
TOLMEZZO	51.35	345.9	9 8	0			9 16	11 6	PP
BRATISLAVA	52.19	350.0	9 15	1	19 5	147			
VIENNA-H.	52.40	349.4	9 13	-3				11 23	PP
TOLEDO	52.49	328.1	9 18	2	16 54	12			
CHUR	52.70	343.3	9 19K	1				16 47	
BAGNERES	52.88	333.7	9 21	2				17 7	
LWOW	52.97	356.0	9 20	0				18 1	
RAVENSBURG	53.52	343.9	9 23	-1					
KRAKOW	53.60	352.8	9 20	-5					
CLERMONT-FD.	53.88	337.8	9 30K	3					
BASLE	53.89	342.2	9 21	-6					
EBINGEN	54.06	343.6	9 24	-4					
TUBINGEN	54.35	343.8	9 28	-2					
PRUHONICE	54.40	348.6	9 31K	0				10 37	PCP
STUTTGART	54.51	344.1	9 29	-2	17 15	5		11 40	PP
LISBON	54.55	323.6	9 34K	2					
STRASBOURG	54.77	342.9	9 34K	1	17 15	2		11 36	PP
CHEB	54.95	347.0	9 35	0	17 41	25		11 35	PP
HEIDELBERG	55.24	344.0	9 33	-4					
PLAUEN	55.39	347.0	9 36	-2					
SONNEBERG	55.51	346.3	9 38	-1	17 33	10			
SERRA PILAR	55.84	326.2	9 36K	-5				11 42	PP
JENA	55.93	346.8	9 38	-4	17 29	0		11 48	PP
COLLMBERG	55.97	348.0	9 42K	0	17 43	14		15 18	
HALLE	56.38	347.3	9 45	0	17 43	8		11 48	PP
PARIS	56.68	339.3	9 44	-3				11 53	PP
BENSBERG	57.08	343.7	9 51K	1	17 59	15			
DOURBES	57.08	341.5	9 51	1					

KERGUELEN I.	57.73	149.4	10	1	7	16	49	-64			
FOLINIERE	57.74	337.4	9	51	-4	17	39	-14			
UCCLE	57.77	341.8	9	56	1					12	45
DE BILT	58.66	343.1	10	5K	4	18	5	0		13	45 PP
JERSEY	58.70	336.6	10	16	15	18	9	4			
WITTEVEEN	58.89	344.4	10	5K	2						
MOSCOW	59.14	5.7	10	5	1	18	6	-5		12	20 PP
KEW	59.90	339.3	10	10K	0						
COPENHAGEN	60.22	349.3	10	13K	1						
GOTEBORG	62.22	349.8	10	26	1						
PULKOVO	62.78	0.8	10	29	0	19	0	3		12	42 PP
DURHAM	63.05	340.7	10	32A	1	19	7	6			
HELSINKI	63.25	357.8	10	30	-2						
UPPSALA	63.48	353.6	10	34	0						
NURMIJARVI	63.60	357.6	10	29	-5	19	8	0			
BERGEN	66.04	347.4	10	46	-4						
CHITTAGONG	66.36	64.0	10	49	-3						
ANGRA DO HO.	66.39	314.7				19	58	16			
SKALSTUGAN	67.76	352.0	10	56	-5						
MAWSON	68.37	166.7	11	2	-3	20	6	0	11	12	
SEMIPALATNSK	69.06	32.3	11	9	0					13	43 PP
SODANKYLA	70.42	359.0	11	14	-4						
APATITY	70.65	1.8	11	19K	0	20	35	2		11	25 PCP
KIRUNA	71.12	356.6	11	22	0						
KUNMING	76.71	63.4	11	55K	1	21	47	6			
CHENGTU	78.80	58.1	12	6K	0	22	7	4			
LANCHOW	79.68	52.7	12	11K	0						
PERTH	85.66	121.7	12	48	7					24	30
CANTON	86.05	66.7	12	46K	3	23	24	7			
HONG KONG	86.75	67.6	12	42K	-5	23	8	-16			
SOUTH POLE	86.83	180.0	12	37	-10					15	58 PP
WUHAN	87.79	59.4	12	52	0						
PEKING	89.87	50.1	13	3K	1						
TRINIDAD	90.96	280.5	13	11	4						
NANKING	91.50	58.1	13	9	0						
ZO-SE	93.51	59.2	13	19	1						
BYRD STATION	95.40	185.3	13	24	-3					17	21 PP
SAN JUAN	95.83	288.1	13	24	-5						
LA PAZ	95.91	253.1	13	33	4	24	50	44			
SANTA LUCIA	96.27	236.0	13	39	8						
CARACAS	96.38	280.2								26	5
CHANGCHUN	96.76	46.4	13	34	1						
CAPE HALLETT	100.69	168.8	13	55	4					27	5 PS
PALISADES	101.81	311.1	14	0	4	24	44	9		18	16 PP
TUKUBASAN	108.87	52.9	9	38	777						
CANBERRA	112.13	130.1								28	47
CHARTERS TS.	114.28	113.6	18	37	-4					30	27
PORT MORESBY	117.14	102.2								19	58 PP
COLLEGE	118.40	358.4	18	50	1					20	4 PP
ROXBURGH	120.10	148.7								30	13 SKKS
RAPID CITY	121.43	321.3	18	57	2						
BANFF	123.70	333.9	19	2	3						
HUNGRY HORSE	124.97	330.7	19	0	-2					20	54 PP
BOZEMAN	125.17	326.6	18	57	-5						
FLAMING GRGE	126.98	320.9	19	5	-1					21	11 PP
VICTORIA	129.02	336.6	19	12	2						
GLEN CANYON	130.60	317.9	19	16	3					21	25 PP
RUTH	131.44	322.4								12	19
EUREKA	131.88	323.3	19	15	0					21	40 PP
TUCSON TELE.	132.38	312.2	19	21	5						
TUCSON	132.50	312.1	19	19	3					21	40 PP
RENO	134.06	326.1	19	23	4						
MINERAL	134.45	328.3	19	23	3						
SHASTA	134.60	329.2	19	24	4						
FRESNO	135.94	323.2	19	26	3						
BERKELEY	136.59	326.4	19	15	-9					23	5
PASADENA	136.59	319.1	22	3	159	29	17	164		34	29 PS
LICK	136.62	325.3	19	18	-6						
SUVA	143.18	126.2								29	15 SKKS
AFIAMALU	153.31	130.0	19	6	-46					23	46 PP

SEPTEMBER 22 22.H 46.M 58.S EPICENTRE 51.50-168.75 DEPTH= 0.KM

A=-0.61302 B=-0.12196 C= 0.78060 D=-0.1951 E= 0.9808
G=-0.7656 H=-0.1523 K=-0.6250 HT= -6.0

SE= 1.86

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	17.23	31.0	4	1	-2								
CORVALLIS	30.75	84.9	6	21	2								
SHASTA	33.38	90.4	6	45	3								
MINERAL	34.08	90.3	6	49K	1								
HUNGRY HORSE	34.68	73.2	6	54	1						9	27	PCP
RENO	35.67	90.0	7	8	6								
LICK	35.85	94.5	7	4K	1								
FRESNO	37.36	93.7	7	18	2								
BOZEMAN	37.74	75.5	7	21	2								
EUREKA	38.10	87.2	7	23	1								
MATUSIRO	40.06	269.3	7	38	0	13	55	10			9	43	PCP
PASADENA	40.06	95.5	7	39	1								
FLAMING GRGE	41.34	80.7	7	49	0								
GLEN CANYON	42.36	87.0	7	58	1								
THULE	42.97	19.9	8	3	1								
RAPID CITY	43.31	73.0	7	7	-58								
TUCSON TELE.	45.91	91.4	6	38	-108						8	28	PCP
NORD	46.30	5.5	8	28	-1								
GUAM	53.20	241.8	9	18	-4								
FAYETTEVILLE	53.66	75.8	9	24K	-1								
ST. LOUIS 1	54.35	70.8	9	28	-2								
OTTAWA	57.95	56.1	9	55	-1								
SHAWINIGAN	58.67	53.5	10	0A	-1								
BREBEUF	58.96	54.8	10	1A	-2								
APATITY	60.10	350.4	10	10	-1								
KIRUNA	60.79	356.0	10	15	-1								
SODANKYLA	60.89	353.3	10	16	0								
WESTON	62.33	56.1	10	25A	-1								
SKALSTUGAN	65.26	359.5	10	45	0								
NURMIJARVI	67.82	352.9	11	1	-1	19	58	-2					
PULKOVO	68.01	349.7	11	1	-2								
HELSINKI	68.13	352.7	11	4	0								
UPPSALA	68.88	356.6	11	7	-1								
MOSCOW	70.92	344.6	11	20	-1								
GOTEBORG	71.16	359.6	11	22	0								
COPENHAGEN	73.18	359.3	11	34K	0								
SHILLONG	75.93	293.3	11	49K	-1								
HALLE	77.37	359.6	11	59	1								
COLLMBERG	77.56	358.9	11	59K	0						12	12	PCP
CHATRA	77.61	297.5	11	55	-4								
BENSBERG	77.86	2.6	12	1	0						12	14	
JENA	77.94	359.8	12	1	0								
CHITTAGONG	78.44	291.2	12	5	1						12	15	PCP
PRUHONICE	78.86	357.8	12	7K	1								
HEIDELBERG	79.45	1.7	12	10	0								
FOLINIERE	79.60	7.9	12	11	1								
PARIS	79.79	5.9	12	12	1				12	25			
WARSAK DAM	79.79	312.8	12	15	4								
STUTTGART	80.09	1.3	12	14	1								
STRASBOURG	80.25	2.3	12	15	1								
LAHORE	80.51	309.5	12	16	1								
TIFLIS	82.67	335.3	12	27	1								
LJUBLJANA	82.79	357.7	12	29	2								
SAN JUAN	83.40	68.9	12	30	0								
MONACO	85.09	2.8	12	39	0								
QUETTA	85.10	314.1	12	39	0	23	9	1			15	55	PP
BAGNERES	85.31	8.1	12	40	0								
TEHERAN	86.26	328.3	12	45A	0								
TOLEDO	88.02	11.7	12	53	0								
SHIRAZ	91.42	324.9	13	14	5								
KSARA	92.33	339.7	13	17	4								
BYRD STATION	134.22	169.4	19	18	-2								
SOUTH POLE	141.32	180.0	19	26	-7								
BULAWAYO	145.86	330.0	19	43	3								
MAWSON	150.42	217.5	19	54	6								
WINDHOEK	150.76	348.9	19	56	8								

SEPTEMBER 23 23.H 2.M 23.S EPICENTRE -22.25-174.50 DEPTH= 0.KM

A=-0.92220 B=-0.08873 C=-0.37639 D=-0.0958 E= 0.9954
G= 0.3747 H= 0.0360 K=-0.9265 HT= 4.1

SE= 3.40

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	7.79	300.3	1	59	1								
AFIAMALU	8.68	17.8	2	8A	-2	3	37	-13					
KARAPIRO	17.83	206.5	4	11	0								
KOUMAC	19.83	270.9	4	33	-2	8	27	14					
BRISBANE	30.08	253.5	7	11	58	10	49	-23					
CHARTERS TS.	36.58	265.9	7	5	-5						15	47	
FORT NELSON	37.76	227.8	7	12	-8								
PORT MORESBY	38.92	283.0	7	25	-4								
GUAM	53.44	307.7	9	35	11								
SCOTT BASE	56.38	184.7	9	46	0						10	0	PP
MUNDARING	61.52	244.7	10	17	-4								
BYRD STATION	62.40	170.7	10	25	-2								
WILKES	63.81	205.7	10	36	-1	19	8	-3			11	2	PCP
SOUTH POLE	67.89	180.0	11	0	-3						17	32	
MIRNY	70.81	205.0	11	18	-3								
MATUSIRO	73.56	321.9	11	34	-3	21	8	1			21	51	SCS
LEMBANG	76.25	268.2	12	1A	9								
BERKELEY	77.36	39.9	12	11	12								
LICK	77.38	40.6	11	59K	0								
FRESNO	78.14	42.0	12	4	1								
PETROPAVLOVK	78.50	343.8	12	2A	-3	21	58	-3					
RENO	79.90	39.9	12	13A	1								
MAWSON	81.01	199.1	12	16	-2								
ZO-SE	81.32	308.6	12	17A	-3	22	34	4					
VLADIVOSTOK	81.59	323.4	12	20	-1	22	37	4					
EUREKA	82.19	41.8	12	25	1						15	30	PP
HONG KONG	82.37	297.7	12	25K	0	22	45	4					
CANTON	83.42	298.1	12	29	-2	23	0	8					
GLEN CANYON	83.54	45.9	12	28	-3								
NANKING	83.56	308.3	12	30A	-1	22	57	4					
CHANGCHUN	85.78	321.0	12	41A	-2	23	20	5					
FLAMING GRGE	87.15	43.5	12	48	-1								
COLLEGE	89.25	11.1	12	56	-3								
PEKING	89.43	314.1	12	58	-2	23	55	6			23	28	SKS
SIAN	91.87	306.3	13	12	0	24	21	10					
KUNMING	93.04	295.8	13	16	-1	24	29	7			23	53	SKS
CHENGTU	94.17	301.3	13	22	0	24	40	9					
TIKSI	101.27	344.3	19	36	342								
PALISADES	112.02	53.4				25	20	-1			19	56	PP
NAMANGAN	121.95	305.3									20	28	PP
KIMBERLEY	126.00	201.0									16	0	
PRETORIA	127.46	206.0									13	15	
KIRUNA	133.47	352.3	19	16	-3								
WINDHOEK	134.04	195.0									12	56	
MOSCOW	138.95	332.7									22	17	PP
GOTEBORG	144.27	354.0	19	35	-3								
ADDIS ABABA	145.47	252.9	19	42	2								
COPENHAGEN	146.21	352.9	19	43K	2								
DURHAM	147.09	7.5	19	44A	1								
LWOW	148.84	336.6	19	48	2						31	35	
WITTEVEEN	149.46	358.6	19	51	4								
HALLE	150.37	351.8	19	54	6						20	35	
RACIBORZ	150.47	343.3	19	54	6								
KSARA	150.91	300.0	19	52	3						23	32	PP
JENA	150.98	352.1	19	49	0						20	20	
BENSBERG	151.31	357.8	19	55	5								
PRUHONICE	151.41	347.7	19	55	5						23	45	PP
UCCLE	151.49	1.5	20	1	11								
JERUSALEM	151.94	296.1	19	52	1								
FOLINIERE	153.11	8.8	19	59	7								
STUTTGART	153.36	354.4	19	56	3								
PARIS	153.38	4.4	20	2	9								
STRASBOURG	153.66	356.6	20	3	10						20	24	PKP2
LJUBLJANA	155.14	344.9	19	58	3						20	24	
HELWAN	155.62	293.5	20	22	26								
TRIESTE	155.70	345.8	19	54	-2						20	32	PKP2
ISOLA	158.09	357.0	20	34	35						20	51	PKP2
ROME	159.54	344.9	20	1	0						37	28	PPS
MESSINA	161.90	333.7	20	27	24								
SETIF	166.09	0.3	20	9	2						25	8	PP
TAMANRASSET	179.47	357.6	20	13	1						25	54	PP

SEPTEMBER 25 15.H 39.M 19.S EPICENTRE -17.49-173.36 DEPTH= 23.KM

A=-0.94795 B=-0.11037 C=-0.29869 D=-0.1157 E= 0.9933
G= 0.2967 H= 0.0345 K=-0.9544 HT= 5.2

SE= 3.33

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
AFIAMALU	3.87	23.4	0 58K	-1	1 45	0		1 14
NOUMEA	19.58	252.6	4 38	9				5 37
ONERAHI	21.22	208.5	4 47	1				
KOUMAC	21.36	258.2	4 54	7				5 23
KARAPIRO	22.57	203.4	4 59	-1				
TUAI	22.79	199.4	5 11	9	9 11	6		
CHATEAU	23.70	201.9	5 10	-1				
TONGARIRO	23.70	201.9	5 10	-1				
WELLINGTON	25.81	200.9	5 35	4	10 7	10		
COBB RIVER	26.38	204.1	5 42	6	10 13	7		
KAIMATA	28.12	204.3	5 59	7				
GEBBIES PASS	28.68	201.4	6 5	8	10 54	11		
BRISBANE	32.72	246.4						14 51
CANBERRA	37.82	234.5	7 21	5				
CHARTERS TS.	38.25	259.6	7 19	-1				
PORT MORESBY	39.18	276.6	7 27	0				
FORT NELSON	41.82	224.2	7 45	-4				
CAPE HALLETT	55.65	186.0	9 36	0	17 29	10		14 31 PCS
TERRE ADELIE	57.30	199.5	9 51	3				
SCOTT BASE	61.18	184.7	10 14K	-1				
MUNDARING	64.59	242.4	10 37	0				
BYRD STATION	66.90	171.2	10 53	1				
MATUSIRO	70.55	320.3	11 15	0				21 9
SOUTH POLE	72.62	180.0	11 25	-2				12 15
VINEYARD	72.89	41.5	11 28	-1				
BERKELEY	73.04	40.1	11 29	-1	20 59	5		
LICK	73.09	40.8	11 29A	-1				
PASADENA	73.45	45.3	11 32	0				
FRESNO	73.91	42.2	11 34	-1				
SHASTA	74.76	37.7	11 39	-1				
MINERAL	75.00	38.4	11 40K	-1				
RENO	75.58	40.0	11 45K	1				
TUCSON	77.62	50.3	11 56	0				
TUCSON TELE.	77.74	50.3	11 56	0				
EUREKA	77.94	41.8	11 57	0			12 22	12 12 PCP
GLEN CANYON	79.47	45.9	12 6	0				
FLAMING GRGE	82.97	43.3	12 24	0				
BUTTE	83.67	37.7	12 26	-2				
HUNGRY HORSE	84.13	35.2	12 29	-1				
BOZEMAN	84.37	38.6	12 32	1				
COLLEGE	84.40	10.7	12 30	-1				
MAWSON	85.84	198.6	12 39	0				
PALISADES	108.29	51.8						34 28 SS
QUETTA	123.97	294.9	18 59	3				
SHIRAZ	136.50	294.8	19 14	4			19 39	23 13 PKS
WITTEVEEN	144.75	360.0	19 36	1				
KEW	145.65	7.7	19 37	1				
HALLE	145.81	354.1	19 38	2				20 16
COLLMBERG	145.89	352.9	19 39A	2			20 4	20 13 *SPKP
RACIBORZ	146.18	346.6	19 38	1				19 48 PKP2
JENA	146.41	354.3	19 40	3			20 23	
BENSBERG	146.61	359.4	19 41	3				19 55 PKP2
UCCLE	146.72	2.6					20 4	
PRUHONICE	146.97	350.6	19 41A	3				20 23 *SPKP
DOURBES	147.43	2.4	19 45	6				
ADDIS ABABA	147.66	259.1	19 47	7				
FOLINIERE	148.27	9.0	19 45	5				
PARIS	148.58	5.3	19 47	6				20 9
STUTTGART	148.73	356.6	19 43	2				
STRASBOURG	148.98	358.5	19 48	6			20 26	20 1 PKP2
KSARA	149.18	307.5	19 49	7				
JERUSALEM	150.49	304.2	19 53	9				
LJUBLJANA	150.78	348.7	19 52A	8				23 15 PP
CLERMONT-FD.	151.65	5.2	19 49	3				21 9
HELWAN	154.31	303.2	20 0	11				
SETIF	161.33	3.1	19 59	1				20 53 PKP2
TAMANRASSET	174.63	11.1	20 10	3				

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SEPTEMBER 26 0.H 32.M 19.S EPICENTRE -27.71 -69.07 DEPTH= 112.KM

A= 0.31671 B=-0.82810 C=-0.46254 D=-0.9340 E=-0.3572
G=-0.1652 H= 0.4320 K=-0.8866 HT= 2.5

DEPTH OF FOCUS= 0.013R

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SANTA LUCIA	5.87	192.9	1 25K	-1	1 57	-35		
LA PAZ	11.19	4.7	2 38	1	4 27	-14		
BOGOTA	32.50	350.7	6 30	8				
CARACAS	38.04	3.4	7 9K	0	13 41	49		
TRINIDAD	38.85	12.1	7 17	2				
GRENADA	40.16	11.2	7 25	-1				
ST. VINCENT	41.33	11.5	7 35	-1				
FORT FRANCE	42.88	11.3	7 46	-2				
DOMINICA	43.40	10.8	7 50	-3				
SAN JUAN	45.90	3.9	8 10	-3			8 38	
BYRD STATION	56.36	189.3	9 32	1			10 2	10 14 *SP
SOUTH POLE	62.45	180.0	10 12	-1			10 43	10 56 *SP
FAYETTEVILLE	67.73	338.2	10 46A	-1				11 27
PALISADES	68.52	356.1	11 4	12	19 48	4		
ST. LOUIS 1	68.91	342.4	10 52	-2				
SCOTT BASE	69.72	190.8	10 59	0				
WESTON	69.77	358.2	10 59K	-1				
TUCSON	71.65	323.5	11 12	1			11 43	
TUCSON TELE.	71.67	323.7	11 11	0				
CAPE HALLETT	72.42	196.0	11 16	0				
OTTAWA	73.01	355.1	11 18	-1				11 48
SHAWINIGAN	73.98	357.3	11 25	0				11 54
SEVEN FALLS	74.50	358.8	11 28	0				
GLEN CANYON	75.74	326.0	11 36	1			12 5	
WINDHOEK	76.63	108.6	11 41	1				
PASADENA	77.12	320.0	11 41	-1				
FLAMING GRGE	77.86	329.9	11 47	1			12 16	
RAPID CITY	77.98	335.6	11 47	0				
MAWSON	78.46	163.1	11 50	0				
SALT LAKE C.	78.85	328.3	11 52	0				
EUREKA	79.87	325.0	11 58	1			12 27	14 42 PP
LICK	81.36	320.2	12 7A	2				12 36
RENO	81.92	322.8	12 9K	1				
BERKELEY	82.09	320.2	12 10	1				
BOZEMAN	82.39	331.8	12 11	0				
BUTTE	83.32	331.1	12 15	0				
MINERAL	83.46	322.4	12 15A	-1				
SHASTA	84.13	322.2	12 19	0				
HUNGRY HORSE	85.76	331.8	12 27	0			12 57	
CORVALLIS	87.32	324.5	12 35	0				
TAMANRASSET	87.74	62.9	12 37	0			13 9	
VICTORIA	90.11	327.3	12 47	-1				
CHATEAU	90.24	224.6	12 47	-2				13 21
TONGARIRO	90.25	224.6	12 49	0				13 20
KARAPIRO	91.00	225.6	12 53	1				13 24
SETIF	94.59	51.4	13 11	2				13 43
SHIRAZ	129.19	73.1	18 56K	1				21 11 PP
QUETTA	141.61	75.5	19 13	-5				
GUAM	145.45	252.7	19 25	0			19 55	20 9 *SPKP
WARSAK DAM	145.77	69.6	19 27	2				

SEPTEMBER 26 11.H 36.M 23.S EPICENTRE 32.50 131.90 DEPTH= 0.KM

A=-0.56432 B= 0.62898 C= 0.53472 D= 0.7443 E= 0.6678
G=-0.3571 H= 0.3980 K=-0.8450 HT= 1.0

SE= 3.46

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MIYAZAKI	0.71	215.2	0 22K	5	0 35	6		
OOITA	0.76	342.2	0 18K	0	0 28	-2		
ASOSAN	0.80	300.0	0 19	1	0 30	-1		
UWAZIMA	0.91	36.8	0 20	0	0 31	-3		
SIMIDU	0.95	72.6	0 22A	2	0 33	-2		

KUMAMOTO	1.06	287.8	0	23K	1	0	37	-1			
UNZENDAKE	1.41	279.8	0	31A	4	0	48	2			
KAGOSIMA	1.47	231.4	0	24A	-4	0	47	-1			
MATUYAMA	1.53	28.7	0	29	0	0	44	-5			
SAGA	1.54	299.5	0	32K	3	1	5	15			
SIMONOSEKI	1.66	331.0	0	29A	-1	0	49	-4			
HUKUOKA	1.67	310.6	0	31	0	0	51	-2			
NAGASAKI	1.72	278.2	0	33	2	0	57	3			
KOTI	1.72	52.2				1	1	7	0	43	
HIROSIMA	1.92	13.3	0	34	0	1	1	2			
MUROTO	2.06	68.1	0	36	0	1	7	4			
YAKUSIMA	2.37	210.7	0	42	1	1	18	7			
HAMADA	2.40	3.4	0	41	0	1	8	-4			
TAKAMATU	2.56	44.2	0	46	3	1	27	11	1	5	
TOMIE	2.64	273.4	0	47	2	1	30	12			
TOKUSIMA	2.74	54.4	0	46	0	1	29	9			
OKAYAMA	2.75	37.3	0	52	6	1	34	13			
ITUHARA	2.77	308.4	0	47K	1	1	22	1			
SUMOTO	3.12	53.1	0	52A	1	1	37	7			
YONAGO	3.16	22.0	0	55	3	1	30	-1			
WAKAYAMA	3.24	56.9	0	52	-1	1	22	-11			
SIOMISAKI	3.39	72.7	0	54	-1	1	28	-9			
KOBE	3.50	50.7	0	57	0	1	41	2			
TOTTORI	3.55	31.6	0	57	0	1	49	8			
OSAKA	3.71	53.7	0	59	-1	1	46	1	1	24	
ABUYAMA	3.87	51.3	1	2K	0						
TOYOOKA	3.88	38.0	1	2	0	2	3	14			
SAIGO	3.88	17.4	1	10	8	2	0	11			
OWASE	3.93	65.3	1	2	-1	1	43	-7			
NARA	3.94	55.4	1	3	0	2	16	25			
KYOTO	4.06	50.7	1	5	0	2	11	17			
MAIZURU	4.15	43.4	1	6	0	2	15	19	1	34	
KAMEYAMA	4.47	57.2	1	8	-3	1	58	-6	1	52	
HIKONE	4.55	51.5	1	13	1	2	1	-5			
TSURUGA	4.67	46.6	1	13	0	2	27	18			
GIHU	4.98	53.1	1	17A	-1	2	9	-8			
NAGOYA	4.99	56.4	1	19	1	2	15	-2			
HUKUI	5.04	44.2	1	17	-2	2	39	21	1	58	
KANAZAWA	5.62	43.0	1	27	0						
OMAESAKI	5.68	66.6	1	34	6	2	42	8			
TAKAYAMA	5.73	49.1	1	27	-1						
IIDA	5.77	56.9	1	41	12	2	54	17			
SHIZUOKA	5.95	63.8	1	34	3	3	1	20			
TOYAMA	6.05	44.8	1	35	2	2	57	13			
MATUMOTO	6.26	51.6	1	37	1						
KOHU	6.37	58.4	1	40	3	3	4	12			
WAZIMA	6.37	38.8	1	37	0						
MISIMA	6.42	64.1	1	40	2	3	0	7			
HUNATU	6.44	60.5	1	41	3	2	57	3			
MATUSIRO	6.59	50.5	1	39	-1				2	52	
NAGANO	6.66	49.6	1	42	1	3	32	33			
OIWAKE	6.69	53.4	1	46	4						
TITIBU	6.89	57.8	1	51	6						
TAKADA	6.95	46.9	1	42	-4						
MERA	7.04	67.8	2	14	27						
YOKOHAMA	7.07	63.5							3	22	
MAEBASI	7.09	54.7	1	47	0	3	31	21			
KUMAGAYA	7.18	57.5	1	49	0	3	10	-2			
TOKYO C.M.O.	7.24	61.9							3	23	
UTUNOMIYA	7.72	56.3	1	53	-3	4	2	36			
TUKUBASAN	7.73	59.1				3	39	13			
KAKIOKA	7.79	59.2	1	57	0	3	32	5			
NIIGATA	7.97	45.3	1	48	-12	3	23	-9	3	57	
MITO	8.07	59.0	1	55	-6				4	17	
SHIRAKAWA	8.25	53.7	2	7	3						
ONAHAMA	8.64	56.6	2	9	0	3	51	3			
HUKUSIMA	8.76	50.9	2	11	0						
YAMAGATA	8.97	47.9	2	13	-1						
ZO-SE	9.23	264.1	2	18A	1	4	11	8			
SENDAI	9.33	49.4	2	18	-1	4	30	24			
ISINOMAKI	9.69	49.8	2	24	0						
AKITA	9.79	40.3							5	1	
NANKING	11.11	271.2	2	44	1						
MORI	11.80	33.3							2	58	
CHANGCHUN	12.44	337.3	3	2	1						
SAPPORO	12.92	32.6							3	15	
PEKING	14.73	305.1	3	30	-1	6	20	3			
HONG KONG	18.71	241.5	4	19	-3	8	25	37			

SIAN	19.27	281.5	4 26	-3				
MANILA	20.30	211.6	4 48	8				
GUAM	22.30	145.3	5 1	1				
LANCHOW	23.43	286.5	5 19	7				
CHENGTU	23.81	273.1	5 12	-3	9 28	0		
KUNMING	26.53	261.4	5 52	11				
CHARTERS TS.	54.07	163.3	9 27	-1				
QUETTA	54.74	286.1	9 29	-4				
COLLEGE	57.01	30.1	9 46	-4			9 57	10 19
BRISBANE	62.79	159.1	10 29	0				
NORD	64.98	355.1	10 37	-7				
SHIRAZ	66.50	291.1	10 48K	-6				
NURMIJARVI	70.08	329.8	11 4	-12				
VICTORIA	75.11	41.7	11 43A	-3				
CORVALLIS	77.31	45.1	11 56	-2				
JERUSALEM	78.66	300.4	12 1	-4				
SHASTA	80.02	48.0	12 11	-2				
HUNGRY HORSE	80.30	38.2	12 12	-2			12 25	
COLLMBERG	80.80	326.2	12 9	-8				12 30
PRUHONICE	80.92	324.5	12 31	13				
KARAPIRO	81.01	146.5	12 17	-1				
RENO	82.30	47.8	12 23	-2				
LICK	82.41	50.5	12 23K	-2				
BUTTE	82.55	39.4	12 22	-4				
STUTTGART	84.28	325.9	12 49	14				
EUREKA	84.71	46.1	12 35	-2			12 49	
PASADENA	86.57	51.4	12 44	-2				
FLAMING GRGE	87.63	41.7	12 49	-2			13 3	
GLEN CANYON	88.96	45.8	12 55	-3				
TUCSON	92.53	48.9	13 13	-1			13 27	
TUCSON TELE.	92.54	48.8	13 13	-1				
SOUTH POLE	122.33	180.0	18 46	-11				
BYRD STATION	124.99	168.4	19 0	-2				19 21
HUANCAYO	147.78	57.1	19 47	3				

SEPTEMBER 26 15.H 13.M 35.S EPICENTRE 51.84-172.30 DEPTH= 105.KM

A=-0.61490 B=-0.08312 C= 0.78421 D=-0.1340 E= 0.9910
G=-0.7771 H=-0.1051 K=-0.6205 HT= -6.1

DEPTH OF FOCUS= 0.011R

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
PETROPAVLOVK	17.71	285.3	3 59	-2				
COLLEGE	18.15	34.6	4 4	-3	7 48	26		
SITKA	21.93	61.7	4 49	3				
MAGADAN	21.94	305.1	4 44	-2				
UGLEGORSK	28.82	282.8	5 59	8				
VICTORIA	31.01	76.5	6 9	-1				
YAKUTSK	32.15	311.3	6 40	20				
TIKSI	32.27	329.5	6 24	3				
CORVALLIS	32.92	83.0	6 27A	0				
SHASTA	35.59	88.1	6 51	2				
MINERAL	36.28	88.0	6 56A	1				
HUNGRY HORSE	36.69	71.7	6 58	-1				9 21 PCP
BERKELEY	37.37	91.8	7 4	0				7 58
CONCORD	37.42	91.5	7 7	2				
RESOLUTE	37.63	25.1	7 4	-3				
BRANNER	37.70	92.3	7 7K	0				
MATUSIRO	37.86	266.0	7 7	-1	13 5	14		8 28
VLADIVOSTOK	37.86	279.4	7 9	1	12 59	8		
RENO	37.87	87.7	7 10A	1				
LICK	38.08	92.0	7 10A	0				
VINEYARD	38.62	92.5	7 15	0				
BUTTE	38.70	74.3	7 17	2				
FRESNO	39.58	91.2	7 23	0				
BOZEMAN	39.79	73.9	7 25	1				
EUREKA	40.29	85.0	7 30	1				8 54 PP
CHANGCHUN	41.47	284.4	7 36	-2				
SALT LAKE C.	42.05	80.6	7 43	0				
PASADENA	42.29	92.9	7 44	-1	14 23	26		8 15
BOULDER CITY	43.17	88.2	7 54	2				
THULE	43.40	19.5	7 54	0				

FLAMING GRGE	43.46	78.7	7	54	0					13	37
GLEN CANYON	44.54	84.7	8	3	0						
RAPID CITY	45.32	71.3	8	9	0						
NORD	46.17	4.8	8	15	-1						
TUCSON TELE.	48.13	88.9	8	42	11					10	0 PCP
IRKUTSK	48.50	305.4	8	37	3						
PEKING	49.21	285.8	8	39	-1						
GUAM	51.45	238.0	9	0	3						
ZO-SE	52.04	273.7	9	3	2	16	29	14			
NANKING	52.86	276.4	9	6	-1						
FAYETTEVILLE	55.71	73.6	9	26K	-2					9	51
FLORISSANT	56.12	68.7	9	29	-2	17	20	10			
ST. LOUIS 1	56.31	68.8	9	30A	-2	17	20	8			
SIAN	57.36	285.2	9	39	-1						
LANCHOW	59.12	290.2	9	52	0						
OTTAWA	59.57	54.3	9	54	-1						
SHAWINIGAN	60.23	51.6	10	0	0						
SODANKYLA	60.27	351.7	9	55	-5						
KIRUNA	60.28	354.5	10	0	0						
BREBEUF	60.55	53.0	10	1	-1					10	33
SEVEN FALLS	60.75	50.1	10	4	1						
MORGANTOWN	61.41	61.5	10	8	0					10	34 PCP
HONG KONG	62.69	271.8	10	5	-11	19	3	28			
CHENGTU	62.83	285.7	10	17	0	18	48	12			
SVERDLOVSK	63.29	330.6	10	18	-2						
PALISADES	63.64	56.7	10	22	0	19	0	14		23	20 SS
WESTON	63.96	54.1	10	25	1						
COLUMBIA	64.85	66.6	10	30	0						
AFIAMALU	65.47	179.4	10	33	-1						
NURMIJARVI	67.18	351.0	10	44	-1						
KUNMING	67.64	282.5	10	49	1	19	44	9			
UPPSALA	68.38	354.6	10	57	4						
MOSCOW	69.97	342.5	11	1	-1						
PORT MORESBY	70.25	223.0	11	5	1						
GOTEBORG	70.77	357.6	11	4	-3						
LHASA	71.14	294.0	11	12	3						
SHILLONG	73.76	290.6	11	23K	-2						
CHITTAGONG	76.24	288.6	11	35	-4						
HALLE	76.98	357.3	11	46	3						
COLLMBERG	77.14	356.6	11	43	-1					13	12
JENA	77.56	357.5	11	45	-1					12	41
DEHRA DUN	77.67	303.5								22	38
PRUHONICE	78.40	355.5	11	52	1						
LAHORE	78.57	306.9	11	48	-4						
FOLINIERE	79.53	5.5	11	59	2						
STUTTGART	79.76	358.9	11	59	1						
CHARTERS TS.	80.25	219.1	12	0	-1						
TIFLIS	81.41	332.8	12	8	1						
QUETTA	83.25	311.5	12	18	2	22	33	7	12 27	23	36 PS
BRISBANE	84.63	210.7	12	24	1						
TEHERAN	84.78	325.6	12	26A	2	22	51	9			
SAN JUAN	85.32	66.2	12	28	1					12	56
TOLEDO	88.09	9.0	12	36	-4						
POONA	89.45	299.8	12	47	1						
SHIRAZ	89.84	322.1	12	49	1	23	30	1			
KARAPIRO	90.02	189.6	12	47	-2						
SETIF	92.31	1.9	13	13	13						
BYRD STATION	134.97	168.7	19	4	-3						
SOUTH POLE	141.65	180.0	19	13	-6						
BULAWAYO	144.39	324.8	19	25	1						
MAWSON	149.33	218.1	19	35	3						
PRETORIA	149.66	321.3								20	43
WINDHOEK	149.89	342.5	19	42K	9						
KIMBERLEY	153.64	324.5	19	52	13						

SEPTEMBER 27 18.H 35.M 53.S EPICENTRE 14.21 145.67 DEPTH= 100.KM

A=-0.80089 B= 0.54687 C= 0.24393 D= 0.5639 E= 0.8258
G=-0.2014 H= 0.1376 K=-0.9698 HT= 5.9

DEPTH OF FOCUS= 0.011R

SE= 2.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	1.17	230.7	0	23	0	0	40	0				

RABAUL	19.39	160.1	4 19	-1				
TUKUBASAN	22.48	348.1	4 50	-1	8 49	3		
MATUSIRO	23.22	344.6	4 57	-1	9 3	4		
PORT MORESBY	23.50	176.3	5 2	1	9 27	23	5 25	
MANILA	23.82	274.2	6 24	80				
BAGUIO CITY	24.30	278.4	5 14	5				
ZO-SE	28.07	310.9	5 46	2				
NANKING	30.32	310.5	6 5	1				
CHARTERS TS.	34.09	179.0	6 37	1	11 57	3		
CHANGCHUN	34.28	333.4	6 40	2				
PEKING	36.45	320.5	6 58	1				
PETROPAVLOVK	40.07	12.2	7 25	-2				
CHENGTU	41.58	300.3	7 42	3				
NOUMEA	41.61	150.3	7 34	-5				
KUNMING	41.70	291.8	5 44	-116				
BRISBANE	41.92	170.5	7 16	-26				
LEMBANG	43.16	243.5	7 49	-3				
LANCHOW	43.25	307.9	7 57	4				
RIVERVIEW	48.05	173.9	8 34K	3				
YAKUTSK	49.09	350.1	8 37	-2				
ADELAIDE	49.35	187.5	8 43	2				
CANBERRA	49.36	176.4	8 42	1				
AFIAMALU	50.54	121.7	8 47	-3				
SHILLONG	51.54	291.4	8 59A	2				
CHITTAGONG	51.55	287.4	8 49	-8				
MELBOURNE	51.77	180.7	9 1A	2				
CHATRA	55.79	292.9	9 32	3				
TIKSI	58.28	353.8	10 6	20				
KARAPIRO	58.95	152.6	9 50	-1		10 15		
TONGARIRO	60.00	153.5	9 57	-1				
CHATEAU	60.00	153.5	9 57	-1				
LAHORE	66.93	298.5	10 45A	2		11 9		
COLLEGE	67.32	25.1	10 43	-3				
WARSAK DAM	69.13	301.2	10 57A	0				
QUETTA	73.37	297.6	11 25A	3		11 48	11 58 *SP	
SVERDLOVSK	75.53	325.6	11 36	1				
KHEYS	75.69	350.3	11 36	0				
VICTORIA	80.10	42.4	12 0	0				
CORVALLIS	80.90	46.4	12 5K	1				
UKIAH	82.02	51.7	12 10	0				
SHASTA	82.33	50.1	12 13K	1				
MINERAL	82.99	50.3	12 16A	1			12 43	
BERKELEY	83.02	52.8	12 16A	1				
LICK	83.62	53.2	12 19A	1				
RESOLUTE	83.77	13.5	12 19A	0				
NORD	83.95	357.4	12 18	-2				
RENO	84.51	50.8	12 24	1				
APATITY	85.17	339.1	12 25A	-1		12 51		
FRESNO	85.19	53.4	12 26	0				
SHIRAZ	85.78	299.4	12 30K	1	22 42 -10	12 55	15 59 PP	
HUNGRY HORSE	86.21	41.1	12 32	1				
PASADENA	87.13	55.6	12 37	2		13 1		
EUREKA	87.40	50.0	12 38	1		13 11		
SODANKYLA	87.55	340.2	12 37	0				
BUTTE	87.86	43.1	12 40	1				
MOSCOW	88.21	327.4					16 13	
TIFLIS	88.58	312.7	12 44	2				
BOZEMAN	88.98	43.0	12 43	-1				
KIRUNA	89.24	341.9	12 44	-1				
SALT LAKE C.	90.03	47.9	12 50	1				
GLEN CANYON	91.44	51.4	12 57	1				
FLAMING GRGE	91.73	47.1	12 57	0		13 25		
NURMIJARVI	92.02	334.9	12 58	0				
RAPID CITY	94.75	42.4	13 11	0				
UPPSALA	95.23	336.5	13 12	-1				
JERUSALEM	99.25	306.1	13 33	2			17 42 PP	
COLLMBERG	102.87	331.7					18 3	
SOUTH POLE	104.12	180.0	18 7	254		18 40		
BYRD STATION	104.74	169.6	18 15	259				
HEIDELBERG	106.16	332.3					18 28 PP	
STUTTGART	106.36	331.6					18 28 PP	
TAMANRASSET	126.39	312.7	18 56K	5		19 14	20 1	
HUANCAYO	140.04	91.9	19 30	14				
LA PAZ	147.34	98.4	19 39	10				

SEPTEMBER 28 5.H 29.M 32.S EPICENTRE 32.51 95.79 DEPTH= 0.KM

A=-0.08528 B= 0.84064 C= 0.53484 D= 0.9949 E= 0.1009
G=-0.0540 H= 0.5321 K=-0.8450 HT= 1.0

SE= 2.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LHASA	4.98	236.2	1	21K	3	2	21	4					
TOCKLAI	5.81	189.1	1	57	27								
CHENGTU	7.25	102.5	1	52	2								
SHILLONG	7.72	207.4	1	54	-3	3	22	-4					
CHATRA	9.39	235.2	2	19	-1	4	15	8					
KUNMING	9.55	138.6	2	38	16								
CHITTAGONG	10.70	200.2	2	36	-2	4	35	-5			2	42	PP
CALCUTTA	11.92	215.3	2	18	-36	4	13	-56			5	4	SSS
BOKARO	12.34	228.0	2	57	-3						6	32	
DEHRA DUN	15.31	266.5	3	51	12	6	40	10			7	1	SS
PEKING	18.04	59.7	4	14	0								
CANTON	18.12	116.8	4	14	-1								
ALMATA	18.31	311.3	4	17	0						7	58	SS
HONG KONG	19.20	117.4	4	26	-2	8	5	6					
NANKING	19.44	85.1	4	32	1								
WARSAK DAM	20.32	280.8	4	42	2	8	25	1					
KHOROG	20.47	290.8	4	40	-2						9	28	SSS
ANDIJAN	20.48	300.3	4	41	-1								
IRKUTSK	20.70	14.9	4	44K	0	8	37	6					
SEMIPALATNSK	21.26	331.8	4	48	-2	8	46	4					
ZO-SE	21.61	86.9	4	57	3								
DUZHANBE	22.76	293.0	5	5	0						9	17	
TASHKENT	22.88	300.1	5	12	6	9	20	8					
MADRAS	24.11	219.9	5	22	4	9	57	23			6	4	PP
POONA	24.14	240.1	5	18	-1	9	41	7					
BOMBAY	24.67	242.3				10	0	17					
QUETTA	24.71	272.3	5	24	0	9	46	2	5	34	5	58	PP
BAGUIO CITY	27.57	119.6				10	28	-3					
SVERDLOVSK	34.26	325.8	6	50	0						14	58	SSS
MATUSIRO	34.97	71.4									17	21	
YAKUTSK	36.65	26.2	7	8	-2						15	34	SS
TIKSI	42.97	14.7	8	1	-2								
MOSCOW	46.12	318.2	8	32	4								
APATITY	49.88	333.6	8	58	1	16	12	5					
PULKOVO	50.30	323.2	9	3	3	16	21	8			20	16	SS
KHEYS	50.42	352.5				16	15	1					
SODANKYLA	52.45	332.9	9	16	-1								
NURMIJARVI	53.13	324.2	9	22	0								
LWOW	54.64	311.0	9	33	0								
KIRUNA	54.84	333.3	9	33	-1								
UPPSALA	56.69	323.8	9	46	-2								
SKALSTUGAN	58.60	328.6	10	0	-1								
PRUHONICE	60.56	312.9	10	15	0						10	44	
COLLMBERG	61.13	314.7	10	19	0								
NORD	61.21	351.1	10	18	-1								
HALLE	61.70	315.1	10	17	-5								
STUTTGART	64.21	312.8	10	42	3								
ISOLA	67.37	308.8	11	0	1								
COLLEGE	71.14	23.8	11	21	-1								
ADELAIDE	78.29	145.2	12	2	-2								
TAMANRASSET	78.33	289.5	12	4	0								
CANBERRA	83.91	138.8									12	36	
HUNGRY HORSE	95.20	19.5	13	28	1								
SOUTH POLE	122.33	180.0	18	57	0								
BYRD STATION	130.31	172.4	19	12	-1						22	36	

SEPTEMBER 29 6.H 28.M 5.S EPICENTRE -17.42 -69.47 DEPTH= 150.KM

A= 0.33476 B=-0.89409 C=-0.29755 D=-0.9365 E=-0.3506
G=-0.1043 H= 0.2787 K=-0.9547 HT= 5.3

DEPTH OF FOCUS= 0.018R

SE= 1.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
LA PAZ	1.58	54.7	0	33K	1	0	58	3				

SANTA LUCIA	15.99	183.5	3	34K	-4	6	35	5		15	26 SCS
BOGOTA	22.37	347.9	4	47	0	8	44	7		5	57
CHINCHINA	23.06	344.2	4	53	0	8	51	2			
CARACAS	27.86	5.4	5	38A	0	10	5	-4			
TRINIDAD	29.01	16.5	5	47	-1						
GRENADA	30.26	15.2	5	57	-2						
ST. VINCENT	31.46	15.4	6	8	-2						
BARBADOS	31.87	18.4	6	15	2						
SAN JUAN	35.73	5.5	6	43	-3				7 2	8	12 PP
TACUBAYA	46.82	320.1	8	22	5	15	2	8		10	18 PP
ARGENTINE I.	47.92	177.1	8	23	-2						
COLUMBIA	52.31	347.9	8	57	-2				9 37		
MORGANTOWN	57.59	350.4	9	35	-2						
FAYETTEVILLE	58.13	336.5	9	39A	-1	17	31	3	10 9	12	3 PP
PALISADES	58.28	356.1	9	39	-2	17	27	-3		22	21 SS
ST. LOUIS 1	59.06	341.1	9	45A	-2	17	39	-1			
FLORISSANT	59.25	341.1	9	46	-2	17	42	0			
WESTON	59.52	358.4	9	48A	-2						
MBOUR	60.68	61.9	9	57	-1						
HALIFAX	61.97	4.7	10	10A	3						
BREBEUF	62.73	356.7	10	10	-2					12	33 PP
OTTAWA	62.78	355.1	10	10A	-2						
TUCSON	63.31	321.2	10	16	1						
SHAWINIGAN	63.74	357.5	10	17A	-1						
SEVEN FALLS	64.25	359.0	10	20A	-2						
BYRD STATION	66.43	188.4	10	35	-1						
GLEN CANYON	67.11	324.3	10	41	1				11 14		
BOULDER CITY	68.28	321.6	10	48	1						
RAPID CITY	68.53	334.5	10	48	-1						
FLAMING GRGE	68.86	328.6	10	50	-1	19	46	5	11 25		
PASADENA	69.12	318.2	10	54	2	19	46	2		24	37 SS
SALT LAKE C.	70.00	327.0	10	57	-1						
RUTH	70.59	324.0	11	35	34						
FRESNO	71.82	319.4	11	9	1				11 41		
SOUTH POLE	72.69	180.0	11	13	-1					11	45
VINEYARD	72.79	318.6	11	16	2				11 48		
BOZEMAN	73.22	330.9	11	18	1						
LICK	73.32	318.9	11	19K	2				11 51		
RENO	73.59	321.6	11	20A	1				11 54		
CONCORD	73.98	319.2	11	22K	1				11 55		
BERKELEY	74.03	319.0	11	22	1				11 55		
BUTTE	74.20	330.3	11	23	1						
MINERAL	75.16	321.4	11	30K	2				12 1		
UKIAH	75.40	319.6	12	3	34						
SHASTA	75.85	321.3	11	30A	-2				12 5		
HUNGRY HORSE	76.58	331.2	11	36	0	21	12	4	12 9		
SCOTT BASE	79.73	190.3	11	52A	-1						
VICTORIA	81.30	327.1	12	1	0						
MALAGA	81.60	47.4	12	1K	-2	21	48	-13	12 31		
CAPE HALLETT	82.18	195.5	12	7	1	22	15	8	12 43	15	15 PP
GRANADA	82.38	47.3	12	10A	3					12	41 PCP
ALMERIA	83.02	48.1	12	10A	0				12 42	15	17 PP
TOLEDO	83.37	44.8	12	13A	1	22	25	6	12 29		
TAMANRASSET	83.48	63.8	12	14A	2	22	10	-10	12 37	15	27 PP
RELIZANE	84.71	50.2	12	19A	0				12 57		
KIMBERLEY	85.40	118.5	12	23K	1						
ALGIERS UNI.	86.97	50.1	12	30A	0				13 5		
MAWSON	88.38	163.5	12	36	0				13 8		
SETIF	88.48	51.4	12	37K	0					15	36
PRETORIA	89.20	116.6	13	12	32						
FOLINIERE	89.81	38.1	12	42	-1						
BULAWAYO	91.39	111.5	12	52A	2						
PARIS	91.60	39.0								13	32 PP
ISOLA	92.67	44.5	12	57	1					13	33
BROKEN HILL	93.10	106.1	13	2A	4						
RESOLUTE	93.30	353.4	12	59A	0	23	53	3			
THULE	93.65	0.3	13	1	0						
ROME	95.64	48.0								23	37
STUTTGART	95.74	40.7	13	10	0						
COLLMBERG	98.81	39.0	13	25	1					17	25 PP
PRUHONICE	99.38	40.6	13	28	1						
COLLEGE	100.76	334.8	13	32	-1				14 7	17	21 PP
TIFLIS	119.41	51.6								19	53
SVERDLOVSK	125.92	31.3	18	46	1						
SHIRAZ	125.93	65.7	18	46K	1	25	35	1		20	20 PP
YAKUTSK	133.44	347.7	18	59	0						
QUETTA	138.39	64.0	19	11	3						
LAHORE	144.36	59.9	19	18	-1						
POONA	145.13	82.4	19	23	3						

GUAM	146.81	268.1	19	26	3			20	0	
MATUSIRO	149.01	313.4	19	33	6			20	8	
CHATRA	156.46	62.5	19	50	13					23 44
SHILLONG	160.85	61.8	19	44A	2					
CHITTAGONG	161.74	71.4	19	47	4					

SEPTEMBER 29 11.H 18.M 53.S EPICENTRE 19.27 145.02 DEPTH= 414.KM

A=-0.77399 B= 0.54161 C= 0.32803 D= 0.5733 E= 0.8193
G=-0.2688 H= 0.1881 K=-0.9447 HT= 4.9

DEPTH OF FOCUS= 0.060R

SE= 2.18

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
GUAM	5.78	182.7	1	27	-5	2	36	-8			14	6	SCS
TORISIMA	11.95	340.0	2	44	2	4	49	-1					
HATIDYOZIMA	14.55	342.3	3	7	-3	5	43	1					
OSIMA	16.23	343.2	3	24K	-3	6	12	-1					
MERA	16.25	344.6	3	22	-5	6	11	-3					
SIOMISAKI	16.36	331.5	3	30	2	6	21	5					
OMAESAKI	16.42	339.8	3	35	6	6	17	0			14	25	SCS
MISIMA	16.68	342.4	3	29K	-2	6	17	-5			14	29	SCS
OWASE	16.70	333.7	3	31	0	6	30	8			14	31	SCS
SHIZUOKA	16.70	340.8	3	30	-1	6	27	5					
YOKOHAMA	16.78	344.7	3	33	1	6	25	1					
TYOSI	16.80	348.2	3	33	1	6	29	5					
MUROTO	16.96	327.3	3	37	3	6	34	7					
TOKYO C.M.O.	17.00	345.2	3	33	-1	6	29	1					
HONGO	17.02	345.3	3	34A	-1	6	27	-1					
HUNATU	17.08	342.4	3	35	0	6	34	5			14	33	SCS
YAKUSIMA	17.23	313.0	3	35	-2	6	33	1			5	24	
SIMIDU	17.25	323.6	3	32A	-5	6	33	1					
KAMEYAMA	17.27	335.7	3	39	2	6	38	5			8	41	PCP
WAKAYAMA	17.28	331.5	3	31	-6						5	26	
KOHU	17.30	342.1	3	36	-2	6	44	11			14	33	SCS
NAGOYA	17.37	337.4	3	38	0	6	47	13			14	36	
NARA	17.38	333.9	3	39	1	6	43	8			14	34	SCS
IIDA	17.39	340.0	3	37	-1	6	47	12					
KAKIOKA	17.42	346.8	3	42	3	6	34	-2					
TOKUSIMA	17.43	329.9	3	39	0	6	44	8			14	37	SCS
TUKUBASAN	17.43	346.6	3	37K	-2	6	38	2			5	21	*SP
TITIBU	17.45	343.8	3	39	0	6	36	0					
OSAKA	17.48	333.1	3	39	0	6	39	2			14	1	SCS
SUMOTO	17.49	331.1	3	38K	-1	6	42	5			5	18	
MITO	17.51	347.7	3	39A	-1	6	47	10					
KOTI	17.53	326.5	3	40K	0	6	43	5					
KUMAGAYA	17.53	344.7	3	40K	0	6	35	-3					
MIYAZAKI	17.56	318.5	3	42	2	6	44	6					
GIHU	17.65	337.3	3	41A	0	6	43	3			14	34	SCS
ABUYAMA	17.65	333.6	3	39K	-2								
KOBE	17.66	332.3	3	45	4	6	48	8					
KYOTO	17.72	334.2	3	41	-1	6	49	8					
HIKONE	17.73	335.8	3	43	1	6	46	5			14	35	SCS
UTUNOMIYA	17.80	346.3	3	42	-1	6	45	3			14	32	SCS
UWAZIMA	17.82	323.8	3	44	1	6	53	10					
MAEBASI	17.85	344.2	3	41K	-2	6	45	2					
TAKAMATU	17.88	329.2	3	43	0	6	47	3			9	56	PCS
KAGOSIMA	17.89	316.0	3	45K	2	6	46	2					
OIWAKE	17.92	342.8	3	43	-1	6	49	4					
ONAHAMA	17.98	349.3	3	44K	0	6	47	1					
MATUMOTO	18.02	341.3	3	42	-3	6	51	5			14	36	
TSURUGA	18.13	336.0	3	46	0	6	50	2					
MATUYAMA	18.15	325.5	3	47K	1	6	59	10					
TAKAYAMA	18.15	339.4	3	55	9								
MATUSIRO	18.22	342.2	3	45	-2	6	50	0					
MAIZURU	18.24	334.1	3	46	-1	6	49	-1					
SHIRAKAWA	18.27	347.7	3	47	0	6	56	5			14	36	
NAGANO	18.34	342.3	3	47K	-1	6	58	6			14	33	SCS
OOITA	18.35	321.9	3	47K	-1	7	1	9					
HUKUI	18.42	336.9	3	49	0	7	1	8			14	37	SCS
TOYOOKA	18.53	333.0	3	47	-3	6	57	2			14	37	SCS
KUMAMOTO	18.61	319.3	3	52K	1	7	2	5			14	42	
TOYAMA	18.67	340.0	3	32	-19	7	6	8					

KANAZAWA	18.70	338.6	3	52	1						
TAKADA	18.73	342.9	3	51	-1	7	4	5		14	38
HIROSIMA	18.74	325.9	3	51	-1	7	0	1		8	3 PCP
TOTTORI	18.80	331.6	3	52	0	7	4	4			
UNZENDAKE	18.83	318.3								5	8
HUKUSIMA	18.84	348.8	3	53A	0	7	13	12			
NAGASAKI	19.07	317.6	3	55K	0	7	8	3		5	51
YONAGO	19.12	329.7	3	56	1	7	12	6			
SAGA	19.15	319.5	3	57A	1	7	8	2		14	9
SIMONOSEKI	19.27	322.2	3	56	-1						
SENDAI	19.27	350.1	3	57A	0	7	10	2		14	38 SCS
NIIGATA	19.30	345.6	3	57K	0	7	15	6	4 33	4	53 *SP
HUKUOKA	19.33	320.4	3	56	-2	7	14	5		5	54
HAMADA	19.34	326.2	3	57A	-1	7	11	1		8	7
YAMAGATA	19.34	348.8	3	58	0	7	17	7		14	38
ISINOMAKI	19.36	351.2	3	59K	1	7	16	6		14	36
WAZIMA	19.39	340.2	3	59	1					6	10
AIKAWA	19.59	343.9	4	1	1	7	16	2		4	13
TOMIE	19.72	315.6	4	8K	7	7	30	14		6	5
SAIGO	19.76	331.0	4	4	2	7	22	5			
SAKATA	20.07	348.1	4	10	5	7	33	11			
MIZUSAWA	20.08	351.2	4	6	1	7	27	5			
MIYAKO	20.48	353.3	4	8	-1	7	32	3			
MORIOKA	20.63	351.6	4	12	2	7	36	4			
AKITA	20.82	349.3	4	12K	0	7	40	5			
HATINOHE	21.40	352.7	4	16	-1	7	50	5			
AOMORI	21.78	351.3	4	22	1	7	53	2			
HWALIEN	22.24	286.3	4	28	3	8	2	3			
ILAN	22.24	288.4	4	29	4	7	57	-2			
TAIPEI	22.49	289.0	4	32	4	8	4	1			
TAWU	22.75	281.9	4	34	4	8	7	0			
HAKODATE	22.76	351.8	4	30K	0	8	11	4		6	47
YUSHAN	22.79	284.8	4	32	2						
HENGCHUN	22.87	281.0	4	36	5	8	9	0			
URAKAWA	22.89	355.7	4	33	2	8	10	1		9	9
ALISHAN	22.93	284.9	4	35	3	8	7	-3			
HSINCHU	22.95	288.2	4	35	3	8	12	2			
HIROO	22.98	356.8	4	33	1						
MORI	23.07	351.5	4	37	4	8	12	0			
TAICHUNG	23.11	286.5	4	36	3						
MURORAN	23.23	352.4	4	31	-3	8	16	1		11	4
MANILA	23.34	262.4	2	35	-120					6	25
KAOHSIUNG	23.34	282.5	4	34	-1						
TAINAN	23.42	283.5	4	36	0	7	16	-62			
BAGUIO CITY	23.43	266.9	4	34	-2	8	16	-2			
TOMAKOMAI	23.47	353.6	4	38	1						
OBIHIRO	23.63	356.7	4	41	3						
KUSIRO	23.64	358.9	4	37	-1	8	24	2		14	56 SCS
SUTTSU	23.80	351.2	4	40	0	8	25	1			
SAPPORO	23.93	353.4	4	39	-2	8	23	-3			
NEMURO	23.99	1.0	4	41	0	8	26	-1		14	55 SCS
RABAUL	24.36	162.5	4	42	-3	8	32	-1		11	11
ZO-SE	24.52	303.4	4	44K	-2	8	29	-7	5 55	6	44 *SP
ABASHIRI	24.69	358.7	4	45	-3						
WAKKANAI	26.22	354.7								8	5
VLADIVOSTOK	26.22	337.9	5	1	0	9	2	-1		7	6 *SP
NANKING	26.78	303.6	5	4	-2	9	7	-5	6 16	7	6 *SP
PORT MORESBY	28.56	175.6	5	20	-2	9	42	2		11	26
HONG KONG	28.97	281.4	5	21	-4	9	41	-5	6 40		
CHANGCHUN	29.54	330.3	5	29K	-1	9	55	0		7	33 *SP
WUHAN	29.72	298.1	5	32	0	9	57	-1		7	42 *SP
CANTON	29.75	283.0	5	33K	1	9	56	-2	6 48	7	38 *SP
PEKING	32.28	316.1	5	52K	-2	10	34	-3		8	1 *SP
SIAN	35.31	302.4	6	20K	0	11	24	0			
PETROPAVLOVK	35.31	14.3	6	20	0	11	28	4		6	25
CHENGTU	38.67	295.2	6	46	-1	12	9	-5			
KLYUCHI	38.86	14.0	6	50	1	12	20	3			
CHARTERS TS.	39.13	178.1	6	50	-1					12	19
KUNMING	39.46	286.3	6	55	1	12	24	-2		9	1 *SP
LANCHOW	39.80	303.5	6	57K	0						
MAGADAN	40.45	4.5	7	2	0	12	40	0			
KOUMAC	43.85	153.5	7	30	1	13	26	-3			
LEMBANG	45.05	238.4	7	40	1	13	43	-3			
DJAKARTA	45.32	239.8	7	37K	-4	13	46	-4			
IRKUTSK	45.66	325.9	7	41K	-2	13	53	-2	9 1	9	42 PP
NOUMEA	46.32	152.1	7	48	-1	14	1	-3			
TOCKLAI	46.60	288.9	7	55A	4	14	3	-5			
BRISBANE	46.99	170.5	9	14	80	14	11	-2			

SHILLONG	49.27	287.5	8	9K	-2	14	37	-7				
SUVA	49.59	136.6				14	54	5			16	0
CHITTAGONG	49.61	283.3	8	15	1	14	49	0			10	0 *SP
LHASA	49.83	292.9	8	16	1							
PORT BLAIR	50.81	269.5	9	34	72						15	6
CALCUTTA	52.76	284.0	8	51	14	15	39	7				
RIVERVIEW	53.12	173.6	8	39K	0	15	37	0			9	45 PCP
HONOLULU	53.15	77.4	8	41	1	15	42	5			11	12 PP
KIPAPA	53.20	77.3	8	40	0						9	14
TIKSI	53.21	353.7	8	36	-4	15	31	-7			17	39 SCS
CHATRA	53.38	289.5	8	40	-1	15	36	-4			10	34 PP
AFIAMALU	53.82	124.6	8	46	2	15	47	1	10	15	13	2 SCP
ADELAIDE	54.27	186.4	8	45	-3	15	53	1			13	5 SCP
CANBERRA	54.42	176.0	8	47A	-2	15	55	1			11	5 PP
BOKARO	54.93	286.0	8	54A	2	16	4	3			10	22 PP
MELBOURNE	56.79	180.0	9	6K	1	16	27	2			11	19 PP
MUNDARING	57.95	208.9	9	11	-2	16	38	-2				
VIZIANAGRAM	58.05	279.7	9	17	3	16	43	2			18	21 PS
PERTH	58.11	209.2	9	14	0	16	42	0			10	38
SEMIPALATNSK	59.35	317.7	9	21	-2	16	55	-3			11	39 *SP
DEHRA DUN	61.03	294.6	9	37	3	17	20	1			11	49 PP
ALMATA	61.20	309.4	9	35	0	17	22	1			11	50 *SP
TARRALEAH	61.27	178.8	9	37A	2						13	36 SCP
ONERAHI	61.40	153.0	9	40	4							
MOORLANDS	61.43	178.2	9	39A	3						13	37 SCP
FORT NELSON	61.92	178.1	9	40A	0						13	39 SCP
MADRAS	62.30	274.9	9	43A	1	17	34	-1			11	51
HYDERABAD	62.85	280.1	9	49K	3	17	44	3			14	34
COLLEGE	63.05	26.2	9	45	-2	17	42	-2			38	21 PKPPKP
KARAPIRO	63.72	153.4	9	50	-1						13	46 SCP
LAHORE	64.05	296.4	9	55K	2	17	53	-3				
COLOMBO	64.32	268.5	9	57	2	17	57	-2				
CHATEAU	64.80	154.1	9	57	-1						13	52 SCP
TUAI	65.14	152.7	10	1	1	18	4	-5			19	16 SCS
COBB RIVER	65.32	157.2	10	3	2							
WARSAK DAM	66.05	299.4	10	5	-1	18	19	-1				
WELLINGTON	66.26	155.9	10	6	-1	18	20	-3				
POONA	66.86	282.4	10	9	-2	18	24	-6			19	44
TASHKENT	66.98	307.5	10	11	-1	18	34	3			12	28 *SP
GEBBIES PASS	67.59	158.7	10	16	0	18	35	-3			19	38 SCS
BOMBAY	67.72	283.1	10	19	3	18	38	-2			12	43 PP
ROXBURGH	68.12	161.8				18	41	-3			19	47 SCS
SITKA	68.45	35.3	10	21	0						18	53 SS
QUETTA	70.54	296.0	10	32K	-1	19	10	-2	12	5	13	15 PP
KHEYS	70.62	350.0									12	58 PP
SVERDLOVSK	71.05	324.7	10	35	-1	19	13	-5			21	50 *SS
KARACHI	71.59	290.5	10	38	-2							
ASHKABAD	75.86	305.5	11	4	0							
VICTORIA	76.83	43.0	11	8	-1							
CORVALLIS	77.90	46.9	11	17A	2						11	41
ARCATA	78.31	50.7	11	20A	3							
NORD	78.90	357.3	11	18	-2	20	43	0				
RESOLUTE	79.03	13.6	11	20K	-1	20	39	-6				
UKIAH	79.42	52.3	11	25	2						20	55
SHASTA	79.60	50.6	11	25K	1				11	51		
APATITY	80.25	338.8	11	25	-2	20	54	-3	13	1	14	41 PP
MINERAL	80.27	50.7	11	28K	0				13	14		
SAN FRANCSCO	80.39	53.4	11	30	2							
BERKELEY	80.50	53.3	11	29K	0	20	57	-3	12	59	21	43 SP
CONCORD	80.62	53.1	11	31K	2	20	58	-3				
BRANNER	80.69	53.7	11	32A	2							
BANFF	80.95	39.0	11	33	2							
LICK	81.13	53.6	11	32K	0	21	9	3	13	8		
VINEYARD	81.50	54.1	11	35	1							
TEHERAN	81.83	304.9	11	35K	-1	21	16	3				
RENO	81.83	51.1	11	36K	0	21	16	3				
THULE	82.40	7.5	11	37	-1				13	14		
SODANKYLA	82.61	339.9	11	37	-3	21	18	-3			30	1 PKKP
FRESNO	82.70	53.7	11	40	0	21	26	4				
SHIRAZ	82.78	298.8	11	38A	-2	21	19	-4	13	17	17	7 PPP
HUNGRY HORSE	82.84	41.3	11	41	0	21	24	1	13	15	22	19 SP
MOSCOW	83.64	327.1	11	42	-3	21	24	-7	13	20	14	56 PP
KIRUNA	84.26	341.7	11	40	-8						41	6 SKPPKP
GORIS	84.41	309.8	11	47	-2	21	32	-6	13	26	24	28 *SS
BUTTE	84.62	43.1	11	50	0	21	35	-5			27	29 SS
TIFLIS	84.72	312.3	11	48	-2	21	36	-5	13	26	17	15 PPP
PASADENA	84.82	55.8	11	51	0	21	39	-3	13	29	15	23 PP
PULKOVO	85.23	332.5	11	51	-1	21	33	-13	13	28	17	14 PPP

RUTH	85.46	50.1	11	55K	1							
BOZEMAN	85.73	43.0	11	56	1	21	36	-15			30	46 SSS
TERRE ADELIE	85.87	181.4	11	54	-2	21	34	-18				
BOULDER CITY	86.74	53.1	12	3	3	21	50	-11				
SALT LAKE C.	87.11	47.8	12	2	0	21	50	-14				
NURMIJARVI	87.20	334.7	12	0	-2	22	1	-4			29	43 PKKP
HELSINKI	87.27	334.3	12	0	-2							
FLAMING GRGE	88.76	46.9	12	9	0	22	0	-19	13	44	23	35 SP
GLEN CANYON	88.79	51.2	12	11	2				13	44	21	0 PKP
WILKES	89.19	193.2	12	13	2	22	23	0	13	42	22	0 SKS
SKALSTUGAN	89.62	340.8	12	11	-2						15	49 PP
UPPSALA	90.37	336.4	12	14	-3						40	4 SKPPKP
SIMFEROPOL	90.48	318.4	12	15	-2	22	34	0			16	3 PP
TUCSON	91.23	55.3	12	23	2	22	50	9	13	59	22	19 SKS
RAPID CITY	91.45	42.0	12	22	0	22	48	5			22	16 SKS
CAPE HALLETT	92.92	172.5	12	29	0	23	0	4	14	12	16	20 PP
LWOW	93.73	326.2	12	31	-1	23	2	0	14	8	16	30 PP
WARSAW	93.80	329.3	12	31	-1	23	2	-1	14	8	16	26 PP
GOTEBORG	93.98	336.8	12	30	-3						14	57
KSARA	94.36	307.9	12	34	-1	23	8	0	14	12	16	32 PP
COPENHAGEN	95.26	335.2	12	38K	-1	23	16	42			16	38 PP
ISTANBUL KA.	95.61	316.9	12	39	-2	23	17	41				
BUCHAREST	95.65	320.9	12	40	-1						16	40 PP
KRAKOW	95.70	328.0	12	40	-1	23	17	41			16	43 PP
JERUSALEM	95.77	306.4	12	40	-2	23	39	62				
CHIHUAHUA	96.47	56.8									24	43 SP
RACIBORZ	96.54	328.7	12	44	-1						16	44 PP
POTSDAM	97.35	332.6									30	44 SS
SCOTT BASE	97.74	175.5	12	51	0	22	50	3			14	34 PP
COLLMBERG	98.14	331.9	12	51A	-1				14	37	16	56 PP
SOFIA	98.29	320.7	12	51	-2	23	8	19			16	59 PP
BRATISLAVA	98.33	327.7	12	51	-2							
PRAGUE	98.35	330.4	12	27	-26							
HALLE	98.46	332.5	12	53	-1	22	49	-1	14	37	17	1 PP
VIENNA-H.	98.65	328.1	12	54	-1	23	58	67				
JENA	99.04	332.3	12	55	-1	23	43	50			17	0 PP
ABERDEEN	99.04	342.6				24	13	80			17	11 PP
PLAUEN	99.09	331.7									17	2 PP
HELWAN	99.62	306.2	12	57	-2						17	11
ATHENS	100.77	316.6	13	1	-3							
DE BILT	100.79	336.1	13	1	-3						17	13 PP
BENSBERG	100.88	334.4	13	5	1						17	10 PP
DURHAM	100.93	341.0				22	40	-22			17	18 PP
LJUBLJANA	101.06	327.3	13	3	-2						17	21 PP
HEIDELBERG	101.41	332.6	13	5	-2						17	20 PP
FAYETTEVILLE	101.50	45.2	13	9A	2						17	22
STUTTGART	101.63	331.9	13	5	-3				14	45	17	23 PP
TRIESTE	101.73	327.4				23	4	-2			17	24 PP
TUBINGEN	101.90	331.8	13	9	0							
ADDIS ABABA	102.12	284.1	13	12	2						17	34 PP
UCCLE	102.13	335.7	13	11	1	23	9	1				
RAVENSBURG	102.21	331.0	13	10	0						17	21 PP
FLORISSANT	102.39	41.2				23	11	2			17	29 PP
STRASBOURG	102.44	332.5	13	11	0						17	25 PP
ST. LOUIS 1	102.58	41.2				23	9	-1			17	27 PP
DOURBES	102.59	335.1	13	15	3						25	56 SP
TANANARIVE	102.82	254.3	12	36	-37							
PADOVA	102.84	328.2									17	37 PP
CHUR	102.93	330.4	13	12K	-2						17	32 PP
TARANTO	103.26	321.7									17	42 PP
KEW	103.30	338.6	13	16	1						17	34 PP
BASLE	103.31	331.9	13	16A	1						17	37
NEUCHATEL	104.00	331.9									17	35
PARIS	104.45	335.5	13	17	-3						17	44 PP
OROPA	104.57	330.4									17	42 PP
MAWSON	104.68	203.1	13	22	1	23	21	1			17	33
ROME	104.98	325.3	13	24	1						17	46 PP
FOLINIERE	105.61	337.1	13	27	777						26	23 PS
MESSINA	105.73	320.8									17	52 PP
CLEVELAND	105.77	34.5				23	25	1				
ISOLA	106.08	329.9									17	55 PP
SHAWINIGAN	106.13	26.1	17	40	777							
TACUBAYA	106.23	62.3									23	29
SEVEN FALLS	106.46	24.6	17	39	777							
CLERMONT-FD.	106.62	333.2	13	34	777							
MORGANTOWN	107.93	35.0	16	59	777						18	14
PENNSYLVANIA	108.18	32.9				23	36	1			18	13 PP
VERA CRUZ	108.88	61.0									26	51 SP
SOUTH POLE	109.15	180.0	17	41	777	23	36	-3			18	21 PP

BYRD STATION	109.80	169.4	17	44	777	23	41	-1		13	48 P
PALISADES	109.98	30.4	17	47	777					18	29 PP
WESTON	110.09	27.9	17	47K	4					18	29 PP
COLUMBIA	111.23	39.9	17	50	5	23	51	4		24	53 SKKS
HALIFAX	111.26	21.5	17	53K	8						
SETIF	112.90	325.3	17	50	1					18	45 PP
ALGIERS UNI.	113.70	327.3	17	39	-11					18	50 PP
ALICANTE	114.17	330.8	18	0	9	23	48	-11		18	54 PP
TOLEDO	114.46	334.2	17	53	1					18	57 PP
SERRA PILAR	115.11	338.2				23	49	-13		19	1 PP
RELIZANE	115.76	328.3	17	57	3					19	3 PP
ALMERIA	116.30	331.3	17	57K	2					19	11 PP
GRANADA	116.53	332.3	18	59A	63				19 12	21	47 PPP
MALAGA	117.27	332.6	17	56A	-1					19	14 PP
LISBON	117.44	337.4	20	5A	128						
BROKEN HILL	119.36	263.9	18	5A	4						
BULAWAYO	120.47	257.5	18	5A	2						
PRETORIA	121.76	251.2								19	10
TAMANRASSET	122.46	314.7	18	7	0				20 5	19	50 PP
GRAHAMSTOWN	123.79	242.4	17	11	-59						
KIMBERLEY	125.08	248.0	18	14	2						
HERMANUS	129.88	240.9								21	49
ARGENTINE I.	130.12	164.4	18	20	-2					21	6 PP
GALERAZAMBA	130.32	56.4	18	26	4					21	10 PP
WINDHOEK	131.43	256.6	18	10	-14					21	11
SAN JUAN	131.68	41.1	18	12	-13				20 9	21	12 PP
CHINCHINA	133.31	63.1	18	31	3					21	19 PP
BOGOTA	134.80	62.3	18	37	6					21	16 PP
ST. VINCENT	138.65	40.8	18	31	-7						
GRENADA	139.22	42.4	18	33	-6						
TRINIDAD	140.48	43.4	18	35	-7						
HUANCAYO	140.57	85.6	18	39	-3				20 8		
MBOUR	142.15	330.8	18	43	-2					21	57 PP
SANTA LUCIA	145.26	121.2	18	51	1				20 31	41	7 SS
LA PAZ	148.36	90.3	18	58	4	26	47	86			

SEPTEMBER 30 6.H 35.M 6.S EPICENTRE 49.41-129.69 DEPTH= 0.KM

A=-0.41713 B=-0.50263 C= 0.75721 D=-0.7695 E= 0.6386
G=-0.4836 H=-0.5827 K=-0.6532 HT= -5.2

SE= 3.91

	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
ALBERNI	3.19	90.7	0	53	1							
VICTORIA	4.22	99.8	1	5	-2							
CORVALLIS	6.51	135.5	1	39	-1							
SITKA	8.36	338.4										
ARCATA	9.40	153.0	2	30	10							
SHASTA	10.12	146.6	2	29K	-1							
HUNGRY HORSE	10.37	89.9	2	31	-2							
MINERAL	10.72	144.7	2	38K	0							
UKIAH	11.27	153.4	2	43	-2							
BUTTE	12.02	99.9	2	55	-1	6	3	51				
RENO	12.12	140.8	2	59A	2							
CONCORD	12.69	151.5	3	4	-1							
BERKELEY	12.72	152.3	3	4	-1	5	32	3			4	12
SAN FRANCSCO	12.75	153.1	3	6	0							
BOZEMAN	13.13	99.5	3	11	0	7	12	93				
LICK	13.40	151.2	3	12K	-2						3	35
EUREKA	13.93	130.3	3	20	-1							
VINEYARD	14.02	151.4	3	21K	-1							
FRESNO	14.53	146.7	3	29K	0							
RUTH	14.62	128.6	3	20A	-10	6	19	5				
SALT LAKE C.	15.25	117.8	3	37	-1	9	11	162				
FLAMING GRGE	16.60	113.0	3	58	2	6	23	-37				
BOULDER CITY	17.26	135.5	4	19	15							
PASADENA	17.47	146.5	4	7	0						5	12
GLEN CANYON	18.07	126.7	4	15	1							
COLLEGE	18.24	334.9	4	16	0	7	53	15				
RAPID CITY	18.87	96.3	4	24	0							
TUCSON TELE.	22.18	133.2	5	0	1							
TUCSON	22.20	133.5	5	1	1	9	25	25				
FAYETTEVILLE	28.98	103.9	6	2A	-1	11	0	6	6	14	7	4 PP
RESOLUTE	29.24	18.1	6	14	8	11	4	6				

FLORISSANT	29.84	95.8			11	12	4			
ST. LOUIS 1	30.02	95.9	6	22	9	11	16	5		
MORGANTOWN	36.19	86.4	7	3	-3					
BREBEUF	37.37	74.0	7	16	0					
WASHINGTON	38.47	85.4	7	25	0					
COLUMBIA	38.75	94.8	7	40	12				21	10
PALISADES	39.38	80.5	7	30	-3	13	44	9	9	12 PP
PETROPAVLOVK	43.32	303.3							14	49 PPP
NORD	44.65	11.1	8	16	0	15	0	7	18	18 SCS
SCORESBY SD.	49.74	24.8				16	13	8	18	58 SCS
YAKUTSK	52.33	324.1	9	14	-2					
KIRUNA	60.95	12.5	10	29	12					
SODANKYLA	62.18	10.1	10	21	-5					
SKALSTUGAN	63.45	17.9	10	29	-5					
DURHAM	67.45	29.6	11	22K	22	19	55	0		
UPPSALA	67.91	17.1	11	6	3					
NURMIJARVI	68.49	13.3	11	5	-1					
PULKOVO	69.97	10.6							20	34 PS
MOSCOW	74.70	7.4	11	44	1					
COLLMBERG	74.74	23.2	11	50	6				12	27
ROME	83.19	27.5							15	46
SIMFEROPOL	84.97	11.5							24	6 PS
MAKHACH-KALA	87.97	2.1							15	49 PP
ISTANBUL KA.	87.98	15.9	13	12	19					
TIFLIS	89.12	4.1	13	2	3					
MBOUR	93.30	63.6	11	25	-113					
SOUTH POLE	139.22	180.0	19	35	6					
MIRNY	152.38	215.8	20	1	10					

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

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

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

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