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

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

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JANUARY 1 2.H 41.M 3.S EPICENTRE 52.05 177.83 DEPTH= 0.KM

A=-0.61716 B= 0.02334 C= 0.78649 D= 0.0378 E= 0.9993
G=-0.7859 H= 0.0297 K=-0.6176 HT= -6.2

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	11.72	282.3	2	30	-22							
MAGADAN	16.86	307.0	4	0	1							
COLLEGE	21.73	40.6	4	56	1	9	7	16				
Y.-SAKHLINSK	23.18	271.5	5	11K	1							
YAKUTSK	27.38	310.2	5	54	5	10	32	3				
VLADIVOSTOK	31.77	272.2	5	56	-32							
MATUSIRO	31.86	256.7	6	29A	0	11	38	-2				
MOULD BAY	33.78	22.5	7	47	61							
ABUYAMA	34.57	257.1	6	53A	0							
ALBERNI	35.65	71.1	7	2	0							
VICTORIA	36.82	71.5	7	11	-1							
PENTICTON	38.64	68.4	7	28	1							
RESOLUTE	40.00	24.4	7	39	1	13	49	4				
HUNGRY HORSE	42.32	66.8	7	59	2							
ALERT	42.33	9.8	7	58A	0							
MINERAL	42.34	81.2	7	50K	-8							
CALISTOGA	42.78	83.9	8	4K	3							
PEKING	43.20	279.2	8	5	0	14	32	0				
IRKUTSK	43.27	300.7	8	3	-2							
BERKELEY	43.46	84.5	8	5K	-2							
KHEYS	43.49	348.1	8	19	12							
RENO	43.92	80.9	8	13K	2							
ULAN-BATOR	44.14	294.1	8	12	0	14	44	-2				
LICK	44.18	84.7	8	15K	2							
THULE	45.16	17.7	8	21	1							
PRIEST	45.55	85.3	8	26K	2							
ZO-SE	45.94	265.7	8	26	-1	15	14	2				
EUREKA	46.29	78.4	8	31	2	13	59	-78	8	40	8	51 *SP
PAOTOW	46.58	283.9	8	32	0	15	21	0				
NANKING	46.76	268.6	8	33	0							
PASADENA	48.39	85.5	8	47	1	15	53	7				
BOULDER CITY	49.23	81.2	8	54	2							
FLAMING GRGE	49.32	72.6	8	53	0							
AMDERMA	50.01	335.9	8	58A	0	16	11	2				
GLEN CANYON	50.55	78.0	9	3	1							
RAPID CITY	50.92	65.7	9	5	0							
SIAN	51.34	278.2	9	8	-1							
LANCHOW	53.22	283.4	9	22	-1	16	53	0				
ALBUQUERQUE	54.99	76.4	9	36	0							
CHENGTU	56.82	278.6	9	48	-1	17	40	-1				
APATITY	57.77	344.7	9	54K	-2	17	49	-5				
MANHATTEN	57.86	66.2	9	50A	-6							
SODANKYLA	58.95	347.4	10	3K	-1						10	51 PCP
KIRUNA	59.25	350.2	10	6	0							
WICHITA MTS.	59.81	71.3	10	9	-1	18	11	-10			22	36 SS
SVERDLOVSK	59.88	325.6	10	10	0							
ROLLA	61.39	64.3	10	19K	-1							
KUNMING	61.57	275.0	10	21	-1	18	56	13				
FLORISSANT	61.60	62.6	10	22	0							
KAJAANI	61.89	345.6	10	23	-1						11	4 PCP
ALMATA	63.13	306.5	10	30	-2	19	4	1				
BLOOMINGTON	63.41	59.9	10	33	-1							
SKALSTUGAN	64.16	352.9	10	38	-1							
SHAWINIGAN	64.68	46.1	10	41	-1							
BREBEUF	65.11	47.3	10	44K	-1							
LHASA	65.35	287.0	10	47	0	19	32	2				
NURMIJARVI	65.75	345.8	10	49K	-1							
PORT MORESBY	66.64	213.3	10	55K	0	19	52	6			15	28
UPPSALA	67.32	349.3	10	58K	-1							
MOSCOW	67.66	337.0	11	1	0							
SHILLONG	67.86	283.4	11	0A	-3							
TASHKENT	68.33	309.8	11	5	0	20	8	2				
CHATRA	69.72	287.7	11	15K	1							
GOTEBORG	70.00	352.0	11	19K	3							
SAMARKAND	70.71	310.2	11	20	0	20	30	-4				
KARLSKRONA	71.17	349.6	11	24K	1							
WITTEVEEN	75.24	354.5	11	49A	2							
LWOW	76.10	342.9	11	52	0							
HALLE	76.14	351.0	11	51	-1						12	19
COLLMBERG	76.23	350.3	11	53K	1						14	57 PP

JENA	76.74	351.1	11	55	0					12	20	
RACIBORZ	76.79	346.7	11	50	-5					12	16	PCP
KEW	76.85	358.8	11	55	-1							
CHARTERS TS.	76.94	210.3	10	57	-59							
BENSBERG	77.07	354.0	11	57A	0				12 7			
DOURBES	78.07	355.6	12	4	1							
TIFLIS	78.12	326.0	12	5A	2							
QUETTA	78.30	304.3	12	5A	1	22	0	1	12 10			
KASPERSKE H.	78.31	349.5	12	4A	0					15	7	PP
SIMFEROPOL	78.45	334.6	12	6	1							
STUTTGART	79.09	352.3	12	8	0							
STRASBOURG	79.39	353.3	12	11	1					12	53	
GORIS	79.54	323.9	12	11	0							
FOLINIERE	79.55	358.9	12	11	0							
BESANCON	80.84	354.4	12	13	-4							
GARCHY	80.95	356.4	12	20	2					13	11	
LJUBLJANA	81.24	348.3	12	28	8					12	56	
CLERMONT-FD.	82.46	356.3	12	28	2							
ROSELEND	82.48	353.1	12	27	1							
SOFIA	83.08	341.4	12	30	1							
ISTANBUL UN.	83.42	336.8	12	31	0							
POONA	83.87	292.2	12	33K	0							
BOMBAY	84.16	293.2								23	0	
BAGNERES	85.24	358.3	12	40	0							
ROME	85.57	349.1								20	4	
KSARA	88.24	329.1								24	5	
MESSINA	88.81	346.1								22	23	
KARAPIRO	89.62	181.8	13	2	1							
SAN JUAN	90.63	58.6	13	7	1							
KIMBERLEY	149.29	308.8	19	53	6							

JANUARY 1 23.H 40.M 19.S EPICENTRE 52.18 177.57 DEPTH= 0.KM

A=-0.61516 B= 0.02615 C= 0.78797 D= 0.0425 E= 0.9991
G=-0.7873 H= 0.0335 K=-0.6157 HT= -6.2

SE= 2.20

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	11.53	281.6	2	50	1							
MAGADAN	16.64	306.8	3	56	0							
COLLEGE	21.74	40.9	4	53	-1	8	56	5			5	16 PP
Y.-SAKHLINSK	23.02	271.0	5	4K	-3							
YAKUTSK	27.16	310.0	5	44A	-2							
VLADIVOSTOK	31.60	271.8	6	31	5							
MATUSIRO	31.73	256.2	6	26	-1	11	40	3			9	20 PCP
ALBERNI	35.77	71.2	7	3	1							
KIPAPA	36.05	139.1	7	5	0							
HONOLULU	36.13	139.3	7	7	2							
VICTORIA	36.93	71.5	7	9	-3							
PENTICTON	38.75	68.4	7	26	-1							
HAWAII V.OB.	38.96	136.8	6	31	-58							
RESOLUTE	39.95	24.4	7	36	-1	13	41	-2				
BANFF	40.15	63.9	7	41	2							
ALERT	42.23	9.8	7	56	0							
HUNGRY HORSE	42.42	66.8	7	56	-2							
MINERAL	42.48	81.2	7	57A	-1							
CALISTOGA	42.93	83.8	8	1K	-1							
PEKING	43.02	278.8	8	1K	-1	14	25	-4			9	46 PP
IRKUTSK	43.05	300.5	8	0	-3	14	18	-11				
KHEYS	43.32	348.0	8	6	1	14	33	0				
BERKELEY	43.61	84.5	8	5	-2	14	29	-8				
ULAN-BATOR	43.93	293.8	8	7	-3	14	39	-3				
RENO	44.06	80.9	8	10	-1							
LICK	44.33	84.6	8	12K	-1							
BUTTE	44.53	68.9	8	16	1							
THULE	45.08	17.7	8	20	1							
PRIEST	45.70	85.2	8	26A	2							
ZO-SE	45.78	265.4	8	27	2	15	13	4				
PAOTOW	46.39	283.6	8	29	0	15	16	-1				
EUREKA	46.43	78.3	8	28	-2						9	2
NANKING	46.59	268.3				15	18	-2				
SALT LAKE C.	48.09	74.3	8	42	-1							
PASADENA	48.55	85.4	8	46	0	15	43	-5				
BOULDER CITY	49.37	81.2	8	52	-1							
FLAMING GRGE	49.44	72.6	8	53	0							

AMDERMA	49.81	335.8	8	56	0	16	5	-1				
RAPID CITY	51.01	65.6	9	3	-2							
LARAMIE	51.41	69.8	9	10	2							
LANCHOW	53.03	283.2	9	19K	-2	16	50	0				
TUCSON	54.33	81.8	9	29	-1							
ALBUQUERQUE	55.11	76.3	9	34	-2							
HONG KONG	56.45	263.5				17	39	3			36	3
CHENGTU	56.63	278.3	9	47	0	17	38	0				
APATITY	57.60	344.5	9	54	0	17	50	-1				
MANHATTEN	57.95	66.1	9	57K	1	17	55	-1	10	5		
SODANKYLA	58.78	347.3	10	1	-1						10	51 PCP
DUBUQUE	58.90	59.7	10	5	2	17	58	-10	10	14		
KIRUNA	59.09	350.1	10	2	-2	18	15	5				
SVERDLOVSK	59.67	325.4	10	7	-1	18	19	1				
WICHITA MTS.	59.92	71.2	10	7	-3	18	11	-10			22	35 SS
KUNMING	61.40	274.8	10	19	-1	18	40	0				
ROLLA	61.48	64.2	10	18	-2	18	44	3				
FAYETTEVILLE	61.48	67.1	10	18A	-2							
FLORISSANT	61.68	62.5	10	25	3	18	47	3				
KAJAANI	61.72	345.5	10	21	-1						11	4 PCP
ST. LOUIS 1	61.87	62.5				18	51	5				
BLOOMINGTON	63.49	59.7				19	9	3				
SKALSTUGAN	64.00	352.7	10	35	-2							
CLEVELAND	64.38	54.9									19	13 PS
SHAWINIGAN	64.71	46.0	10	44	2							
BREBEUF	65.13	47.2	10	47A	3	19	25	-2			23	33 SS
LHASA	65.15	286.7	10	43	-2	19	27	0				
PULKOVO	65.32	342.5	10	45	-1	19	27	-2				
NURMIJARVI	65.57	345.7	10	47	0							
HELSINKI	65.85	345.4	10	48	-1							
PORT MORESBY	66.67	213.0	10	55	1	19	45	0				
UPPSALA	67.15	349.2	10	55A	-2	19	47	-4				
MOSCOW	67.47	336.8	10	59A	0	19	55	0				
SHILLONG	67.67	283.2	11	3K	2	19	56	-2			22	33
TASHKENT	68.11	309.6	11	1K	-2							
PALISADES	68.47	50.5				20	6	-1				
CHATRA	69.52	287.5	11	11	-1	20	20	0				
GOTEBORG	69.84	351.8	11	15A	1							
CHITTAGONG	70.10	281.0	11	15	-1							
SAMARKAND	70.49	310.0	11	17	-1	20	31	0				
ABERDEEN	71.01	359.8				20	37	0			25	15 SS
CALCUTTA	72.05	283.6									20	49
DEHRA DUN	72.07	296.3	11	33	5						20	48
BOKARO	72.59	286.4	11	31	0	20	54	-1				
WARSAK DAM	72.70	303.2	11	29	-3							
LAHORE	73.15	299.7	11	34	0							
DURHAM	73.41	359.5	11	26K	-9	21	46	42			25	54 SS
NEW DELHI	73.89	295.8	11	35K	-3	21	5	-5				
WARSAW	74.11	345.3	11	39	0	21	7	-5			16	10 PPP
WITTEVEEN	75.09	354.3	11	51	6							
MAKHACH-KALA	75.86	324.6	11	52	2	21	33	1				
LWOW	75.92	342.7	11	52	2	21	31	-1				
HALLE	75.98	350.8	11	52	2						12	26
COLLMBERG	76.07	350.1	11	52A	1							
KRAKOW	76.39	345.4	11	54	1	21	35	-2			22	16 PS
JENA	76.58	350.9	11	53	-1	21	46	6			26	51 SS
RACIBORZ	76.62	346.5	11	55	1						12	9 PCP
KEW	76.71	358.6	11	56	2	21	38	-3				
BENSBERG	76.91	353.8	11	56	1						12	19
CHARTERS TS.	76.97	210.1	11	56	0							
SKALNATE PL.	77.18	345.0	11	56	-1						12	15 PCP
PRUHONICE	77.20	348.8	11	57	0	21	48	2				
SOTCHI	77.90	330.1	11	59	-2							
TIFLIS	77.91	325.8	12	2	1							
DOURBES	77.92	355.4	12	3	2	21	58	4				
QUETTA	78.09	304.1	12	2	0	21	57	1	12	12	22	47 PS
KASPERSKE H.	78.15	349.3	12	3	1						14	59 PP
SIMFEROPOL	78.25	334.4	12	2	-1	21	56	-2				
BRATISLAVA	78.64	346.8	12	6	1						12	22 PCP
STUTTGART	78.93	352.1	12	6	-1	22	6	1			22	46 PS
BUDAPEST	79.03	345.4	12	11	4	22	6	0			15	9 PP
STRASBOURG	79.24	353.1	12	10	2						27	17 SS
GORIS	79.33	323.7	12	8K	-1							
FOLINIERE	79.41	358.7	12	5	-4							
TEHERAN	80.65	318.3	12	16	0	22	20	-3			15	18 PP
BUCHAREST	80.68	339.7	11	15K	-61	21	34	-49			21	25 SKS
BESANCON	80.68	354.2	12	18	2							
GARCHY	80.80	356.2	12	18	1						18	46

LJUBLJANA	81.07	348.1	12	21	3							
BELGRADE	81.38	343.7	12	21K	1					23	3	PS
HYDERABAD	81.87	287.8	12	25	3	22	33	-2		27	37	SS
PADOVA	82.01	349.9	12	19A	-4	22	49	12		23	59	
ROSELEND	82.32	352.9	12	25	1							
PAVIA	82.50	351.8								48	17	
SOFIA	82.90	341.2	12	25	-2							
POONA	83.66	292.0	12	31K	0	22	52	-2		23	35	PS
FLORENCE X.	83.69	350.1	12	39	7	23	13	19				
BOMBAY	83.95	293.0	12	33	0	22	54	-3		23	39	PS
MONACO	84.09	352.8	12	33	-1							
BAGNERES	85.10	358.1	12	40	1					13	7	
ROME	85.41	348.9	12	38K	-2	23	3	-8		15	51	PP
KSARA	88.03	328.9	12	50	-3	23	32	-4		16	20	PP
MESSINA	88.63	345.9	12	57	1	23	33	-9		16	25	PP
KARAPIRO	89.76	181.6	13	1	0							
CANBERRA	90.65	203.0	13	6	1							
SAN JUAN	90.70	58.4	13	10	4							
BOGOTA	97.49	72.6				23	58	-16				
BROKEN HILL	135.01	315.3	19	26	5							
BULAWAYO	139.94	311.2	19	31	1							
MAWSON	145.73	218.2	19	41	1							

JANUARY 2 5.H 23.M 39.S EPICENTRE -18.02 -70.27 DEPTH= 57.KM

A= 0.32125 B=-0.89570 C=-0.30744 D=-0.9413 E=-0.3376
G=-0.1038 H= 0.2894 K=-0.9516 HT= 5.1

DEPTH OF FOCUS= 0.004R

SE= 2.76

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AREQUIPA	1.94	322.9	0	33	1								
LA PAZ	2.54	53.9	0	50A	10	1	13	2					
ANTOFAGASTA	5.65	181.4	1	22	-2								
HUANCAYO	7.69	319.8	1	52	0	3	59	40					
BOGOTA	22.80	350.2	5	4	5	9	3	3			9	39	*SS
CHINCHINA	23.44	346.5	5	7	2	9	13	2	5	23			
CARACAS	28.53	6.9	5	52	-1	10	38	3					
GRENADA	31.04	16.4	6	15	0								
SAN JUAN	36.40	6.6	6	59	-2								
DALLAS	56.58	333.2	9	39	-1								
BLOOMINGTON	58.90	345.3	9	55K	-1				10	11			
WICHITA MTS.	58.96	332.9	9	54	-2				10	12	11	3	PP
ROLLA	59.22	340.2	9	56K	-2				10	13			
ST. LOUIS 1	59.39	341.9	9	58A	-1				10	14			
LAWRENCE	61.33	338.0	10	10	-2								
MANHATTEN	62.01	337.0	10	15K	-2				9	32			
HALIFAX	62.63	5.4	10	20K	-1								
ALBUQUERQUE	62.90	327.0	10	23	0								
DUBUQUE	63.10	343.2	10	24	0				10	40			
BREBEUF	63.29	357.4	10	25K	-1						10	58	
TUCSON	63.30	321.9	10	25	-1				10	42			
TUCSON TELE.	63.30	322.1	10	25	-1								
SHAWINIGAN	64.30	358.1	10	32	0								
BYRD STATION	65.73	188.3	10	42	1								
GLEN CANYON	67.15	325.0	10	51	1								
BOULDER CITY	68.28	322.2	10	58	1								
FLAMING GRGE	68.98	329.2	11	2	0								
PASADENA	69.07	318.8	11	3	1						11	39	
SALT LAKE C.	70.09	327.6	11	0	-8				11	17			
EUREKA	71.36	324.2	11	17	1				11	37	12	5	PCP
PRIEST	71.91	319.0	11	21A	2								
LICK	73.28	319.4	11	28K	1								
BOZEMAN	73.38	331.4	11	28	0								
RENO	73.59	322.2	11	31A	2								
BERKELEY	73.99	319.6	11	33	2								
BUTTE	74.34	330.9	11	44	10								
CALISTOGA	74.67	320.0	11	36A	0								
MINERAL	75.16	321.9	11	39A	1								
HUNGRY HORSE	76.74	331.7	11	48	1								
PENTICTON	80.03	329.7	12	6A	1								
VICTORIA	81.39	327.4	12	13	0								
KIMBERLEY	85.78	118.7	12	36	1								
MAWSON	88.02	163.8	12	47	1				13	4			

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BAGNERES	88.60	43.7	12 47	-1		13 6		
FOLINIERE	90.75	38.4	12 59	1				
BULAWAYO	91.88	111.7	13 6	2				
MONACO	93.72	45.2	13 13	1				
RESOLUTE	93.81	353.6	13 13	1				
ROSELEND	94.49	43.6	13 14	-2		13 32		
FLORENCE X.	96.33	46.1	12 48	-36				
STUTTGART	96.68	40.9	13 43	17				
CHARTERS TS.	127.86	225.1	19 2	2				
QUETTA	139.34	64.5	19 26	5				
GUAM	146.03	267.4	19 37	4			22 41	PP
NEW DELHI	148.42	64.6	19 41	4				
MATUSIRO	148.86	312.1	19 41	3			20 2	PKP2
ESEN BULAK	149.58	18.6	19 46	7				
ULAN-BATOR	150.09	3.8	19 47	7				
CHITTAGONG	162.64	72.6					19 56	PKP2

JANUARY 2 12.H 22.M 53.S EPICENTRE 79.89 24.62 DEPTH= 0.KM

A= 0.16064 B= 0.07362 C= 0.98426 D= 0.4166 E=-0.9091
G= 0.8948 H= 0.4101 K=-0.1767 HT=-13.6

SE= 2.42

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KHEYS	5.66	66.4	1 27	-1	2 26	-9		2 14	
TROMSOE	10.42	191.1	2 31	-3					
KIRUNA	12.18	187.6	2 56K	-2	5 3	-13		5 9	SS
ALERT	12.34	322.0	3 3A	3					
SODANKYLA	12.60	176.4	3 0	-4	5 14	-12			
APATITY	12.62	164.4	2 59K	-5	5 13	-14		3 9	*SP
KAJAANI	15.92	175.0	3 49	-4	6 33	-12			
SKALSTUGAN	16.76	199.4	3 59	0					
THULE	17.40	307.9	4 6	0					
NURMIJARVI	19.48	179.9	4 30	-1	7 50	-16			
HELSINKI	19.82	179.5	4 35	0	7 58	-16			
SIDA	20.03	241.6	4 31	-7					
UPPSALA	20.25	190.2	4 39K	-2	8 14	-9		8 36	SS
PULKOVO	20.29	171.7	4 40	0	8 11	-12		9 7	PCP
BERGEN	20.42	208.1	4 45	3				12 24	
RESOLUTE	22.23	322.3	5 0	0	9 2	1		6 13	
GOTEBORG	22.64	197.8	5 5A	1				5 25	PP
KARLSKRONA	24.01	192.5	5 17A	-1				9 47	
ABERDEEN	24.30	216.5			9 43	6		10 46	SS
MOSCOW	24.63	162.2	5 24	0					
SVERDLOVSK	25.74	131.9	5 35	1					
DURHAM	26.61	214.8	5 57A	15	10 16	0		11 6	
WARSAW	27.81	184.8			10 25	-11		6 51	PPP
MUNSTER	28.62	202.2	5 40	-20					
HALLE	28.83	196.5	6 2	0	10 56	4			
COLLMBERG	28.98	195.1	6 3A	-1				6 53	PP
JENA	29.42	196.9	6 7	-1	10 57	-4		6 52	PP
BENSBERG	29.65	202.5	6 8	-2				7 11	PP
KEW	29.75	212.1			11 44	37			
KRAKOW	30.01	186.1	6 12	-1					
RACIBORZ	30.01	188.3	6 14	1				7 18	PP
PRAGUE	30.15	193.1						12 32	
LWOW	30.19	180.8	6 14	-1				13 19	SSS
PRUHONICE	30.23	193.0	6 16	1				16 16	
FELDBERG	30.31	200.8	6 37	21					
DOURBES	30.69	205.6	6 13	-6				7 39	PP
SKALNATE PL.	30.87	185.6	6 18	-3				7 10	PP
KASPERSKE H.	31.12	194.1	6 24A	1				13 39	
STUTTGART	31.70	199.5	6 28	0					
VIENNA-H.	31.90	190.5	6 29	-1				13 42	SSS
BRATISLAVA	31.95	189.5	6 31K	1				7 17	PP
STRASBOURG	31.98	201.3	6 33	3				11 37	
PARIS	32.14	207.9	6 33	1					
YAKUTSK	32.20	58.7	6 34	2				7 46	PP
HURBANOVO	32.22	188.1	6 41	9					
FOLINIERE	32.44	211.5	6 37	3					
BUDAPEST	32.60	187.1	6 38	2	11 55	4		13 15	PCS
BASLE	33.04	201.4	6 46	6				16 45	
CHUR	33.60	198.8						18 4	
GARCHY	33.62	206.9	6 45	0				7 43	

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LJUBLJANA	34.16	192.6	6 51	2				7 29	
TIMISOARA	34.29	184.2						19 0	
ZAGREB	34.34	190.7						17 37	
TRIESTE	34.59	193.5	7 8	15					
SEMIPALATNSK	34.90	112.6	6 57	1					
ROSELEND	35.07	201.0	6 57	0					
SIMFEROPOL	35.24	168.3	7 3	4					
PAVIA	35.29	199.0						18 28	
COLLEGE	35.39	354.4	6 59	-1			7 22	8 37	*SP
BUCHAREST	35.60	178.2						13 51	
CHIAVARI	36.13	198.7	7 7	1	11 27	-79		8 47	PP
IRKUTSK	37.26	87.0	7 14	-2					
SOFIA	37.32	181.6	7 16	0	12 57	-7		8 42	PP
BAGNERES	38.04	209.5	7 26	4				8 4	
ROME	38.39	194.6						17 22	
ISTANBUL UN.	39.01	174.7	7 35	5				9 1	
TIFLIS	39.04	155.8	7 32	1				9 4	PP
TARANTO	39.64	188.8						20 19	
GORIS	41.36	154.3						8 53	PPP
FRUNSE	41.39	121.5	7 52	2					
ESEN BULAK	41.49	97.6	7 52	1					
ULAN-BATOR	41.90	86.4	7 53	-1					
MESSINA	41.96	190.7	7 57	2	14 12	-2		9 36	PP
ATHENS	42.04	181.1	7 56K	1				8 35	
TASHKENT	42.09	127.8			14 15	-1		17 19	SS
ASHKABAD	44.03	140.8	8 9	-2				18 19	SSS
DUZHANBE	44.72	129.1						17 43	SS
TEHERAN	45.52	149.1	8 27	4	15 15	9		10 6	PP
KSARA	46.40	167.0	8 31	1	15 3	-15		10 19	PP
BREBEUF	47.01	287.9	8 38A	3				19 7	SS
BANFF	47.21	326.7	8 34	-3					
PENTICTON	49.42	329.8	8 54	0					
WARSAK DAM	49.60	127.2	8 56	1					
HUNGRY HORSE	49.85	324.8	8 56	-1					
ALBERNI	49.91	334.2	8 57	-1					
VICTORIA	50.54	332.9	9 2	-1					
PALISADES	51.42	286.8	7 46	-83	16 36	7			
BUTTE	52.00	323.1	9 13	-1					
BOZEMAN	52.19	321.7	9 14	-1					
DUBUQUE	52.64	302.8	9 20	2			9 39		
QUETTA	52.74	132.9	9 21	2				21 3	
RAPID CITY	52.83	314.4	9 19	-1			9 37		
WASHINGTON	54.01	289.2						16 26	SCS
NEW DELHI	55.75	122.3	9 40A	-1					
FLAMING GRGE	56.68	319.3	9 48	0					
MANHATTEN	56.74	307.4	9 57K	9			10 16		
LAWRENCE	56.78	306.1	9 48	-1					
SALT LAKE C.	57.12	321.5	10 49	58					
ROLLA	57.34	302.8	9 52K	-1			10 13		
MATUSIRO	58.23	60.2	9 59	0					
MINERAL	58.50	330.1	9 59A	-2					
EUREKA	58.83	325.0	10 3	0					
CHATRA	59.03	112.4	10 5	1				10 49	
RENO	59.14	328.4	10 5	0					
CALISTOGA	60.28	330.8	10 13A	0					
GLEN CANYON	60.84	320.6	10 16	-1					
BERKELEY	61.02	330.4	10 17	-1					
SHILLONG	61.04	107.8	10 19K	1					
WICHITA MTS.	61.42	308.3	10 20	-1			10 31	11 55	PCP
LICK	61.49	329.8	9 41K	-40					
BOULDER CITY	62.17	323.4	10 27	1					
ALBUQUERQUE	62.23	315.6	10 25	-1					
PRIEST	62.59	328.7	10 29K	0					
CHITTAGONG	64.17	108.5	10 39	0			10 50		
PASADENA	64.33	326.2	10 40	0				26 29	
TUCSON TELE.	65.32	319.1	10 47	1					
TUCSON	65.42	319.2	10 46	-1					
BANGUI	75.53	186.2	11 46	-2					
LWIRO	82.08	175.8	12 27	3					
MAWSON	148.86	152.7	19 50	4				20 11	PKP2

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JANUARY 3 17.H 53.M 10.S EPICENTRE 52.31 177.48 DEPTH= 77.KM

A=-0.61337 B= 0.02699 C= 0.78933 D= 0.0440 E= 0.9990
G=-0.7886 H= 0.0347 K=-0.6140 HT= -6.3

DEPTH OF FOCUS= 0.007R

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	
PETROPAVLOVK	11.46	281.0	2	46	3								
MAGADAN	16.53	306.5	3	47K	-1								
COLLEGE	21.67	41.2	5	50	64						8	55	PCP
YAKUTSK	27.04	309.8	5	36	-1	11	12	65					
VLADIVOSTOK	31.54	271.5	6	16	-1	11	24	5					
MATUSIRO	31.71	255.9	6	18A	-1								
ABUYAMA	34.42	256.3	6	42A	0								
RESOLUTE	39.85	24.5	7	28K	0								
ALERT	42.11	9.8	7	47A	1								
HUNGRY HORSE	42.42	66.9									10	20	
PEKING	42.95	278.6	7	53	0	14	23	11					
KHEYS	43.19	347.9	7	56	1	14	24	9					
BERKELEY	43.65	84.6	7	58	-1								
ULAN-BATOR	43.83	293.6	8	0	0								
RENO	44.10	81.0	8	2	0								
LICK	44.37	84.7	8	4A	0								
ZO-SE	45.74	265.2	8	15	0	15	6	14					
PAOTOW	46.31	283.4	8	21	1	15	13	13					
EUREKA	46.45	78.4	8	19	-2						10	14	PP
NANKING	46.54	268.1	8	21	-1								
PASADENA	48.59	85.4	8	37	-1								
BOULDER CITY	49.40	81.2	8	38	-6								
AMDERMA	49.68	335.7	8	45A	-1	15	43	-5					
ESEN BULAK	50.61	297.8	8	52	-1								
GLEN CANYON	50.70	78.0	8	51	-3								
RAPID CITY	51.01	65.7	9	2	6				9	36			
SIAN	51.09	277.8	8	56	-1								
LANCHOW	52.95	283.0				16	40	7					
TUCSON	54.37	81.8	9	21	0								
ALBUQUERQUE	55.14	76.3	9	25	-2								
HONG KONG	56.41	263.3				18	12	53					
CHENGTU	56.56	278.1	9	36	-1								
MANHATTEN	57.95	66.1	9	44	-3								
DUBUQUE	58.88	59.7	9	52	-1						28	21	
KIRUNA	58.96	350.1	9	48	-6								
WICHITA MTS.	59.93	71.2	9	59	-1						10	23	
KUNMING	61.33	274.6	10	10	0								
ROLLA	61.47	64.2	10	8K	-3						28	15	
KAJAANI	61.58	345.4	10	12	0								
FLORISSANT	61.67	62.5	10	11	-1								
BLOOMINGTON	63.47	59.7									28	32	
SHAWINIGAN	64.66	45.9	10	31	-1								
LHASA	65.07	286.6	10	35	0								
BREBEUF	65.09	47.2	10	34A	-1								
NURMIJARVI	65.44	345.6	10	35	-2								
HELSINKI	65.71	345.3	10	37	-2								
PORT MORESBY	66.74	212.8	10	44	-1								
UPPSALA	67.02	349.1	10	44	-3								
MOSCOW	67.33	336.7	10	43	-6								
SHILLONG	67.59	283.1	10	49A	-1						15	33	
TASHKENT	67.99	309.5	10	52	-1								
PALISADES	68.43	50.5				20	7	17					
CHATRA	69.43	287.4	11	3A	1								
GOTEBORG	69.71	351.8	11	2	-2								
SAMAPKAND	70.37	309.9	11	8	0	20	17	4					
WARSAK DAM	72.58	303.1	11	21	0								
LAHORE	73.04	299.6	11	23	0								
NEW DELHI	73.78	295.7	11	28K	0								
WITTEVEEN	74.96	354.2	11	37	2								
DARWIN	75.90	227.1	11	41	1								
COLLMBERG	75.94	350.0	11	40	0								
JENA	76.45	350.9	11	44	1								
KEW	76.58	358.6	11	44	0								
BENSBERG	76.78	353.7	11	45	0								
CHARTERS TS.	77.06	210.0	11	46	0								
PRUHONICE	77.06	348.8	11	47	1								
TIFLIS	77.78	325.7	11	53	3	21	48	13					
DOURBES	77.79	355.3	11	52	2								
QUETTA	77.97	304.0	11	53A	1	21	46	9			12	2	PCP

KASPERSKE H.	78.01	349.3	11 52	0	12 26
STUTTGART	78.80	352.1	11 57	1	
STRASBOURG	79.11	353.1	11 59	1	
PARIS	79.17	356.6	11 59	1	
FOLINIERE	79.28	358.6	12 0	1	
BESANCON	80.55	354.1	12 6	1	
GARCHY	80.67	356.1	12 7	1	
CLERMONT-FD.	82.18	356.0	12 17	3	
ROSELEND	82.19	352.8	12 16	2	
KARACHI	82.25	300.8	12 18	4	
BRISBANE	82.26	202.0	12 15	1	
MONACO	83.95	352.8	12 22	-1	
KARAPIRO	89.88	181.5	12 51	-1	
SAN JUAN	90.68	58.3	12 26	-29	
MAWSON	145.79	218.3	19 29A	-1	

JANUARY 3 23.H 50.M 29.S EPICENTRE -21.39 169.85 DEPTH= 36.KM
A=-0.91735 B= 0.16417 C=-0.36264 D= 0.1762 E= 0.9844
G= 0.3570 H=-0.0639 K=-0.9319 HT= 4.3

DEPTH OF FOCUS= 0.001R

SE= 2.61

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
NOUMEA	3.29	253.5	0 45K	-5	1 23	-6		
PORT VILA	3.92	338.1	1 2	3	1 52	7		
KOUMAC	5.27	278.0	1 16K	-2	2 18	-1		
BRISBANE	16.65	245.6	3 47	-5	6 41	-14		
KARAPIRO	17.20	164.6	3 58	-1				
CHATEAU	18.41	165.9	4 14	0				
APIA	19.05	69.7	4 21	-1	8 17	28		
WELLINGTON	20.26	169.2	4 37	2				8 25
RIVERVIEW	20.65	229.2	4 36	-3				8 41 PCP
CHARTERS TS.	22.10	269.1	4 54	1	8 51	1		
GEBBIES PASS	22.37	174.7	4 55	-1				
CANBERRA	22.94	228.3	5 1	-1	9 14	9		5 45 PPP
PORT MORESBY	24.88	295.2	5 23	2	9 45	6		
MELBOURNE	27.01	227.2	5 40	0				
MOORLANDS	28.31	217.0	5 52	0			6 7	
FORT NELSON	28.54	216.0	6 1	7				
ADELAIDE	30.46	236.9	6 11	0				
SCOTT BASE	56.53	180.8	9 39	-2				
MATUSIRO	64.91	332.2	10 37	-1				
BYRD STATION	65.73	193.3	10 38	-5				
ISABELLA	88.39	50.7	12 49	0				
SHILLONG	88.88	297.9	12 52A	0				
EUREKA	91.89	48.2	13 6	0				
COLLEGE	91.93	16.7	13 2	-4				
WICHITA MTS.	103.09	57.7						29 53 PKKP
BREBEUF	123.40	48.9	18 53K	0				
SHAWINIGAN	123.93	47.6	18 54	0				
SAN JUAN	127.51	82.8	19 1	0				
COLLMBERG	145.11	334.4	19 33A	-1				23 20 PKS
HALLE	145.37	335.6	19 35	1				
PRUHONICE	145.44	331.6	19 35A	1				21 14
VIENNA-H.	145.80	327.9	19 37	2				
JENA	145.96	335.3	19 36	1				20 50
DURHAM	146.05	351.1	19 36A	1				
ATHENS	146.49	307.1	19 38K	2				20 2
KASPERSKE H.	146.50	331.4	19 38A	2				21 51
MUNSTER	146.51	340.0	19 35	-1				
BANGUI	147.36	242.8	19 37	0			19 55	
BENSBERG	147.52	339.5	19 41	3				20 41
FELDBERG	147.71	337.5	19 47	9				
LJUBLJANA	148.22	326.5	19 43	4				20 11
HEIDELBERG	148.29	336.3	19 43	4				
STUTTGART	148.58	335.0	19 44	5				
TUBINGEN	148.86	335.0	19 45	5				
KEW	149.02	348.0	19 45	5				
DOURBES	149.07	341.4	19 45	5				
RAVENSBURG	149.23	333.5	19 46	6				
STRASBOURG	149.32	336.4	19 46	6				
PARIS	150.84	342.7	19 50	7				20 51 PKP2
FLORENCE X.	151.47	326.4	19 45	1				

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FOLINIERE	151.61	346.5	19	51	7						
ROSELEND	151.89	332.9	19	53	9					20	16
GARCHY	152.05	340.6	19	59	14					20	16
BAGNERES	156.73	340.6	20	1	10						

JANUARY 4 4.H 16.M 3.S EPICENTRE 35.16 139.31 DEPTH= 161.KM

A=-0.62122 B= 0.53423 C= 0.57332 D= 0.6520 E= 0.7582
G=-0.4347 H= 0.3738 K=-0.8193 HT= 0.1

DEPTH OF FOCUS= 0.020R

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
AJIRO	0.20	236.1	0	21A	-1	0	36	-3				
MISIMA	0.29	261.6	0	22K	-1	0	38	-2				
YOKOHAMA	0.39	46.6	0	22A	-1	0	39	-2				
OSIMA	0.40	171.1	0	22A	-1	0	37	-4				
MERA	0.49	119.3	0	22K	-2	0	38	-4				
HUNATU	0.55	307.6	0	24	0	0	39	-3				
TOKYO C.M.O.	0.63	35.0	0	24A	0	0	42	-1				
HONGO	0.66	34.7	0	24K	0	0	42	-1				
NAGATURO	0.68	213.8	0	36	12							
SHIZUOKA	0.77	255.7	0	34K	9	0	43	-1				
KOHU	0.79	309.9	0	24K	-1	0	42	-2				
TITIBU	0.84	347.4	0	25	0	0	43	-2				
KUMAGAYA	0.99	3.5	0	26K	0	0	45	-1				
OMAESAKI	1.05	238.1	0	26	0	0	46	-1				
TUKUBASAN	1.24	31.3	0	27	-1						0	47
MAEBASI	1.25	351.3	0	29	1	0	50	0				
IIDA	1.26	286.9	0	27K	-1	0	40	-10				
KAKIOKA	1.28	33.5	0	29A	0	0	49	-2				
OIWAKE	1.32	332.4	0	29	0	0	51	-1				
TYOSI	1.38	65.8	0	30A	0	0	52	-1				
MATUMOTO	1.54	315.3	0	32	1	0	55	-1				
MITO	1.54	37.6	0	31A	0	0	53	-3				
MATUSIRO	1.64	327.4	0	32A	0	0	56	-1			1	32
NAGANO	1.75	329.5	0	37	3	1	3	4				
NAGOYA	1.91	270.9	0	35K	0	1	2	0				
TAKAYAMA	1.94	301.1	0	34	-1	0	56	-7				
GIHU	2.09	277.2	0	38K	1	1	5	-1				
SHIRAKAWA	2.09	20.5	0	37	0	1	3	-3				
HATIDYOZIMA	2.10	168.8	0	35	-2	1	5	-1				
TAKADA	2.11	336.5	0	35	-2	1	6	0				
ONAHAMA	2.20	35.5	0	38	-1	1	6	-2				
TOYAMA	2.30	312.5	0	44	4	1	13	3				
TU	2.33	259.4	0	39K	-1							
KAMEYAMA	2.35	263.2	0	41	1	1	9	-2				
HIKONE	2.50	273.3	0	43	1	1	16	1				
KANAZAWA	2.55	303.1	0	47	4	1	22	6				
HUKUI	2.66	290.3	0	47A	3	1	21	3				
TSURUGA	2.69	281.3	0	43	-2	1	18	-1				
HUKUSIMA	2.75	19.6	0	45K	0	1	19	-1				
NIIGATA	2.76	355.8	1	2	17	1	31	11				
OWASE	2.78	247.8	0	44	-2	1	18	-3				
KYOTO	2.94	268.2	0	47K	-1	1	23	-1				
WAZIMA	2.94	319.4	0	49	1	1	26	2				
AIKAWA	2.97	343.7	0	49	1	1	25	0				
ABUYAMA	3.08	265.6	0	49K	0	1	26	-1				
OSAKA	3.14	261.7	0	49K	-1	1	28	-1				
YAMAGATA	3.19	14.9	0	51K	0	1	29	-1				
MAIZURU	3.22	276.6	0	51A	0	1	29	-2				
SENDAI	3.35	22.0	0	52	-1	1	32	-2				
SIOMISAKI	3.39	240.7	0	53A	0	1	31	-3				
KOBE	3.42	263.1	0	54	0	1	35	0				
ISINOMAKI	3.64	25.8	0	56K	-1	1	37	-3				
TOYOOKA	3.68	277.0	0	56	-1	1	39	-2				
SUMOTO	3.71	258.5	0	58K	0	1	41	-1				
SAKATA	3.75	6.3	1	4	6							
TOKUSIMA	4.05	255.7	1	3	1	1	52	2				
HIMEJI	4.09	262.1	1	0	-2	1	45	-6				
TOTTORI	4.20	276.2	1	3	-1							
MIZUSAWA	4.22	19.7	1	2	-2	1	52	-2				
TAKAMATU	4.41	260.5	1	4	-3	1	52	-6				
AKITA	4.59	7.7	1	13	4	2	4	2				

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TSURUGISAN	4.60	254.2	1	9	0	1	57	-5			
MUROTO	4.66	247.3	1	10	0	2	3	-1			
TORISIMA	4.74	169.6	1	14	3	2	10	4			
MORIOKA	4.77	17.6	1	12	1	2	4	-2			
YONAGO	4.88	274.8	1	13	0	2	10	1			
MIYAKO	4.96	24.6	1	12	-2	2	5	-6			
KOTI	5.04	253.0	1	15	0	2	11	-?			
MATUYAMA	5.55	258.1	1	22	0						
HATINOHE	5.64	17.5	1	20	-3	2	23	-4			
AOMORI	5.77	11.2	1	24	0	2	10	-20			
OOITA	6.65	255.3	1	46	10	2	24	-27			
HAKODATE	6.73	9.3	1	36	-1	2	48	-5			
MORI	7.00	7.7	1	40	-1						
MURORAN	7.26	9.9									2 53
URAKAWA	7.49	20.2	1	46	-1	3	7	-4			
SUTTSU	7.66	5.1									3 7
TOMAKOMAI	7.66	12.7									3 10
HIROO	7.77	22.6	1	48	-3	3	9	-9			
SAPPORO	8.05	10.8	1	58	3						3 10
OBIHIRO	8.32	20.2	1	56	-2	3	26	-5			
KUSIRO	8.75	25.4	2	0	-4						
RUMOE	8.95	10.8				3	36	-10			
NEMURO	9.49	28.9				3	49	-10			
SHILLONG	41.70	270.1	7	32A	-2						
DARWIN	47.96	191.2	8	23	-1						
COLLEGE	51.58	31.4	8	52	0	15	21	-37			
NEW DELHI	52.41	281.2	8	56A	-2						
LAHORE	53.53	285.8	9	4	-2						
WARSAK DAM	54.77	289.7	9	14A	-1						
CHARTERS TS.	55.34	172.0	9	18	-1						
QUETTA	59.88	287.4	9	50A	-1						
RESOLUTE	64.83	13.8	10	23K	-1						
SODANKYLA	66.02	337.0	10	31	0						
KAJAANI	67.52	333.8	10	41	0						
KIRUNA	67.65	338.9	10	41	-1						
PENTICTON	70.70	42.9	11	1	1						
NURMIJARVI	70.78	331.6	11	0K	-1						
HELSINKI	70.87	331.2	11	1	0						
BANFF	71.91	39.7	11	6	-1						
SKALSTUGAN	73.02	338.1	11	12	-2						
UPPSALA	73.88	333.4	11	18	-1						14 3 PP
MINERAL	74.29	51.6	11	22K	1						
HUNGRY HORSE	74.31	41.6	11	23	2						
CALISTOGA	74.58	53.5	11	24K	1						
BERKELEY	75.21	54.1	11	28K	2						
LICK	75.91	54.2	11	31A	1						
PRIEST	77.23	54.8	11	39K	1						
GOTEBORG	77.47	334.1	11	37	-2						
EUREKA	78.35	49.8	11	45	1						
ISABELLA	78.96	54.2	11	46	-1						
KARAPIRO	80.12	151.7	11	54	1				12	34	
KSARA	80.84	304.9	11	59	2						
BOULDER CITY	81.16	52.1	12	2	3						
FLAMING GRGE	81.45	45.5	12	2	2						
COLLMBERG	81.85	329.3	12	2A	-1				12	44	15 13 PP
PRUHONICE	82.17	327.6	12	6	2						
GLEN CANYON	82.62	49.7	12	7	1						
JENA	82.72	329.7	12	6	-1						
RAPID CITY	82.83	40.1	12	9	1						
KASPERSKE H.	83.22	327.5	12	9A	0						12 49
LARAMIE	83.39	43.4	12	12	2						
LJUBLJANA	85.07	325.0	12	18	-1						
STUTTGART	85.34	329.4	12	21	1						
TUCSON	86.07	53.0	12	26	2						
ALBUQUERQUE	87.10	48.6	12	31	2				13	5	
ROSELEND	88.61	328.3									22 37
GARCHY	89.03	331.9	12	35	-3						12 39 PCP
WICHITA MTS.	91.93	44.3	12	51	0				13	31	
FAYETTEVILLE	93.36	40.7	11	58K	-60						
LA PAZ	149.25	59.8	19	30	5				19	43	

JANUARY 4 4.H 35.M 41.S EPICENTRE 33.67 135.30 DEPTH= 42.KM

A=-0.59282 B= 0.58657 C= 0.55182 D= 0.7034 E= 0.7108
G=-0.3923 H= 0.3881 K=-0.8340 HT= 0.6

DEPTH OF FOCUS= 0.001R

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
SIOMISAKI	0.45	119.2	0	11K	-1	0	17	-3				
WAKAYAMA	0.57	348.8	0	13A	0	0	21	-2				
TOKUSIMA	0.72	303.7	0	13K	-2	0	22	-4				
SUMOTO	0.74	334.1	0	15K	0	0	25	-1				
OWASE	0.85	61.6	0	15A	-1	0	26	-3				
OSAKA	1.00	10.8	0	19A	1	0	32	0				
KOBE	1.01	354.2	0	19A	1	0	33	1				
MUROTO	1.03	246.3	0	19	0	0	31	-1				
NARA	1.10	23.3	0	20	0	0	35	2				
HIMEJI	1.12	318.1	0	23K	3	0	39	4				
ABUYAMA	1.22	10.4	0	21K	0							
TAKAMATU	1.23	302.3	0	20K	-1	0	36	-1				
KYOTO	1.39	14.6	0	24A	0	0	39	-2				
TU	1.44	44.1	0	25A	1	0	44	1				
KOTI	1.48	265.9	0	24K	-1	0	41	-3				
KAMEYAMA	1.52	39.1	0	26A	0	0	40	-5				
OKAYAMA	1.53	311.7	0	23K	-3	0	41	-4				
HIKONE	1.78	25.8	0	31A	2	0	52	1				
MAIZURU	1.80	2.3	0	29A	0	0	39	-12				
TOYOOKA	1.90	348.0	0	32A	1	0	55	1				
NAGOYA	2.03	42.2	0	33A	0	1	2	5				
TOTTORI	2.06	333.5	0	32K	-1	0	57	-1				
TSURUGA	2.07	17.5	0	35K	2	1	0	2				
GIHU	2.11	34.6	0	34A	0	1	3	4				
MATUYAMA	2.11	275.3	0	36K	2	1	3	4				
SIMIDU	2.15	246.2	0	33A	-1	0	57	-3				
UWAZIMA	2.34	260.0	0	37	0							
YONAGO	2.38	318.0	0	39K	1	1	9	3				
HIROSIMA	2.49	287.1	0	38K	-1	1	12	3				
HUKUI	2.49	17.5	0	42A	3	1	16	7			3	31
MATSUE	2.56	314.6	0	41	1	1	14	3				
OMAESAKI	2.59	68.2	0	41A	0	1	20	9				
IIDA	2.78	47.8	0	41K	-2	1	16	0				
SHIZUOKA	2.87	62.3	0	43A	-2	1	27	9				
TAKAYAMA	2.95	32.3	0	47	1	1	8	-12				
SAIGO	3.00	327.8	0	49	2	1	24	2				
KANAZAWA	3.06	20.8	0	49A	2	1	32	9				
NAGATURO	3.08	71.5	0	45	-3	1	46	22				
OOITA	3.11	262.9	0	49K	1	1	23	-2				
NOBOEKA	3.22	251.3	0	48	-2	1	19	-8				
MISIMA	3.34	63.4	0	49A	-2	1	41	11				
KOHU	3.34	52.5	0	51A	0	1	43	13				
HUNATU	3.39	56.5	0	52	0	1	45	13				
TOYAMA	3.40	26.7	0	53	1	1	48	16				
AJIRO	3.43	65.3	0	51A	-2	1	29	-4				
OSIMA	3.55	70.9	0	53A	-1	1	29	-7				
ASOSAN	3.63	258.9	0	58	3	1	37	-1				
SIMONOSEKI	3.65	275.6	0	55K	-1	1	34	-4				
MIYAZAKI	3.71	243.0	0	56A	-1	1	37	-3				
MATUSIRO	3.73	38.9	0	56A	-1	1	55	15				
OIWAKE	3.76	44.2	0	58	1	1	58	17				
HATIDYOZIMA	3.80	97.4	0	56	-2	1	37	-5				
NAGANO	3.82	37.6	0	58A	0	1	57	15				
TITIBU	3.87	52.4	0	58	-1	2	1	17				
WAZIMA	3.92	18.9	1	0A	0	1	47	2				
MERA	3.95	70.3	0	58K	-2							
KUMAMOTO	3.95	258.9	1	0	0	1	31	-15				
YOKOHAMA	3.99	62.7	1	1A	0	2	0	13				
HUKUOKA	4.11	270.1	1	3A	1	1	49	-1				
HAEBASI	4.12	47.5	1	3A	1	2	1	11				
KUMAGAYA	4.16	52.4	1	3A	0	2	3	12				
TOKYO C.M.O.	4.18	60.1	1	4A	1	1	58	7				
TAKADA	4.18	34.3	1	3	0	1	50	-2				
HONGO	4.21	59.8	1	5	1	2	1	9				
KAGOSIMA	4.52	243.7	1	11	3	2	33	33				
NAGASAKI	4.64	259.8	1	9K	-1	2	8	5				
TUKUBASAN	4.69	55.8	1	8A	-2	2	23	19				
UTUNOMIYA	4.72	51.2	1	10	-1	2	27	22				
KAKIOKA	4.75	56.1	1	10K	-1	2	15	9				

AIKAWA	4.96	28.0	1 14	0	2 21	10		
TYOSI	5.01	64.3	1 19	4	2 28	16		
MITO	5.03	56.0	1 14A	-1	2 36	23		
ITUHARA	5.03	277.7	1 15	0				2 6
YAKUSIMA	5.19	233.1	1 16	-1	2 12	-5		
NIIGATA	5.22	34.6	1 18	0	2 23	5		
SHIRAKAWA	5.29	48.0	1 18	-1	2 42	23		
TORISIMA	5.30	125.5	1 17	-2	2 23	3		
TOMIE	5.58	261.0	1 26K	3	2 28	1		
ONAHAMA	5.63	52.8	1 23A	-1	2 39	11		
HUKUSIMA	5.85	44.4	1 28	1	2 54	21		
YAMAGATA	6.13	40.4	1 31	0	2 46	5		
SAKATA	6.37	33.7	1 38	4	2 59	13		
SENDAI	6.45	43.1	1 34K	-1	2 58	10		
ISINOMAKI	6.80	44.0	1 40A	0	3 21	24		
AKITA	7.16	31.2	1 42	-3	3 13	7		
MIZUSAWA	7.19	39.1	1 45	0	3 20	13		
MORIOKA	7.64	36.4	1 52	0	3 26	8		
MIYAKO	8.02	40.0	1 55	-2	3 47	20		
AOMORI	8.36	29.9	2 6A	4	3 31	-5		
HATINOHE	8.46	34.2	2 2A	-1	3 43	5		
HAKODATE	9.20	26.4	2 16	3	4 6	9		
MORI	9.39	24.8	2 19	3	4 17	16		
MURORAN	9.73	25.7	2 20	0	4 33	23		
VLADIVOSTOK	9.80	345.2	2 21K	-1	4 9	-3		
SUTTSU	9.90	21.6	2 26	3	4 21	7		
URAKAWA	10.32	32.7	2 32	3	4 34	10		
SAPPORO	10.51	25.0	2 31A	0	4 37	8		
HIROO	10.67	34.0	2 35	2				
OBIHIRO	11.12	31.6	2 41	1				5 24
RUMOE	11.38	23.7	2 43	0				
KUSIRO	11.71	34.9	2 43	-5	5 11	13		
ZO-SE	12.21	261.7	2 53K	-1	5 6	-4		
NEMURO	12.55	36.8	2 53	-6	6 9	51		
WAKKANAI	12.72	20.8	3 2	1	5 28	6		
CHANGCHUN	12.78	325.4	3 9	7				
NANKING	13.98	267.9	3 17K	-1	5 54	2		
Y.-SAKHLINSK	14.47	20.7	3 21	-3	6 3	-1		
TAIPEI	14.77	238.0	3 26	-2	6 40	29		
ILAN	14.78	236.7	3 3	-25				8 5
HWALIEN	15.39	234.6	3 38	2	5 52	-33		
TAICHUNG	15.92	237.2	3 59	16				
ALISHAN	16.25	235.3	3 6	-41				
TAITUNG	16.53	232.5	4 2	12	7 12	20		
PEKING	16.57	298.0	3 52K	1	6 57	4		
TAWU	16.98	232.1	4 1	5	7 19	17		
TAINAN	16.99	235.2	3 58	2				
HENGCHUN	17.32	231.6	3 35	-25				
PAOTOW	21.26	296.2	4 45K	0	8 49	15		
BAGUIO CITY	21.70	221.3	4 48	-1	8 50	8		
HONG KONG	21.79	244.1	4 51K	1	8 42	-2		5 25 *SP
GUAM	21.87	154.7	4 53	2	8 54	9		
SIAN	21.88	278.9	4 52K	1	8 55	10		
CANTON	21.97	247.0	4 52K	0	8 49	2		
MANILA	22.89	217.7	5 3	2	9 7	3		
PETROPAVLOVK	25.54	33.7	5 27A	0				
ULAN-BATOR	25.61	312.2	5 25	-2	9 39	-11		
LANCHOW	25.88	284.2	5 30K	0	10 4	9		
CHENGTU	26.61	272.2	5 35K	-2	10 18	12		
MAGADAN	27.85	16.9	5 48	0	10 30	3		
YAKUTSK	28.59	354.5	5 53K	-2	10 31	-7		6 45 PP
IRKUTSK	28.99	319.3	5 57K	-1	10 49	4		12 19 SS
KUNMING	29.53	261.9	6 2K	-1	10 55	2		7 17 PP
NHATRANG	31.98	234.3	6 25	0			6 39	
TOCKLAI	35.53	269.8	7 2	7				
LHASA	37.68	276.2	7 15K	2	13 5	5		8 41 PP
TIKSI	38.18	356.7	7 15	-2	13 5	-3		9 6 PPP
SHILLONG	38.39	269.6	9 18K	-1	13 6	-5		8 44 PP
CHATRA	41.83	273.9	7 47	-1	14 2	0		9 21 PP
CALCUTTA	42.54	267.4	7 55	2	14 18	5		9 43 PP
BOKARO	44.14	270.6	8 6	0	14 41	5		9 51 PP
PORT MORESBY	44.29	163.1	8 9	1	14 37	-1		18 15 SCS
PORT BLAIR	44.57	250.8	8 13	3				
FRUNSE	47.61	299.7	8 35	1	15 23	-2		10 27 PP
DJAKARTA	47.94	219.7	8 14	-23	15 34	4		
VISHAKHAPTNM	48.98	264.6	8 45K	0	15 56	11		10 39 PP
NEW DELHI	49.45	280.7	8 46K	-2	15 50	-1		10 44 PP
LAHORE	50.74	285.4	8 57	-1	16 10	1		

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TASHKENT	51.81	298.9	9	6	0	16	27	3			11	3 PP
WARSAK DAM	52.15	289.3	9	8K	-1	16	35	6				
DUZHANBE	52.92	295.7				16	46	7				
HYDERABAD	53.16	267.2	9	14K	-2						11	13 PP
MADRAS	53.97	261.4	9	23K	1	17	2	9			11	28 PP
SVERDLOVSK	54.40	319.3	9	24K	-1	17	1	2			11	25 PP
CHARTERS TS.	54.47	167.3	9	24	-2	16	58	-2				
COLLEGE	54.56	30.7	9	26	0	17	4	3	9	46	10	24 PCP
KHEYS	54.93	348.7	9	30	1	17	8	2			11	36 PP
POONA	56.47	270.9	9	38	-2	17	26	-1			11	53 PP
BOMBAY	57.15	271.9	9	43	-2	17	36	0			13	14 PPP
QUETTA	57.15	286.7	9	44	-1	17	40	4	9	58	11	58 PP
KODAIKANAL	57.70	260.3									17	11
KARACHI	59.26	280.9	10	1K	1							
HONOLULU	59.46	83.5	10	2	1							
KIPAPA	59.47	83.4	10	2	1							
KOUMAC	60.59	148.6	10	9	0							
ASHKABAD	60.87	298.2	10	9	-2	18	27	3			12	37 PP
SITKA	62.15	38.2	10	21	2							
HAWAII V.OB.	62.67	84.0	10	24	1	19	19	32				
BRISBANE	62.95	162.6	10	25	0	18	46	-4				
NOUMEA	63.08	147.5	10	35	9							
APATITY	63.67	335.2	10	28A	-1	18	59	0			10	43 PCP
ALERT	63.75	2.6	10	30	0							
SODANKYLA	66.08	336.4	10	44	-1	19	33	4				
TEHERAN	66.87	298.4	10	48	-2	19	42	4				
MOSCOW	66.92	322.5	10	49	-1	19	38	-1			13	17 PP
RESOLUTE	67.04	12.8	10	50A	-1	19	41	1			12	57
KAJAANI	67.36	333.0	10	53	0							
MUNDARING	67.72	197.5	10	54	-1							
KIRUNA	67.83	338.2	10	55	-1	19	51	1			20	45 SCS
ADELAIDE	68.36	177.0	10	59K	0							
PULKOVO	68.48	328.3	10	59	-1	19	57	0			13	37 PP
RIVERVIEW	68.77	165.9	11	3	1	20	6	5	11	13	20	24 *SS
GORIS	68.83	303.9	11	2K	0	20	5	3			13	38 PP
TIFLIS	68.88	306.6	11	3K	0	20	5	3			13	27 PP
CANBERRA	69.82	168.1	11	8	0	20	13	0	11	24		
NURMIJARVI	70.48	330.6	11	11K	-1	20	20	-1	11	27	13	48 PP
HELSINKI	70.55	330.2	11	12	-1				11	27		
ALBERNI	71.14	43.0	11	16	0							
VICTORIA	72.32	43.2	11	24	1							
SKALSTUGAN	73.13	336.9	11	29	1							
UPPSALA	73.69	332.2	11	30	-1	20	56	-2				
PENTICTON	74.02	41.1	11	32A	-1							
SIMFEROPOL	74.12	313.6	11	33K	-1	21	2	-1				
BANFF	75.14	38.0	11	39	-1							
TARRALEAH	76.29	171.5	11	47K	1							
MOORLANDS	76.52	171.0	11	48K	0							
KARLSKRONA	76.93	330.1	11	49	-1							
FORT NELSON	77.02	170.9	11	51K	0							
LWOW	77.03	321.7	11	51	0	21	34	-1			14	47 PP
WARSAW	77.05	324.9	11	45	-6	21	32	-3			26	24 SS
GOTEBORG	77.32	332.6	11	50A	-2						14	19
HUNGRY HORSE	77.60	39.7	11	54	0				12	5		
BERGEN	77.71	337.1	11	5	-49	21	42	0			32	22 PKKS
MINERAL	77.79	49.6	11	56A	1							
BERKELEY	78.74	52.0	12	0K	0	21	55	2			30	43 SSS
KSARA	78.93	303.2	11	58	-3	22	1	6			15	3 PP
KRAKOW	78.96	323.6	12	2	1	21	56	1				
BUCHAREST	79.14	316.4	11	47K	-15	22	20	23	12	3	15	2 PP
RENO	79.39	49.5	12	5K	2							
LICK	79.45	52.2	12	5A	1							
RACIBORZ	79.79	324.4	12	6	0							
BUTTE	79.81	41.0	12	7	1							
KARAPIRO	80.46	148.8	12	11	2				12	26		
BOZEMAN	80.86	40.6	12	14	3							
BUDAPEST	81.09	322.0	12	13	0	22	19	2			15	18 PP
COLLMBERG	81.39	327.5	12	13K	-1	22	21	0			15	22 PP
CHATEAU	81.53	149.5	12	14	-1							
PRAGUE	81.59	326.0				22	25	2			23	24
PRUHONICE	81.60	325.9	12	15	0						15	25 PP
BRATISLAVA	81.60	323.4	12	14	-1	22	25	2			15	25 PP
HALLE	81.71	328.2	12	15	-1	22	23	-1				
SOFIA	81.79	316.3	12	18	2							
EUREKA	81.82	47.8	12	17	1				12	30	15	16 PP
VIENNA-H.	81.91	323.8	12	16	-1	22	30	4				
BELGRADE	82.06	319.3	12	18K	0	22	31	4			22	37 SKS
JENA	82.28	327.9	12	19	0	22	29	-1			15	42 PP

CHEB	82.53	326.9	12	21	1	22	35	3			
ABERDEEN	82.63	338.2								22	35 PS
KASPERSKE H.	82.64	325.7	12	20K	-1					15	32 PP
WITTEVEEN	82.96	331.5	12	23	1						
MUNSTER	83.21	330.5	12	23	0						
PASADENA	83.59	53.1	12	27	2	22	55	12	12 38	23	43 PS
ZAGREB	83.75	322.2	12	40	14	22	42	-3			
DE BILT	84.10	331.7	12	31A	3	22	51	3			
BENSBERG	84.16	330.0	12	27	-1						
FELDBERG	84.17	328.9	12	38	10						
TITOGRAD	84.27	318.0	12	29	0	22	54	4		15	43 PP
LJUBLJANA	84.33	323.0	12	30	1	22	49	-1		15	48 PP
DURHAM	84.43	336.6								14	52 PP
ATHENS	84.51	312.4	12	31A	1						
ROXBURGH	84.60	156.7				22	52	-1			
HEIDELBERG	84.66	328.2	12	31	0						
BOULDER CITY	84.67	50.0	12	32	1						
FLAMING GRGE	84.84	43.5	12	22	-10						
STUTTGART	84.88	327.5	12	33	1	22	51	-5			
TRIESTE	85.00	323.1				22	51	-6		28	10 SS
KARLSRUHE	85.09	328.1	12	31	-2						
TUBINGEN	85.15	327.4	12	33	0						
RAVENSBURG	85.45	326.7	12	35	0						
STRASBOURG	85.69	328.1	12	36	0	23	5	1		15	56 PP
DOURBES	85.88	330.7	12	37	0	22	48	-17			
RAPID CITY	86.07	38.0	12	39	1				12 52	16	2 PP
GLEN CANYON	86.08	47.6	12	39	1						
PADOVA	86.10	323.9				23	12	4		16	9 PP
CHUR	86.18	326.1	12	39	1	23	11	3			
BASLE	86.56	327.5	12	42	2	23	15	3			
KEW	86.69	334.0	12	40	-1	23	13	0		23	0 SKS
TARANTO	86.70	317.6				23	19	6		13	24
BESANCON	87.48	328.2	12	44	-1						
PAVIA	87.58	325.1	12	45	0	23	31	9			
FLORENCE X.	87.58	323.1	12	43	-2	23	5	-17			
PARIS	87.74	331.0	12	58	12						
CHIAVARI	88.14	324.5	12	16	-32	22	51	-36		15	34 PP
ROME	88.30	321.1	12	47K	-1	23	31	3	13 3	16	17 PP
ROSELEND	88.38	326.8	12	49A	0						
GARCHY	88.71	329.7	12	50	0						
FOLINIERE	88.95	332.5	12	52	0						
MESSINA	89.21	316.8	12	46	-7	23	38	1	13 2	16	19 PP
JERSEY	89.22	333.6				23	38	1			
TUCSON	89.59	50.8	12	57	2				13 9	16	26 PP
TUCSON TELE.	89.61	50.7	12	57	2					16	39 PP
ALBUQUERQUE	90.54	46.4	13	1	2	23	51	2	13 13	16	33 PP
CUGLIERI	91.58	322.1	12	29	-35	24	9	11			
MANHATTEN	93.02	37.7	13	11K	0				13 21		
DUBUQUE	93.27	32.2	13	14	2						
BAGNERES	93.31	328.8	13	10	-2						
WICHITA MTS.	95.28	41.9	13	21	0	23	57	5		14	10 PP
ROLLA	96.35	35.7	13	26	0						
FLORISSANT	96.37	34.2	13	25	-1	24	41	43			
ST. LOUIS 1	96.57	34.2	13	29	2	24	47	48	13 41		
FAYETTEVILLE	96.61	38.3	13	28K	1				13 51	14	33
BREBEUF	96.96	20.0	13	30	2	24	1	0		24	45 S
TOLEDO	97.73	329.6	13	32	0	23	55	-10		17	31 PP
CLEVELAND	97.90	27.1				24	10	4		24	55 S
C. GIRARDEAU	97.95	34.6	13	33	0						
TANANARIVE	98.45	253.0	13	39	4					17	37 PP
GRANADA	99.78	327.8								25	10
PALISADES	100.96	22.1	14	0	13	23	48	-33			
LWIRO	104.97	277.4	14	4	0					18	19 PP
BANGUI	109.36	289.2	18	28	777					19	38
BROKEN HILL	111.76	266.8	18	0	-30					18	33
BULAWAYO	114.45	261.4	18	36	0						
KIMBERLEY	121.38	254.4	18	50K	1						
SAN JUAN	124.35	24.8	19	8	13					20	41 PP
MBOUR	125.39	326.4								20	43
HERMANUS	127.84	250.1								22	42 PKS
CHINCHINA	131.70	43.3	19	24A	15					22	35 PKS
BOGOTA	132.86	41.8	19	27	16					22	1 PP
HUANCAYO	144.73	59.7	19	35	2						
LA PAZ	152.85	56.7	19	48	3					19	59 PKP2
ANTOFAGASTA	155.40	72.9	19	53	4						

JANUARY 5 0.H 23.M 32.S EPICENTRE -15.15-177.67 DEPTH= 0.KM

A=-0.96489 B=-0.03924 C=-0.25970 D=-0.0406 E= 0.9992
G= 0.2595 H= 0.0106 K=-0.9657 HT= 5.7

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	
SUVA	4.78	230.9	1	8	-7								
APIA	5.86	77.5	1	26A	-4	2	37	-2					
PORT VILA	13.68	257.3	3	19	2								
KOUMAC	18.00	250.0	4	11K	-2								
ONERAHI	21.74	197.7	4	56	1	9	8	17					
KARAPIRO	23.47	193.6	5	9	-3								
CHATEAU	24.69	192.7	5	27	3						9	15	PCP
WELLINGTON	26.85	192.7									6	40	
BRISBANE	30.02	241.2	6	7	-5	11	10	0					
ROXBURGH	32.16	197.3				11	43	-1					
RIVERVIEW	33.73	230.9	6	47A	2	12	8	0			7	58	PP
CHARTERS TS.	34.68	256.5	6	49	-4						14	32	
PORT MORESBY	34.82	275.3	6	52	-2	12	24	-1					
CANBERRA	35.97	229.9	7	4	0	12	42	-1					
MELBOURNE	39.97	228.4	7	35	-3								
MOORLANDS	40.61	220.9	7	44A	1								
FORT NELSON	40.77	220.2	7	49	5	13	57	1					
ADELAIDE	43.75	235.0	8	5	-3								
CAPE HALLETT	57.59	184.4	9	56	2	18	1	10					
PERTH	62.35	241.7									19	14	
SCOTT BASE	63.20	183.7	10	33	1								
TUKUBASAN	64.82	323.1	10	37A	-6	19	25	2			26	33	SSS
MATUSIRO	66.15	322.2	10	48	-3	19	36	-3					
BAGUIO CITY	68.55	294.7	12	14	68	20	16	8					
BERKELEY	74.03	42.7	11	39	0	21	16	5					
LICK	74.15	43.4	11	40A	0								
PASADENA	74.85	47.8	11	46	2	21	25	4			21	55	SCS
MINERAL	75.85	40.8	11	48A	-2								
HONG KONG	76.42	297.8				21	40	2					
RENO	76.55	42.3	11	46	-8								
NANKING	76.82	308.7				21	39	-3					
CANTON	77.43	298.3				21	57	8					
BOULDER CITY	78.13	47.5	12	3	1								
CHANGCHUN	78.39	321.7				22	1	2					
EUREKA	79.06	44.0	12	7	0						29	10	PKKP
ALBERNI	79.29	32.1	12	9	0								
TUCSON	79.40	52.4	12	8	-1				12	21	13	5	
TUCSON TELE.	79.53	52.4	12	11	1								
VICTORIA	79.56	33.3	12	8	-2								
GLEN CANYON	80.91	47.9	12	16	-1								
PENTICTON	82.07	34.1	12	21	-2								
PEKING	82.34	314.9	12	21	-4								
COLLEGE	82.94	12.4	12	24	-4				12	46	13	32	
ALBUQUERQUE	83.83	51.5	12	32	0								
FLAMING GRGE	84.19	45.0	12	36	2								
BUTTE	84.43	39.4	12	36	1								
HUNGRY HORSE	84.69	36.9	12	18	-19								
BOZEMAN	85.21	40.2	12	40	1								
SIAN	85.24	307.2	12	42	3								
BANFF	85.27	33.9	12	39	-1								
MAWSON	86.68	199.5	12	44	-3								
PAOTOW	86.83	313.4				23	20	-5					
LARAMIE	86.97	45.9	12	51	3								
KUNMING	87.22	296.8				23	36	8					
CHENGTU	87.90	302.4	12	55	3	23	39	4					
RAPID CITY	89.64	44.0	13	2	1								
LANCHOW	89.78	307.4	13	6	5	23	58	6					
WICHITA MTS.	89.80	54.0	13	2	0	24	6	14			25	2	PS
MANHATTEN	92.71	50.2	13	20A	5				13	29			
FAYETTEVILLE	93.64	53.7	13	20A	1								
CHITTAGONG	96.09	291.4									17	22	PP
FLORISSANT	97.27	51.9	13	40	4				13	48			
BLOOMINGTON	100.30	52.2	13	57	8								
CHINCHINA	102.90	88.3									18	28	PP
BOGOTA	104.31	89.0									28	37	PPS
FUQUENE	104.84	88.3									18	50	PP
BREBEUF	110.46	46.7									34	58	SS
CARACAS	112.54	84.8	18	48	10	25	38	16					
BOMBAY	112.89	284.4									23	42	
HERMANUS	128.15	197.8									38	28	SS

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COLLMBERG	142.93	348.9	19 41	6	20 19		
JENA	143.54	350.1	19 35	-1			
PRUHONICE	143.87	346.6	19 46	9			
BENSBERG	144.07	354.8	19 37	0			
KSARA	144.48	307.6	19 51	13	23 11	PP	
BUCHAREST	144.53	330.1	19 54	16			
FELDBERG	144.67	353.2	19 42	4			
KASPERSKE H.	144.88	347.1	19 35	-4	20 21		
BRATISLAVA	144.89	342.7	19 42	3			
BUDAPEST	144.91	340.2	19 46	7	24 10	PKS	
DOURBES	145.09	357.4	19 39	0			
KARLSRUHE	145.87	352.9	19 41	1	22 1		
STUTTGART	145.99	351.8	19 39	-2	20 1		
STRASBOURG	146.36	353.5			19 41	PKP2	
FOLINIERE	146.39	3.4	19 41	0			
PARIS	146.43	359.8	19 44	3			
BELGRADE	146.68	336.2			19 38	PKP2	
SOFIA	147.15	330.9	19 49	6	20 4	PKP2	
LJUBLJANA	147.54	344.1	19 45	2	19 50	PKP2	
BESANCON	147.85	355.3			19 53	PKP2	
GARCHY	147.96	359.0	19 45	1	21 11		
TRIESTE	148.11	344.8	19 48	4	29 22		
LWIRO	148.61	238.8	19 50	5			
PADOVA	148.78	347.0			22 34		
ROSELEND	149.43	352.7			19 53	PKP2	
CLERMONT-FD.	149.47	358.9	19 58	12			
PAVIA	149.51	350.4	18 39	-67	23 50		
CHIAVARI	150.32	349.8	19 53	5	23 50	PP	
FLORENCE X.	150.47	346.8	19 48	0			
MONACO	151.18	352.3			20 0	PKP2	
ROME	151.94	343.8	20 3	13	43 11	SS	
BAGNERES	152.11	3.4	20 9	19			
MESSINA	154.24	335.5	19 42	-11			
TOLEDO	154.74	11.6	20 2	8	24 12	PP	
GRANADA	157.43	12.4	20 35K	38	24 20	PP	

JANUARY 5 4.H 27.M 3.S EPICENTRE 36.49 71.34 DEPTH= 99.KM

A= 0.25779 B= 0.76358 C= 0.59202 D= 0.9475 E=-0.3199
G= 0.1894 H= 0.5609 K=-0.8059 HT= -0.4

DEPTH OF FOCUS= 0.010R

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KHOROG	1.00	8.4	0 23	3	0 39	3			
KULYAB	1.90	318.4	0 32	1	0 55	0			
WARSAK DAM	2.49	176.1	0 38K	-1	1 7	-2			
DZERGETAL	2.73	358.1	0 44	1					
ANDIJAN	4.33	10.4	1 5	0	1 54	0			
NAMANGAN	4.50	3.1	1 8K	1				2 2	
SAMARKAND	4.69	314.0	1 8	-1				2 2	
TASHKENT	5.09	342.2	1 14	-1	2 8	-5			
LAHORE	5.51	152.4	1 16	-5	2 16	-7			
TCHIMKENT	5.96	347.4	1 25	-2	2 31	-3		1 49	
NARYN	6.13	34.9	1 28	-1				2 21	
FRUNSE	6.82	20.7	1 40	1	2 57	2			
RYBACHE	7.03	30.6			2 58	-3		3 33	
QUETTA	7.28	211.6	1 43K	-2				2 21	*SP
ALMATA	8.03	30.7	1 55	0	3 24	-1			
ALMATA-2	8.21	32.5	1 55	-3	3 18	-11		4 18	
NEW DELHI	9.30	146.3	2 1A	-11					
KIZYL-ARVAT	12.22	287.3	2 47	-4	4 57	-9			
SEMIPALATNSK	15.32	22.0	3 28	-3					
TEHERAN	16.15	273.3	3 45K	3	6 53	16			
CHATRA	16.54	121.1	3 40A	-7	6 35	-11			
BOKARO	17.73	131.4	4 1	0					
POONA	18.02	172.3	4 3A	-2					
GORIS	19.93	286.3	4 26	0					
KIROVOBAD	19.97	289.6	4 26	0					
HOWRAH	20.23	128.7			8 11	5			
SHILLONG	20.64	116.1	4 31K	-2	8 6	-7		5 7	PPP
ESEN BULAK	21.06	54.2						5 8	
TIFLIS	21.21	292.4	4 41	2					
EREVAN	21.35	288.1	4 41	1					

VISHAKHAPTNM	21.47	147.4	4	47	6	8	31	3			
SVERDLOVSK	21.59	343.9	4	42	0						
CHITTAGONG	22.66	122.8	4	55	2	8	55	6	5	31	5 35 PP
MOSCOW	29.84	320.9	5	59	0						
APATITY	37.74	337.3	7	7A	0						
HELSINKI	37.75	323.8	7	8	1				7	39	8 39 PP
KAJAANI	37.99	330.5	7	9	0						8 33
NURMIJARVI	38.00	324.2	7	9K	0	12	54	0			
SKALNATE PL.	38.84	305.5	7	19	3						9 24 PP
KRAKOW	39.05	306.9	7	19	1				7	40	
SODANKYLA	39.87	334.9	7	26A	1						
BRATISLAVA	40.97	304.1	7	33	-1						9 9 PP
PRUHONICE	42.52	306.9	7	48	1						9 25
LJUBLJANA	42.95	301.2	7	51K	1				8	27	9 30 PP
KASPERSKE H.	43.22	305.8	7	52	0						9 36 PP
COLLMBERG	43.42	309.0	7	54	0						9 39 PP
JENA	44.34	308.5	8	1	0						9 33 PP
KHEYS	44.55	356.9	8	3	0						
STUTTGART	46.07	305.8	8	16	1						9 51 PP
STRASBOURG	47.09	305.7	8	24	1				9	0	
BENSBERG	47.11	309.0	8	23	0						9 1
ROSELEND	47.79	301.6	8	33	4						9 7
DE BILT	48.17	310.8	8	24	-8						
BESANCON	48.53	304.3	8	31	-3						
DOURBES	48.87	308.2	8	38	1						
GARCHY	50.45	304.9	8	48	-1						9 59
PARIS	50.48	306.9	8	49	0						
KEW	51.65	310.8	8	57	-1						
FOLINIERE	52.39	307.5	9	3	-1						
BAGNERES	53.62	300.5	9	20	7						10 10
BANGUI	57.89	249.5	9	40	-3						
THULE	64.52	350.2	10	31	3				11	2	
BROKEN HILL	64.83	226.7	10	29A	-1						
MOULD BAY	67.35	2.8	10	45	-1						
BULAWAYO	69.29	223.0	10	56A	-2						
COLLEGE	74.42	16.3	11	27	-1						12 4
KIMBERLEY	78.27	220.6	11	18	-32						
PORT MORESBY	84.32	106.0	12	51	29						
CHARTERS TS.	90.29	114.8	12	48	-2						
SHAWINIGAN	91.27	336.1	12	55	0						

JANUARY 5 8.H 8.M 2.S EPICENTRE -15.36-172.47 DEPTH= 0.KM

A=-0.95641 B=-0.12638 C=-0.26327 D=-0.1310 E= 0.9914
G= 0.2610 H= 0.0345 K=-0.9647 HT= 5.7

SE= 2.72

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
APIA	1.69	23.4	0	25	-6							
SUVA	9.14	251.1	2	17	0	3	34	-27				
PORT VILA	18.56	260.0	4	24	3							
NOUMEA	21.10	247.7	4	48	-1							
KOUMAC	22.70	253.4	5	4	-1							
ONERAHI	23.49	207.7	5	15	2							
KARAPIRO	24.85	203.0	5	24	-2							
CHATEAU	25.97	201.6	5	36	0							
WELLINGTON	28.09	200.7	5	54	-2							
COBB RIVER	28.66	203.7	6	2	1							
GERBIES PASS	30.96	201.2	6	25	4							
BRISBANE	34.38	243.8	6	46	-5	12	28	9				
RIVERVIEW	37.58	234.0	7	3A	-15	12	59	-9				
KIPAPA	39.21	21.6	7	34	2							
CHARTERS TS.	39.52	257.0	7	31	-3						9	45
CANBERRA	39.76	232.8	7	34	-3							
PORT MORESBY	39.83	273.7	7	37	0	13	54	12				
MELBOURNE	43.66	230.9	8	8	0							
FORT NELSON	43.94	223.1	8	11A	0							
TARRALEAH	44.26	224.3	8	15	2							
ADELAIDE	47.78	236.6	8	39	-2							
CAPE HALLETT	57.84	186.2	9	56	0	18	6	11				
SCOTT BASE	63.36	184.8	10	34	0							
MUNDARING	66.34	241.5	10	52	-1							
TUKUBASAN	68.11	320.1	11	4K	0	20	3	-1	11	9		
BYRD STATION	68.86	171.4	11	8	-1	20	21	8				
MATUSIRO	69.49	319.3	11	12	-1	20	2	-18				

BERKELEY	70.87	40.1	11	23	2	21	28	52			
LICK	70.94	40.8	11	24K	2						
CALISTOGA	71.16	39.3	11	12	-11						
PASADENA	71.35	45.3	11	23	-1	20	49	7	21	17	SCS
MINERAL	72.81	38.4	11	33A	0						
RENO	73.41	39.9	11	36	0						
BOULDER CITY	74.65	45.3	11	44	1						
TUCSON TELE.	75.74	50.3	11	50	0						
EUREKA	75.80	41.7	11	50	0				21	10	
VICTORIA	77.07	31.0	11	54	-3						
GLEN CANYON	77.39	45.8	12	0	1						
PENTICTON	79.51	32.0	12	11	1						
FLAMING GRGE	80.85	43.2	12	18	0						
NANKING	80.92	306.7				22	34	8			
HONG KONG	80.99	296.1	12	19	1						
BUTTE	81.47	37.6	12	23	2						
CHANGCHUN	81.73	319.7				22	40	5			
HUNGRY HORSE	81.91	35.0	12	28	5						
COLLEGE	82.16	10.4	12	24	0				12	46	
BOZEMAN	82.19	38.4	12	26	1						
BANFF	82.71	32.1	12	26	-1						
LARAMIE	83.56	44.2	12	32	0						
WICHITA MTS.	85.91	52.5	12	44	1	23	21	4	24	24	PS
PEKING	86.09	313.2	12	46	2	23	26	8			
MAWSON	88.11	198.4	12	54	0						
SIAN	89.41	305.7	13	4	4	24	2	13			
FAYETTEVILLE	89.75	52.5	12	55	-7						
PAOTOW	90.66	312.0	13	9	3	24	1	0			
KUNMING	91.82	295.4				24	25	14	23	56	SKS
CHENGTU	92.28	301.0				24	24	9	23	43	SKS
LANCHOW	93.92	306.2	13	23	2	24	40	11			
LA PAZ	98.91	109.8	13	50	6						
CARACAS	107.57	83.7	18	33	777				26	44	
QUETTA	123.82	296.2	19	3	2						
KAJAANI	129.38	348.7	19	14	3						
NURMIJARVI	133.23	348.5	19	9	-10						
BULAWAYO	139.08	211.1	19	18	-11						
DURHAM	140.04	8.2	19	23K	-8						
BROKEN HILL	143.86	216.0	19	38	0						
COLLMBERG	143.88	354.2	19	38	0				21	51	
RACIBORZ	144.30	348.2	19	40	2				19	45	PKP2
JENA	144.37	355.6	19	38	0				20	48	
BENSBERG	144.49	0.4	19	39	0				20	1	
SKALNATE PL.	144.70	345.5	19	40	1				20	38	
PRUHONICE	145.01	352.1	19	41	1				20	35	
FELDBERG	145.23	359.0	19	49	9						
KASPERSKE H.	145.96	352.9	19	43	2				21	23	
FOLINIERE	146.04	9.5	19	44	3						
VIENNA-H.	146.40	349.3	19	45	3				19	58	PKP2
STUTTGART	146.65	357.9	19	46	4				20	34	
STRASBOURG	146.88	359.7	19	48	5				21	20	
GARCHY	147.96	5.7	19	50	5				20	22	PKP2
KSARA	148.50	310.8	19	54	9						
LJUBLJANA	148.85	350.6	19	49	3				20	4	PKP2
TRIESTE	149.36	351.4	19	52	5				20	9	PKP2
CLERMONT-FD.	149.46	6.1	19	55	8				21	8	
SOFIA	149.56	336.7	19	55	8				23	42	PP
ROSELEND	149.97	359.9	19	55	7				20	35	
SERRA PILAR	150.76	25.4	19	46K	-3				23	32	PP
CHIAVARI	151.10	357.3	19	46	-3				23	47	PP
FLORENCE X.	151.50	354.3	19	48	-2						
BAGNERES	151.67	11.4	20	0	10				20	22	
MONACO	151.73	0.1							20	0	PKP2
LWIRO	152.63	232.0	20	3	11						
TOLEDO	153.56	20.3	20	3	10				23	44	PP

JANUARY 5 14.H 2.M 30.S EPICENTRE -1.38 100.84 DEPTH= 480.KM

A=-0.18801 B= 0.98188 C=-0.02384 D= 0.9822 E= 0.1881
G= 0.0045 H=-0.0234 K=-0.9997 HT= 7.2

DEPTH OF FOCUS= 0.070R

SE= 5.31

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

TANGERANG	7.49	129.7	1	15A	-37	2	34	-47					
DJAKARTA	7.65	128.8	1	9	-45						8	53	
PORT BLAIR	15.27	328.3	3	24	10								
NHATRANG	15.86	31.4	3	10	-10								
MADRAS	24.98	305.5	4	31A	-15	8	45	10			5	4	PP
CHITTAGONG	25.18	340.1	4	39A	-9	9	1	23			5	12	PP
VISHAKHAPTNM	25.66	318.4	4	38K	-14						5	22	
KODAIKANAL	25.96	296.9									8	10	
BAGUIO CITY	26.31	47.0	4	50	-8	9	48	52					
KUNMING	26.40	3.9	4	54	-5	9	46	48					
CALCUTTA	26.69	333.6				9	33	30			8	11	
HONG KONG	26.89	28.2	5	3	0	9	53	48					
SHILLONG	28.16	342.6	4	5	-69						9	6	
BOKARO	29.01	330.7	5	11	-10						9	57	
CHATRA	30.98	335.8	5	29A	-9								
LHASA	32.23	343.9	5	42A	-7	11	8	40					
POONA	33.10	308.0	4	42K	-74								
MUNDARING	33.71	156.1	6	4	3								
BOMBAY	34.12	307.5	6	0	-5						10	55	
LANCHOW	37.34	4.0	6	29A	-3	12	34	48					
NANKING	37.35	25.5	6	32	0	12	35	49					
ZO-SE	37.64	29.2	6	36	2	12	46	56					
DEHRA DUN	38.28	327.3	6	43	4						12	31	
LAHORE	41.29	324.7	6	54	-10								
PAOTOW	42.59	10.4	7	14	0								
PEKING	43.53	17.1	7	22	0	14	9	54					
WARSAK DAM	44.68	324.7	7	21	-10								
QUETTA	45.03	317.0	7	23A	-10	13	55	18	7	33	9	2	PP
PORT MORESBY	46.74	101.6	7	51	4	14	43	43			13	47	
CHARTERS TS.	48.11	115.9	7	57	0								
ADELAIDE	48.57	137.7	8	3	3				8	10			
CHANGCHUN	50.05	23.0	8	12	1	15	42	56					
MATUSIRO	51.26	38.8	8	22	2	16	8	66					
CANBERRA	56.01	132.7	8	57	3				9	5			
BRISBANE	56.02	122.4	9	0	6								
MAWSON	71.09	194.4	10	25	-5				10	34			
LWIRO	72.00	268.1	10	38	2								
BROKEN HILL	72.59	255.4	10	33K	-6								
BULAWAYO	72.85	249.5	10	33	-8								
KARAPIRO	77.10	128.5	11	20	16						11	56	
CHATEAU	77.29	129.8	11	11	6								
BANGUI	82.35	274.6	11	28	-4						11	35	PCP
APATITY	82.79	339.1	11	35A	1								
NURMIJARVI	84.41	331.1	11	43	1								
SKALNATE PL.	84.88	319.5	11	45	1								
SODANKYLA	85.22	338.1	11	48A	2								
RACIBORZ	86.31	320.2	11	52	1								
KIRUNA	87.64	338.0	11	59	1								
UPPSALA	87.76	329.9	11	59	1								
LJUBLJANA	88.42	316.0	12	0	-1								
PRUHONICE	88.65	319.9	12	2	0								
KASPERSKE H.	89.23	319.0	12	46	41						13	8	
COLLMBERG	89.71	321.1	12	8	1								
JENA	90.59	320.7	12	4	-7						12	25	
STUTTGART	92.06	318.6	12	19	1								
BENSBERG	93.38	320.8									26	32	
BYRD STATION	96.28	173.5	12	44	7								
GARCHY	96.29	317.3									26	40	
COLLEGE	100.19	23.8	13	37	42						19	24	PKP
PENTICTON	121.05	29.7	18	7	10								
EUREKA	129.39	36.9	18	24	10						21	43	PP
PASADENA	131.11	43.9	18	39	22								
FLAMING GRGE	132.07	30.9	18	28	9						21	54	PP
WICHITA MTS.	142.20	26.6	18	43	5								
FAYETTEVILLE	142.75	20.3	18	44K	5								
CHAPEL HILL	145.63	359.8	18	53	10								

JANUARY 7 1.H 14.M 19.5 EPICENTRE 55.33-153.33 DEPTH= 46.KM

A=-0.51062 B=-0.25642 C= 0.82068 D=-0.4488 E= 0.8936
G=-0.7334 H=-0.3683 K=-0.5714 HT= -7.3

DEPTH OF FOCUS= 0.002R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	9.95	13.7	2	22	-1						3	48	PP
ALBERNI	18.38	97.4	4	14	1								
VICTORIA	19.56	97.9	4	27A	0								
PENTICTON	21.32	92.3	4	46A	1								
BANFF	22.80	84.7	5	2	2								
HUNGRY HORSE	25.00	89.7	5	23	2								
MINERAL	25.75	112.3	5	28A	0								
CALISTOGA	26.51	116.2	5	35K	0								
BERKELEY	27.25	116.9	5	41K	-1								
RENO	27.29	111.3	5	42	0								
LICK	27.98	116.8	5	47A	-1								
PRIEST	29.40	117.1	5	59A	-2								
EUREKA	29.41	106.9	6	1	0								
RESOLUTE	29.46	27.4	6	2	0						7	6	
FLAMING GRGE	32.08	98.1	6	25	0								
PASADENA	32.23	116.4	6	25	-1						15	32	
BOULDER CITY	32.57	110.3	6	28	-1								
GLEN CANYON	33.61	105.5	6	38	0								
ALERT	35.68	13.1	6	56K	0								
THULE	35.99	23.6	7	0	2								
TUCSON	37.56	110.1	7	11	0								
ALBUQUERQUE	37.92	102.7	7	15	0								
MANHATTEN	40.54	89.1	7	37K	1								
DUBUQUE	41.70	80.8	7	46K	0								
WICHITA MTS.	42.52	95.6	7	53	0	14	28	17			9	42	PP
FAYETTEVILLE	44.06	90.5	8	6	1						9	59	PP
ROLLA	44.10	86.8	8	4	-1				8	17			
FLORISSANT	44.35	84.7	8	7A	0								
ST. LOUIS 1	44.54	84.7	8	10	1				8	14			
C. GIRARDEAU	45.85	85.5	8	18	-1								
BLOOMINGTON	46.28	81.3	8	22	-1								
SHAWINIGAN	48.81	64.8	8	42A	0								
MATUSIRO	49.04	277.3	8	39	-5								
BREBEUF	49.07	66.3	8	44A	0				8	55	10	50	PP
WESTON	52.41	67.8	9	10	0								
KIRUNA	57.06	2.8	9	43	-1								
APATITY	57.33	356.9	9	44A	-2								
SODANKYLA	57.61	0.0	9	47A	-1								
SKALSTUGAN	60.90	7.3	10	10	0								
KAJAANI	60.92	359.5	10	10	0						11	8	
NURMIJARVI	64.49	1.1	10	33A	-1								
HELSINKI	64.84	0.9	10	36	0								
UPPSALA	64.94	5.0	10	36A	-1								
COLLMBERG	73.13	8.9	11	27K	0								
DOURBES	73.33	14.6	11	29	0								
JENA	73.36	9.9	11	28	-1						11	58	
SAN JUAN	73.53	81.5	11	31	1								
PARIS	74.27	16.3	11	35	1								
PRUHONICE	74.57	8.1	11	36	0								
STUTTGART	75.25	11.8	11	40	0								
STRASBOURG	75.25	12.8	11	39	-1								
KASPERSKE H.	75.33	8.8	11	40K	0								
GARCHY	75.85	16.3	11	43	0								
ROSELEND	78.27	13.6	11	55A	-2								
LJUBLJANA	78.47	8.6	11	57	-1								
CARACAS	79.41	86.9	12	1	-2								
MONACO	79.97	14.0	12	5	-1								
LAHORE	84.33	320.6	12	36	8								
NEW DELHI	85.92	317.1	13	33K	57								
TEHERAN	86.85	340.1	12	41	0								
QUETTA	88.11	325.9	12	45	-2						16	17	PP
BYRD STATION	136.49	171.9	19	12	-5								
BULAWAYO	144.83	356.8	19	31K	-1								

JANUARY 7 10.H 3.M 15.S EPICENTRE 43.27 16.96 DEPTH= 41.KM

A= 0.69869 B= 0.21308 C= 0.68296 D= 0.2917 E=-0.9565
G= 0.6533 H= 0.1992 K=-0.7305 HT= -2.9

DEPTH OF FOCUS= 0.001R

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

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TITOGRAD	1.89	115.6							0 31 PG
ZAGREB	2.65	345.0	0	43	2	1	16	4	
TARANTO	2.80	175.5							0 43 PG
BELGRADE	2.96	57.2	0	47A	1	1	24	4	0 56 PG
LJUBLJANA	3.28	328.8	0	51	1				1 47 SG
TRIESTE	3.31	317.1	0	51	0	1	29	0	1 0 PG
SKOPJE	3.55	109.9	0	54	0	1	36	1	1 6 PG
KALOCSA	3.56	23.1	0	57	3				1 12 PG
ROME	3.58	249.1	0	57	3	1	42	6	1 11 PG
TIMISOARA	3.93	49.4	1	4	5				1 21 PG
KECSKEMET	4.13	27.0	1	4	2	1	47	-3	1 16 PG
FLORENCE X.	4.18	279.0	0	57	-6	1	39	-12	
PADOVA	4.23	302.1	1	4	0	1	59	6	1 19 PG
BOLOGNA	4.25	288.8	1	9	5				1 57
PRATO	4.30	280.2	1	4	-1				2 8 SG
BUDAPEST	4.45	18.3	0	8	-59				0 32 PG
HURBANOVO	4.68	10.3	1	26	16	1	57	-7	
SOFIA	4.71	94.8	1	13	3	2	7	3	1 31 PG
BRATISLAVA	4.90	1.1	1	13	0	2	9	0	1 27 PG
VIENNA-H.	5.00	355.5	1	14	0	2	13	1	1 34 PG
MESSINA	5.18	192.4	1	13	-4	2	18	2	1 35 PG
REGGIO CALA.	5.26	191.4	1	18	0				2 12
CHIAVARI	5.63	283.4	1	15	-8	2	23	-5	3 3
PAVIA	5.91	291.5	1	29K	2				4 11 S*
CAMPULUNG	6.13	68.2	1	37	7				2 27 PG
KASPERSKE H.	6.31	339.4	1	32	-1				
SKALNATE PL.	6.34	19.9	1	35	2	2	44	-1	2 8 PG
CHUR	6.36	306.8	1	35	1	2	47	1	
NIEDZIKA	6.58	19.5	1	39	2				
BUCHAREST	6.71	77.0	1	39K	1	2	59	5	2 23 PG
RAVENSBURG	6.85	313.7	1	38	-2				
RACIBORZ	6.87	6.7	1	43	2	3	2	4	2 10 PG
MONACO	6.95	277.1	1	40A	-2	3	1	1	1 50 PP
CUGLIERI	6.99	246.7	1	35	-7				2 35
PRAGUE	7.02	346.5	1	44K	1	2	55	-7	2 16 PG
KRAKOW	7.08	15.7	1	44	0	3	14	10	1 55 PP
ATHENS	7.38	133.6	1	44A	-4	3	7	-4	2 19
CHEB	7.51	336.8	1	47	-2	3	14	0	
TUBINGEN	7.61	316.5	1	49K	-2				2 25 PG
STUTTGART	7.67	318.5	1	49	-3				2 29 PG
ROSELEND	7.77	291.7	1	51	-2	3	18	-3	
BASLE	7.86	306.1	1	55A	1	3	36	13	
NEUCHATEL	8.00	301.3	1	56	0	4	36	69	
LWOW	8.16	34.2	2	1	2	3	38	7	4 34
KARLSRUHE	8.26	317.0	1	57	-3				4 22 SG
STRASBOURG	8.32	312.9	1	59A	-2	3	37	3	4 37 SG
HEIDELBERG	8.37	320.0	1	58	-3				3 32
COLLMBERG	8.47	342.9	2	1A	-2	3	34	-4	4 38 SG
JENA	8.50	336.3	1	59	-4	3	33	-6	4 39 SG
BESANCON	8.71	301.0	2	2	-4	3	41	-3	2 53
HALLE	8.91	339.4	2	6	-3	2	39	-70	
FELDBERG	9.08	322.9	1	51	-20				2 29
KISHINEV	9.19	61.8	2	13A	0	4	0	4	
ISTANBUL UN.	9.21	99.9	2	12A	-1	4	0	3	2 21 PP
WARSAW	9.37	15.5	2	17K	2	4	13	12	2 26 PP
BENSBERG	10.18	322.5	2	25A	-1	4	22	2	5 23 SG
CLERMONT-FD.	10.20	289.0	2	27	0				5 34 SG
GARCHY	10.58	297.1	3	29	57				4 19
MUNSTER	10.74	327.4	2	36	2				5 57
DOURBES	10.89	313.1	2	37	1	4	40	2	
WITTEVEEN	11.77	327.9	3	0	12				
BAGNERES	12.28	274.8	2	58	3	5	18	7	8 40
SIMFEROPOL	12.45	76.3	2	56A	-1	5	12	-3	
YALTA	12.48	78.4	2	56	-2	5	12	-4	3 16
KARLSKRONA	12.94	356.6	3	2	-2				
FOLINIERE	13.30	300.5	3	8	0				
ALICANTE	14.09	255.5	3	16	-3	5	50	-5	3 26 PP
KEW	14.27	311.1	3	25A	4	6	23	24	
GOTEBORG	14.79	349.5	3	29	1				
TOLEDO	16.08	265.0	3	45	1	6	51	10	3 57 PP
ALMERIA	16.18	253.2	3	52	6				4 2 PP
SOTCHI	16.53	81.1	3	46A	-4	6	42	-10	
UPPSALA	16.61	1.2	3	50	-1	6	58	5	
GRANADA	16.82	255.8	4	0K	6	7	14	16	4 23 PP
KSARA	17.52	116.3	4	3	0	7	2	-12	4 18 PP
MALAGA	17.60	255.4	4	12	8	7	27	11	4 27 PP
HELSINKI	17.62	13.3	4	3	-1				
NURMIJARVI	17.89	12.5	4	6K	-1	7	21	-1	4 19 PP
MOSCOW	18.23	39.7	4	10	-1	7	31	1	4 35 PP

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ABERDEEN	18.41	325.7	4	13	-1					4	37 PPP
PULKOVO	18.43	21.7	4	13	-1	7	35	0		8	21 SS
BERGEN	18.56	341.6	4	16	1					9	50
SERRA PILAR	19.04	272.3	4	20A	-1	7	54	6		4	43 PP
COIMBRA	19.17	269.5	4	24	1						
LISBON	20.19	265.9	4	36	2						
SKALSTUGAN	20.53	354.0	4	35	-2					5	46
TIFLIS	20.55	84.7	4	39A	2					8	33
KAJAANI	21.74	12.8	4	50	1						
KIROVOBAD	21.95	86.8	4	51	-1					10	21 SS
GORIS	22.30	89.7	4	55	0	8	58	5		5	25 PP
KIRUNA	24.69	3.2	5	19	1	9	47	13		12	24
SODANKYLA	24.71	8.9	5	19	0						
APATITY	25.89	14.4	5	30A	0	9	58	4		10	51 SS
TROMSOE	26.45	1.5	5	34	-1						
TEHERAN	27.46	94.2	5	44A	0	10	25	5			
SVERDLOVSK	30.58	48.3	6	11	-1					7	22 PPP
ASHKABAD	31.63	85.4	6	20	-1	11	30	4		7	19 PP
TASHKENT	38.23	74.4	7	18	0					8	46 PP
DUZHANBE	38.92	78.8	7	25	2						
KHEYS	40.18	9.6	7	34A	0					9	11 PP
M.BOUR	40.90	235.7	7	37	-3	14	41	53			
KHOROG	41.35	78.9	7	46	3						
FRUNSE	41.40	70.0	7	44	0					9	47 PCP
QUETTA	41.56	91.3	7	45	0	14	3	5		9	25 PP
SEMIPALATNSK	42.70	57.5	7	54	0						
WARSAK DAM	42.97	83.4	7	56	-1						
ALERT	45.99	349.6	8	16	-5						
LAHORE	46.22	84.8	8	22	-1						
LWIRO	46.55	163.6	8	26K	1	15	16	6			
THULE	47.32	341.3	8	31	0						
DEHRA DUN	49.58	83.9	8	45	-4	15	59	6			
NEW DELHI	49.92	86.3	8	51A	0	16	1	4			
BOMBAY	52.55	99.3	9	12	1	16	39	5			
POONA	53.54	98.8	9	17	-2						
ESEN BULAK	54.06	57.1	9	24	1	17	0	6			
RESOLUTE	54.12	342.3	9	22	-1						
IRKUTSK	55.98	47.8	9	31	-5						
HYDERABAD	57.58	96.4				17	44	3		10	0
CHATRA	58.16	81.8	9	46A	-6	17	59	10			
BROKEN HILL	58.39	166.9	9	55	1						
LHASA	59.31	76.8	10	0	0	18	9	5			
ULAN-BATOR	59.61	51.2	10	4	2	18	17	10			
SHAWINIGAN	60.22	307.3	10	5	-1						
VISHAKHAPTNM	60.92	92.6	10	12	1	18	28	4			
BREBEUF	61.29	306.7	10	13K	0						
HOWRAH	61.56	85.0	10	15	0						
YAKUTSK	62.03	29.5	10	17	-1					12	37 PP
SHILLONG	62.30	80.1	10	18A	-2						
BULAWAYO	64.00	167.8	10	31	0						
PALISADES	64.02	302.7				19	16	13			
CHITTAGONG	64.22	82.9	10	32	-1	19	8	2	10 40	12	57 PP
LANCHOW	64.38	63.8	10	34A	0	19	8	0			
CHENGTU	67.73	68.4	10	55	0	19	54	6			
MORGANTOWN	68.53	304.5	11	2K	2						
SIAN	68.78	62.6	11	2	0						
PEKING	69.65	53.9	11	6	-1	20	15	4			
KUNMING	70.30	73.8	11	11	0	20	25	6			
COLLEGE	71.54	353.2	11	18	0					13	48 PP
KIMBERLEY	72.02	172.8	11	22	1						
CHANGCHUN	72.25	46.2	11	22A	-1	20	45	4			
BLOOMINGTON	72.68	307.7	11	25	0						
SAN JUAN	72.69	279.1	11	35	10					12	9
FLORISSANT	75.16	309.5	11	39	-1						
ST. LOUIS 1	75.19	309.3	11	40	0						
C. GIRARDEAU	75.70	307.9	11	41	-2						
VLADIVOSTOK	76.14	43.1	11	45	0					26	33 SS
ROLLA	76.65	309.7	11	47	-1				11 58		
BANFF	77.30	331.6	11	51A	-1						
RAPID CITY	77.94	320.4	11	56	1						
Y.-SAKHLINSK	78.11	34.6	11	57	1						
MANHATTEN	78.28	313.3	11	57A	0				12 7		
PETROPAVLOVK	78.58	22.5	11	59	0						
HUNGRY HORSE	79.09	329.2	12	2	0						
FAYETTEVILLE	79.22	309.7	12	2	0						
HONG KONG	80.05	68.9	12	6	-1	22	9	2			
BOZEMAN	80.12	325.9	12	6	-1						
PENTICTON	80.25	332.8	12	9A	1						

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BUTTE	80.45	327.0	12	10	1							
LARAMIE	81.19	320.0	12	14	1							
ALBERNI	81.94	335.8	12	18	1							
VICTORIA	82.18	334.7	12	18A	0							
WICHITA MTS.	82.66	311.5	12	21	1						15	29 PP
FLAMING GRGE	83.24	322.1	12	24	1							
MATUSIRO	84.28	43.8	12	28	-1	22	49	-1			28	35 SS
SALT LAKE C.	84.46	323.5	13	31	61							
TUKUBASAN	85.48	42.8				23	0	-1			29	18 SS
ALBUQUERQUE	86.62	316.6	12	44	4							
EUREKA	87.28	325.4	12	45	2							
GLEN CANYON	87.46	321.2	12	21	-23						12	48
MINERAL	88.74	329.6	12	51A	1							
RENO	88.77	328.0	12	53	3							
BOULDER CITY	89.73	322.8	12	57	2							
TUCSON TELE.	90.82	317.9	12	57	-3							
TUCSON	90.95	318.0	13	3	2							
LICK	91.39	328.2	13	5	2							
PASADENA	92.73	324.1	13	10	1	25	24	76			31	39 SS
SCOTT BASE	143.24	169.7	19	30	0						22	12

JANUARY 8 1.H 0.M 19.S EPICENTRE 18.48 -70.40 DEPTH= 0.KM

A= 0.31841 B=-0.89409 C= 0.31498 D=-0.9420 E=-0.3355
G= 0.1057 H=-0.2967 K=-0.9491 HT= 5.0

SE= 2.59

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SAN JUAN	4.06	90.7	1	6	1	1	53	-1				
HOPE	6.05	266.5	1	36	3	2	49	5				
BLACK RIVER	7.12	267.4	1	49	1							
ST. KITTS	7.39	97.6	1	52	0							
ANTIGUA	8.26	97.9	2	3	-1							
CARACAS	8.61	156.6	2	6A	-3	3	36	-12				
GALERAZAMBA	8.98	212.3	2	15	1	3	51	-6				
DOMINICA	9.17	108.8	2	17	0							
FORT FRANCE	9.62	111.4	2	22	-1	4	52	39				
ST. VINCENT	10.24	119.7	2	28	-3	4	15	-13				
GRENADA	10.52	126.2	2	33	-2	4	24	-11			8	23 PCP
TRINIDAD	11.67	130.6	2	50	-1	4	51	-12			8	52 PCP
BARBADOS	11.67	115.6	2	54	3	5	1	-2				
FUQUENE	13.33	194.5	3	10K	-3							
BOGOTA	14.23	195.1	3	24K	-1	5	55	-10	3	36		
CHINCHINA	14.36	201.4	3	31	4	6	2	-6	3	42	6	20 *SS
SANTIAGO MA.	18.06	256.7	4	19	5	7	52	18				
COLUMBIA	18.14	330.5	4	15	0							
MERIDA	18.26	280.9	4	10	-7	7	34	-4			4	34 PPP
SAN SALVADOR	18.68	258.0	4	25	3	8	4	16				
CHAPEL HILL	18.99	338.0	4	25	0							
COMITAN	20.86	267.2	4	36	-10	8	28	-7			5	28
GEORGETOWN	21.16	345.5	4	49	0	8	31	-10				
WASHINGTON	21.16	345.5	4	46	-3	8	7	-34			5	13
FORDHAM	22.50	353.1	5	4	1							
MORGANTOWN	22.64	340.6	5	5K	1	9	21	13				
PALISADES	22.66	353.1	5	6	2	9	7	-1				
PENNSYLVANIA	23.16	345.5	5	11	2	9	25	8				
WESTON	23.84	358.3	5	19	3	9	31	2				
VERA CRUZ	24.36	275.9	5	26	5	9	47	9			6	13 PPP
CLEVELAND	24.83	339.8	5	28K	3	9	49	3				
BLOOMINGTON	24.92	329.2	5	25	-1	10	0	12				
OAXACA	25.15	270.8	5	31	3	10	6	14			6	20 PPP
C. GIRARDEAU	25.18	322.1	5	27	-2	9	59	7				
LITTLE ROCK	25.38	314.1	5	30	-1	10	11	16				
PUEBLA	26.32	275.7	5	40	1						6	3 PP
ST. LOUIS 1	26.48	323.4	5	41	0	10	30	16	5	53		
FLORISSANT	26.67	323.5	5	43	0	10	27	10				
HALIFAX	26.68	10.9	5	44K	1							
BREBEUF	27.08	355.0	5	46A	0	10	24	0	6	6	8	55 PCP
TACUBAYA	27.25	276.6	5	48K	0	10	22	-4			9	18 PCP
FAYETTEVILLE	27.36	314.7	5	49K	0				6	7		
DALLAS	27.66	306.3	5	54	2							
SHAWINIGAN	28.07	356.5	5	55	0							
LEON	29.52	280.4	6	8	0						7	19 PPP
LAWRENCE	29.70	318.6	6	12	2							

WICHITA MTS.	29.81	308.5	6	8	-3	11	8	1				
MANHATTEN	30.67	317.8	6	16A	-3	10	41	-40				
HUANCAYO	30.72	189.5	6	19	0							
GUADALAJARA	31.07	279.6	6	1	-21	11	7	-20			12	45 SS
LUBBOCK	31.86	304.4	6	28	-1							
MANZANILLO	32.11	276.6				11	57	14			7	8 PP
CHIHUAHUA	34.12	293.9	6	49	0	12	17	2			8	2 PP
LA PAZ	34.83	176.2	6	54	-1	12	24	-2				
ALBUQUERQUE	35.92	304.5	7	3	-1	12	19	-24			8	19 PP
RAPID CITY	37.50	320.1	7	4	-13							
LARAMIE	37.67	314.7	7	19	0							
TUCSON TELE.	38.72	298.9	7	28	0							
TUCSON	38.79	298.7	7	29	1	13	33	7			9	16 PP
FLAMING GRGE	40.14	312.3	7	38	-1						9	21 PP
GLEN CANYON	40.48	305.7	7	42	0						9	41 PP
SALT LAKE C.	41.83	311.1	7	53	0							
ANTOFAGASTA	41.92	180.0	7	51	-3							
ANGRA DO HO.	42.44	52.5				14	36	15				
BOULDER CITY	42.78	303.3	8	2	1							
BOZEMAN	43.16	318.1	8	4	0							
BUTTE	44.27	317.9	8	13	0							
EUREKA	44.47	307.9	8	14	-1						10	15 PP
PASADENA	45.17	300.0	8	18	-2	15	4	4			10	20 PP
HUNGRY HORSE	46.14	320.3	8	26	-2						12	30
RENO	47.37	307.0	8	38	0							
PRIEST	47.46	302.4	8	36	-2							
BANFF	48.23	323.2	8	42	-2							
LICK	48.41	303.8	8	46A	0							
MINERAL	48.88	307.8	8	49A	-1							
BERKELEY	48.97	304.4	8	50A	0	15	53	-1			11	1 PP
CALISTOGA	49.34	305.4	8	50A	-3							
UKIAH	49.90	305.9	8	49	-8							
PENTICTON	49.92	319.6	8	57	-1							
M.BOUR	51.26	86.2	9	11	3	16	30	4				
VICTORIA	52.06	317.7	9	12K	-2							
ALBERNI	53.15	318.3	9	20	-2							
REYKJAVIK	56.02	23.3	9	45K	2							
SERRA PILAº	56.96	52.6	9	50A	0	17	43	0	10	0	11	58 PP
COIMBRA	57.03	53.7	9	49K	-1	17	39	-5	10	2		
SIDA	57.33	24.7	9	55	3							
RESOLUTE	57.77	352.5	9	52	-3	17	56	2				
THULE	57.98	0.6	9	58	1							
MALAGA	60.15	57.8	10	23	11	18	38	13			12	38 PP
TOLEDO	60.39	54.2	10	13	0	18	29	1	10	27	12	34 PP
GRANADA	60.78	57.3	10	15K	-1	18	40	7			12	34 PP
SITKA	61.08	325.6	10	20	2							
ALMERIA	61.70	57.6	10	24K	2	18	49	5			18	58 PS
MOULD BAY	62.92	348.3	10	27	-4							
FOLINIERE	63.14	44.1	10	31	-1						14	32
ALICANTE	63.20	55.8	10	37	5	19	3	0			12	50 PP
KEW	63.38	41.1	10	32A	-2	19	5	-1			23	11 SS
BAGNERES	63.52	50.5	10	33	-1						10	43 PCP
TORTOSA	63.84	53.0				19	13	2			11	40
ALERT	64.15	1.2	10	35	-4							
PARIS	65.11	44.1	10	43	-2						13	25 PP
GARCHY	65.51	45.8	10	46	-1	19	33	1			13	9 PP
CLERMONT-FD.	65.58	47.5	10	48	0	19	38	5				
DOURBES	66.47	42.7	10	52	-2						21	5
BERGEN	67.06	31.5	11	15	18							
BESANCON	67.49	45.8	11	1	1						11	49
WITTEVEEN	67.71	39.7	11	4A	3							
BENSBERG	68.09	41.7	11	3	-1	20	3	0	11	14	11	35 PCP
COLLEGE	68.09	333.3	10	59	-5	20	3	0			13	26 PP
NEUCHATEL	68.17	46.0	11	3	-1							
MUNSTER	68.32	40.6	11	5	0							
STRASBOURG	68.61	44.3	11	7	0	20	6	-3	11	39	11	59 *SP
ROSELEND	68.75	47.6	11	1	-7						11	15 PCP
MONACO	68.77	49.5	11	7	-1						11	18 PCP
FELDBERG	68.94	42.5	11	7	-2							
KARLSRUHE	69.00	43.8	11	6	-3	20	57	43				
HEIDELBERG	69.17	43.3	11	11	0							
TUBINGEN	69.47	44.3	11	11	-1							
STUTTGART	69.59	44.0	11	11	-2	20	19	-2				
PAVIA	69.87	47.8									32	22
RAVENSBURG	69.91	45.0	11	15	0							
CHUR	69.94	46.0	11	20K	5							
CHIAVARI	70.07	48.7	11	0	-16	20	22	-5			13	8 PP
SKALSTUGAN	70.38	28.1	11	19	1						11	41 PCP
GOTEBORG	70.53	34.4	11	19	0						11	38 PCP

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JENA	70.87	41.5	11	19	-2	20	34	-2			14	9 PP
PRATO	71.40	49.0	11	22	-2	20	56	14				
CHEB	71.47	42.4	11	27	3	20	59	16				
COLLMBERG	71.72	41.1	11	24	-2	20	46	0			14	16 PP
PADOVA	71.73	47.3	11	31	5	21	1	15			15	57 PPP
KASPERSKE H.	72.37	43.3	11	29	-1						14	1
KARLSKRONA	72.65	35.8	11	30	-1							
ROME	72.70	50.9	11	34K	2	20	57	0			13	12 PP
PRAGUE	72.78	42.2	11	42	10						21	13
PRUHONICE	72.87	42.3	11	31	-2	21	0	1				
TRIESTE	73.00	46.9	11	34K	0	21	4	4			21	33
UPPSALA	73.24	31.8	11	35K	0	20	59	-4			21	39 PS
KIRUNA	73.37	23.3	11	34	-2	21	4	0				
LJUBLJANA	73.47	46.4	11	36	0						14	10 PP
VIENNA-H.	74.33	43.9	11	42	1	21	16	1				
ZAGREB	74.51	46.4	11	42	0	21	16	-1				
BRATISLAVA	74.83	43.9	11	44	0	21	21	0				
RACIBORZ	75.18	41.8	11	47	1						12	3 PCP
MESSINA	75.71	54.2	12	11	22	22	11	40				
SODANKYLA	75.79	23.3	11	48	-2	21	31	0				
BUDAPEST	76.23	44.3	11	53	1						12	2 PCP
KRAKOW	76.27	41.6	11	50	-2	21	35	-2			12	7 PCP
WARSAW	76.47	39.2	11	51	-2	21	39	0			14	57 PP
NURMIJARVI	76.57	30.4	11	52A	-2						14	44 PP
SKALNATE PL.	76.67	42.4	11	55	0	21	17	-24			15	2 PP
HELSINKI	76.80	30.7	11	54	-1							
KAJAANI	77.05	26.5	11	56	-1							
TITOGRAD	77.53	49.3				21	53	3			12	5 PCP
KHEYS	77.65	7.6	12	1	1	21	54	2			14	52 PP
BELGRADE	77.80	46.7	12	1K	0	21	56	3			12	12 PCP
APATITY	78.25	22.4	12	1A	-2	21	46	-12			12	7 PCP
PULKOVO	79.49	30.4	12	8	-2	22	11	0			12	20 PCP
SOFIA	80.37	48.3	12	15	0	22	24	4	12	28	14	37
BUCHAREST	81.79	46.0	12	22	0	22	49	14	12	31	22	37 SKS
ATHENS	82.00	52.8	12	23K	0						22	38 PS
MOSCOW	84.63	32.7	12	35	-2						22	55 SCS
ISTANBUL UN.	84.90	48.5	12	40K	2	22	58	-8				
LUANDA	86.79	100.4	12	49A	1	23	28	3	13	4	16	21 PP
BANGUI	87.70	86.2	12	59	7	23	24	-9				
TIKSI	89.16	354.0	12	56	-3	23	19	-28				
KSARA	92.69	53.1	13	18	3	24	25	7			17	0 PP
SVERDLOVSK	94.55	24.6	13	23A	-1						23	57 SKKS
WINDHOEK	94.70	112.1	13	23	-1							
MAGADAN	95.32	340.3				24	2	-1				
TIFLIS	95.38	42.9	13	30	2						17	14 PP
PETROPAVLOVK	97.17	332.6	13	34	-2	24	12	-1			17	38 PP
GORIS	97.51	44.2				24	15	0			19	44 PPP
YAKUTSK	98.20	350.6	13	41	1	24	15	-3			17	49 PP
LWIRO	99.43	89.2	13	44A	-2	24	27	3			18	1 PP
HERMANUS	99.91	122.9				24	33	6			27	7 PS
BYRD STATION	101.64	187.7	13	54	-2							
BROKEN HILL	102.70	101.1	14	2	1						18	15 PP
TEHERAN	102.92	45.2	14	11	9	24	43	2				
BULAWAYO	104.33	106.7	14	9	1						18	23 PP
IRKUTSK	109.41	3.4	18	40	777	25	7	-3				
TASHKENT	109.75	31.2				25	12	1			19	17 PP
DUZHANBE	111.55	33.4	18	50	14	25	18	-1				
ULAN-BATOR	113.87	2.0				26	36	68			19	28 PP
ESEN BULAK	114.31	10.1	19	40	58							
VLADIVOSTOK	115.37	342.1				25	32	-2			19	49 PP
WARSAK DAM	116.46	34.9	18	47	1	25	36	-2				
QUETTA	116.55	41.0	18	47	1	25	35	-3			20	0 PP
TUKUBASAN	118.42	332.2									20	18 PP
MATUSIRO	118.97	333.8	18	49A	-2						36	47 SS
MAWSON	122.70	160.6	18	55	-3				19	13	20	33 PP
DEHRA DUN	122.75	32.5	19	28	30	25	59	0				
NEW DELHI	124.38	34.3	18	59	-2	26	3	-1			20	53
LANCHOW	125.50	5.7	19	2	-1	25	50	-18			20	57 PP
BOMBAY	128.20	46.2				26	9	-6			21	11
LHASA	128.92	20.9	19	12	2						22	32 PP
POONA	129.15	45.6	19	11	1						22	31
CHARTRA	129.98	26.4	19	12	0						22	38
CHENGTU	130.85	6.4	19	15	1	26	25	3			22	37 PP
SHILLONG	132.94	22.1	19	16A	-2	26	44	17			22	43
CALCUTTA	134.25	27.9									22	45
VISHAKHAPTNM	135.70	37.2	19	38	15						22	16
CHITTAGONG	135.85	23.9	19	25	2				19	41	22	9 PP
RABAUL	136.06	283.5	19	20	-3						22	45
KUNMING	136.16	9.0	19	27	3	26	34	1			22	55 PP

MADRAS	137.35	45.0					23 06	
BRISBANE	139.42	249.3	19 21	-9			22 21	
RIVERVIEW	139.98	239.2	19 36	5			32 53	PS
CANBERRA	141.36	236.2	19 28	-5			22 39	PP
PORT MORESBY	142.53	278.7	19 31A	-4			41 41	SS
MELBOURNE	143.63	230.6	19 35	-2				
MANILA	145.18	340.2	19 42	2			23 2	
PORT BLAIR	145.27	30.7	19 46	6				
CHARTERS TS.	145.40	261.2	19 37	-3			23 0	
ADELAIDE	149.39	231.7	19 45	-2			19 51	PKP2
NHATRANG	149.50	0.8	19 48	1			20 6	

JANUARY 8 5.H 43.M 0.S EPICENTRE -24.29-177.47 DEPTH= 78.KM

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G= 0.4086 H= 0.0181 K=-0.9125 HT= 3.6

DEPTH OF FOCUS= 0.007R

SE= 3.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SUVA	7.21	327.2	2	0	15	3	25	19			4	0	
APIA	11.73	28.3	2	45	-1	4	43	-13					
PORT VILA	14.78	293.5	3	39	13	6	35	27					
KARAPIRO	14.85	202.1	3	31	4								
NOUMEA	14.91	274.4	3	39K	11	6	34	23					
CHATEAU	16.00	200.1	3	41	-1	6	41	5					
KOUMAC	17.28	278.8	4	4K	7	6	40	-25					
WELLINGTON	18.14	199.1	4	5	-3	7	8	-16					
CORB RIVER	18.64	203.7				7	25	-11					
KAIMATA	20.38	204.2				8	1	-10					
BRISBANE	26.93	257.0	5	35	-1						11	9	
RIVERVIEW	28.94	243.6	5	42A	-12						12	0	
CANBERRA	30.97	241.4	6	13A	1						6	53	*SP
MOORLANDS	34.31	229.4	6	42	1						9	14	PCP
FORT NELSON	34.38	228.6	6	41K	0						9	14	PCP
MELBOURNE	34.66	238.1	6	44	U								
TARRALEAH	34.77	230.0									9	15	PCP
PORT MORESBY	36.82	287.6	7	3K	1								
ADELAIDE	39.27	243.9	7	23A	1						8	3	
SCOTT BASE	54.14	184.1	9	20	1								
BYRD STATION	60.84	170.3	10	4	-2								
MATUSIRO	73.54	324.1	11	25K	-1								
MAWSON	78.19	199.9	11	51	-1						12	32	*SP
PRIEST	80.55	43.4	12	6K	1								
BERKELEY	80.67	41.2	12	6K	0								
LICK	80.71	41.9	12	7K	1								
PASADENA	80.92	46.2	12	7K	0								
CALISTOGA	80.98	40.4	12	8K	0								
MINERAL	82.67	39.6	12	17K	1								
RENO	83.21	41.1	12	18	-1								
TUCSON	84.87	51.4	12	29	2								
TUCSON TELE.	85.00	51.3	12	29	1				13	11			
EUREKA	85.53	43.0	12	31	1				13	12	15	50	PP
GLEN CANYON	86.92	47.1	12	38	1								
VICTORIA	87.09	32.6	12	37	-1								
ALBUQUERQUE	89.39	51.0	12	50	1				13	30			
PENTICTON	89.51	33.6	12	50K	0								
FLAMING GRGE	90.50	44.7	12	54	0								
BUTTE	91.35	39.1									16	36	PP
COLLEGE	91.79	12.2	12	59	-1				13	18	16	30	PP
HUNGRY HORSE	91.86	36.7	13	0	-1								
BANFF	92.72	33.8	13	4	-1								
LARAMIE	93.17	45.8	13	7	0								
WICHITA MTS.	94.98	54.2	13	14	-1								
RESOLUTE	111.28	16.4	18	23	-2				12	56	30	5	PKKP
THULE	117.92	14.6	18	38	0								
QUETTA	123.08	291.2	18	48	0								
BULAWAYO	129.06	212.1	18	58A	-1								
BROKEN HILL	133.91	216.0	19	5	-3								
SODANKYLA	134.39	347.2	19	8	-1								
KIRUNA	135.07	350.5	19	9	-1								
KAJAANI	136.92	344.1	19	13	-1								
SKALSTUGAN	140.19	353.2	19	17	-3								
NURMIJARVI	140.69	342.9	19	15	-6								

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.

HELSINKI	140.89	342.4	19	14	-7						
UPPSALA	142.92	347.4	19	20	-5						
LWIRO	143.30	227.7	19	23K	-2						
BERGEN	143.86	357.7	19	24	-2						
GOTEBORG	145.93	350.9	19	29	-1						
KARLSKRONA	146.76	346.7	19	31	0						
KRAKOW	150.93	336.6	19	37	-1					19	43 PKP2
WITTEVEEN	151.34	354.8	19	46K	8						
RACIBORZ	151.51	338.6	19	46	7					19	55 PKP2
SKALNATE PL.	151.53	335.2	19	44	5						
COLLMBERG	151.85	346.0	19	39K	0	20	17		23	27	PP
HALLE	151.88	347.5	19	46	7						
MUNSTER	152.09	353.3	19	46	7						
JENA	152.50	347.6	19	39	-1	20	33		20	7	
PRUHONICE	152.69	343.0	19	40	0				20	43	
KEW	152.77	3.9	19	47	7						
BENSBERG	153.13	353.5	19	48K	7						
VIENNA-H.	153.70	338.9	19	21	-21						
KASPERSKE H.	153.73	343.5	19	41	-1					20	4
DOURBES	154.18	356.9	19	50	8						
BANGUI	154.86	220.6	19	8	-35					20	25
STUTTGART	154.99	349.4	19	43	0					20	8
STRASBOURG	155.40	351.6	19	43	-1	20	10				
FOLINIERE	155.45	4.8	20	10	26						
PARIS	155.52	0.1	19	53	9					20	11 PKP2
LJUBLJANA	156.23	339.0	19	46	1					20	15 PKP2
GARCHY	157.05	359.1	20	47	61					25	0 PP
ROSELEND	158.45	350.2	19	47	-1					20	29
BAGNERES	161.16	5.4								20	34

JANUARY 8 22.H 25.M 11.S EPICENTRE 36.38 70.77 DEPTH= 208.KM

A= 0.26580 B= 0.76194 C= 0.59059 D= 0.9442 E=-0.3294
G= 0.1945 H= 0.5576 K=-0.8070 HT= -0.4

DEPTH OF FOCUS= 0.028R

SE= 2.40

	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	
KHOROG	1.25	28.9	0	35	2	1	0	1					
KULYAB	1.72	332.0	0	37	0	1	5	-1					
WARSAK DAM	2.46	164.7	0	44K	-1	1	16	-4					
GARM	2.64	352.0	0	47	0	1	20	-3					
DUZHANBE	2.70	324.5	0	48	0	1	20	-4					
DZERGETAL	2.86	7.2	0	50	1	1	25	-2					
FERGANA	4.07	11.0	1	4K	0	1	50	-3					
SAMARKAND	4.44	318.8	1	8K	-1	1	55	-7					
ANDIJAN	4.54	15.6	1	10K	0	1	59	-5			2	21	
NAMANGAN	4.64	8.5	1	14K	3	2	6	0					
TASHKENT	5.06	347.2	1	17	0	2	13	-3			1	39	
LAHORE	5.66	147.4	1	24	0	2	22	-7					
TCHIMKENT	5.98	351.6	1	27	-1	2	31	-6			2	9	
NARYN	6.48	37.4	1	34	-1	2	43	-5					
QUETTA	6.96	208.4	1	41K	0	2	56	-4			2	24	*SP
FRUNSE	7.09	23.6	1	43	0	3	1	-2			2	32	*SP
RYBACHE	7.36	33.0	1	45	-1						2	32	*SP
FABRICHNAYA	8.02	31.2	1	55	0								
ALMATA	8.36	32.8	2	0	1	3	34	2			2	52	
PRZHEVALSK	8.48	41.8	2	1	0	3	36	1					
ALMATA-2	8.55	34.4	2	0K	-2	3	32	-4			2	52	*SP
DEHRA DUN	8.58	132.7	2	14	12						2	27	PPP
CHILIK	9.27	36.9	2	10	-1								
NEW DELHI	9.49	143.3	2	11K	-3	3	48	-10			4	18	SS
ASHKABAD	10.04	282.7				4	1	-10					
KIZYL-ARVAT	11.81	288.1	2	42	-2						6	40	
KARACHI	11.95	196.6	2	40K	-5	4	39	-16					
SEMIPALATNSK	15.59	23.1	3	29	-2								
TEHERAN	15.69	273.4	3	34	2	6	26	7					
BOMBAY	17.51	173.5	3	54	1	7	6	7					
POONA	17.99	170.5	3	58	0						7	41	SS
BOKARO	18.02	129.8	4	0	2						8	8	
LHASA	18.27	105.8	4	4A	3	7	20	6					
GORIS	19.51	286.6	4	15K	1								
KIROVOBAD	19.57	290.0	4	12	-2								

GROZNY	20.37	297.6	4 29	7					
HOWRAH	20.53	127.4	4 10	-14					
TIFLIS	20.82	292.8	4 28	1					
SHILLONG	21.02	114.9	4 28K	-1	8 10	5			
SVERDLOVSK	21.56	344.7	4 34	0					
VISHAKHAPTNM	21.64	145.9	4 46	11	8 28	12			
BAKURIANA	21.78	292.5	4 38	2					
CHITTAGONG	22.99	121.7	4 49	1	8 45	6	5 31	5 55	*SP
KRASNAYA	24.42	296.8	5 4	3					
MADRAS	24.77	157.6						9 56	
LANCHOW	26.61	80.8	5 22	1					
CHENGTU	28.21	92.0	5 36	0					
KSARA	28.57	275.2	5 40	1			6 25		
MOSCOW	29.63	321.3	4 48	-60					
PAOTOW	30.84	70.1	6 0	1					
SIAN	31.07	82.5	6 2	1					
PEKING	35.57	70.0	6 41	1					
HELSINKI	37.56	324.0	6 58	2				8 14	
APATITY	37.65	337.6	6 57A	0					
NURMIJARVI	37.81	324.4	6 58A	0					
KAJAANI	37.85	330.7	6 58	-1					
SKALNATE PL.	38.52	305.6	7 3	-1					
KRAKOW	38.74	307.0	7 5	-1				9 4	PPP
SODANKYLA	39.76	335.1	7 14A	0			7 59		
UPPSALA	41.05	322.0	7 24	-1				9 2	PP
KARLSKRONA	41.64	316.3	7 31	1			8 16		
KIRUNA	42.11	334.2	7 33A	-1					
PRUHONICE	42.21	307.0	7 34A	0				9 14	
LJUBLJANA	42.60	301.2	7 37A	-1				8 26	
KASPERSKE H.	42.90	305.8	7 39	-1				9 24	PP
COLLMBERG	43.12	309.0	7 41	-1			8 29	9 28	PP
TROMSOE	43.30	336.3	7 43	0					
GOTEBORG	43.72	318.4	7 47	0				9 29	PP
JENA	44.04	308.6	7 48	-1			8 37	9 46	PP
YAKUTSK	44.19	35.4	7 49	-1					
SKALSTUGAN	44.20	326.8	7 49	-1			8 36		
KHEYS	44.62	357.1	7 54A	0					
TIKSI	45.95	22.0	8 3	-1				9 56	
ROSELEND	47.45	301.6	8 20	4				9 3	
MATUSIRO	53.17	68.3	8 58K	-1			9 47		
LWIRO	54.80	234.9	9 11	0				11 51	*PPP
SIDA	57.56	328.2	9 28	-2					
ALERT	59.16	353.6	9 40	-1					
BROKEN HILL	64.42	226.3	10 17A	1					
THULE	64.55	350.1	10 17	0					
MOULD BAY	67.47	2.6	10 35A	-1					
RESOLUTE	68.81	356.0	10 43	-1					
BULAWAYO	68.90	222.5	10 43A	-2					
COLLEGE	74.65	16.0	11 17	-2			12 8	11 35	PCP
KIMBERLEY	77.89	220.2	11 36	-1					
CHARTERS TS.	90.67	114.5	12 40	0				13 33	
PENTICTON	94.17	6.8	12 56	-1					
EUREKA	104.26	5.4	17 34	232				29 28	PKKP
WICHITA MTS.	108.57	350.8	17 55	777				18 38	PP
BYPD STATION	136.06	177.4	19 58	61					

JANUARY 9 12.H 40.M 48.5 EPICENTRE 43.09 144.89 DEPTH= 33.KM

A=-0.59930 B= 0.42140 C= 0.68063 D= 0.5752 E= 0.8180
G=-0.5568 H= 0.3915 K=-0.7326 HT= -2.8

DEPTH OF FOCUS= 0.000R

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
KUSIRO	0.37	253.6	0 13K	3	0 22	5		
NEMURO	0.56	64.1	0 14A	2	0 22	1		
ABASHIRI	1.03	334.9	0 24K	6	0 41	9		
OBIHIRO	1.25	262.9	0 13K	-8				
HIROO	1.41	235.6	0 26K	3	0 44	3		
URAKAWA	1.81	239.7	0 32K	3	0 59	8		
ASAHIGAWA	1.96	291.6	0 38	7	1 3	8		
TOMAKOMAI	2.47	260.5	0 46	7	1 17	9		
RUMOE	2.53	291.1	0 43	4	1 23	14		
SAPPORO	2.59	270.9	0 45K	5	1 16	5		

MURORAN	2.98	256.4	0	49	3	1	27	6			
WAKKANAI	3.28	316.5	0	57	7	1	44	15			
HAKODATE	3.31	248.7	0	53A	2	1	35	6			
MORI	3.34	254.3	0	56	5	1	34	4			
SUTTSU	3.43	266.8	0	55	3	1	38	6		1	13
HATINOHE	3.58	225.6	0	53	-1	1	31	-5			
AOMORI	3.81	234.9	0	59	1	1	52	10			
MIYAKO	4.07	213.6	0	59	-2	1	42	-7			
Y.-SAKHLINSK	4.22	339.4	1	7	3	2	7	15			
MORIOKA	4.39	220.8	1	3A	-3	1	50	-7			
MIZUSAWA	4.86	216.9	1	12	-1	2	1	-8			
AKITA	4.93	228.6	1	14	0	2	10	0			
ISINOMAKI	5.38	211.4	1	17A	-3	2	14	-8			
SAKATA	5.67	224.1	1	25	1	2	31	2			
SENDAI	5.69	213.5	1	21	-3	2	21	-8			
YAMAGATA	5.93	217.0	1	25	-3	2	28	-7			
HUKUSIMA	6.31	213.8	1	33	0	2	37	-8			
NIIGATA	6.81	222.7	1	41	1	2	57	0			
ONAHAMA	6.85	207.8	1	38	-3	2	48	-10			
SHIRAKAWA	6.95	212.5	1	39	-3	2	53	-8			
AIKAWA	7.15	227.2	1	44	-1						
MITO	7.51	208.4	1	45A	-5	3	3	-12			
UTUNOMIYA	7.58	212.3	1	49	-2	3	5	-12			
KAKIOKA	7.75	209.5	1	49	-4	3	11	-10			
TUKUBASAN	7.79	209.9	1	48K	-6	3	10	-12			
TAKADA	7.85	222.6	1	53	-2						
TYOSI	7.99	204.3	1	52	-5	3	13	-14			
MAEBASI	8.04	215.8	1	56	-1	3	8	-20			
KUMAGAYA	8.12	213.3	2	0	2	3	22	-8			
NAGANO	8.21	221.0	2	1	1	4	9	37		3	17
MATUSIRO	8.31	220.4	1	58A	-3	3	27	-8		15	56 SCS
OIWAKE	8.33	218.0	2	1	0	3	40	5			
WAZIMA	8.35	229.6	2	1	-1						
HONGO	8.36	209.9	2	1	-1	3	26	-10			
TITIBU	8.39	214.2	2	2	0	3	27	-10			
TOKYO C.M.O.	8.40	210.0	1	58	-4	3	26	-11			
YOKOHAMA	8.65	209.7	2	20	14	3	34	-9			
MATUMOTO	8.66	220.3	2	5	-1	2	32	-71			
TOYAMA	8.69	225.4	2	7	1	3	38	-6			
KOHU	8.88	215.6	2	12	3	3	42	-7			
HUNATU	8.93	214.0	2	16	6	3	40	-10			
HERA	9.05	207.4	2	11	0						
TAKAYAMA	9.09	222.9	2	6	-6						
MISIMA	9.19	212.1	2	16	3	3	46	-11			
AJIRO	9.20	211.2	2	9	-4	3	45	-12			
IIDA	9.32	218.2	2	14	-1						
OSIMA	9.34	209.1	2	13	-2	3	46	-14			
VLADIVOSTOK	9.50	274.6	2	21	4	4	11	7		3	9
SHIZUOKA	9.54	214.0	2	33	15	3	57	-8			
HUKUI	9.69	226.4	2	20	0						
GIHU	9.92	222.0	2	22	-1						
OMAESAKI	9.94	213.7	2	42	19						
NAGOYA	10.01	220.5	2	19	-5	4	11	-6			
TSURUGA	10.08	225.5	2	27	2						
HIKONE	10.28	223.5	2	27	-1	4	19	-4			
KAMEYAMA	10.51	221.3	2	33	2	4	40	11			
OKHA	10.55	353.6	2	36	4	4	42	12			
KYOTO	10.74	224.5	2	42A	7	4	42	7			
HATIDYOZIMA	10.74	203.6								3	54
TOYOOKA	10.84	229.3	2	22	-14	4	18	-19			
ABUYAMA	10.94	224.5	2	33K	-4						
NARA	10.96	223.0	2	38	1						
OSAKA	11.13	224.0	2	35	-5	5	12	28			
OWASE	11.27	219.9	2	16	-26	4	48	0			
KOBE	11.29	225.2	2	51	9					5	58
SUMOTO	11.70	225.0	2	46	-1	5	3	5		6	45
TAKAMATU	12.17	227.6	2	50	-4					6	24
KOTI	13.03	226.8	3	1	-4	5	57	27			
HIROSIMA	13.04	232.3	2	58	-7						
TORISIMA	13.10	197.7	3	2	-4	5	28	-4			
MATUYAMA	13.22	229.7	3	7	-1					6	34
PETROPAVLOVK	13.52	37.9	3	12	0	5	46	4		3	32
SIMIDU	13.92	226.3	3	15	-2	5	55	4			
CHANGCHUN	14.24	279.7	3	23A	2	6	1	2			
OOITA	14.33	231.0	3	10	-12					3	55
HUKUOKA	14.80	234.9	3	26	-3	6	8	-4			
SAGA	15.08	234.2	3	45	13						
KUMAMOTO	15.15	232.1	3	30	-3	6	32	12			
MIYAZAKI	15.42	228.1	3	34	-3	6	45	18			

NAGASAKI	15.70	233.8	3	38A	-2	6	53	20						
KAGOSIMA	16.16	229.4	3	54	8	7	9	25						
KLYUCHI	16.74	32.2	4	12	19							7	49	
MAGADAN	16.88	10.4	3	57	2							4	19	PP
YAKUSIMA	17.05	227.0	3	55	-2									
YAKUTSK	20.98	339.8	4	42	-1	8	26	-4				4	58	PP
PEKING	21.66	271.7	4	48A	-1	8	42	0	5	3				
ZO-SE	22.29	245.4	4	55A	-1	8	51	-3				5	10	*SP
NANKING	23.34	250.5	5	6	0	9	17	4	5	20				
ULAN-BATOR	26.87	293.6	5	39A	-1	10	13	1						
IRKUTSK	28.48	303.1	5	54	0									
SIAN	29.25	264.6	6	2A	1									
GUAM	29.52	180.3	6	48	45									
TIKSI	29.68	349.8	5	59	-6							7	18	PPP
LANCHOW	32.17	271.4	6	28A	1	11	36	0	6	35		6	40	*SP
CANTON	32.82	242.7	6	33A	1				6	45				
HONG KONG	32.85	240.7	6	34A	1	11	46	-1						
BAGUIO CITY	33.70	225.4	6	40	0	11	58	-2						
ESEN BULAK	34.27	292.7	6	45A	0	12	24	15						
CHENGTU	34.64	262.8	6	47	-1	12	9	-6	6	59		12	31	*SS
MANILA	34.92	223.0	6	51	1	12	15	-4						
KUNMING	38.76	256.3	7	24A	1	13	17	-1	7	36		13	37	*SS
COLLEGE	42.59	35.6	7	55	1	14	15	0				9	25	PP
NHATRANG	43.53	235.9	7	59	-3				8	18				
TOCKLAI	43.55	264.8	8	13	11									
SEMIPALATNSK	43.63	303.1	8	4	1							8	27	
LHASA	44.67	270.9	8	12A	1	14	45	0				18	5	SS
SHILLONG	46.35	265.6	8	25A	0	15	27	18				10	29	
KHEYS	47.31	347.1	8	31	-1							10	16	PP
CHITTAGONG	48.32	262.2	8	41A	1	15	36	-1	9	1		10	30	PP
CHATRA	49.06	270.3	8	45	-1	15	45	-2						
MOULD BAY	49.97	18.1	8	52A	-1									
BOKARO	51.82	268.1	9	6	-1	16	45	20				11	6	
KIPAPA	51.83	95.7	9	7	0				9	21				
PORT MORESBY	52.27	177.2	9	9K	-1	16	17	-15						
SVERDLOVSK	52.49	316.4	9	11A	-1	16	36	1						
DEHRA DUN	53.77	279.7	9	24	3	16	52	0						
ALERT	53.92	4.3	9	20	-2									
TASHKENT	54.21	295.9	9	25	0	16	59	1				11	30	PP
KHOROG	54.60	290.8	9	28	1	17	6	3						
HAWAII V.OB.	55.08	95.6	9	30	-1									
NEW DELHI	55.35	278.5	9	34A	1	17	15	2				11	39	PP
LAHORE	55.76	283.1	9	35	-1	17	20	1						
RESOLUTE	56.07	16.1	9	36	-2	17	21	-2						
WARSAK DAM	56.40	287.2	9	40A	0	17	28	1						
APATITY	58.30	335.2	9	52K	-2									
THULE	58.90	8.7	9	57	-1									
ALBERNI	59.21	49.7	10	0	0									
TANGERANG	60.04	225.3	9	32	-34									
VICTORIA	60.40	49.8	10	6A	-2									
SODANKYLA	60.44	336.9	10	8A	-1									
TROMSOE	60.86	341.1	10	11	0									
QUETTA	61.77	286.0	10	17A	-1	18	36	-1	10	37		10	53	PCP
KIRUNA	61.81	339.2	10	13	-5									
PENTICTON	62.04	47.5	10	19A	0									
MADRAS	62.79	262.3	10	28	4	19	8	18				12	59	
CHARTERS TS.	62.87	178.5	10	23	-2									
BANFF	63.12	44.1	10	24	-3									
ASHKABAD	63.14	297.8				18	58	4						
POONA	63.84	271.4	10	30	-1	19	3	0						
MOSCOW	64.00	323.1	10	32	0							19	22	PS
PULKOVO	64.35	329.3	10	34	-1	19	15	6				14	51	PPP
BOMBAY	64.36	272.4	10	38	3	19	18	9				12	59	PP
KARACHI	64.89	281.2	10	37	-1				10	58				
HUNGRY HORSE	65.60	46.0	10	42	-1				10	55		39	19	PKPPKP
NURMIJARVI	65.86	332.1	10	43	-1									
UKIAH	65.86	58.4	10	57	13									
HELSINKI	66.00	331.7	10	44	-1									
MINERAL	66.13	56.5	10	46A	0									
CALISTOGA	66.55	58.5	10	50A	1									
BERKELEY	67.22	59.0	10	52	-1	19	42	-2						
SKALSTUGAN	67.24	339.1	10	53	0				11	16				
RENO	67.72	56.3	10	56	0									
BUTTE	67.83	47.3	10	56	-1									
LICK	67.93	59.1	10	57A	0									
UPPSALA	68.68	334.4	11	1A	-1							11	44	
BOZEMAN	68.87	46.8	11	2	-1									
TEHERAN	68.93	299.5	11	4	0	21	0	56						

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TIFLIS	69.19	308.0	11	6A	1	20	12	5			15	17 PPP
PRIEST	69.29	59.6	11	6A	0							
GORIS	69.70	305.3	11	9A	1	20	13	0			13	47 PP
EUREKA	70.07	54.4	11	10	-1				11	23		
BRISBANE	70.50	172.6	11	25	12						24	28 SS
SALT LAKE C.	71.63	51.2	11	21	1							
PASADENA	72.13	59.9	11	23	0	20	43	1			25	42 SS
GOTEBORG	72.16	335.6	11	21	-2				11	44		
KARLSKRONA	72.27	333.0	11	22	-2							
SIDA	72.62	352.2	11	24	-2							
FLAMING GRGE	72.92	49.7	11	27	-1				11	40	11	53 *SP
BOULDER CITY	73.02	56.6	11	29	1							
LWOW	74.03	324.7	11	34	0							
RAPID CITY	74.05	44.1	11	34	0	21	8	5	11	46		
GLEN CANYON	74.31	54.0	11	35	-1							
LARAMIE	74.75	47.4	11	39	1							
KRAKOW	75.54	326.9	11	44	1							
SKALNATE PL.	76.09	326.2	11	46	0						12	5 PCP
RACIBORZ	76.20	327.9	11	48	1						11	59 PCP
RIVERVIEW	76.76	174.6	12	4A	14	21	34	1			26	25 SS
COLLMBERG	77.13	331.4	11	51A	-1						12	33
BUCHAREST	77.18	319.9	11	54	2							
HALLE	77.33	332.0	11	52	-1						12	5 PCP
PRUHONICE	77.66	329.8	11	55	0	21	56	13				
ADELAIDE	77.89	185.2	11	54	-2						12	7 PCP
JENA	77.94	331.9	11	56	0	21	57	11			15	10 PP
BUDAPEST	77.94	325.8	11	58	2						15	13 PP
TUCSON	77.98	57.1	11	57	0	21	42	-4	12	9	22	10 SCS
TUCSON TELE.	77.98	57.0	11	57	0						14	50 PP
CANBERRA	78.12	176.6	12	1	4				12	20	12	10 PCP
BRATISLAVA	78.16	327.3	11	59	1						12	18 PCP
MUNSTER	78.36	334.6	11	59	0							
VIENNA-H.	78.39	327.7	11	56	-3						13	32
ALBUQUERQUE	78.72	52.5	12	1	0				12	14	22	45
KASPERSKE H.	78.72	329.8	11	59	-2						13	24
MUNDARING	79.18	204.5	11	59	-4							
BENSBERG	79.37	334.3	12	4	0				12	20	12	17 PCP
BELGRADE	79.44	323.3	12	7K	3						12	17 PCP
KSARA	79.72	306.9	12	8	2	22	15	10	12	28	15	23 PP
SOFIA	79.79	320.3	12	9	3				12	33	12	59
HEIDELBERG	80.21	332.7	12	18	9							
MELBOURNE	80.54	179.9	12	22	12	22	15	2				
STUTTGART	80.56	332.0	12	10	0				12	37		
DOURBES	80.92	335.4	12	16	4				12	38		
MANHATTEN	81.00	43.7	12	11A	-2				12	25		
KEW	81.10	338.8	12	10	-3						12	31
STRASBOURG	81.23	332.8	12	0	-14						13	42
DUBUQUE	81.26	38.1	12	13A	-1	22	36	15	12	26		
TRIESTE	81.55	327.7	12	16	0							
LAWRENCE	81.84	43.1	12	16	-1							
BASLE	82.21	332.4	12	20A	1						23	29
LUBBOCK	82.35	50.7	12	19	-1							
PADOVA	82.47	328.7									13	27
BESANCON	82.99	333.2	12	24	1							
ATHENS	83.26	317.1	12	27K	3						12	51
WICHITA MTS.	83.32	47.9	12	24	-1	22	44	2			15	46 PP
FOLINIERE	83.59	337.8	12	26	0							
GARCHY	83.89	335.0	12	28	0						12	34 PCP
ROSELEND	83.96	331.3	12	29	1						13	26
PRATO	84.06	328.3	12	47	18							
FLORENCE X.	84.08	328.2	12	28	-1	23	10	21				
ROLLA	84.33	41.7	12	29	-1	22	50	-2	12	43		
TARANTO	84.33	322.6	12	2	-28	22	16	-36				
FLORISSANT	84.35	40.2	12	30	0	22	45	-7	12	43		
ST. LOUIS 1	84.54	40.2	12	31	0	22	47	-7	12	44		
FAYETTEVILLE	84.59	44.3	12	31A	0						12	44 PCP
SHAWINIGAN	84.71	25.1	12	29	-3							
MOORLANDS	85.17	178.3	12	47	13							
ROME	85.18	326.4	12	36K	2	22	59	-1	12	51	24	30 PS
CLERMONT-FD.	85.22	334.2	12	38	4							
KARAPIRO	85.31	156.1	12	36	1				12	48		
BREBEUF	85.37	26.1	12	34A	-1	23	20	18	12	58	23	0 SKS
MONACO	85.55	330.6	12	34	-2						13	1
BLOOMINGTON	85.81	37.5	12	36	-1	22	54	-12	12	51		
C. GIRARDEAU	85.93	40.5	12	37	-1							
CHATEAU	86.49	156.6	12	51	10							
LITTLE ROCK	86.55	43.9	12	40	-1	23	3	-10	12	53		
MESSINA	86.95	322.4	12	36	-7	23	0	-17	12	58	16	4 PP

WELLINGTON	88.20	157.9	12 59	10						
MORGANTOWN	88.21	33.0	12 49K	0						
BAGNERES	88.58	335.0	12 55	4						
HALIFAX	89.05	19.9	13 7	14						
PALISADES	89.27	28.3	13 7	13	23 38	-1	13 17			
TOLEDO	92.77	336.6	13 11	1						
TANANARIVE	107.93	260.7							18 56	PP
LWIRO	110.39	286.8							18 57	PP
BANGUI	112.36	299.6	18 32	0					19 30	
BROKEN HILL	118.98	277.3	18 45	0						
BULAWAYO	122.53	272.2	18 53	1						
MAWSON	126.13	208.0	18 58	-1			19 13			
LA PAZ	141.39	56.9	19 34	6					23 0	PP

JANUARY 9 22.H 13.M 50.S EPICENTRE 48.15 147.48 DEPTH= 439.KM

A=-0.56468 B= 0.36003 C= 0.74264 D= 0.5376 E= 0.8432
G=-0.6262 H= 0.3993 K=-0.6697 HT= -4.7

DEPTH OF FOCUS= 0.064R

SE= 1.23

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
KURILSK	2.93	174.6	1 6K	-1	1 57	-2			
Y.-SAKHLINSK	3.41	252.4	1 12	1	2 6	0			
OKHA	6.13	333.7	1 38	2	2 57	5			
PETROPAVLOVK	8.62	51.4	2 3	-1	3 38	-3		3 18	*SP
MIZUSAWA	10.12	209.3	2 22A	1				4 7	
MAGADAN	11.59	8.4	2 37	0	4 45	3			
VLADIVOSTOK	12.00	251.0	2 43	2	4 49	-1			
TUKUBASAN	13.11	207.3	2 52K	-1	5 10	-2			
MATUSIRO	13.46	213.9	2 56K	-1	5 19	0		10 39	SCP
CHANGCHUN	15.99	262.6	3 19K	-4	6 3	-4			
YAKUTSK	17.13	330.8	3 35	0	6 29	1		14 23	
PEKING	23.78	261.7	4 38	0					
TIKSI	25.10	346.2	4 48	-2				6 6	
PAOTOW	27.61	268.1	5 11	-1					
SIAN	31.81	258.4	5 48K	0					
LANCHOW	34.13	265.6	6 10K	2					
HONG KONG	37.01	237.7			11 54	8			
CHENGTU	37.29	258.1	6 35	1	11 46	-4			
COLLEGE	37.46	39.4	6 36	0			8 4		
KUNMING	41.86	253.0	7 12K	0					
KHEYS	42.80	346.0	7 18	-1					
MOULD BAY	44.60	19.9	7 34A	1					
LHASA	46.55	267.8	7 50K	2	14 6	2			
SHILLONG	48.67	263.0	8 3K	-1					
RESOLUTE	50.70	17.7	8 18A	-2					
CHITTAGONG	50.90	260.0	8 22K	1	15 5	2	10 10		
CHATRA	50.96	267.9	8 21K	-1					
THULE	53.61	9.9	8 40	-1					
APATITY	54.49	334.5	8 46K	-1					
ALBERNI	54.64	53.4	8 48A	0					
DUZHANBE	55.67	291.4			16 23	16			8 54
SAMARKAND	56.12	293.5	8 59K	0					
LAHORE	56.47	281.4	9 0K	-1	16 17	0			
SODANKYLA	56.50	336.5	9 0K	-1					
WARSAK DAM	56.73	285.5	9 2K	-1	16 17	-3			
PENTICTON	57.36	50.9	9 7A	0					
BANFF	58.28	47.3	9 13A	0					
KAJAANI	58.61	333.5	9 14	-1					
HUNGRY HORSE	60.84	49.1	9 31	1				10 10	
MINERAL	61.92	60.0	9 38A	1					
QUETTA	62.17	285.0	9 39	0	17 28	-1			
NURMIJARVI	62.24	332.0	9 38K	-2					
HELSINKI	62.40	331.6	9 40	-1					
CALISTOGA	62.46	62.0	9 41K	0					
BERKELEY	63.16	62.5	9 46A	0					
LICK	63.88	62.6	9 46K	-4					
UPPSALA	64.88	334.7	9 55	-2				10 24	PCP
PRIEST	65.26	63.0	10 0A	1					
POONA	65.56	270.8	10 1K	0					
EUREKA	65.72	57.5	10 3	1			11 37		
PASADENA	68.11	63.0	10 16	-1					
FLAMING GRGE	68.32	52.6	10 19	1					

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RAPID CITY	69.20	46.7	10	23	0									
GLEN CANYON	69.94	56.8	10	28	0									
COLLMBERG	73.53	332.2	10	47A	-1									
PRUHONICE	74.18	330.6	10	53	1									
ALBUQUEROUE	74.26	55.1	10	54	1									
KASPERSKE H.	75.23	330.7	10	58	0									
WICHITA MTS.	78.62	50.2	11	17	0								12	55
PARIS	78.78	337.3	11	18	1									
SHAWINIGAN	79.36	27.0	11	20	0									
FAYETTEVILLE	79.74	46.4	11	23A	1									
LWIRO	110.49	290.6											25	18 SP
BYRD STATION	137.51	165.1											18	34

JANUARY 10 12.H 36.M 33.S EPICENTRE 35.83 22.53 DEPTH= 87.KM

A= 0.75062 B= 0.31141 C= 0.58275 D= 0.3832 E=-0.9237
G= 0.5383 H= 0.2233 K=-0.8127 HT= -0.2

DEPTH OF FOCUS= 0.008R

SE= 2.50

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	2.34	23.7	0	39A	1						1	6	SG
MESSINA	6.07	295.0	1	27K	-2	2	28	-10			1	37	P*
TARANTO	6.23	319.7	1	30	-1						2	42	
SOFIA	6.89	4.9	1	41	0						2	40	
TITOGRAD	7.07	339.9									2	55	PG
ISTANBUL UN.	7.26	42.3	1	46	0								
KSARA	11.15	96.5	2	36	-2	4	31	-11					
FLORENCE X.	11.75	315.9				4	52	-4					
LJUBLJANA	11.87	331.8	2	44	-4	4	51	-8					
SIMFEROPOL	12.68	40.5	3	1	2								
VIENNA-H.	13.22	341.7	3	4A	-2								
ROSELEND	14.85	315.1	3	37A	10						6	25	
PRUHONICE	15.29	340.1	3	30	-2						6	26	PP
EBINGEN	15.90	325.1	3	40	0								
NEUCHATEL	16.13	318.6	3	42	-1	6	28	-11					
BASLE	16.14	321.0	3	43A	0								
STUTTGART	16.20	327.1	3	43	-1						6	34	
STRASBOURG	16.75	324.1	3	51	0								
BESANCON	16.81	317.8	3	44	-7								
HEIDELBERG	16.91	327.6	3	54	1								
COLLMBERG	16.91	339.1	3	53	0						7	20	
JENA	17.04	335.8	3	54	0						4	34	
HALLE	17.41	337.4	3	58	-1						5	12	
FELDBERG	17.64	329.0	3	43	-19								
CLERMONT-FD.	17.70	310.1	4	2	0						4	22	
TIFLIS	18.31	64.5	4	11K	1								
BAGNERES	18.71	299.5	4	15	1								
GORIS	19.18	71.9	4	20K	1	8	10	24					
DOURBES	19.31	323.2	4	22	1								
MUNSTER	19.32	331.2	4	21	0								
FOLINIERE	21.28	314.5	4	41	0								
MOSCOW	22.42	22.7	4	51	-1								
GOTEBORG	22.99	345.4	4	58K	0								
TEHERAN	23.38	81.7	5	4	2	9	14	9					
UPPSALA	24.25	354.0	5	10K	0	9	26	6					
HELSINKI	24.41	3.0	5	11	-1								
NURMIJARVI	24.74	2.5	5	15	0								
KAJAANI	28.46	4.8	6	13	24								
SODANKYLA	31.68	3.0	6	17	-1								
KIRUNA	32.07	358.5	6	20	-1								
QUETTA	37.43	85.7	7	8A	1						8	37	
LWIRO	38.33	169.9	7	14	0						19	33	
WARSAK DAM	39.90	77.9	7	27A	0								
AMDERMA	40.04	20.0									8	0	
CHATRA	55.06	80.0	9	20K	-5								
CHITTAGONG	60.89	82.3	10	6	0								
RESOLUTE	62.47	344.6	10	16	-1								
YAKUTSK	66.38	29.5	10	37A	-5								
COLLEGE	79.35	355.8	12	0	2				12	34			
PENGHU	81.94	66.9									5	2	
HUNGRY HORSE	87.68	332.7	12	43	3								
WICHITA MTS.	90.89	315.1	12	56	1						13	24	
EUREKA	95.86	329.0	13	27	9								

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JANUARY 11 3.H 1.M 27.S EPICENTRE 28.05 84.99 DEPTH= 0.KM

A= 0.07712 B= 0.88044 C= 0.46784 D= 0.9962 E=-0.0873
G= 0.0408 H= 0.4661 K=-0.8838 HT= 2.4

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHATRA	2.29	121.7	0	42A	2	1	8	-1			0	48	PP
BOKARO	4.27	170.0	1	10	2	2	4	5			1	23	PPP
LHASA	5.53	72.0	1	28A	2	2	35	4					
HOWRAH	6.25	150.5	1	39	3								
CALCUTTA	6.29	150.2	1	37	1	2	38	-12			3	37	SS
DEHRA DUN	6.48	292.1	1	42	3	2	55	0			3	4	SS
NEW DELHI	6.89	276.2	1	48K	3	3	3	-2					
CHITTAGONG	8.39	131.0	2	4A	-2	3	35	-7			2	19	*SP
SEHORE	8.64	237.5	2	10	1	3	50	1			4	4	SS
TOCKLAI	8.79	96.2	2	7	-4								
VISHAKHAPTNM	10.40	189.0	2	35K	1	4	24	-8			2	45	PP
HYDERABAD	12.17	211.1	2	56	-2	5	0	-15					
POONA	13.94	229.6	3	16	-5	5	46	-12			6	1	SS
BOMBAY	14.40	233.4	3	22	-5	5	51	-18			3	35	PP
MADRAS	15.64	197.7	3	41K	-2	6	31	-7			3	55	PP
QUETTA	15.91	282.0	3	44	-3	6	35	-9			6	53	SS
KUNMING	16.14	96.4	3	48A	-2	6	45	-5					
ALMATA	16.52	338.9	3	58	3	7	15	17					
CHENGTU	16.78	76.5	3	58A	0	7	3	-2					
LANCHOW	17.83	58.7	4	11A	0	7	28	0					
TASHKENT	18.46	319.9	4	16	-3	7	49	6					
KODAIKANAL	19.09	203.2									7	35	
ESEN BULAK	20.35	22.9	4	40	-1	8	30	6					
SIAN	21.36	67.2	4	50A	-1								
SEMIPALATNSK	22.61	352.1	5	2A	-2	9	14	7					
PAOTOW	24.07	52.2	5	18A	0								
ULAN-BATOR	26.14	34.7	5	39	1								
IRKUTSK	28.16	25.5	5	57	1								
PEKING	28.32	56.9	5	58A	1	10	45	2					
NANKING	29.44	73.9	6	8A	0								
ZO-SE	31.53	75.6	6	26	0	11	35	1					
SVERDLOVSK	33.55	335.8	6	46	2								
TIFLIS	35.35	303.4	7	0	1								
CHANGCHUN	35.85	53.1	7	4A	1								
VLADIVOSTOK	40.47	55.5	7	40A	-2								
KSARA	42.20	290.4	8	0	4								
MOSCOW	43.58	322.9	8	6	-1								
MATUSIRO	45.29	65.2	8	21A	0								
Y.-SAKHLINSK	48.39	50.7	8	46K	0								
PULKOVO	48.54	326.6	8	47	0								
APATITY	49.99	336.9	8	57A	-1								
LWOW	50.63	312.9	9	2	-1								
KAJAANI	50.94	331.6	9	4	-1								
HELSINKI	51.25	326.3	9	8	0								
NURMIJARVI	51.46	326.7	9	9K	0								
SODANKYLA	52.35	335.4	9	16	0								
SKALNATE PL.	53.10	312.1	9	22	0								
KHEYS	53.79	354.7	9	27	0								
RACIBORZ	54.40	313.3	9	31	0								
KIRUNA	54.77	335.2	9	33	-1								
UPPSALA	54.86	325.3	9	33A	-1						10	7	
TROMSOE	55.68	337.2	9	40	0								
PRUHONICE	56.75	313.3	9	47	-1						10	53	
COLLMBERG	57.61	315.0	9	53	-1						13	18	PPP
GOTEBORG	57.77	322.6	9	56	1								
HALLE	58.24	315.3	9	58	-1								
JENA	58.54	314.7	10	0	-1						10	45	
TANANARIVE	59.10	222.1	10	6A	1								
DARWIN	59.87	125.9	10	10	0								
STUTTGART	60.32	312.4	10	12	-1								
BENSBERG	61.30	315.2	9	52	-28								
LWIRO	61.76	250.5	10	22A	-1								
ROSELEND	62.06	309.0	10	27	2								
KEW	65.78	316.9	10	49	0								
MUNDARING	66.68	151.3	10	53A	-2								
ALERT	68.55	355.6	11	5	-2								
BROKEN HILL	69.13	239.9	11	9A	-1								
BULAWAYO	72.57	235.1	11	30	-1								
MOULD BAY	74.85	5.9	10	44A	-60								
CHARTERS TS.	76.14	121.9	11	52	0								

RESOLUTE	77.52	360.0	12	8A	9							
COLLEGE	78.76	20.3	12	6	0					12	24	
ADELAIDE	80.65	137.9	12	17K	1							
KIMBERLEY	80.70	230.6	12	20K	4							
GRAHAMSTOWN	82.43	226.0										
										13	25	
WINDHOEK	82.59	239.7	12	26A	0							
MELBOURNE	86.31	136.6	12	46	1							
CANBERRA	87.28	132.6	12	50A	0							
MAWSON	96.79	188.4	13	34	0							
EUREKA	110.03	17.1	18	51	18							
										29	36	PKKP
WICHITA MTS.	117.47	3.3	18	52	4					20	0	PP
BYRD STATION	126.94	174.8	15	32	-214							
LA PAZ	152.67	289.2	19	54	3							
HUANCAYO	155.66	306.9	20	26	31							

JANUARY 11 5.H 5.M 5.S EPICENTRE 43.31 16.94 DEPTH= 31.KM

A= 0.69830 B= 0.21273 C= 0.68347 D= 0.2914 E=-0.9566
G= 0.6538 H= 0.1992 K=-0.7300 HT= -2.9

SE= 2.69

	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	
TITOGRAD	1.92	116.5									0	31	PG
ZAGREB	2.60	345.0	0	43A	2								
TARANTO	2.85	175.3	0	41	-3						1	37	
BELGRADE	2.95	57.9	0	45A	-1	1	23	3			1	37	SG
LJUBLJANA	3.24	328.6	0	50A	0						1	46	SG
TRIESTE	3.27	316.8	0	50A	0	1	29	0			1	2	PGPG
KALOCSA	3.53	23.5	0	57	3	1	36	1			1	2	P*
SKOPJE	3.58	110.4	0	53	-2	1	33	-3			1	5	PG
ROME	3.58	248.4	0	54	-1	1	38	1			1	51	S*
TIMISOARA	3.91	49.9	1	2	3	1	47	2			2	9	SG
KECSKEMET	4.11	27.4	1	5	3	1	58	8			2	7	S*
FLORENCE X.	4.17	278.5	0	55	-8	1	50	-1					
PADOVA	4.20	301.8	1	5	2	2	0	8			2	17	S*
BOLOGNA	4.23	288.3	1	4	0	1	56	3			1	51	
PRATO	4.28	279.7	1	5	0	1	52	-2					
BUDAPEST	4.42	18.6	1	5	-2						2	5	
HURBANOVO	4.65	10.5	1	13A	3	2	28	25			2	42	SG
SOFIA	4.72	95.2	1	13	2	2	6	1					
BRATISLAVA	4.86	1.2	1	12A	-1								
VIENNA-H.	4.96	355.6	1	15A	1	2	13	2			2	47	SG
MESSINA	5.21	192.2	1	11	-7	2	12	-6			2	58	SG
CHIAVARI	5.61	283.0	1	20K	-3						2	58	
PAVIA	5.89	291.2	1	27K	0						3	33	
CAMPULUNG	6.13	68.5	1	37	6						3	22	SG
SKALNATE PL.	6.30	20.2	1	37	4								
CHUR	6.33	306.6	1	34A	1	2	48	2			3	19	
BUCHAREST	6.71	77.3	1	41K	2						1	59	P*
RAVENSBURG	6.81	313.6	1	38A	-2						3	36	
RACIBORZ	6.83	6.8	1	40	-1	2	57	-1			1	50	PP
PRUHONICE	6.87	347.0	1	41A	0						3	43	SG
MONACO	6.93	276.7	1	41	-1	3	3	2					
PRAGUE	6.98	346.6	1	40	-3						3	44	SG
CUGLIERI	7.00	246.3									2	5	
ROSELEND	7.02	291.3	1	51	8								
KRAKOW	7.05	15.9	1	44	0						1	52	PP
EBINGEN	7.40	313.9	1	47	-2						4	10	SG
ATHENS	7.41	133.7	1	43A	-6	3	8	-5			1	53	PP
CHEB	7.46	336.8	1	46	-3	3	12	-2					
TUBINGEN	7.57	316.3	1	48	-3						4	17	SG
STUTTGART	7.63	318.4	1	49A	-3						4	11	SG
BASLE	7.82	305.9	1	53	-1								
NEUCHATEL	7.97	301.0	1	57	1	3	56	30					
LWOW	8.14	34.4	2	2	3	3	41	10			4	47	
KARLSRUHE	8.22	316.9	2	0	0						4	5	SG
STRASBOURG	8.28	312.7	1	58	-3	3	29	-5			3	5	
HEIDELBERG	8.33	319.8	1	58A	-3						4	34	SG
COLLMBERG	8.43	342.9	2	1A	-2	3	44	6			2	44	PG
JENA	8.45	336.3	2	1	-2	3	32	-7			2	51	PG
BESANCON	8.68	300.8	2	3	-3						4	33	
HALLE	8.87	339.3	2	6	-3						4	49	SG
FELDBERG	9.04	322.8	1	50	-21						4	19	SG
ISTANBUL UN.	9.23	100.1	2	11	-3	4	1	3			2	28	
WARSAW	9.34	15.6	2	17K	2	4	5	5			2	23	PP

BENSBERG	10.14	322.4	2	25A	-1	4	15	-5		5	24 SG
CLERMONT-FD.	10.17	288.8	2	25	-2					5	40 SG
GARCHY	10.55	296.9	2	29	-3	5	53	83			
DOURBES	10.85	313.0	2	35	-1					4	41
PARIS	11.44	303.7	2	46	2					5	43
WITTEVEEN	11.73	327.8	3	9	21						
DE BILT	11.82	322.1								5	55
RAGNERES	12.26	274.6	3	1	6	5	27	15			
SIMFEROPOL	12.45	76.5	2	54	-4	5	10	-6			
TORTOSA	12.47	264.1	2	43	-15						
YALTA	12.49	78.6	2	55	-3	5	11	-6			
FOLINIERE	13.27	300.3	3	7	-2						
ALICANTE	14.09	255.3	3	27	8	6	9	13		3	34 PP
KEW	14.24	311.0	3	19	-2	6	9	10			
JERSEY	14.41	300.7								8	14
GOTEBORG	14.74	349.5	3	31K	3						
TOLEDO	16.07	264.9	3	46	1	6	40	-2		4	16 PP
ALMERIA	16.18	253.1	3	53A	6					4	5 PP
UPPSALA	16.57	1.2	3	49	-2	6	53	-1		7	1 SS
GRANADA	16.82	255.6	3	59A	4	7	15	16		4	27 PP
KSARA	17.55	116.3	4	1	-3	7	3	-13		7	19 SS
HELSINKI	17.58	13.4	4	3	-1						
MALAGA	17.60	255.3	4	11	7	7	29	12		4	35 PPP
NURMIJARVI	17.85	12.5	4	6K	-1						
MOSCOW	18.21	39.8	4	9	-3	7	31	0		4	37 PPP
ABERDEEN	18.37	325.7	3	58K	-16					4	32 PPP
PULKOVO	18.40	21.8	4	12	-2	7	36	1		7	49 SS
BERGEN	18.52	341.6	4	14	-2						
COIMBRA	19.16	269.4	4	23A	0					4	41 PP
SKALSTUGAN	20.49	354.0	4	35	-3						
TIFLIS	20.56	84.8	4	37A	-2	8	31	9		5	11 PPP
KAJAANI	21.71	12.8	4	49	-1						
KIROVORAD	21.96	86.8	4	51	-2	8	55	7			
GORIS	22.31	89.7	4	56A	0	9	2	7		5	26 PP
KIRUNA	24.65	3.2	5	18	-1					10	14 SS
SODANKYLA	24.68	9.0	5	18	-1						
APATITY	25.86	14.5	5	31K	1					10	13
TROMSOE	26.41	1.6	5	33	-3						
TEHERAN	27.48	94.2	5	43	-2	10	24	2		6	28 PP
SIDA	28.60	327.8	5	54	-1						
SVERDLOVSK	30.56	48.3	6	10	-3	11	15	4			
ASHKABAD	31.64	85.4								7	41 PPP
TASHKENT	38.23	74.5	7	17A	-2	13	12	2		8	43 PP
KHEYS	40.14	9.6	7	34	-1					9	1 PP
M.BOUR	40.91	235.7	7	38	-3	13	49	-1			
KHOROG	41.36	78.9	7	44	-1	14	0	3			
FRUNSE	41.40	70.1	7	44	-1	14	2	4		9	28 PP
QUETTA	41.57	91.3	7	45A	-1	13	59	-1	7 53	9	28 PP
SEMIPALATNSK	42.69	57.5	7	53A	-3	14	17	0			
WARSAK DAM	42.97	83.5	7	56A	-2						
ALERT	45.95	349.6	7	59K	-23						
LAHORE	46.23	84.8	8	22	-2						
LWIRO	46.59	163.6	8	25A	-2	15	18	5		10	17 PP
DEHRA DUN	49.59	83.9	8	59	9	15	49	-6			
NEW DELHI	49.93	86.3	9	43A	50	16	49	49			
LUANDA	52.02	184.7	9	15K	6	16	31	2			
BOMBAY	52.57	99.3	9	13	0	16	35	-1			
POONA	53.55	98.8	9	18	-2						
ESEN BULAK	54.05	57.1	9	21	-3	16	57	1			
RESOLUTE	54.08	342.3	9	22	-2						
HALIFAX	55.66	301.4	9	34K	-1						
TIKSI	55.82	20.8	9	33	-4					12	54 PPP
IRKUTSK	55.96	47.8	9	35A	-3	17	20	-2			
MOJLD BAY	57.51	348.7	9	47	-2						
HYDERABAD	57.59	96.4								17	42
CHATRA	58.16	81.8	9	51	-2	17	50	-1			
BROKEN HILL	58.44	166.9	9	54	-1						
BOKARO	58.96	85.5	9	56	-3	18	1	0			
LHASA	59.31	76.8	10	0A	-1	18	7	1		19	48 SCS
SHAWINIGAN	60.19	307.3	10	5	-2						
VISHAKHAPTNM	60.94	92.7	10	18	6	18	28	1		18	56 PPS
BREBEUF	61.26	306.7	10	14K	0	18	33	2	10 25		
MADRAS	61.76	98.9	10	18	0	18	37	0		14	3 PPP
YAKUTSK	62.01	29.5	10	16	-3	18	38	-2		14	0 PPP
SHILLONG	62.30	80.1	10	18A	-3						
PALISADES	63.99	302.7	10	39	6	19	13	8			
BULAWAYO	64.04	167.8	10	31	-2						
CHITTAGONG	64.23	82.9	10	31A	-3	19	7	-1		12	57 PP

LANCHOW	64.37	63.8	10	33A	-2	19	12	2				
PAOTOW	65.61	56.6	10	41A	-2	19	25	0				
CHENGTU	67.73	68.4	10	54A	-2	19	52	2				
TANANARIVE	68.01	148.7	10	59A	1						12	17
CLEVELAND	68.27	306.9	11	0K	0							
MORGANTOWN	68.50	304.5	11	2K	1							
SIAN	68.78	62.6	11	2A	-1	20	7	4				
PEKING	69.64	53.9	11	7	-1	20	24	11			21	12 SCS
KUNMING	70.30	73.8	11	10A	-2	20	21	0			21	15 SCS
COLLEGE	71.50	353.2	11	18	-1						14	15 PP
KIMBERLEY	72.06	172.8	11	21	-2							
CHANGCHUN	72.23	46.2	11	22A	-2	20	41	-2				
BLOOMINGTON	72.65	307.6	11	25	-1	20	43	-5				
SAN JUAN	72.67	279.1	11	26	0							
DUBUQUE	72.74	312.4	11	25	-2				11	32		
COLUMBIA	72.76	300.5	11	29	2							
FLORISSANT	75.12	309.5	11	37	-4	21	18	2				
ST. LOUIS 1	75.15	309.3	11	40	-1	21	18	2				
C. GIRARDEAU	75.67	307.9	11	43K	-1							
VLADIVOSTOK	76.12	43.1	11	42	-4	21	25	-2			14	37 PP
NANKING	76.47	58.7	11	47	-1	21	33	2				
ROLLA	76.61	309.7	11	47	-2	21	31	-1	11	57		
BANFF	77.25	331.6	11	51A	-2							
HERMANUS	77.38	178.1									32	20
LAWRENCE	77.69	312.4	11	53	-2							
RAPID CITY	77.90	320.4	11	56	0							
Y.-SAKHLINSK	78.09	34.6	11	55	-2	21	45	-3				
MANHATTEN	78.24	313.3	11	57A	-1							
CARACAS	78.44	273.5	12	0	1	21	44	-8				
ZO-SE	78.62	58.0	11	58A	-2	21	52	-2				
CANTON	78.95	68.8	12	2A	0	21	57	0				
HUNGRY HORSE	79.05	329.1	12	2	-1							
LITTLE ROCK	79.07	307.7	12	1	-2							
FAYETTEVILLE	79.18	309.7	12	2	-1						13	7
HONG KONG	80.05	68.9	12	6	-2	22	13	4				
BOZEMAN	80.08	325.9	12	8	0							
PENTICTON	80.21	332.8	12	8A	-1							
BUTTE	80.41	327.0	12	10	0							
LARAMIE	81.15	320.0	12	14	0							
ALBERNI	81.90	335.8	12	17	-1							
VICTORIA	82.14	334.6	12	18A	-1							
WICHITA MTS.	82.63	311.5	12	21	-1	22	48	13			15	21 PP
DALLAS	83.01	309.1	12	23	0							
FLAMING GRGE	83.20	322.1	12	24	0							
MATUSIRO	84.26	43.8	12	28A	-2	22	53	1			28	32 SS
SALT LAKE C.	84.42	323.5	12	30	-1							
TUKUBASAN	85.46	42.8	12	32A	-4	23	0	-3	12	41	15	54 PP
ALBUQUERQUE	86.58	316.6	12	42	1							
FUQUENE	86.78	274.4	12	42	0							
EUREKA	87.24	325.4	12	45	1							
GLEN CANYON	87.46	321.6	12	44	-2							
BOGOTA	87.60	274.0	12	48	2							
CHINCHINA	88.49	275.4	12	54K	4	23	25	-7				
MINERAL	88.70	329.6	12	52A	1							
RENO	88.73	328.0	12	53	1							
CALISTOGA	90.56	329.4	13	1A	1							
TUCSON	90.91	317.9	13	5	3							
BERKELEY	91.12	328.9	13	4	1							
LICK	91.35	328.2	13	6A	2							
PRIEST	92.01	326.9	13	8K	1							
PASADENA	92.70	324.1	13	14	4	25	16	66			17	2 PP
LA PAZ	97.63	254.7	13	37	4							
CHARTERS TS.	131.92	77.8									14	12
ADELAIDE	134.88	99.8									15	21
CANBERRA	142.49	94.3	19	24	-6							
MOORLANDS	143.96	106.2	19	30	-2							
FORT NELSON	144.23	106.9	19	39	6							
NOUMEA	147.18	60.1	19	41	3							
APIA	149.65	17.0	19	46	4							
KARAPIRO	162.90	78.9									20	49 PKP2
CHATEAU	163.40	83.0									20	50 PKP2

JANUARY 11 6.H 49.M 16.S EPICENTRE 51.68-179.28 DEPTH= 110.KM

A=-0.62264 B=-0.00781 C= 0.78247 D=-0.0125 E= 0.9999
G=-0.7824 H=-0.0098 K=-0.6227 HT= -6.0

DEPTH OF FOCUS= 0.012R

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	13.55	284.4	3	10	1								
COLLEGE	20.88	38.7	4	24	-11				4	37	5	29	PP
Y.-SAKHLINSK	24.99	274.4	5	15	0								
YAKUTSK	28.98	310.8	5	53	2								
MOULD BAY	33.45	22.1	5	36	-54								
MATUSIRO	33.54	260.1	6	30A	-1	11	50	6			9	9	PCP
VLADIVOSTOK	33.58	274.9	6	28K	-4								
ALBERNI	34.07	72.1	6	37	1								
VICTORIA	35.23	72.5	6	46A	0								
ABUYAMA	36.25	260.3	6	54A	0								
PENTICTON	37.11	69.4	7	1A	0								
CHANGCHUN	37.27	280.3	7	2A	-1	12	48	7			8	31	PP
BANFF	38.61	64.8	7	12	-2								
RESOLUTE	39.60	24.5	7	24	2								
MINERAL	40.62	82.8	7	36A	5								
HUNGRY HORSE	40.81	68.0	7	32	0								
CALISTOGA	41.04	85.6	7	37A	3								
BERKELEY	41.71	86.2	7	40	1								
RENO	42.21	82.5	7	44	0								
ALERT	42.39	10.0	7	46	1								
LICK	42.42	86.4	7	45A	0								
BUTTE	42.88	70.2	7	49	0								
BOZEMAN	43.96	69.7	7	58	0								
KHEYS	44.21	348.6	8	2	2								
EUREKA	44.61	80.0	8	4	1								
PEKING	45.03	281.5	8	7	1	14	46	10					
ULAN-BATOR	45.92	295.9	8	5	-8								
SALT LAKE C.	46.33	75.8	8	18	1								
PASADENA	46.63	87.3	8	25	6	15	7	8					
ZO-SE	47.70	268.4	8	27A	0	15	21	7					
FLAMING GRGE	47.71	74.1	8	28	1								
PAOTOW	48.40	286.0	8	33	0	15	34	10					
NANKING	48.54	271.3	8	33	-1	15	33	7					
GLEN CANYON	48.86	79.7	8	16	-20								
RAPID CITY	49.43	67.1	8	40	-1				8	49	9	54	PCP
LARAMIE	49.74	71.3	8	44	1								
AMDERMA	51.06	337.0	8	54	1								
ESEN BULAK	52.67	300.0	9	7	2	16	36	14					
SIAN	53.17	280.5	9	8A	-1								
ALBUQUERQUE	53.32	78.1	9	10	0								
LANCHOW	55.05	285.6	9	22A	-1								
MANHATTEN	56.36	67.8	9	30A	-2				9	40			
LAWRENCE	57.28	67.2	9	30	-8								
DUBUQUE	57.45	61.3	9	37A	-3				9	47			
SEMIPALATNSK	58.07	312.1	9	44	0								
WICHITA MTS.	58.22	73.0	9	45	0	17	49	13			12	7	PP
TROMSOE	58.28	352.6	9	47	2								
CHENGTU	58.64	280.9	9	47	-1								
SODANKYLA	59.69	348.7	9	58	3								
FAYETTEVILLE	59.86	68.9	9	55A	-1				10	4	11	55	PP
KIRUNA	59.91	351.5	9	57	0								
ROLLA	59.92	66.0	9	55A	-2				10	4			
ST. LOUIS 1	60.35	64.3	9	59A	-1				10	8			
DALLAS	60.61	73.3	10	1	0								
SVERDLOVSK	61.18	327.1	10	4	-1								
C. GIRARDEAU	61.67	64.9	10	7A	-2				10	16			
LITTLE ROCK	61.85	68.8	10	9	-1				10	16			
BLOOMINGTON	62.03	61.5	10	10A	-1				10	19			
KAJAANI	62.68	347.0	10	18	3								
CLEVELAND	63.05	56.6	10	17K	-1								
KUNMING	63.39	277.4	10	19	-1	18	51	9					
SHAWINIGAN	63.63	47.6	10	20	-2								
BREBEUF	64.02	48.9	10	23K	-1								
MORGANTOWN	65.22	57.1	10	32A	0								
NURMIJARVI	66.52	347.4	10	40	0								
HELSINKI	66.81	347.1	10	44	2								
LHASA	67.17	289.2	10	46A	2	19	42	14					
PALISADES	67.26	52.3				19	50	21					
PORT MORESBY	67.36	216.2	10	51	6	19	44	14					

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.

UPPSALA	67.99	350.9	10	50	1					
MOSCOW	68.68	338.6	10	55	1					
COLUMBIA	68.82	61.9	10	57	3					
HALIFAX	69.21	49.5	10	56K	-1					
SHILLONG	69.69	285.7	11	0A	0					
TASHKENT	69.93	311.7	11	0	-1					
GOTEBORG	70.60	353.6	11	3	-2					
CHATRA	71.53	289.9	11	10A	-1					
CHITTAGONG	72.12	283.5	11	14	0				11 44	*SP
WARSAK DAM	74.59	305.5	11	30	1					
LAHORE	75.08	302.0	11	32	0					
NEW DELHI	75.86	298.1	11	36A	0					
COLLMBERG	76.88	352.1	11	42	0				11 53	PCP
CHARTERS TS.	77.56	213.0	11	43	-2					
FOLINIERE	79.93	0.8	12	0	2					
QUETTA	79.98	306.4	12	0A	1	21 59	7			
POONA	85.66	294.4							21 28	
SAN JUAN	89.27	60.8	12	47	2					
KSARA	89.45	331.4	12	34	-12					
CANBERRA	90.98	205.5							12 52	
TRINIDAD	98.20	61.4	13	25	-1					
BYRD STATION	135.71	167.5	18	58	-10					
MAWSON	146.53	217.9	19	27	0				19 40	PKP2
PRETORIA	146.76	310.7	19	31	4					
WINDHOEK	148.30	330.3	19	35	5					
KIMBERLEY	150.89	312.6	19	43	9					

JANUARY 11 10.H 2.M 39.S EPICENTRE 43.33 17.29 DEPTH= 0.KM

A= 0.69669 B= 0.21691 C= 0.68379 D= 0.2973 E=-0.9548
G= 0.6529 H= 0.2033 K=-0.7297 HT= -2.9

SE= 3.58

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
TITOGRAD	1.70	121.3									0	30	PG
ZAGREB	2.66	339.8	0	46	2								
BELGRADE	2.72	55.8	0	46A	1	1	36	17			0	58	PG
TARANTO	2.86	180.7				1	19	-4			0	54	PG
SKOPJE	3.35	112.6	0	51	-3	1	37	2			1	52	SG
LJUBLJANA	3.36	324.9	0	52	-2						1	47	SG
KALOCSA	3.41	20.0	0	56	1	1	43	6			1	56	SG
TRIESTE	3.43	313.6				1	34	-4			0	57	P*
TIMISOARA	3.70	47.9	0	59	0	1	50	6			1	11	P*
ROME	3.83	249.7	0	56	-5	1	41	-7			1	11	P*
KECSKEMET	3.97	24.6				1	55	4			1	20	PG
BUDAPEST	4.32	15.7	1	6	-2	2	52	52			1	46	PG
PADOVA	4.41	300.0	1	10	1	2	2	0			2	14	S*
BOLOGNA	4.46	287.2	1	51	41						2	58	
SOFIA	4.47	96.1	1	11	1						1	57	
HURBANOVO	4.58	7.7	1	53	41						2	31	
BRATISLAVA	4.84	358.5	1	14	-1	2	12	-1			1	34	PG
VIENNA-H.	4.96	352.8	1	16	-1						2	44	SG
MESSINA	5.30	195.1	1	15	-7	2	17	-8			2	33	
REGGIO CALA.	5.37	194.0	1	37	14						2	59	
CAMPULUNG	5.88	68.1	1	41	11						3	31	SG
PAVIA	6.12	290.4	2	37	63	3	52	67			4	13	
SKALNATE PL.	6.20	18.3	1	34	-1						2	39	
KASPERSKE H.	6.34	337.4	1	34A	-3	2	47	-4			3	15	
NIEDZIKA	6.44	17.9	1	38	0						2	4	
BUCHAREST	6.46	77.3				2	55	1			3	18	S*
CHUR	6.52	305.3	1	41	2	3	0	5					
RACIBORZ	6.78	5.0	1	44	1	3	7	5			1	53	PP
PRUHONICE	6.91	345.1	1	43	-2						3	12	SG
KRAKOW	6.96	14.2	1	45	0	3	15	9			1	52	PP
RAVENSBURG	6.98	312.2	1	44	-2						3	50	SG
PRAGUE	7.02	344.7	2	13	27						2	53	PG
CUGLIERI	7.24	247.2	1	11	-38	2	1	-72					
ROSELEND	7.25	290.6	1	53	4	3	26	13					
ATHENS	7.25	135.5	1	44A	-5	3	8	-5			2	2	P*
CHEB	7.54	335.1	1	54	0						4	21	SG
EBINGEN	7.57	312.7	1	51	-3						4	24	
TUBINGEN	7.74	315.1	1	56	0						4	25	
STUTTGART	7.78	317.1	1	49	-8						4	27	
LWOW	7.97	33.2	2	3	3								

NEUCHATEL	8.18	300.2	2	0	-2				4	45	
KARLSRUHE	8.38	315.7	2	12	7				4	7	SG
STRASBOURG	8.46	311.6	2	3	-3	3	45	1	2	57	
HEIDELBERG	8.48	318.7	2	6	-1				4	33	
COLLMBERG	8.49	341.4	2	5	-2	3	37	-7	4	41	SG
JENA	8.54	334.9	2	3	-4	3	42	-4	4	31	SG
BESANCON	8.88	300.1	2	16	4						
HALLE	8.93	338.0	2	10	-3				4	55	SG
ISTANBUL UN.	8.98	100.8	2	12	-2	4	46	49	2	41	
DOURBES	11.03	312.3	2	37	-5				2	44	PP
SIMFEROPOL	12.20	76.6	2	59	1	5	8	-8			
UPPSALA	16.54	0.6	4	4	9						
GRANADA	17.07	256.0							5	40	
KSARA	17.33	117.0	4	4	0				7	23	SS
NURMIJARVI	17.77	12.0	4	19	9						
MOSCOW	18.03	39.4	4	14	1						
PULKOVO	18.28	21.3				7	27	-11			
TIFLIS	20.31	85.1	4	38	-2						
SKALSTUGAN	20.49	353.6	4	43	1						
KAJAANI	21.62	12.5	4	55	2						
MAKHACH-KALA	21.99	80.5	4	59	2						
KIRUNA	24.61	2.9	5	25	2						
SODANKYLA	24.61	8.7	5	25	2						
APATITY	25.77	14.2	5	37	3						
AMDERMA	34.67	25.3	6	53	0						
LWIRO	46.54	164.1	8	26	-5						
NEW DELHI	49.67	86.6	8	55K	0						
YAKUTSK	61.86	29.6	10	21	-2						
BULAWAYO	64.01	168.2	10	33	-4						
COLLEGE	71.51	353.4	11	21	-3						
Y.-SAKHLINSK	77.92	34.8	12	0	-1						
HUNGRY HORSE	79.16	329.3	12	5	-3						
WICHITA MTS.	82.80	311.7	12	25	-2						
FLAMING GRGE	83.34	322.3	12	25	-5						
MATUSIRO	84.06	44.0	12	34	1						
EUREKA	87.37	325.7	12	50	0						

JANUARY 12 8.H 50.M 25.S EPICENTRE 20.29 145.85 DEPTH* 35.KM
A=-0.77686 B= 0.52689 C= 0.34477 D= 0.5613 E= 0.8276
G=-0.2853 H= 0.1935 K=-0.9387 HT= 4.6

DEPTH OF FOCUS= 0.000R

SE= 1.90

	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
GUAM	6.88	189.1	1	43	2	2	54	-5				
TUKUBASAN	16.65	343.6	3	52A	0	6	55	0				
ABUYAMA	17.13	330.1	3	58K	0							
MATUSIRO	17.52	339.1	4	3	0	6	51	-24			7	26
ZO-SE	24.65	300.8	5	17K	-1						5	53 PP
RABAUL	25.12	165.0	5	22	-1							
VLADIVOSTOK	25.60	335.9	5	28K	0	9	55	4				
NANKING	26.90	301.3	5	42	2							
CHANGCHUN	29.06	328.5	5	59	0	10	51	4				
PORT MORESBY	29.53	177.4	6	1	-2							
HONG KONG	29.56	279.6	6	4	0						12	49
PETROPAVLOVK	34.13	13.8	6	38	-6							
PAOTOW	36.57	311.6	7	4	0	12	43	-1				
LANCHOW	39.91	302.3	7	34	2							
CHARTERS TS.	40.14	179.4	7	33	-1							
YAKUTSK	43.17	349.0	7	57	-2							
KOUMAC	44.43	155.0	8	9	0							
NOUMEA	46.87	153.5	8	28	0							
BRISBANE	47.87	171.7	8	36	0							
SHILLONG	49.72	286.7	8	49A	-2							
CHITTAGONG	50.15	282.6	8	55	1							
LHASA	50.17	292.1	8	57	3	16	6	4				
CHATRA	53.79	288.9	9	21K	0							
CANBERRA	55.39	176.9	9	32A	-1				9	52	10	21
NEW DELHI	62.32	292.3	10	21A	0							
FORT NELSON	62.92	178.8	10	24	-1							
KARAPIRO	64.29	154.2	10	34	0							
LAHORE	64.31	296.0	10	33	-1							
CHATEAU	65.38	155.0	10	41	0				11	2		

WARSAK DAM	66.24	299.1	10	47	0				
AMDERMA	69.12	338.3	11	3K	-2				
KHEYS	69.76	349.9	11	9	1				
SVERDLOVSK	70.67	324.5	11	13	-1				
QUETTA	70.80	295.9	11	15K	0	20	26	0	11 29
MOULD BAY	71.59	14.6	11	19A	0				
ALERT	76.54	3.7	11	48A	0				
PENTICTON	77.75	41.9	11	55	0				
RESOLUTE	77.85	13.7	11	55A	-1				
CALISTOGA	78.80	52.9	11	59A	-2				
MINERAL	79.02	51.1	12	2A	0				
BERKELEY	79.26	53.6	12	4	1				
APATITY	79.58	338.8	12	5A	0				
LICK	79.89	54.0	12	12A	5				
RENO	80.58	51.4	12	11	1				
PRIEST	81.01	54.9	12	9A	-4				
HUNGRY HORSE	81.55	41.6	12	17	2				
SODANKYLA	81.92	340.1	12	16	-1				
MOSCOW	83.21	327.2	12	24	0				
BUTTE	83.34	43.4	12	25	0				
KAJAANI	83.39	337.0	12	25	0				
EUREKA	83.40	50.5	12	25	0				12 59
KIRUNA	83.54	341.9	12	24	-2				
PASADENA	83.59	56.1	12	22	-4				
TIFLIS	84.62	312.4	12	33	2				
BOULDER CITY	85.50	53.4	12	42	7				
SALT LAKE C.	85.85	48.1	12	38	1				
NURMIJARVI	86.61	334.9	12	40	-1				
FLAMING GRGE	87.49	47.2	12	46	1				
GLEN CANYON	87.53	51.5	12	44	-1				
LARAMIE	89.91	45.6	13	1	4				
RAPID CITY	90.16	42.3	12	59	1				
ALBUQUERQUE	92.16	51.6	13	9	2				
COLLMBERG	97.61	332.3							17 28 PP
WICHITA MTS.	97.94	48.6	13	38	5				14 10
BYRD STATION	110.65	169.3	18	30	1				
LA PAZ	147.57	89.0	19	45	7				

JANUARY 12 13.H 38.M 11.S EPICENTRE 42.50 143.03 DEPTH= 74.KM

A=-0.59085 B= 0.44483 C= 0.67307 D= 0.6015 E= 0.7989
G=-0.5377 H= 0.4048 K=-0.7396 HT= -2.6

DEPTH OF FOCUS= 0.006R

SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MIZUSAWA	3.66	203.8	0	57	1	1	35	-4				
KURILSK	4.44	50.4	1	10	3	2	1	3				
Y.-SAKHLINSK	4.53	357.4	1	10A	2							
TUKUBASAN	6.66	200.8	1	34A	-4	2	44	-9				
MATUSIRO	7.02	213.6	1	42A	-1						2	59
VLADIVOSTOK	8.20	278.1	2	0A	1							
CHANGCHUN	13.01	281.9	3	4A	0	5	41	14				
MAGADAN	17.74	13.1	3	58	-6							
PEKING	20.31	272.1	4	30	-3	8	25	14				
ZO-SE	20.80	244.0				8	32	11				
ULAN-BATOR	25.86	294.6	5	27	0							
LANCHOW	30.81	271.2	6	12K	1							
ESEN BULAK	33.24	293.1	6	33	0							
LHASA	43.31	270.3	8	0	3							
COLLEGE	43.86	35.2	8	2	1						8	17
SHILLONG	44.94	264.8	8	10A	0							
CHITTAGONG	46.88	261.3	8	30	5	15	17	8				
CHATRA	47.69	269.6	8	32A	1							
AMDERMA	47.95	332.4	8	33A	0							
MOULD BAY	50.96	17.8	8	56	-1							
NEW DELHI	54.08	277.8	9	19A	-1							
ALERT	54.61	4.0	9	23	-1							
RESOLUTE	57.01	15.6	9	40A	-1							
APATITY	58.25	334.8	9	49	-1							
THULE	59.69	8.2	9	58	-2							
SODANKYLA	60.44	336.5	10	3A	-2							
QUETTA	60.61	285.3	10	6	0							

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TROMSOE	60.97	340.6	10	7	-1							
KIRUNA	61.87	338.7	10	14	0							
KAJAANI	62.25	333.3	10	16	-1							
CHARTERS TS.	62.34	176.6	10	17	0							
PENTICTON	63.45	46.5	10	26K	1							
MOSCOW	63.64	322.5	10	26	0							
NURMIJARVI	65.73	331.5	10	39A	-1							
HUNGRY HORSE	66.99	44.9	10	49	2							
EUREKA	71.52	53.2	11	17	2				11	33		
PASADENA	73.61	58.7	11	22	-6							
COLLMBERG	76.98	330.4	11	46	-1				12	13		
KASPERSKE H.	78.53	328.8	11	56	1							
ALBUQUERQUE	80.16	51.3	12	7	3							
STUTTGART	80.42	331.0									28	9
WICHITA MTS.	84.72	46.7	12	29	1				12	59		
FAYETTEVILLE	85.97	43.1	12	35K	1							

JANUARY 13 4.H 48.M 31.S EPICENTRE 52.15 177.39 DEPTH= 0.KM

A=-0.61557 B= 0.02805 C= 0.78758 D= 0.0455 E= 0.9990
G=-0.7868 H= 0.0358 K=-0.6162 HT= -6.2

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
PETROPAVLOVK	11.44	281.8	2	50	2							
MAGADAN	16.58	307.0	3	58	2							
COLLEGE	21.83	40.9	4	56	0							
YAKUTSK	27.10	310.1	5	47K	0	10	20	-4				
TIKSI	28.79	330.5	6	2	0							
VLADIVOSTOK	31.49	271.7	6	27A	1							
MATUSIRO	31.62	256.1	6	28	1						11	49
MOULD BAY	33.80	22.6	6	46	0							
KIPAPA	36.09	138.8	7	7	1							
PENTICTON	38.86	68.3	7	29	0							
RESOLUTE	40.02	24.4	7	40	1						19	51
ALERT	42.28	9.7	7	57A	0							
HUNGRY HORSE	42.53	66.7	7	59	-1						9	52 PP
MINERAL	42.59	81.0	8	0A	0							
PEKING	42.92	278.8	8	3	1							
CALISTOGA	43.04	83.7	8	4K	1							
KHEYS	43.33	348.0	8	6	0							
BERKELEY	43.72	84.3	8	9A	0							
ULAN-BATOR	43.85	293.8	8	11	1							
RENO	44.18	80.7	8	13	1							
LICK	44.44	84.5	8	10A	-5							
THULE	45.14	17.7	8	18	-2							
ZO-SE	45.67	265.3	8	26A	2							
PRIEST	45.81	85.0	8	27K	1							
PAOTOW	46.29	283.5	8	30	1							
NANKING	46.48	268.2	8	31A	0							
EUREKA	46.54	78.2	8	30	-1							
PASADENA	48.66	85.2	8	46	-2							
FLAMING GRGE	49.55	72.4	8	53	-2							
ESEN BULAK	50.64	297.8	9	4	1							
GLEN CANYON	50.79	77.8	8	55	-9						9	49 PCP
SIAN	51.06	277.8	9	7	1							
RAPID CITY	51.13	65.5	9	5	-2							
LANCHOW	52.93	283.1	9	21A	1							
TUCSON	54.44	81.6	9	31	-1							
TUCSON TELE.	54.45	81.5	9	31	-1							
ALBQUERQUE	55.23	76.2	9	35	-2							
CHENGTU	56.53	278.2	9	47	0							
MANHATTEN	58.07	66.0	9	55	-3							
SODANKYLA	58.79	347.2	10	6	3							
DUBUQUE	59.01	59.5	10	2	-2				10	14		
KIRUNA	59.11	350.0	10	4	-1							
WICHITA MTS.	60.04	71.0	10	10	-1						11	56
RABAUL	60.09	209.4	10	12	0							
KUNMING	61.29	274.7	10	19	-1							
FAYETTEVILLE	61.60	67.0	10	19A	-3							
KAJAANI	61.73	345.4	10	24	1							
LITTLE ROCK	63.58	66.8	10	23	-12				10	33		
SHAWINIGAN	64.81	45.8	9	40	-63						10	42 PCP
LHASA	65.06	286.6	10	46	1							

BREBEUF	65.24	47.1	10	43A	-3		
NURMIJARVI	65.58	345.6	10	47	-1		
PORT MORESBY	66.58	212.8	10	54	0		
UPPSALA	67.17	349.1	10	58	0		
MOSCOW	67.46	336.7	10	57	-3		
PALISADES	68.57	50.4	11	6	-1		
CHITTAGONG	70.00	280.8	11	18A	2		11 40 PCP
SAMARKAND	70.43	309.9	11	18	0		
DUZHANBE	70.44	308.0	11	19	1		
NEW DELHI	73.80	295.7	11	37A	-1		
COLLMBERG	76.09	350.0	11	51	0		
CHARTERS TS.	76.89	209.9	11	56	0		
PRUHONICE	77.21	348.7	11	57	-1		
QUETTA	78.02	304.0	12	3A	1	12 16	
STUTTGART	78.95	352.0	12	8	1		
PARIS	79.33	356.6	12	13	4		
FOLINIERE	79.45	358.6	12	10	0		
GARCHY	80.83	356.1	12	18	1		
KARAPIRO	89.72	181.5	13	2	0		
CANBERRA	90.57	202.9	13	7	1		
ADELAIDE	93.11	210.9	13	19	2		
MAWSON	145.63	218.2	19	41	0		

JANUARY 14 13.H 34.M 9.S EPICENTRE 44.47 140.94 DEPTH= 242.KM

A=-0.55598 B= 0.45121 C= 0.69807 D= 0.6302 E= 0.7765
G=-0.5420 H= 0.4399 K=-0.7160 HT= -3.3

DEPTH OF FOCUS= 0.033R

SE= 2.50

	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
RUMOE	0.71	136.2	0	34	1	1	0	1				
WAKKANAI	1.09	28.6	0	37K	2	1	5	3				
ASAHIGAWA	1.24	123.1	0	36	0	1	8	4				
SAPPORO	1.43	167.8	0	38A	0	1	4	-3				
SUTTSU	1.74	197.4	0	39	-1	1	10	-1				
TOMAKOMAI	1.89	165.5	0	43	2	1	14	1				
MURORAN	2.14	179.2	0	43	-1	1	17	0				
OBIHIRO	2.25	132.5	0	45	0	1	20	1				
MORI	2.38	186.6	0	46	0	1	20	-2				
ABASHIRI	2.44	99.3	0	49	2	1	25	2				
HAKODATE	2.66	182.9	0	48A	-1	1	26	-1				
URAKAWA	2.68	149.2	0	51	2	1	26	-1				
HIROO	2.79	140.7	0	51	1	1	22	-7				
Y.-SAKHLINSK	2.84	25.4	0	52	1	1	31	1				
KUSIRO	2.92	119.4	0	50	-2	1	29	-3				
NEMURO	3.54	107.1	1	18	19	1	41	-3				
AOMORI	3.65	181.9	0	59	-1	1	43	-3				
HATINOHE	3.96	173.5	1	1K	-2	1	46	-7				
MORIOKA	4.77	177.9	1	12	-1	2	8	-2				
AKITA	4.78	187.8	1	15	2	2	7	-4				
MIYAKO	4.87	170.6	1	11	-4	2	4	-9				
KURILSK	4.99	78.8	1	18	2							
MIZUSAWA	5.33	178.4	1	18	-2	2	16	-7				
SAKATA	5.62	188.9	1	23	-1	2	28	-1				
ISINOMAKI	6.04	177.2	1	26K	-3	2	32	-7				
SENDAI	6.19	180.3	1	28K	-3	2	35	-7				
YAMAGATA	6.23	184.3	1	30	-1	2	38	-5				
VLADIVOSTOK	6.68	261.5	1	37K	0	2	50	-3			1	54
HUKUSIMA	6.72	183.2	1	35A	-3	2	46	-8				
AIKAWA	6.75	198.4	1	36	-2	2	52	-3				
SHIRAKAWA	7.36	184.5	1	44	-2	3	2	-7				
TAKADA	7.63	196.4	1	48	-1	3	8	-7				
WAZIMA	7.71	204.7	1	51	1							
UTUNOMIYA	7.95	186.2	1	50	-3						2	15
NAGANO	8.06	195.9	1	55	0	3	23	-2				
HITO	8.08	182.7	1	54	-1	3	16	-9				
MAEBASI	8.18	190.7	1	54	-2	3	22	-6				
MATUSIRO	8.18	195.6	1	54A	-2	3	18	-10				
KAKIOKA	8.25	184.3	1	52	-5	3	19	-10				
TOYAMA	8.26	201.4	1	56	-1	2	54	-35				
TUKUBASAN	8.26	184.7	1	52A	-5	3	20	-9				
OIWAKE	8.33	193.4	1	58	0	3	30	-1				
KUMAGAYA	8.39	188.7	1	58	-1	3	25	-7				

TITIBU	8.59	190.1	2	1	-1	3	32	-5			
TYOSI	8.74	180.5	1	59	-4	3	31	-9			
HONGO	8.79	186.2	2	2	-2	3	40	-1			
TOKYO C.M.O.	8.82	186.3	2	3	-2	3	36	-6			
KOHU	8.97	192.5	2	6	0	3	42	-4			
YOKOHAMA	9.08	186.7				3	42	-5			
OKHA	9.19	7.5	2	10	1	3	55	5			
IIDA	9.25	196.0	2	8	-2	3	27	-25			
MISIMA	9.46	190.0	2	13	0	3	46	-11			
AJIRO	9.51	189.2	2	10	-3	3	49	-9			
GIHU	9.60	200.9	2	13	-1						
SHIZUOKA	9.68	192.5				3	55	-6			
OSIMA	9.76	187.6				3	54	-10			
NAGOYA	9.77	199.5	2	15	-2	3	59	-5			
HIKONE	9.86	203.0	2	19	1	4	9	3			
KAMEYAMA	10.20	201.2	2	21	-1	4	11	-3			
KYOTO	10.25	204.8	2	22	-1	4	19	4			
ABUYAMA	10.43	205.1	2	23A	-2						
CHANGCHUN	11.25	272.2	2	34A	-1	4	35	-3			3 3 *SP
HATIDYOZIMA	11.38	184.9				4	20	-21			
SIOMISAKI	11.71	201.8				4	44	-4			
KOTI	12.32	210.3	2	49	0	5	12	10			
MATUYAMA	12.35	213.5	2	48	-1	4	59	-3			
OOITA	13.35	216.0	3	10	9	5	28	3			
PETROPAVLOVK	14.45	47.4	3	15	0	5	49	0			
MIYAZAKI	14.58	214.0	3	24	8	5	56	4			
MAGADAN	16.25	18.2	3	35	-1						
YAKUTSK	18.77	343.4	4	0	-3	7	16	-3			15 8
PEKING	18.84	265.0	4	1A	-3	7	19	-1			5 10 *SP
ZO-SE	20.47	236.0	4	19	-1	7	52	2			
NANKING	21.28	241.9	4	26A	-2	8	4	-1			
PAOTOW	23.04	271.1	4	46	1	8	39	4			
ULAN-BATOR	23.70	290.5	4	54	3	8	48	2			
KYAKHTA	23.92	296.6	4	54	1						
SIAN	26.62	258.5	5	17	-1	9	34	0			
TIKSI	27.86	351.8	5	36	7						15 10
LANCHOW	29.34	266.3	5	42	0	10	15	-2			
HONG KONG	31.19	233.6	6	7	8	10	59	13			
CHENGTU	32.07	257.2				10	56	-3			
MANILA	34.16	215.8	6	25	1	11	34	2			
KUNMING	36.41	250.8	6	43	0	12	4	-2			
LHASA	41.84	266.6	7	29	1	13	28	1			
COLLEGE	43.15	36.2	7	38	0				8	22	7 53 PCP
KHEYS	45.32	346.8	7	46	-10						13 0
CHITTAGONG	45.74	257.7	7	55	-4	14	15	-8			
CHATRA	46.25	266.3	7	58	-5						
FRUNSE	46.81	292.5	8	7	0						
RABAUL	49.48	165.2	8	27	-1						
MOULD BAY	49.55	18.1	8	26	-2						
ALERT	52.74	3.8	8	50	-2						
WARSAK DAM	53.28	284.0	8	55	-1						
PORT MORESBY	53.90	172.4	9	0	0						
KIPAPA	54.80	93.9	9	8	1						
HONOLULU	54.82	94.0	9	9	2						
RESOLUTE	55.53	15.5	9	10A	-2						
APATITY	55.82	333.7	9	11	-3						
THULE	57.95	7.8	9	26	-3						
SODANKYLA	58.02	335.4	9	28	-2						
QUETTA	58.66	283.0	9	33	-1	17	18	0			
KIRUNA	59.48	337.7	9	37	-3						
KAJAANI	59.81	332.1	9	29	-13						10 34
ALBERNI	60.48	48.7	9	46	0						
VICTORIA	61.66	48.7	9	54K	0						
PENTICTON	63.19	46.3	10	4A	0						
NURMIJARVI	63.27	330.2	10	3	-2						
HELSINKI	63.40	329.8	10	5	-1						
CHARTERS TS.	64.42	174.5	10	9	-3						
TIFLIS	66.08	305.5	10	32	9						
UPPSALA	66.16	332.5	10	21A	-2						
HUNGRY HORSE	66.66	44.6	10	27	0						
MINERAL	67.72	55.0	10	34A	1						
KOUMAC	68.14	156.4	10	36A	0						
BUTTE	68.96	45.7	10	42	1						
LICK	69.64	57.5	10	58K	13						
YALTA	70.14	313.2	10	51	3						
NOUMEA	70.42	155.0	10	50	0						
EUREKA	71.55	52.6	10	57	1						13 43 PP
APIA	72.15	131.4	11	1	1						

BRISBANE	72.32	169.0	11	1	0							
CHINA LAKE	73.08	56.4	11	8	3							
FLAMING GRGE	74.16	47.9	11	13	1							
COLLMBERG	74.52	329.1	11	13K	-1						12	15
PRUHONICE	75.00	327.4	11	16	0						12	18
RAPID CITY	75.00	42.2	11	16	0							
JENA	75.34	329.6	11	16	-2			12	18			
LARAMIE	75.87	45.4	11	22	1							
KASPERSKE H.	76.06	327.5	11	23	1						12	18
STUTTGART	77.96	329.6	11	34	1							
ADELAIDE	79.09	181.9	11	39A	0							
MUNDARING	79.34	201.2	11	39	-1							
TUCSON	79.58	54.9	11	42	1							
CANBERRA	79.75	173.3	11	43A	1						11	51 PCP
ALBUQUERQUE	80.09	50.3	11	45	1							
WICHITA MTS.	84.45	45.5	12	7	0			13	7		14	10
BREBEUF	85.32	23.6	12	11K	0							
FAYETTEVILLE	85.54	41.8	12	12K	0							
KARAPIRO	87.78	153.3	12	23	0							
CHATEAU	88.94	153.8	12	29	1							
TUAI	89.09	152.5	12	29	0							
BULAWAYO	119.64	270.3									21	34

JANUARY 15 8.H 22.M 13.5 EPICENTRE 13.15 -60.20 DEPTH= 60.KM

A= 0.48404 B=-0.84534 C= 0.22605 D=-0.8678 E=-0.4969
G= 0.1123 H=-0.1962 K=-0.9741 HT= 6.1

DEPTH OF FOCUS= 0.004R

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
BARBADOS	0.59	92.9	0	15	1							
ST. VINCENT	1.04	271.2	0	19A	0							
FORT FRANCE	1.82	329.8	0	31	2	0	54	2				
GRENADA	1.85	233.9	0	30K	U							
DOMINICA	2.46	299.2	0	40K	2							
TRINIDAD	2.75	205.3	0	41	-1							
ST. KITTS	4.83	330.0	1	14A	2						2	9
CARACAS	7.09	248.9	1	42A	-1						4	0 SG
SAN JUAN	7.71	313.2	1	53	1	3	16	-2				
FUQUENE	15.37	241.5	3	35	1	6	40	17				
BOGOTA	16.10	239.5	3	44	1	6	43	3			7	0 *SS
CHINCHINA	17.25	243.3	3	56A	-2	7	4	-2			7	24 *SS
LA PAZ	30.48	195.1	6	11	2	11	9	4				
BREBEUF	34.20	343.1	7	45A	64							
BLOOMINGTON	34.82	322.9	6	46K	-1				7	13		
C. GIRARDEAU	35.56	317.8	6	53	U							
ROLLA	37.44	316.9	7	8A	-1	13	2	10	7	29		
FAYETTEVILLE	38.11	312.8	7	15A	1				7	17	7	33 *SP
DUBUQUE	39.38	323.8	7	30	5							
LAWRENCE	40.25	316.1	7	32	0							
WICHITA MTS.	40.79	308.5	7	36	0	13	41	-2			9	17 PP
MANHATTEN	41.26	315.7	7	41	1							
ALBUQUERQUE	46.98	305.7	8	27	1							
RAPID CITY	47.92	318.5	8	34	0							
LARAMIE	48.38	314.2	8	38	1							
TUCSON TELE.	49.86	301.3	8	49	0							
TUCSON	49.93	301.1	8	51	2							
FLAMING GRGE	50.95	312.4	8	57	U							
GLEN CANYON	51.52	306.9	9	3	2							
SALT LAKE C.	52.69	311.5	9	11	1							
BOULDER CITY	53.87	305.0	9	19	0							
BUTTE	54.79	317.5	9	27	2							
EUREKA	55.44	309.0	9	31	1						9	51 PCP
HUNGRY HORSE	56.50	319.8	9	38	0							
LICK	59.49	305.7	10	0A	1							
BERKELEY	60.04	306.2	10	18	16							
PENTICTON	60.31	319.6	10	5	1							
CALISTOGA	60.38	307.0	10	5A	0							
GARCHY	62.36	43.4	10	20	2							
ALBERNI	63.62	318.7	10	26	0							
RESOLUTE	64.48	350.3	10	34	2							
STUTTGART	66.71	42.4	10	47	1				11	5		
COLLMBERG	69.35	40.0	11	4	1						11	23 PCP

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
ALERT	69.37	359.7	10 57	-6				
MOULD BAY	70.17	347.4	11 10	2				
SKALSTUGAN	70.53	26.9	11 12	2				
KIRUNA	74.38	22.9	11 35	2				
NURMIJARVI	76.14	30.5	12 0	17				
COLLEGE	77.19	334.1	11 50	1			12 3	14 9
KAJAANI	77.37	26.8	11 51	1				12 27
MATUSIRO	127.61	341.3	19 1	3				19 21
CANBERRA	145.63	225.0	19 35A	4			19 55	
BRISBANE	146.10	240.2	19 36	4				
RABAUL	146.82	282.6	19 39	6				
ADELAIDE	152.34	215.0						19 52 PKP2
CHARTERS TS.	153.74	251.2	19 56	12				

JANUARY 16 11.H 35.M 41.S EPICENTRE -30.70-178.01 DEPTH= 12.KM

A=-0.86081 B=-0.02995 C=-0.50805 D=-0.0348 E= 0.9994
G= 0.5077 H= 0.0177 K=-0.8613 HT= 1.6

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
RAOUL ISLAND	1.45	0.1	0 24	-3	1 29	41		
ONERAHI	8.14	229.6	2 6	5	3 10	-24		
KARAPIRO	8.97	214.8	2 13	0				
TUAI	9.00	204.9	2 12	-1	3 51	-5		
CHATEAU	9.99	210.2	2 23	-4	3 27	-53		
WELLINGTON	12.06	207.0	2 48	-7	4 59	-12		
COBB RIVER	12.78	213.4	3 4	-1	5 16	-12		
KAIMATA	14.52	212.8	3 33	5	5 54	-16		
GEBBIES PASS	14.94	207.2	3 29	-4	6 1	-19		
NOUMEA	16.22	297.3	3 54K	4	7 16	26		
ROXBURGH	17.77	210.4	4 8	-1				
APIA	17.77	20.2	4 5	-4	7 5	-20		
PORT VILA	17.93	313.0	4 16	5				6 36
KOUMAC	18.87	298.2	4 24	1	8 12	22		
BRISBANE	25.72	270.0	5 31	-1	9 56	-2		
RIVERVIEW	26.22	255.0	5 37A	0			5 47	10 16
CANBERRA	27.97	251.7	5 53A	0	10 33	-2		6 40 PP
FORT NELSON	30.09	236.4	6 10K	-2	11 16	7		
MELBOURNE	31.26	246.7	6 21	-1				14 28
CHARTERS TS.	33.84	279.7	6 44	-1	12 0	-8		
ADELAIDE	36.40	251.6	7 5A	-2	12 41	-6		8 32 PP
RABAUL	38.53	307.2	7 21	-3				13 27
PORT MORESBY	38.74	295.7	7 28K	2	13 31	8		9 31 PCP
CAPE HALLETT	42.14	185.3	7 56	2	14 6	-8		
SCOTT BASE	47.74	184.3	8 40	1	15 40	6		
HAWAII V.OB.	54.43	26.6	9 27	-3	16 51	-15		
BYRD STATION	54.63	169.5	9 29	-2				
WILKES	54.88	207.9	9 29	-4	16 51	-21		17 13 PS
HONOLULU	55.13	22.8	9 37	2				
KIPAPA	55.27	22.8	9 38	2				
MUNDARING	55.39	250.4	9 32A	-5	17 14	-5		
PERTH	55.70	250.3	9 34	-5	17 42	18		
GUAM	56.67	315.2	9 41	-5				
MAWSON	72.02	200.6	11 23	-3			11 33	12 33
MANILA	73.90	298.3	11 34	-3				
TANGERANG	74.30	272.1	11 33	-6				14 31
BAGUIO CITY	75.36	299.4	11 44	-1	21 21	-3		
TUKURASAN	77.31	326.4	11 52A	-4	21 35	-10		22 41 PPS
MATUSIRO	78.48	325.3	11 58	-5	21 48	-10		22 47 SCS
ABUYAMA	78.52	322.6	11 59A	-4				
HONG KONG	83.72	300.4	12 32	2	22 49	-3		
ZO-SE	84.31	311.2	12 30	-3	23 9	11	12 57	22 51 SKS
CANTON	84.80	300.5	12 32	-4	22 58	-4	12 58	
Y.-SAKHLINSK	85.08	334.2	12 35	-2	22 51	-14		
PRIEST	85.53	43.1	12 38A	-2				
PASADENA	85.70	46.0	12 29	-11	22 59	-12		15 53 PP
LICK	85.79	41.7	12 40A	-1				
BERKELEY	85.81	41.0	12 38	-3	22 49	-23		24 1 PP
PETROPAVLOVK	85.82	346.1	12 35	-6	22 49	-23		
CALISTOGA	86.17	40.3	12 40A	-3				
NANKING	86.49	310.6	12 41A	-3	23 17	-2	13 8	
VLADIVOSTOK	86.64	325.8	12 42	-3	23 1	-19		
MINERAL	87.90	39.6	12 49A	-2				

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RENO	88.35	41.1	12	54K	1						
TUCSON	89.24	51.4	12	56	-1						
TUCSON TELE.	89.37	51.3	12	57	-1						
CHANGCHUN	90.47	322.8	12	59	-4	23	51	-5	13	26	
EUREKA	90.52	43.1	13	1	-3						30 33 PKKP
GLEN CANYON	91.62	47.2	13	8	-1						
VICTORIA	92.73	32.9	13	15A	1						
PEKING	93.13	315.4	13	12	-4	24	18	-1	13	39	23 40 SKS
ALBUQUERQUE	93.77	51.3	13	16	-2	23	28	-57	13	33	30 20 PKKP
SALT LAKE C.	93.79	44.1	13	17	-2						
KUNMING	93.95	296.8	13	18	-1	24	27	1	13	44	23 49 SKS
SIAN	94.41	307.4	13	19A	-2	24	34	4	13	46	
HUANCAYO	94.56	106.8	13	23	1						
PENTICTON	95.09	34.0	13	18	-6						
FLAMING GRGE	95.37	45.1	13	24	-2						29 51 PKKP
CHENGTU	95.93	302.1	13	24	-4	24	41	38	13	51	23 56 SKS
HUNGRY HORSE	97.26	37.2									30 12 PKKP
LA PAZ	97.91	114.4	13	43	6	24	13	-1			
COLLEGE	98.13	12.5	13	34	-4	24	14	-1	13	58	17 23 PP
HOUSTON	98.87	60.8	13	49	7						
LANCHOW	98.89	306.6	13	40	-2						
WICHITA MTS.	99.08	55.1	13	40	-3	24	19	0			17 45 PP
RAPID CITY	100.92	45.1	14	3	12						30 5 PKKP
SHILLONG	102.69	292.2	17	35	216						24 33
MANHATTEN	102.71	52.0				24	33	-4			
CHINCHINA	103.17	92.0				24	37	-2			28 20 PPS
FUQUENE	105.04	92.6									18 41 PP
ROLLA	105.34	54.9				24	45	-4			
VISHAKHAPTNM	106.13	281.2	18	25	777						28 4
MADRAS	106.58	275.5	18	33	777						28 10
BOKARO	106.81	288.0									25 13
FLORISSANT	106.82	54.6	14	22	777						
CHATRA	107.02	291.4	18	13	777						24 52
DUBUQUE	108.20	51.0				25	4	2			
TIKSI	108.54	344.5	18	31	777						
ESEN BULAK	108.81	313.2	18	22	777						
HYDERABAD	110.11	278.7									28 37
MOULD BAY	112.71	12.8	18	33	-4						29 30
HERMANUS	113.22	195.5									35 17 SS
CARACAS	113.37	91.5				25	17	-6			19 37 PP
BOMBAY	115.56	277.6	18	30	-12						21 56
DEHRA DUN	115.76	291.3									25 34
NEW DELHI	115.80	289.2	18	46K	3						
KIMBERLEY	117.01	202.4	18	45A	0						
RESOLUTE	117.53	17.3	18	42	-4						
PALISADES	119.40	57.4				25	44	-1			
BREBEUF	120.78	52.5	18	51	-2	25	49	-1			27 15 SKKS
WARSAK DAM	122.19	293.1	18	57	2						
BULAWAYO	123.34	210.3	19	7	9						
ALERT	123.55	8.2	18	54	-4						
NAMANGAN	123.94	301.1	19	19	20						27 31 SKKS
QUETTA	124.74	287.3	18	58	-2						
WINDHOEK	125.08	197.1	19	1	0						
KHEYS	125.46	350.4	18	59	-3						
HALIFAX	127.58	55.1	18	59A	-7						
SVERDLOVSK	132.13	320.7	19	12	-2						
LWIRO	138.45	222.8	19	27	1						22 19 PP
APATITY	138.71	342.3	19	24	-3						
TEHERAN	138.72	290.6	19	25	-2						23 4
TROMSOE	139.85	350.9	19	25	-4						
SODANKYLA	140.48	345.3	19	21	-9						
KIRUNA	141.28	348.9	19	23	-8						
MAKHACH-KALA	142.01	301.7	19	31	-1						
KAJAANI	142.88	341.6	19	25	-9						
GORIS	142.99	296.1	19	30K	-4						
TIFLIS	144.09	299.9	19	32	-4						
MOSCOW	144.58	325.3	19	32A	-5						
PULKOVO	145.27	335.1	19	34	-4						
SKALSTUGAN	146.46	351.7	19	38	-2						
NURMIJARVI	146.59	339.7	19	37	-3						
HELSINKI	146.77	339.1	19	40	-1						
SOTCHI	147.57	304.0	19	40	-2						
UPPSALA	149.01	344.7	19	44A	0						
SIMFEROPOL	151.13	308.6	19	50	3						
KSARA	151.25	285.2	19	45	-3						23 32 PP
GOTEBORG	152.14	348.5	19	50	1						
KARLSKRONA	152.81	343.3	19	54	4						
ISTANBUL UN.	155.90	302.8	20	7A	13						

M.BOUR	156.17	128.8	19	56	2				23	59 PP
SKALNATE PL.	156.94	328.3	19	55	0					
COLLMBERG	157.86	341.5	20	4	7				24	21 PP
HALLE	157.95	343.3	19	57	0				20	30 PKP2
PRUHONICE	158.55	337.4	19	54	-4				52	42 SS
JENA	158.57	343.2	19	55	-3				20	31
BRATISLAVA	159.08	330.7	19	57	-1				20	36 PKP2
SOFIA	159.18	311.0	20	0	2				20	40
VIENNA-H.	159.32	332.0	19	51	-7				22	39
BENSBERG	159.40	350.7							20	38 PKP2
KASPERSKE H.	159.61	337.8	19	54	-5				22	53 PP
STUTTGART	161.12	345.0	19	58	-2					
STRASBOURG	161.61	347.8							20	44 PKP2
LJUBLJANA	161.84	331.0	19	58	-3				20	42 PKP2
PARIS	161.91	358.9	20	45	44					
PADOVA	163.41	335.0							22	13
GARCHY	163.43	357.4	20	59	56				21	4 PKP2
ROSELEND	164.59	344.9							20	49 PKP2
CHIAVARI	165.23	339.0				20	49		24	56 PP
MONACO	166.30	343.1							21	8 PKP2
TOLEDO	169.60	26.7	20	8	1				25	7 PP
GRANADA	172.04	34.2							21	24

JANUARY 16 18.H 17.M 27.S EPICENTRE 7.92 -36.14 DEPTH= 0.KM

A= 0.79995 B=-0.58426 C= 0.13681 D=-0.5898 E=-0.8075
G= 0.1105 H=-0.0807 K=-0.9906 HT= 6.8

SE= 3.23

	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
M.BOUR	19.87	69.5	4	34	-1	7	57	-17				
LA PAZ	39.88	232.4	7	37	0						17	48
HUANCAYO	43.72	243.4	8	8	0							
BAGNERES	47.30	36.2	8	39	2							
SHAWINIGAN	49.63	327.3	9	6	11							
FOLINIERE	50.58	30.0	9	3	1							
GARCHY	51.48	33.4	9	9	0							
PARIS	52.11	31.5	9	15	1							
DOURBES	53.99	31.3	9	39	12				12	6		
STUTTGART	55.77	34.8	9	39	-2							
BENSBERG	55.82	31.6	9	41A	0							
LJUBLJANA	57.62	39.6	8	54A	-60							
JENA	58.15	33.4	9	55	-2						10	22
KASPERSKE H.	58.41	36.0	9	58	-1							
HALLE	58.64	33.0	10	1	0							
COLLMBERG	59.11	33.6	10	4	0							
PRUHONICE	59.36	35.5	10	6	0						10	41
WICHITA MTS.	62.93	304.9	10	33	3							
LWIRO	65.55	96.1	10	51K	4							
UPPSALA	65.57	26.6	10	47	0							
NURMIJARVI	69.02	27.6	11	8	-1							
HELSINKI	69.04	28.0	11	10	1							
KIMBERLEY	69.07	124.7	11	9	0							
BULAWAYO	69.50	114.9	10	58	-14							
KIRUNA	70.51	19.6	11	18	0							
KSARA	70.71	57.0	11	20	1							
KAJAANI	71.65	24.6	11	24	-1							
FLAMING GRGE	72.20	310.4	11	30	2							
SODANKLYA	72.45	21.2	11	29	-1							
BOZEMAN	73.83	315.2	11	43	5							
RESOLUTE	74.43	346.4	11	43	2							
ALERT	75.37	356.5	11	47A	0							
HUNGRY HORSE	76.08	317.8	11	52	1							
EUREKA	77.17	308.6	12	0	3						12	19
CHINA LAKE	78.50	304.9	11	50	-14							
PENTICTON	79.80	318.7	12	13	2							
MOULD BAY	80.74	346.1	12	19	3							
TEHERAN	83.44	54.9	12	32	2							
CANBERRA	152.32	189.1	19	58	8							
ADELAIDE	152.66	170.8	19	52	1						20	9 PKP2

JANUARY 17 15.H 29.M 46.S EPICENTRE 3.52 127.48 DEPTH= 0.KM

A=-0.60732 B= 0.79212 C= 0.06092 D= 0.7936 E= 0.6084
G=-0.0371 H= 0.0483 K=-0.9981 HT= 7.1

SE= 5.06

	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	
MANILA	12.75	330.8									8	3	
BAGUIO CITY	14.50	332.6	3	26	-2	6	42	31					
DARWIN	16.14	168.1	3	47	-3	7	2	13					
GUAM	19.71	58.9	4	40	7								
NHATRANG	20.04	296.6	4	27	-10						4	42	PP
HONG KONG	22.70	326.5	4	57	-7	9	2	-7			6	24	
DJAKARTA	22.76	245.0	5	7	2						19	18	
TANGERANG	22.93	245.2	4	59A	-8						9	13	
PORT MORESBY	23.43	123.3	5	12	1								
CANTON	23.79	326.1	5	8	-7	9	13	-15					
ZO-SE	28.07	348.5	5	51	-4	10	29	-10					
NANKING	29.55	344.9	6	1	-7								
CHARTERS TS.	29.84	142.5	6	15	4						16	33	
KUNMING	32.06	314.4	6	24	-6	11	30	-12			7	30	PP
MATUSIRO	34.32	15.4	6	47	-3	12	31	14					
CHENGTU	34.93	323.2	6	48	-7	12	11	-16					
SIAN	35.12	332.7	6	54	-3								
MUNDARING	36.88	196.1	7	19	7								
PEKING	37.76	345.8	7	15	-4	13	4	-6					
LANCHOW	39.05	328.9	7	24	-6								
BRISBANE	39.24	143.1	7	33	1						16	29	
ADELAIDE	39.71	165.5	7	32	-4						9	5	PP
PAOTOW	40.12	339.2	7	35	-4	13	39	-7					
CHANGCHUN	40.19	357.6	7	36	-3	13	37	-10					
SHILLONG	40.62	306.1	7	33A	-10								
CALCUTTA	42.33	300.0									9	58	
LHASA	43.19	310.9	7	59	-5	14	21	-11					
RIVERVIEW	43.35	150.9	8	OK	-5						15	2	
CANBERRA	43.59	154.2	8	7A	0						9	54	PP
MELBOURNE	44.22	160.0	8	13	1								
CHATRA	44.97	305.1	8	11	-7								
BOKARO	44.99	300.5									10	24	
Y.-SAKHLINSK	45.31	14.7	8	18	-3								
ULAN BATOR	47.65	341.3	8	36	-4								
MADRAS	47.67	284.3									10	25	
FORT NELSON	49.60	160.9	8	55	0								
ESEN BULAK	50.61	332.3	9	0	-2								
DEHRA DUN	53.70	305.4	9	37	11	17	0	1			19	37	
NEW DELHI	53.84	303.1	9	17A	-10								
POONA	54.49	290.2	9	22	-9								
BOMBAY	55.51	290.5	9	24	-15	17	10	-13			17	48	
PETROPAVLOVK	55.63	22.3	9	39	-1								
LAHORE	57.12	305.6	9	38	-12								
YAKUTSK	58.39	1.2	9	55	-4	17	59	-3					
WARSAK DAM	60.10	307.5	10	2	-9								
KARAPIRO	60.65	137.6	10	15	0								
WELLINGTON	61.95	141.1	10	22	-2								
NAMANGAN	62.32	315.0	10	21	-5								
APIA	62.65	107.4	10	30	2								
QUETTA	62.89	302.1	10	21	-9				10	29	19	5	*SS
SAMARKAND	65.28	312.3	11	33	47								
AMDERMA	78.50	341.1	11	58	-6								
TANANARIVE	81.63	250.4	12	20	-1								
KHEYS	83.24	351.1	12	27A	-2								
COLLEGE	84.58	25.3	12	35	-1								
MOSCOW	87.03	325.5	12	45	-3								
APATITY	88.33	337.5	12	53A	-2								
KSARA	89.39	303.7	12	55	-5						26	56	
SODANKYLA	90.95	337.7	13	4	-3								
KAJAANI	91.13	334.3	13	6	-2								
MOULD BAY	92.01	12.7	13	10	-2								
KIRUNA	93.14	338.7	13	16	-1								
RESOLUTE	97.89	10.4	13	37	-2								
BULAWAYO	99.52	250.3	13	43	-3								
EUREKA	107.86	46.7	18	30	777								
WICHITA MTS.	122.41	44.6	18	55	-2						28	47	PKKP
FAYETTEVILLE	124.63	40.9	19	2A	1								

JANUARY 17. 15.H 43.M 25.S EPICENTRE 3.48 126.91 DEPTH= 115.KM

A=-0.59953 B= 0.79808 C= 0.06028 D= 0.7995 E= 0.6006
G=-0.0362 H= 0.0482 K=-0.9982 HT= 7.1

DEPTH OF FOCUS= 0.013R

SE= 3.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	12.52	333.0									7	43
BAGUIO CITY	14.29	334.6	3	17	-1	6	3	9				
NHATRANG	19.56	297.4	4	13	-8						4	27
GUAM	20.21	59.6	4	31	3							
TANGERANG	22.41	244.7	4	49K	-1							
CANTON	23.51	327.2	5	1	0							
PORT MORESBY	23.88	122.5	5	10	6							
ZO-SE	28.00	349.5	5	41	-2	10	21	4				
NANKING	29.44	345.9	5	58	3							
CHARTERS TS.	30.16	141.7	5	59	-3						6	50
KUNMING	31.68	315.0	6	44	29							
MATUSIRO	34.51	16.2	6	36	-3							
TUKUBASAN	34.78	18.9									14	10 SSS
SIAN	34.90	333.4	6	41	-2							
MUNDARING	36.69	195.3	6	55A	-3							
PEKING	37.66	346.5	7	2	-4							
BRISBANE	39.55	142.5	7	19	-3						16	29
VLADIVOSTOK	39.72	5.7	7	20	-3							
ADELAIDE	39.82	164.8	7	21A	-3						8	58 PP
SHILLONG	40.18	306.5	7	21K	-6							
CHANGCHUN	40.21	358.2	7	28	1	13	36	11				
CANBERRA	43.81	153.6	7	55A	-1							
MELBOURNE	44.38	159.5	8	2	1							
CHATRA	44.53	305.4	7	59	-3							
ULAN-BATOR	47.51	341.8	8	27	1							
FORT NELSON	49.75	160.4	8	48	5							
ESEN BULAK	50.38	332.7	8	57	9							
NEW DELHI	53.39	303.3	9	4A	-6							
PETROPAVLOVK	55.88	22.6	9	26	-2							
LAHORE	56.69	305.8	9	29	-5							
YAKUTSK	58.44	1.6	9	43	-3							
MAGADAN	58.89	13.9	9	47	-3							
WARSAK DAM	59.68	307.6	9	51	-4							
KARAPIRO	61.00	137.3	10	2	-2							
NAMANGAN	61.95	315.2	10	10	0							
WELLINGTON	62.28	140.9	10	12	-1							
QUETTA	62.43	302.3	10	9	-5							
APIA	63.17	107.3	10	26K	8							
SAMARKAND	64.89	312.5	10	25	-5							
TIKSI	68.07	0.7	10	45K	-5	19	46	8				
AMDERMA	78.35	341.2	11	45	-5							
TANANARIVE	81.09	250.3	12	7	3							
TIFLIS	81.81	311.5	12	8	0							
KHEYS	83.19	351.1	12	14K	-1							
SCOTT BASE	84.06	172.2	12	18	-1							
COLLEGE	84.85	25.3	12	22	-1				12	37		
MOSCOW	86.75	325.5	12	32	-1							
APATITY	88.15	337.4	12	43	4							
SODANKYLA	90.77	337.6	12	54	2							
KAJAANI	90.92	334.3	12	49	-3							
MOULD BAY	92.17	12.7	12	57	-1							
KIRUNA	92.97	338.6	12	59	-3							
RESOLUTE	98.03	10.3	13	23	-2						48	55
EUREKA	108.30	46.5	18	20	777							
GARCHY	109.53	323.1	12	49	777							
MANHATTEN	121.65	38.9	18	45K	4							
WICHITA MTS.	122.83	44.4	18	53	10						41	45 SSS
FAYETTEVILLE	125.02	40.6	18	48	1							
ROLLA	125.34	37.4	19	9	21							
LITTLE ROCK	127.01	40.7	18	52	1							
PALISADES	131.81	21.2	19	12	12	26	0	3				

JANUARY 19 6.H 1.M 11.S EPICENTRE 51.54 161.27 DEPTH= 46.KM

A=-0.59144 B= 0.20054 C= 0.78101 D= 0.3211 E= 0.9470
G=-0.7396 H= 0.2508 K=-0.6245 HT= -6.0

DEPTH OF FOCUS= 0.002R

SE= 1.90

	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	
PETROPAVLOVK	2.19	313.6	0	33	-2	0	57	-4			0	45	*SP
KLYUCHI	4.79	357.3	1	10	-2	2	3	-4					
MAGADAN	9.97	327.7	2	23	0	4	16	1					
UGLEGORSK	12.52	266.2									3	31	
Y.-SAKHLINSK	12.92	256.8	3	4	1								
YAKUTSK	20.00	313.8	4	26	-5	8	5	-4			4	59	PPP
VLADIVOSTOK	21.50	258.5									8	46	PCP
MATUSIRO	22.22	236.5	4	55	1	8	58	7					
COLLEGE	29.03	43.1	5	57	-1								
MOULD BAY	38.21	22.4	7	17K	0								
ESEN BULAK	41.73	289.5	7	51	5								
ALERT	44.38	7.5	8	7K	-1								
RESOLUTE	44.50	21.6	8	9	0								
ALBERNI	45.29	62.3	8	16	1								
PENTICTON	48.10	59.7	8	37	0								
THULE	48.46	13.9	8	39	-1								
BANFF	49.20	55.7	8	44	-2								
HUNGRY HORSE	51.66	57.9	9	4	0						10	18	
MINERAL	52.41	70.1	9	10K	0								
CALISTOGA	52.93	72.3	9	15A	1								
SVERDLOVSK	53.91	318.0	9	18	-3								
RENO	53.98	69.8	9	21	-1								
LICK	54.35	73.0	9	25K	1								
BOZEMAN	54.93	58.9	9	29	1								
APATITY	54.97	338.3	9	33	4								
EUREKA	56.26	67.4	9	39	1						10	26	PCP
SODANKYLA	56.61	340.7	9	42	1								
KIRUNA	57.40	343.5	9	45	-1								
SALT LAKE C.	57.73	63.8	9	49	1								
SHILLONG	57.74	271.3	9	46A	-3								
PASADENA	58.58	73.5	9	54	0								
FLAMING GRGE	58.99	62.1	9	57	0						10	16	
KAJAANI	59.18	338.2	10	0	1								
TASHKENT	60.17	299.8	10	7	2								
GLEN CANYON	60.49	66.8	10	7	-1								
LARAMIE	60.81	59.5	10	9	-1								
NURMIJARVI	62.99	337.6	10	24	0								
MOSCOW	63.36	328.2	10	24	-3								
WARSAK DAM	64.07	292.5	10	30	-1								
TUCSON	64.27	70.0	10	33	0								
UPPSALA	65.15	340.7	10	41	3								
MANHATTEN	67.08	55.6	10	50	-1						11	19	
ASHKABAD	68.41	304.0	10	56	-3								
WICHITA MTS.	69.38	60.0	11	5K	0								
QUETTA	69.52	292.8	11	5	-1	20	15	6	11	15	11	20	*SP
ROLLA	70.45	53.5	11	10K	-1						11	30	
FLORISSANT	70.51	51.9	11	12K	0								
FAYETTEVILLE	70.67	56.2	11	12K	-1						11	39	
ST. LOUIS 1	70.70	51.9	11	13	0						11	33	
SHAWINIGAN	71.82	36.0	11	19K	-1								
TIFLIS	71.98	315.2	11	20	-1								
BLOOMINGTON	72.07	49.1	11	20	-1						13	2	
C. GIRARDEAU	72.08	52.3	11	21A	0								
CHARTERS TS.	72.53	194.8	11	22	-2								
LITTLE ROCK	72.63	55.8	11	23	-1								
TEHERAN	73.66	307.1	11	31	1								
COLLMBERG	74.07	339.9	11	33	0						14	18	PP
JENA	74.72	340.7	11	36	-1						11	58	
PRUHONICE	74.97	338.5	11	38	0								
BENSBERG	75.54	343.4	11	50	9								
KASPERSKE H.	75.98	338.8	11	43	-1						12	5	
STUTTGART	77.24	341.4	11	51	0						12	29	
STRASBOURG	77.71	342.3	11	54	0								
GARCHY	79.79	345.1	12	5	0								
ROSELEND	80.71	341.5	12	11	1						12	32	

JANUARY 19 19.H 38.M 5.S EPICENTRE 38.49 22.39 DEPTH= 48.KM

A= 0.72557 B= 0.29898 C= 0.61980 D= 0.3810 E=-0.9246
G= 0.5731 H= 0.2361 K=-0.7848 HT= -1.1

DEPTH OF FOCUS= 0.002R

SE= 4.28

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	1.17	116.0	0	21K	0						0	43	SG
SKOPJE	3.55	348.4	0	55	0						1	55	SG
SOFIA	4.27	9.3	1	9	4	2	7	13			1	28	PG
TARANTO	4.44	298.0	1	4	-3	2	26	28					
TITOGRAD	4.60	329.7	1	5	-4						1	21	PG
MESSINA	5.39	269.0	1	13K	-7	2	12	-10			1	33	PG
ISTANBUL UN.	5.68	61.3	1	27	2						2	31	
BELGRADE	6.49	347.7	1	36K	0						2	3	PG
BUCHAREST	6.55	24.0	1	35	-2								
TIMISOARA	7.31	353.5				3	29	19			2	24	
SZEGED	7.93	348.5				2	58	-27			1	56	P*
ROME	8.32	297.3	2	5K	4	3	35	0			4	7	S*
KALOCSA	8.42	343.7				3	45	8			3	1	PG
KECSKEMET	8.65	347.6				3	35	-8			4	39	SG
ZAGREB	8.73	329.0				3	45	0			2	21	P*
BUDAPEST	9.32	345.7	2	17	2	4	6	7			5	11	SG
LJUBLJANA	9.54	324.9	2	12	-6	3	54	-11			5	4	SGSG
TRIESTE	9.61	320.8	2	13	-6	3	56	-11			5	7	SGSG
KISHINEV	9.75	26.9	2	32	11								
HURBANOVO	9.86	343.3									5	4	SG
PRATO	10.07	305.9	2	29	4	4	37	19					
BOLOGNA	10.24	309.4									4	29	
BRATISLAVA	10.41	340.0	2	31	1						4	56	S*
PADOVA	10.45	314.8				4	20	-7			4	36	SS
SKALNATE PL.	10.80	352.5	2	37	2	4	25	-11					
CUGLIERI	10.84	283.3	2	10	-26						3	55	
SIMFEROPOL	10.88	49.9	2	42	6								
LWOW	11.39	5.4	2	48	5	5	4	14					
CHIAVARI	11.41	304.8	2	53	10						3	21	
KRAKOW	11.69	352.1									3	2	PP
KSARA	11.85	109.0	2	51	2	5	10	9			5	39	
PAVIA	11.91	308.4				6	1	59			4	36	
RACIBORZ	11.97	346.9									3	14	PPP
KASPERSKE H.	12.38	332.0	2	56	-1						5	11	
MONACO	12.44	299.6	2	56	-1								
CHUR	12.61	315.6	3	5	5	5	14	-5					
PRUHONICE	12.78	336.5	2	57	-5								
PRAGUE	12.90	336.4				5	26	-1			4	25	
ROSELEND	13.01	307.2	3	11	6	5	22	-7					
RAVENSBURG	13.15	319.0	3	3	-4								
WARSAW	13.77	356.4	3	14	-1						3	21	PP
TUBINGEN	13.91	320.4	3	13	-4						6	4	
STUTTGART	13.97	321.6	3	11	-6						6	21	
SOTCHI	14.03	63.3	3	27	9								
BASLE	14.09	314.6	3	27	8								
NEUCHATEL	14.16	311.8	3	23	3								
COLLMBERG	14.42	335.7	3	27	4	6	18	16			3	50	
KARLSRUHE	14.56	320.7	3	36	11								
JENA	14.60	331.9	3	25	-1	6	13	6			4	22	
STRASBOURG	14.61	318.3	3	28	2	6	11	4					
HEIDELBERG	14.67	322.4	3	28	1						6	36	
BESANCON	14.86	311.4	3	32	3	6	7	-6			3	51	
HALLE	14.94	333.9	3	33	3	6	32	17					
FELDBERG	15.36	324.2	3	17	-18								
CLERMONT-FD.	16.02	303.2	3	44	0								
BENSBERG	16.46	324.1	3	51A	1						8	37	
GARCHY	16.63	308.1	3	51	-1						4	20	
MUNSTER	16.98	327.3	4	1	5						6	54	
DOURBES	17.18	318.2	3	56	-2								
TIFLIS	17.43	72.3	4	10	8	7	38	26					
BAGNERES	17.44	292.3	4	2	0								
PARIS	17.67	312.1	4	7	2						11	13	
ALICANTE	17.92	276.7	4	1	-7	7	10	-13			7	37	SS
KARLSKRONA	18.25	347.8	4	3	-9								
KIROVOBAD	18.57	75.8	4	21	5	7	57	19			8	25	SS
GORIS	18.62	79.4				7	58	19			4	48	PP
FOLINIERE	19.42	309.3	4	17	-8								
ALMERIA	19.74	273.0	4	32	3						4	50	PP
MOSCOW	20.04	25.7	4	35	3	8	18	8			5	11	PPP

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GOTEBORG	20.40	343.8	-	4	33	-3					
TOLEDO	20.52	282.2		4	32	-5	8	22	3	8	44 SS
KEW	20.55	316.5		4	31	-6	8	21	2		
GRANADA	20.56	274.5		4	40A	3	8	13	-7	4 48 5	1 PP
MALAGA	21.28	273.6		4	48	3	8	41	8	5	17 PP
UPPSALA	21.59	353.5		4	46	-2	8	47	8		
HELSINKI	21.76	3.5		4	49	-1					
PULKOVO	21.89	10.8		4	54	3	8	53	8		
NURMIJARVI	22.09	3.0		4	53	0					
TEHERAN	23.24	87.8		5	9	5	9	27	18		
SERRA PILAR	23.89	286.2		5	9	-1	9	19	-1	5	42 PP
BERGEN	24.44	339.3		5	15	-1					
ABERDEEN	24.66	327.2								9	41
KAJAANI	25.82	5.4		5	31	2					
SKALSTUGAN	25.85	349.6		5	28	-1					
ASHKABAD	28.15	79.7								11	7 SS
SODANKYLA	29.03	3.4		5	58	0					
KIRUNA	29.41	358.5		6	1	0	10	54	3		
APATITY	29.76	8.5		5	58	-7	10	41	-15		
SVERDLOVSK	31.06	41.3								7	15 PP
TASHKENT	35.74	70.3								9	25 PCP
QUETTA	37.42	89.0		7	24	13				8	41 PP
KHOROG	38.37	75.7		7	25	6					
LWIRO	40.97	170.2		7	42A	2				9	22 PP
LAHORE	42.63	83.0		7	53	-1					
KHEYS	44.27	7.9		8	10	3					
THULE	53.13	342.8		9	13	-2					
SHILLONG	59.03	80.6		9	57	-1					
RESOLUTE	59.88	344.1		10	3	-1					
MOULD BAY	62.99	350.4		10	25	0					
SHAWINIGAN	66.44	311.4		10	46	-1					
BREBEUF	67.49	310.8		10	55	2					
COLLEGE	76.69	355.7		11	48	0					
HUNGRY HORSE	85.27	332.5		12	33	0					
FAYETTEVILLE	85.47	313.4		12	33K	-1					
PENTICTON	86.33	336.2		12	39	1					
WICHITA MTS.	88.93	315.1		12	51	0				16	25 PP
EUREKA	93.52	329.0		13	13	1					
CHINA LAKE	97.32	328.2		13	32	2					

JANUARY 19 22.H 18.M 27.S EPICENTRE 38.08 22.08 DEPTH= 58.KM

A= 0.73128 B= 0.29664 C= 0.61420 D= 0.3759 E=-0.9267
G= 0.5692 H= 0.2309 K=-0.7892 HT= -1.0

DEPTH OF FOCUS= 0.004R

SE= 5.06

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
ATHENS	1.30	94.4	0	21K	-2	0	41	1			0	46	SGSG
SKOPJE	3.92	353.0	0	52	-8						1	5	PG
TARANTO	4.44	304.0	1	1	-6						2	37	
SOFIA	4.71	11.3	1	5	-6	2	0	-5			1	25	PG
TITOGRAD	4.85	334.5	1	6	-7	2	4	-4			1	23	PG
MESSINA	5.15	273.3	1	14	-3	2	11	-5			1	17	PP
ISTANBUL UN.	6.10	58.9	1	25	-5						2	27	
BELGRADE	6.84	350.2	1	21	-19	2	48	-10			1	53	PG
TIMISOARA	7.69	355.5	2	26	34						3	35	
SZEGED	8.29	350.6				3	6	-28			3	50	SG
ROME	8.30	300.4	2	3	2						3	53	SSS
KALOCSA	8.75	345.8									2	59	PG
ZAGREB	8.97	331.5	2	25	15						4	17	
BUDAPEST	9.66	347.5	2	18	-1	4	4	-3			3	5	PG
LJUBLJANA	9.74	327.2	2	12	-8						4	57	SG
TRIESTE	9.78	323.3	2	17	-4	4	1	-9			3	3	PGPG
PRATO	10.12	308.4									4	25	
KISHINEV	10.22	26.9	2	19	-8								
PADOVA	10.57	317.1				4	23	-6					
BRATISLAVA	10.72	341.8	2	41	7						6	9	
VIENNA-H.	10.98	339.6	2	29	-8								
SIMFEROPOL	11.33	48.9	2	39	-3								
CHIAVARI	11.45	307.0	2	34	-10	4	41	-10					
LWOW	11.82	6.2	2	47	-1	5	4	4			5	56	
KSARA	11.96	106.6	2	50	0	5	9	6			5	41	SSS

PAVIA	11.97	310.4											5	33	
KRAKOW	12.06	353.4	2	42	-10	5	6	0					2	57	PP
KASPERSKE H.	12.63	333.7	2	52	-7								7	6	
CHUR	12.74	317.4	3	16	15	5	15	-7							
PRUHONICE	13.06	338.0	3	1	-4	5	43	14							
ROSELEND	13.07	309.1	3	11	6	5	33	3							
PRAGUE	13.18	337.9											5	15	
RAVENSBURG	13.30	320.8	3	15	7										
STUTTGART	14.14	323.1	3	13	-6								6	43	
SOTCHI	14.43	62.1	3	32	9										
COLLMBERG	14.69	337.0	3	28A	2								4	11	
STRASBOURG	14.76	319.9	3	36	9								4	41	
JENA	14.85	333.3	3	27	-1	6	15	3					4	16	
BESANCON	14.95	312.9	2	33	-57								6	37	
HALLE	15.20	335.2	3	32	-1	6	33	13							
FELDBERG	15.55	325.6	3	16	-21										
CLERMONT-FD.	16.04	304.6	3	54	10										
GARCHY	16.69	309.5	3	50	-2								4	17	
DOURBES	17.33	319.5											4	11	PP
BAGNERES	17.37	293.6	4	18	18										
ALICANTE	17.73	277.9				7	15	-3							
PARIS	17.76	313.4	4	7	2								12	3	
TIFLIS	17.80	71.1	4	6	1	7	36	17							
GORIS	18.95	78.2	4	19	0										
FOLINIERE	19.49	310.5	4	23	-2										
ALMERIA	19.52	274.0	4	23A	-3	8	9	12					4	51	PP
GRANADA	20.34	275.4	4	50A	16										
TOLEDO	20.37	283.2	4	31	-4	8	19	4					4	53	
MOSCOW	20.52	25.6	4	34	-2										
GOTEBORG	20.72	344.6	4	35	-3										
MALAGA	21.06	274.5											5	2	PP
UPPSALA	21.97	354.0	4	45	-6	8	46	1	5	2					
HELSINKI	22.19	3.8	4	54	1										
PULKOVO	22.34	11.0	4	52	-2										
NURMIJARVI	22.51	3.3	4	54	-2										
TEHERAN	23.51	86.7	5	7	1	9	35	23							
SERRA PILAR	23.77	287.0	4	41	-27								5	54	PPP
SKALSTUGAN	26.21	350.1	5	28	-3										
KIRUNA	29.82	358.7	6	0	-4										
APATITY	30.20	8.6											9	9	
SVERDLOVSK	31.53	40.9	6	15	-4										
NAMANGAN	37.95	69.6	7	15	1										
AMDERMA	38.06	21.1	7	10	-5										
LWIRO	40.61	169.7	7	40	4										
BROKEN HILL	52.59	172.2	8	59	-11										
THULE	53.45	342.9	8	55	-22										
CHATRA	55.06	81.4	9	27	-2										
SHILLONG	59.35	80.2	9	56A	-3										
COLLEGE	77.08	355.6	11	48	-1				12	8					
LAWRENCE	84.13	315.9	12	26	0										
HUNGRY HORSE	85.52	332.4	12	33	0										
WICHITA MTS.	89.05	314.9	12	51	1								16	26	PP
EUREKA	93.74	328.8	13	15	3										
KARAPIRO	159.11	97.8	20	20	28								20	29	PKP2

JANUARY 21 2.H 51.M 35.S EPICENTRE 43.15 17.02 DEPTH= 41.KM

A= 0.69978 B= 0.21427 C= 0.68146 D= 0.2928 E=-0.9562
G= 0.6516 H= 0.1995 K=-0.7319 HT= -2.9

DEPTH OF FOCUS= 0.001R

SE= 2.76

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TITOGRAD	1.80	112.9									0	29	PG
TARANTO	2.68	176.3	0	44	2	1	20	6					
ZAGREB	2.77	344.7	0	45	2	1	18	2					
BELGRADE	2.98	54.8	0	46K	0						1	41	SG
LJUBLJANA	3.41	329.2	0	53A	1	1	33	1			1	46	SG
TRIESTE	3.43	317.9	0	52	-1	1	33	0			1	47	S*
SKOPJE	3.47	108.4	0	54	1	1	35	1			1	7	PG
ROME	3.58	251.1	0	55	0	1	37	0			1	51	S*
KALOCSA	3.65	21.7	0	57	1	1	37	-1			1	54	S*
TIMISOARA	3.97	47.7	1	4	4	2	3	16			2	16	SG
KECSKEMET	4.22	25.8	1	6	2	1	54	1			2	3	S*

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BOLOGNA	4.34	290.1	1	9	3	1	58	2			
PADOVA	4.34	303.2	1	6	0	1	56	0	1	15	P*
PRATO	4.37	281.6	1	4	-2	1	59	2			
BUDAPEST	4.55	17.3	1	6	-3	1	55	-6	2	22	SG
SOFIA	4.65	93.4	1	10	0	2	19	15			
HURBANOVO	4.79	9.5	1	13	1	2	8	1	1	32	PG
BRATISLAVA	5.02	0.6	1	25	10	2	10	-3	2	40	SG
MESSINA	5.07	193.3	1	14	-2	2	15	1	3	2	SG
CHIAVARI	5.70	284.5	1	12	-13				1	52	
PAVIA	6.00	292.4	1	28K	-1	2	36	-1			
SKALNATE PL.	6.43	19.2	1	37	2	2	40	-8	1	55	PG
KASPERSKE H.	6.44	339.4	1	34	-1	2	47	-1	3	30	
CHUR	6.47	307.4	1	36	0	2	50	1			
BUCHAREST	6.69	76.0	1	38	-1	2	45	-10			
RAVENSBURG	6.96	314.2	1	40	-3	3	0	-1	3	48	SG
RACIBORZ	6.98	6.2	1	42	-1	3	2	0	1	59	PP
CUGLIERI	6.99	247.7	1	55	12				2	45	
MONACO	7.01	278.0	1	40	-3	3	0	-2			
ROSELEND	7.13	292.4	1	52	7	3	20	14			
PRAGUE	7.15	346.4	0	47	-58	1	44	-82	2	17	SG
KRAKOW	7.19	15.1	1	45	-1	3	13	6	2	3	PPP
ATHENS	7.26	133.2	1	44A	-3	3	5	-4	1	51	PP
EBINGEN	7.56	314.5	1	53K	2						
TUBINGEN	7.73	316.8	1	51K	-2				4	20	SG
STUTTGART	7.79	318.9	1	52K	-2				4	21	SG
BASLE	7.96	306.6	1	53	-3	3	25	-1			
NEUCHATEL	8.10	301.8	1	55	-3	3	29	-1			
LWOW	8.23	33.5	2	2K	2	3	46	13			
KARLSRUHE	8.37	317.4	2	2	0	3	46	10			
STRASBOURG	8.43	313.3	2	1	-2	3	35	-3	4	2	
HEIDELBERG	8.49	320.3	2	1	-3	3	34	-5	4	42	
COLLMBERG	8.60	342.9	2	6	1	3	36	-6	4	35	SG
JENA	8.62	336.4	2	4	-2	3	31	-12	4	31	SG
BESANCON	8.81	301.5	2	6	-2	4	45	58	3	42	
HALLE	9.03	339.4	2	11	0				4	54	SG
ISTANBUL UN.	9.14	99.3	2	10	-3				4	59	
FELDBERG	9.20	323.2	1	53	-20				4	25	SG
KISHINEV	9.20	61.1	2	13	-1						
WARSAW	9.47	15.1							4	40	S*
CLERMONT-FD.	10.28	289.5	2	24	-4				5	32	SG
BENSBERG	10.30	322.7	2	27A	-2	4	21	-3	5	29	SG
GARCHY	10.67	297.6	2	29	-5	4	25	-8	3	9	
MUNSTER	10.86	327.6	2	45	9						
DOURBES	11.00	313.5	2	38	0	4	43	2			
PARIS	11.58	304.3	2	46	0				3	41	
WITTEVEEN	11.89	328.0							3	13	
DE BILT	11.99	322.4							6	55	
BAGNERES	12.34	275.4	2	55	-1						
SIMFEROPOL	12.43	75.8	2	57	0	5	11	-5			
FOLINIERE	13.40	300.8	3	6	-4						
ALICANTE	14.10	256.0							3	23	PPP
TOLEDO	16.11	265.5	3	48	3						
ALMERIA	16.19	253.7	3	48K	2				3	54	PP
UPPSALA	16.73	1.1	3	55	2				7	35	
GRANADA	16.84	256.2	3	58A	3	7	28	29			
KSARA	17.42	116.0	4	0	-2	7	6	-7			
HELSINKI	17.72	13.1	4	5	-1						
NURMIJARVI	17.99	12.3	4	7A	-2	7	20	-5			
MOSCOW	18.29	39.4	4	12	-1						
PULKOVO	18.53	21.5	4	15	-1	7	41	4			
COIMBRA	19.22	269.9	4	23K	-1						
TIFLIS	20.52	84.5	4	38	0						
SKALSTUGAN	20.65	354.0	4	37	-2						
KAJAANI	21.85	12.7	4	52	1	8	52	7			
MAKHACH-KALA	22.21	80.0	5	0	5	9	1	9			
KIRUNA	24.80	3.1	5	21A	1						
SODANKYLA	24.82	8.8	5	20	0						
APATITY	25.99	14.3	5	35K	4	10	4	7			
TEHERAN	27.41	94.0	5	45	1						
SVERDLOVSK	30.62	48.1	6	3	-10						
AMDERMA	34.92	25.3	6	48	-2						
LWIRO	46.42	163.7	8	27	2						
NEW DELHI	49.88	86.2	8	50A	-2						
RESOLUTE	54.25	342.3	9	24	0						
BROKEN HILL	58.27	166.9	9	54	1						
YAKUTSK	62.11	29.5	10	17	-2						
SHILLONG	62.27	80.0	10	16	-5						
BULAWAYO	63.87	167.9	10	31	0						
COLLEGE	71.67	353.2	11	21	1				11	39	PCP

RAPID CITY	78.06	320.5	11	57	0									
HUNGRY HORSE	79.22	329.2	12	4	1									
PENTICTON	80.38	332.9	12	10	1									
WICHITA MTS.	82.78	311.5	12	23	1									15 29 PP
FLAMING GRGE	83.36	322.1	12	24	-1									
EUREKA	87.40	325.5	12	46	1									

JANUARY 21 12.H 51.M 56.S EPICENTRE -17.77-178.88 DEPTH= 560.KM

A=-0.95270 B=-0.01859 C=-0.30335 D=-0.0195 E= 0.9998
G= 0.3033 H= 0.0059 K=-0.9529 HT= 5.2

DEPTH OF FOCUS= 0.083R

SE= 1.84

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
SUVA	2.59	261.2	1	19	5	1	58	-15				
APIA	7.89	61.0	1	50	-7	3	12	-19				
PORT VILA	12.19	268.2	2	40K	0	4	54	4				
NOUMEA	14.50	249.5	3	3K	0	5	42	10				
KOUMAC	16.15	257.4	3	20	0	6	12	11				
ONERAHI	18.90	197.2	3	48	2	6	59	11				
KARAPIRO	20.67	192.6	4	3	1	7	25	8	5	23		
TUAI	21.24	188.6	4	7	-1	7	23	-4				
CHATEAU	21.90	191.7	4	11	-3							
COBB RIVER	24.32	195.5	4	34	-1							
BRISBANE	27.80	244.8	5	4K	-2	9	8	-3				
RIVERVIEW	31.21	233.4	5	35K	0				7	7	8	18
RABAUL	31.38	292.0	5	35	-2						15	4
CHARTERS TS.	33.02	260.3	5	50K	0	10	28	-3				
CANBERRA	33.43	232.1	5	54K	0						6	25
PORT MORESBY	34.00	279.6	6	OK	1	10	47	1			12	7 SCP
MELBOURNE	37.39	230.3	6	27	1							
FORT NELSON	38.03	221.5	6	31K	-1						8	20 PCP
MACQUARIE I.	40.44	199.8	6	52	1							
ADELAIDE	41.32	237.0	6	59	1						8	57 PP
GUAM	47.45	308.4	7	45	-1							
DARWIN	48.74	269.0	7	55	0							
MUNDARING	59.78	243.0	9	12K	-1	16	41	0				
SCOTT BASE	60.53	183.5	9	17	-1							
BYRD STATION	67.46	170.6	10	2	0						11	56
MATUSIRO	67.53	323.6	10	1A	-1	18	9	-6	11	54	22	0 55
TANGERANG	73.39	268.7	10	35	-1							
HONG KONG	76.64	298.9				19	54	-2				
PASADENA	77.46	47.8	10	59	0				12	56		
BOULDER CITY	80.75	47.6	11	18	2				13	17		
EUREKA	81.74	44.1	11	21	0				13	22	29	54 PKKP
TUCSON	81.91	52.5	11	24	2				13	24		
TUCSON TELE.	82.04	52.5	11	25	3				13	25		
GLEN CANYON	83.51	48.0	11	32	2				13	30		
MAWSON	83.84	199.9	11	31K	0							
PENTICTON	84.88	34.4	11	36	-1							
COLLEGE	85.74	12.8	11	39	-2				13	39	12	53 PCP
ALBUQUERQUE	86.36	51.7	11	44	0				13	44		
FLAMING GRGE	86.85	45.3	11	47	1				13	47		
HUNGRY HORSE	87.47	37.2	11	49	0						38	1 PKPPKP
BOZEMAN	87.95	40.5	11	53	2							
BANFF	88.08	34.3	11	50	-2							
WICHITA MTS.	92.27	54.3	12	11	0	22	34	10	14	17	24	56 PS
QUETTA	119.31	295.0	17	48	3							
SODANKYLA	127.77	347.8									20	31 SKP
KIMBERLEY	128.41	206.7									20	20 PP
KIRUNA	128.46	350.8									20	35 SKP
KAJAANI	130.31	345.0	18	6	-1						20	42 SKP
SKALSTUGAN	133.59	353.1									20	52 SKP
BULAWAYO	133.66	216.8	18	15	2						20	55 PP
NURMIJARVI	134.09	344.0	18	13	-1						20	54 SKP
HELSINKI	134.30	343.6									20	56 SKP
UPPSALA	136.31	348.0									21	7 SKP
WINDHOEK	136.97	201.9									21	6 PP
BROKEN HILL	138.13	221.8	18	13	-8						21	8 PP
RACIBORZ	144.97	340.8	18	36	2							
SKALNATE PL.	145.05	337.9	18	35	1							
KSARA	145.06	304.0	18	37	3							
COLLMBERG	145.24	346.9	18	35A	1						21	25 SKP

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HALLE	145.27	348.1	18 36	2			18 45 PKP2
JENA	145.88	348.2	18 37	2			21 25
PRUHONICE	146.10	344.4	18 39	4			20 27
LWIRO	146.24	236.6	18 38	2			19 11
BENSBERG	146.54	353.1	18 40	4			
KASPERSKE H.	147.13	344.9	18 40	3			22 14 PP
STUTTGART	148.38	349.7	18 46	7	20 54		
STRASBOURG	148.80	351.5	18 46	7			
PARIS	149.02	358.2	18 48	8			
LJUBLJANA	149.68	341.3	18 48K	7			18 57 PKP2
TRIESTE	150.28	342.0	18 49	8			18 57 PKP2
ROSELEND	151.83	350.3	18 54	10			
MONACO	153.58	349.7					19 11

JANUARY 21 17.H 53.M 31.S EPICENTRE 42.53 145.02 DEPTH= 101.KM

A=-0.60569 B= 0.42379 C= 0.67346 D= 0.5733 E= 0.8194
G=-0.5518 H= 0.3861 K=-0.7392 HT= -2.6

DEPTH OF FOCUS= 0.011R

SE= 2.93

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KUSIRO	0.64	315.0	1 15K	56				
NEMURO	0.90	26.9	0 20K	0	0 32	-3		
HIROO	1.28	259.5	0 23A	-1	0 39	-4		
OBIHIRO	1.40	286.9	0 23	-3	0 40	-5		
ABASHIRI	1.59	340.3	0 27	-1	0 44	-5		
URAKAWA	1.70	258.0	0 30	0	0 51	-1		
ASAHIGAWA	2.31	303.8	0 36	-2	1 9	4		
TOMAKOMAI	2.54	273.5	0 52	11	1 10	-1		
SAPPORO	2.75	282.6	0 42	-2	1 10	-6		
MURORAN	3.00	267.4	0 51	4	1 17	-5		
HAKODATE	3.25	258.7	0 58	8	1 23	-5		
HATINOHE	3.29	233.9	0 50	-1	1 24	-5		
MORI	3.33	264.1						1 11
AOMORI	3.60	243.2	0 55	0	1 34	-3		
MIYAKO	3.68	219.7	0 55	-1	1 36	-3		
MORIOKA	4.05	227.1	1 0A	-1	1 43	-5		
MIZUSAWA	4.50	222.3	1 6	-1	1 55	-4		
Y.-SAKHLINSK	4.78	340.8	1 8A	-3	1 57	-9		
ISINOMAKI	4.97	215.8	1 13	-1	2 6	-5		
SENDAI	5.29	217.8	1 18	0	2 13	-5		
YAMAGATA	5.56	221.4	1 21	-1	2 23	-2		
HUKUSIMA	5.91	217.7	1 27	0	2 30	-4		
ONAHAMA	6.41	211.0						2 39
SHIRAKAWA	6.54	216.0	1 35	0	2 47	-2		
MITO	7.08	211.3	1 42	-1	2 57	-5		
KAKIOKA	7.32	212.4	1 45	-1	3 8	0		
TUKUBASAN	7.36	212.8	1 44K	-3	3 3	-6		
KUMAGAYA	7.72	216.3	1 51	-1	3 15	-3		
MATUSIRO	7.96	223.6	1 53A	-2	3 22	-2		3 55
TOKYO C.M.O.	7.97	212.6			3 20	-4		3 2
YAKUTSK	21.54	340.2	4 37	-5	8 22	-8		
COLLEGE	42.99	35.3	7 52	1			8 16	
KHEYS	47.88	347.2	8 27	-3				
AMDERMA	48.61	332.6	8 33A	-2				
MOULD BAY	50.47	18.0	8 50	0				
SVERDLOVSK	52.97	316.7	9 7	-1				
RESOLUTE	56.58	16.0	9 34A	-1				
APATITY	58.85	335.3	9 49	-1				
SODANKYLA	60.99	337.1	10 3	-2				
CHARTERS TS.	62.31	178.7	10 15	1				
KIRUNA	62.37	339.3	10 12	-2				
KAJAANI	62.88	334.0	10 18	0				
HUNGRY HORSE	65.92	45.8	10 40	3				
NURMIJARVI	66.40	332.2	10 39K	-2				
HELSINKI	66.54	331.9	10 39	-2				
UPPSALA	69.22	334.6	10 57	-1				
EUREKA	70.31	54.3	11 8	3			11 30	
KARLSKRONA	72.81	333.1	11 21	1				
COLLMBERG	77.67	331.5	11 47	0				12 8
PRUHONICE	78.20	329.9	11 55	5				
KASPERSKE H.	79.26	329.9	11 56	0				

WICHITA MTS.	83.62	47.9	12	21	2						
ROSELEND	84.67	332.1	12	31	7						

JANUARY 22 7.H 26.M 39.S EPICENTRE 52.45 100.15 DEPTH= 0.KM

A=-0.10783 B= 0.60250 C= 0.79080 D= 0.9844 E= 0.1762
G=-0.1393 H= 0.7784 K=-0.6121 HT= -6.3

SE= 1.33

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
IRKUTSK	2.57	92.3	0	45K	2						1	18	
KABANSK	4.02	93.1	1	5	1	1	54	2					
KYAKHTA	4.46	115.3	1	11	1	2	19	15					
SEMIPALATNSK	12.58	268.5	3	5	2						3	47	
PAOTOW	13.66	146.4	3	15	-2	5	51	0					
PEKING	16.60	132.1	3	56	1	7	5	5					
LANCHOW	16.60	169.5	3	53A	-2								
ALMATA	18.00	248.6	4	9	-4						9	24	
YAKUTSK	18.49	47.2	4	16	-3	7	26	-17			4	30	PP
CHANGCHUN	18.80	107.3	4	26A	3	7	59	9					
SIAN	19.25	157.5	4	27A	-1	8	1	1					
FRUNSE	19.61	250.8	4	32	0						8	21	
NARYN	19.73	245.7	4	35	1	8	20	9					
CHENGTU	21.95	171.1	4	55	-2	8	56	1					
ANDIJAN	22.24	249.3	5	0A	0	9	10	10					
TIKSI	23.05	22.9	5	7	-1	9	17	2			11	57	
SVERDLOVSK	23.05	296.7	5	8	0	9	21	6					
VLADIVOSTOK	23.12	101.1									12	45	
TASHKENT	23.67	254.3	5	15	1						5	43	PCP
LHASA	23.76	200.0	5	16A	2	9	36	9					
NANKING	24.47	139.1	5	22	1								
KHOROG	24.96	244.5	5	27	1						10	3	
KUNMING	27.36	174.9	5	49	1								
CHATRA	27.38	205.9	5	49A	0								
DEHRA DUN	27.43	224.9	5	50	1						10	50	
WARSAK DAM	27.55	239.3	5	51	1								
SHILLONG	27.56	196.3	5	49A	-1								
NEW DELHI	29.30	224.5	6	3K	-3								
MATUSIRO	31.03	105.6	7	3	42	11	38	12					
KHEYS	31.29	347.8	6	24	1						7	23	PP
ASHKABAD	32.33	260.2	6	31	-2						16	54	SCS
KIZYL-ARVAT	32.80	263.9									15	38	
QUETTA	32.96	240.6	6	38A	0	11	49	-7	6	52	7	57	PP
PETROPAVLOVK	34.58	65.2	6	51	-1								
APATITY	34.61	321.6	6	52K	0								
MOSCOW	35.72	300.7	7	1A	-1								
MAKHACH-KALA	35.94	276.2									17	28	SCS
SODANKYLA	37.21	322.2	7	13	-1								
KAJAANI	37.67	316.7	7	18	0								
PULKOVO	37.92	309.4	7	20	0								
TEHERAN	37.99	263.6	7	23	2	13	32	18					
TIFLIS	38.29	276.4	7	25	1						8	52	PP
KIRUNA	39.37	323.9	7	32	-1								
HELSINKI	40.26	311.6	7	41	1								
NURMIJARVI	40.26	312.2	7	40K	0								
UPPSALA	43.71	313.6	8	8A	0								
MOULD BAY	49.11	11.6	8	50A	-1								
COLLMBERG	50.61	305.8	9	2A	0						10	32	PCP
KASPERSKE H.	51.66	303.3	9	11	1						9	34	
COLLEGE	51.90	30.2	9	12	0						9	46	
RESOLUTE	52.76	5.0	9	17	-2								
DARWIN	69.77	147.9	11	13	-1								
BANFF	72.46	22.7	11	29	-1								
PENTICTON	73.13	25.9	11	34K	0								
HUNGRY HORSE	75.44	22.8	11	47	0								
LWIRO	80.52	253.7	12	15A	0								
RAPID CITY	81.77	16.8	12	22	0								
EUREKA	83.22	27.3	12	30	1								
FLAMING GRGE	83.54	22.1	12	31	0								
LARAMIE	83.99	19.2	12	33	0								
CHINA LAKE	86.13	29.9	12	44	0								
FAYETTEVILLE	90.95	11.6	13	6K	-1						13	39	*SP
WICHITA MTS.	91.67	15.4	13	11	1						13	32	
LA PAZ	142.95	341.1	19	37	2								

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JANUARY 23 15.H 59.M 34.S EPICENTRE 52.87-169.02 DEPTH= 123.KM

A=-0.59514 B=-0.11550 C= 0.79528 D=-0.1905 E= 0.9817
G=-0.7807 H=-0.1515 K=-0.6062 HT= -6.5

DEPTH OF FOCUS= 0.014R

SE= 2.56

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	16.16	33.7	3	40	-1						4	19	PP
MOULD BAY	29.99	21.4	5	59	0								
PENTICTON	30.73	76.4	6	5	0								
BANFF	32.32	71.1	6	18	-1								
MINERAL	34.27	92.1	6	39	3								
HUNGRY HORSE	34.46	74.9	6	37	0				6	49	9	9	PCP
RESOLUTE	35.83	25.9	6	49	0								
RENO	35.85	91.7	7	10	21								
LICK	36.15	96.1	6	58	6								
BOZEMAN	37.58	77.1	7	4	0								
EUREKA	38.22	88.7	7	9	0	13	26	33	7	28	9	21	PCP
SALT LAKE C.	39.92	84.0	7	21	-2								
MATUSIRO	39.93	267.5	7	17	-6	13	26	7			8	48	PP
ALERT	40.05	11.3	7	26A	2								
BOULDER CITY	41.16	92.0	7	47	14				8	4			
FLAMING GRGE	41.30	82.1	7	33	-1								
THULE	41.74	20.4	7	39	1								
GLEN CANYON	42.47	88.3	7	48	4								
LARAMIE	43.35	79.0	7	51	0								
TUCSON	46.12	92.6	8	12	-1				8	31	8	44	*SP
TUCSON TELE.	46.13	92.5	8	12	-1				8	31			
ALBUQUERQUE	46.92	86.5	8	18	-1				8	33	9	50	PCP
MANHATTEN	50.00	75.2	8	41A	-2	16	38	55	8	54			
ULAN-BATOR	50.91	300.5	9	17	27								
WICHITA MTS.	51.82	80.9	8	55	-2	16	22	14			10	50	PP
FAYETTEVILLE	53.49	76.6	9	6K	-3						9	50	
ROLLA	53.60	73.4	9	6A	-4				9	19			
ST. LOUIS 1	54.06	71.6	9	10	-4				9	23			
C. GIRARDEAU	55.37	72.3	9	20	-3				9	33			
LITTLE ROCK	55.48	76.4	9	21	-3				9	32			
BLOOMINGTON	55.82	68.7	9	23A	-3	16	52	-10	9	44			
ESEN BULAK	57.35	305.0	9	36	-1								
SHAWINIGAN	58.00	54.0	9	41K	-1								
BREBEUF	58.32	55.4	9	42	-2				9	54			
APATITY	58.73	350.1	9	46K	-1								
MORGANTOWN	59.15	64.1	9	49K	-1								
KIRUNA	59.42	355.9	9	51	0								
SODANKYLA	59.51	353.0	9	52	0								
KAJAANI	62.67	351.8	10	14	1								
NURMIJARVI	66.44	352.7	10	38	0								
HELSINKI	66.76	352.4	10	39	-1								
UPPSALA	67.51	356.4	10	44	-1						11	9	PCP
SHILLONG	75.25	292.8	11	28A	-3								
HALLE	76.00	359.4	11	37	2						12	45	
COLLMBERG	76.19	358.7	11	36A	0						11	47	PCP
BENSBERG	76.50	2.5	11	38	0								
JENA	76.58	359.6	11	39	1								
CHATRA	76.84	297.0	11	38A	-2								
RACIBORZ	77.25	355.2	11	38	-4								
CHITTAGONG	77.79	290.8	11	43A	-2						11	54	PCP
SKALNATE PL.	78.03	353.8	11	51	5						12	10	PCP
FOLINIERE	78.27	7.7	11	48	1								
KASPERSKE H.	78.36	358.3	11	49	1								
WARSAK DAM	78.75	312.5	11	49	-1								
STRASBOURG	78.89	2.2	11	49	-2								
BRATISLAVA	79.21	355.8	11	53	1								
LAHORE	79.52	309.1	11	53A	-1								
GARCHY	80.00	5.5	11	59	2						12	4	PCP
NEW DELHI	80.59	305.3	11	58A	-2								
ROSELEND	81.98	2.4	12	8	1								
CHARTERS TS.	82.34	221.9	12	16	7								
SAN JUAN	83.06	68.8	12	13	0								
BAGNERES	83.99	8.0	12	18	1								
QUETTA	84.03	313.8	12	18A	0	22	42	12			12	32	*SP
TEHERAN	85.01	328.0	12	25	3						36	50	
TOLEDO	86.71	11.5	12	33	2								
MALAGA	89.78	12.3	12	47A	2								
POONA	90.64	302.4	12	48	-1								
KSARA	90.99	339.5	13	0	9								

LWIRO	127.43	337.4	18	52K	2									
SOUTH POLE	142.68	180.0	19	10	-8									
BULAWAYO	144.60	330.6	19	22A	0									
WINDHOEK	149.39	348.8	19	32	2									

JANUARY 23 17.H 31.M 37.S EPICENTRE 44.16 12.87 DEPTH= 42.KM

A= 0.70168 B= 0.16037 C= 0.69420 D= 0.2228 E=-0.9749
G= 0.6768 H= 0.1547 K=-0.7198 HT= -3.2

DEPTH OF FOCUS= 0.001R

SE= 3.28

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BOLOGNA	1.16	287.7									0	21	PG
FLORENCE X.	1.23	252.7	0	31	10	1	1	24					
PRATO	1.31	258.4									0	23	PG
PADOVA	1.44	330.6	0	23A	-1						0	48	SG
TRIESTE	1.62	22.3	0	27	1						0	48	SG
LJUBLJANA	2.22	31.0	0	36K	1	1	3	1			1	11	SG
ROME	2.27	187.4	0	35	-1	1	1	-2			1	19	SG
ZAGREB	2.76	51.9	0	45	2								
PAVIA	2.83	292.4	1	3A	19	1	39	22					
CHUR	3.57	320.1	0	55	1						1	56	
MONACO	3.95	265.7									1	15	PG
RAVENSBURG	4.27	329.1	1	4	0						1	22	PG
ROSELEND	4.69	291.2	1	9	-1								
VIENNA-H.	4.76	29.4	1	11A	0						2	33	SG
EBINGEN	4.85	327.4	1	11	-1								
TARANTO	4.91	137.1	1	18	5								
KALOCSA	4.91	59.0	1	37	24	2	34	25			2	19	
TITOGRAD	4.97	108.1	1	14	0	2	18	7					
BRATISLAVA	4.97	34.7	1	12	-2						1	39	PG
KASPERSKE H.	5.00	5.3	1	12	-2	2	10	-2			1	34	PG
BASLE	5.01	314.2	1	14K	0						2	31	
NEUCHATEL	5.04	306.4	1	13	-2								
CUGLIERI	5.10	220.3	1	13	-3						1	53	
TUBINGEN	5.11	330.3	1	14	-2	2	13	-1			3	0	
STUTTGART	5.24	333.0	1	16	-2	2	18	0			2	55	SG
HURBANOVO	5.25	43.1									1	40	PG
BUDAPEST	5.43	50.1	1	17	-3						3	6	
BELGRADE	5.46	80.4	1	32K	11						1	45	P*
SZEGED	5.54	65.3				1	57	-28			2	28	SG
STRASBOURG	5.66	323.2	1	22A	-1	2	22	-6			2	56	SG
BESANCON	5.73	305.1	1	23	-1						2	55	SG
KARLSRUHE	5.75	329.2	1	29	4						3	10	SG
PRUHONICE	5.94	10.5	1	26A	-1	3	8	33					
HEIDELBERG	5.97	332.9	1	26	-2						4	17	SG
PRAGUE	6.01	9.6	1	26	-2	2	46	9			2	57	PG
TIMISOARA	6.13	72.0									2	6	
MESSINA	6.28	160.4	1	27	-5								
SKOPJE	6.64	106.2	1	15	-22								
FELDBERG	6.77	335.2	1	13	-26	2	51	-5					
JENA	6.83	353.1	1	37	-3	2	53	-4			3	50	SG
RACIBORZ	6.95	29.6	1	44	2	3	9	9			1	54	PP
CLERMONT-FD.	7.11	286.5	1	49	5						3	54	SG
SKALNATE PL.	7.14	42.7									1	59	
COLLMBERG	7.15	0.6	1	42A	-2	3	4	-1			3	58	SG
HALLE	7.37	355.5	1	45	-2						4	8	SG
GARCHY	7.54	297.9	1	47	-3						3	9	
KRAKOW	7.61	36.7	1	55	4	3	39	22			2	2	PP
SOFIA	7.75	97.2	1	52	-1						2	18	
BENSBERG	7.82	332.5	1	53A	-1	3	19	-3			2	30	PG
DOURBES	8.19	319.4	2	5	6	4	25	54					
MUNSTER	8.57	337.7	2	4	0								
BAGNERES	9.30	267.7	2	13	-1								
BUCHAREST	9.49	83.8									4	29	
LWOW	9.49	49.5	2	33	16						5	47	
ATHENS	10.26	123.3	2	23	-4						4	19	
FOLINIERE	10.30	301.3	2	23	-5								
ISTANBUL UN.	12.28	99.1	2	52	-3						6	53	
UPPSALA	15.98	8.7	3	42	-1								
NURMIJARVI	17.84	19.3	4	6	0								
SKALSTUGAN	19.46	359.2	4	25	-1								

MOSCOW	19.57	45.0			$ 21	54						
KSARA	20.58	112.3			4 38	1						
KAJAANI	21.66	17.7			4 49	1						
KIRUNA	24.07	7.0			5 11	-1						
SODANKYLA	24.40	12.9			5 17	2						
APATITY	25.87	18.0			5 29	0						
SVERDLOVSK	32.23	49.7			6 15	-11						
AMDERMA	35.34	26.9			6 52A	-1						
KHEYS	39.82	10.5			7 31	1						
THULE	45.52	340.9			8 16	-1						
SHAWINIGAN	57.31	305.1			9 45K	-1						
COLLEGE	70.27	351.4			11 11	1						
FAYETTEVILLE	76.35	307.2			11 46K	0						
PENTICTON	78.07	330.5			11 57	1						
WICHITA MTS.	79.83	308.8			12 6	1					12	30
FLAMING GRGE	80.68	319.5			12 11	1						
ALBUQUERQUE	83.90	313.9			12 29	3						
EUREKA	84.82	322.8			12 34	3						
WILKES	132.36	147.2									41	11 SS
CANBERRA	145.47	90.5			19 35A	2			19	52		

JANUARY 24 4.H 46.M 31.S EPICENTRE -15.65 167.46 DEPTH= 145.KM

A=-0.94043 B= 0.20917 C=-0.26803 D= 0.2171 E= 0.9761
G= 0.2616 H=-0.0582 K=-0.9634 HT= 5.6

DEPTH OF FOCUS= 0.018R

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT VILA	2.23	158.4	0	35K	-3	0	59	-8					
KOUMAC	5.75	211.3	1	22K	-2	2	27	-2					
NOUMEA	6.69	188.1	1	36	-1	2	48	-4					
SUVA	10.79	104.9	2	38	7								
BRISBANE	17.95	227.0	4	4	3	7	22	8					
RABAUL	18.85	305.5	4	11	0								
APIA	20.16	87.5	4	25	0								
CHARTERS TS.	20.65	254.5	4	31	1	8	17	10					
PORT MORESBY	20.77	285.0	4	31A	0	8	22	13			5	12	PP
ONERAHI	20.97	164.1	4	35	2								
KARAPIRO	23.32	163.7	4	57A	1								
RIVERVIEW	23.33	216.2	4	58K	2	9	1	7					
TUAI	24.59	161.6	5	7	-1								
CANBERRA	25.63	216.8	5	18	0								
WELLINGTON	26.31	167.5	5	21	-3								
MOORLANDS	31.88	209.1	6	14K	1						9	0	PCP
TARRALEAH	32.11	210.0	6	15	0								
ADELAIDE	32.15	227.9	6	17	1						9	1	PCP
FORT NELSON	32.18	208.3	6	14K	-2						9	0	PCP
MATUSIRO	58.80	332.6	9	43A	-2						10	35	
BYRD STATION	71.76	169.9	11	6	-2						11	40	
PEKING	73.09	321.2	11	16	0								
SOUTH POLE	74.45	180.0	11	23	-1								
SIAN	74.55	312.9	11	19	-5								
KUNMING	74.94	301.9	11	28A	1	20	58	7					
CHENGTU	76.40	307.5	11	35	0	21	11	4					
PAOTOW	77.21	318.8	11	42	3								
LANCHOW	79.06	312.3	11	51	2								
CHITTAGONG	83.12	295.4	12	12	1				12	40	19	19	
SHILLONG	84.18	298.4	12	16A	0								
LHASA	86.27	302.0	12	28	2	22	53	6					
WOODY	86.29	51.5	12	25	-1				12	57			
COLLEGE	87.14	17.5	12	28	-2						12	39	
BOULDER CITY	89.45	52.4	12	41	0								
EUREKA	89.80	48.8	12	43	0				13	15	16	15	PP
PENTICTON	91.00	38.7	12	47	-2								
FLAMING GRGE	95.04	49.0	13	5	-2								
ALBUQUERQUE	95.67	55.4	13	9	-1								
WICHITA MTS.	101.92	57.1	13	47	9						29	44	PKKP
SHAWINIGAN	121.61	44.7	18	36K	0								
SODANKYLA	122.42	343.2	18	38K	0								
KIRUNA	123.69	345.6	18	40A	0								
KAJAANI	124.33	339.9	18	42	0								
BULAWAYO	126.15	230.0	18	47A	2								
NURMIJARVI	127.78	337.8	18	50K	2								

HELSINKI	127.89	337.3	18	49	1					
SAN JUAN	128.84	78.8	18	50	0					
SKALSTUGAN	129.12	346.0	18	50	-1					
UPPSALA	130.68	340.5	18	53	-1					
LWIRO	135.43	250.1	19	6K	3			22	28	
COLLMBERG	138.97	335.6	19	10K	1			22	35	SKP
VIENNA-H.	139.73	330.0	19	12	1					
KASPERSKE H.	140.38	333.0	19	6	-6			22	39	
BENSBERG	141.37	340.0	19	15	1					
LJUBLJANA	142.17	328.9	19	17K	2					
STUTTGART	142.44	336.2	19	14	-2			22	19	
STRASBOURG	143.17	337.4	19	15	-2					
PARIS	144.71	342.7	19	21	2					
NEUCHATEL	144.79	336.7	19	20	0					
BESANCON	144.94	337.9	19	21	1			19	44	
FOLINIERE	145.52	345.9	19	22	1					
ROSELEND	145.76	334.5	19	24A	3					
CLERMONT-FD.	147.22	339.6	19	27	3					
BAGNERES	150.59	340.9	19	35	6					

JANUARY 25 1.H 50.M 5.S EPICENTRE -10.69 161.79 DEPTH= 0.KM

A=-0.93365 B= 0.30709 C=-0.18436 D= 0.3124 E= 0.9499
G= 0.1751 H=-0.0576 K=-0.9829 HT= 6.4

SE= 3.25

	ELTA DEG.	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	9.43	138.6	2	17A	-3	3	55	-13				
NOUMEA	12.37	159.5	3	2A	2	5	18	-2				
PORT MORESBY	14.48	273.8	3	23A	-5						6	21
CHARTERS TS.	17.64	236.2	4	12	3	7	33	9				
SUVA	17.73	116.6	4	21	11	7	30	4				
BRISBANE	18.65	205.8	4	22	1	8	0	13				
RIVERVIEW	25.01	201.3	5	26A	-1	9	45	-4			10	10
AFIAMALU	26.02	99.8	5	33A	-3	11	7	61				
CANBERRA	27.14	203.4	5	47K	0	10	15	-9			6	11
GUAM	29.36	324.4	6	6	-1							
KARAPIRO	29.80	157.8	6	10	-1				6	59		
CHATEAU	30.92	158.9	6	20	0							
MELBOURNE	30.96	206.5	6	21	0	11	26	1				
TUAI	31.17	156.4	6	21	-2							
ADELAIDE	32.03	217.4	6	31A	1							
MUNDARING	47.02	236.1	8	35K	0							
TUKUBASAN	50.95	337.4	9	3K	-2				9	27	9	33 *SP
ABUYAMA	51.68	332.4	9	8A	-3							
MATUSIRO	51.96	335.9	9	10A	-3	16	25	-11			20	14 SS
ZO-SE	56.96	318.2	9	54A	5							
HONG KONG	57.05	305.4				16	48	-56			21	33 SS
NANKING	59.15	317.6	10	9	4							
VLADIVOSTOK	60.11	335.1	10	9	-2							
PETROPAVLOVK	63.51	357.9	10	39	5							
PEKING	65.81	323.0	10	53	4							
CHENGTU	69.02	308.7	11	9	0							
PAOTOW	69.89	320.4	11	14	-1							
MAGADAN	70.56	354.1	11	22	3							
LANCHOW	71.67	313.6	11	24	-1							
ULAN-BATOR	75.89	325.4	11	48	-2	21	32	0				
CHITTAGONG	76.00	296.3	11	45	-6							
YAKUTSK	76.69	345.1	11	53	-1							
SHILLONG	76.96	299.5	11	55	-1							
ESEN BULAK	81.46	320.4	12	26	6							
COLLEGE	84.21	19.3	12	32	-2						13	47
TIKSI	85.02	350.0	12	38A	0							
BERKELEY	85.63	50.4	12	41	-1							
LICK	85.95	51.0	12	43A	0							
LLANADA	86.28	51.8	12	44	-1							
SHASTA	86.37	47.6	12	45	0							
PASADENA	87.82	54.8	12	52	0	23	47	13			29	7 SS
PENTICTON	90.70	39.9	13	4	-2						21	15
EUREKA	90.80	50.1	13	6	0							
BOULDER CITY	90.91	53.7	13	6	-1							
TUCSON	93.43	58.0	13	18	0							
GLEN CANYON	93.67	53.2	13	28	9							
BANFF	93.68	38.7	13	17	-3							
HUNGRY HORSE	94.06	41.7	13	27	6							

SALT LAKE C.	94.16	49.5	13 22	0							
BOZEMAN	95.58	44.7	13 29	1							
FLAMING GRGE	96.02	49.6	13 29	-1							
WARSAK DAM	96.09	303.3	13 34	3							
QUETTA	99.44	299.0	13 49	3							
RAPID CITY	100.93	47.0	13 59	7							
KHEYS	102.72	350.6								18 15	PP
AMDERMA	103.47	339.4	14 6	2							
WICHITA MTS.	103.87	56.8	14 3	-3	25 15	30				18 24	PP
KIRUNA	117.51	344.5	19 1	13							
MOSCOW	117.66	328.1	19 6	18							
KAJAANI	117.78	339.1	18 59	11							
NURMIJARVI	121.11	336.9	19 7	12							
BREBEUF	121.56	42.8	19 4	8							
SHAWINIGAN	121.78	41.4	18 55A	-1							
LA PAZ	123.71	118.1	19 3	3							
BULAWAYO	124.67	236.4	19 1	-1							
LWIRO	131.49	257.4					19 27				
COLLMBERG	132.16	334.0	19 22	6						21 38	PP
SAN JUAN	133.11	74.9	19 28	10							
KASPERSKE H.	133.45	331.5	19 26	8						21 50	
ST. KITTS	136.38	76.1								24 58	
ROME	138.91	324.6								29 18	
ALMERIA	150.33	333.9	19 53	5						20 18	PKP2
GRANADA	150.52	335.8	20 24K	36							
MALAGA	151.24	336.5	19 56K	7						23 39	PP

JANUARY 25 7.H 26.M 6.S EPICENTRE -15.84 -69.41 DEPTH= 218.KM

A= 0.33845 B=-0.90103 C=-0.27130 D=-0.9361 E=-0.3516
G=-0.0954 H= 0.2540 K=-0.9625 HT= 5.6

DEPTH OF FOCUS= 0.029R

SE= 1.88

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
LA PAZ	1.39	118.1	0 34	-1	0 59	-3			
HUANCAYO	6.87	302.5	1 38	-1					
ANTOFAGASTA	7.87	186.8	1 52	0				2 28	
BOGOTA	20.85	346.9	4 29	4	8 11	11		8 48	SS
CHINCHINA	21.57	343.0	4 34A	2	8 19	6			
CARACAS	26.29	5.5	5 21A	4	9 41	10			
TRINIDAD	27.49	17.3	5 31K	3					
GRENADA	28.74	15.8	5 39A	0					
ST. VINCENT	29.93	16.1	5 49A	0					
DOMINICA	31.94	14.7	6 6	-1					
ANTIGUA	33.61	13.2	6 18	-3					
ST. KITTS	33.62	11.6	6 22	1					
SAN JUAN	34.16	5.6	6 25	-1	11 32	-3			
LITTLE ROCK	54.86	336.9	9 7	-2					
DALLAS	55.04	331.8	9 11	0					
C. GIRARDEAU	56.17	340.7	9 15A	-4					
FAYETTEVILLE	56.72	336.0	9 22A	-1				10 10	PCP
BLOOMINGTON	57.03	344.2	9 23A	-2			9 26		
WICHITA MTS.	57.42	331.5	9 27A	-1	17 7	1		11 33	PP
ROLLA	57.48	339.0	9 24A	-4			9 44		
ST. LOUIS 1	57.60	340.8	9 27	-2					
FLORISSANT	57.79	340.7	9 30	0					
MANHATTEN	60.36	335.9	9 46A	-2	17 7	-36	10 4		
HALIFAX	60.40	4.8	9 46K	-2					
BREBEUF	61.17	356.6	9 52	-1			10 45		
DUBUQUE	61.28	342.2	9 53A	-1			10 0		
ALBUQUERQUE	61.55	325.7	9 56	0			10 49		
TUCSON	62.13	320.6	10 1	1					
SHAWINIGAN	62.17	357.4	9 59	-1					
LARAMIE	65.99	330.9	10 25	0					
RAPID CITY	67.14	334.2	10 32	0	19 11	4	11 10		
FLAMING GRGE	67.56	328.2	10 35	1					
WOODY	69.41	318.6	10 47	1			11 41		
EUREKA	70.10	323.3	10 51	1					
BOZEMAN	71.88	330.6	10 57	-4					
LICK	72.18	318.6	11 5K	3					
BUTTE	72.86	330.1	11 7	1					
BERKELEY	72.89	318.7	11 10	3					
MINERAL	73.98	321.1	11 13A	0					

SOUTH POLE	74.26	180.0	12	12	58						
HUNGRY HORSE	75.23	331.0	11	20	0						
BANFF	77.93	332.3	11	33	-2						
PENTICTON	78.58	329.1	11	40A	2						
VICTORIA	80.01	326.9	11	50	4						
MALAGA	80.49	47.6	11	50K	1			12	40		
WINDHOEK	80.93	110.9	11	51A	0						
TOLEDO	82.21	44.9	12	0	2			12	49		
KIMBERLEY	86.10	118.6	12	17K	0						
BAGNERES	86.46	43.5	12	18	-1						
FOLINIERE	88.54	38.1	12	29	0						
MAWSON	89.87	163.5	12	33	-2						
RESOLUTE	91.75	353.4	12	44	0					13	39
BULAWAYO	91.91	111.4	12	44A	0						
ROSELEND	92.35	43.3	12	44	-2					13	38
LWIRO	97.28	94.4	13	14	5			14	5		
COLLMBERG	97.55	38.9	13	10	0			14	5		
COLLEGE	99.37	334.9	13	17	-1			14	12	16	15 PP
QUETTA	137.64	62.5	19	1	3			19	56	21	46 PP
NEW DELHI	146.71	61.9	19	19A	5						
GUAM	146.89	270.4	19	17	3			20	17		
MATUSIRO	147.95	315.3	19	20	4				20	20	

JANUARY 26 5.H 22.M 53.S EPICENTRE 32.26 138.18 DEPTH= 360.KM

A=-0.63137 B= 0.56493 C= 0.53125 D= 0.6668 E= 0.7452
G=-0.3959 H= 0.3542 K=-0.8472 HT= 1.1

DEPTH OF FOCUS= 0.052R

SE= 2.46

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HATIDYOZIMA	1.59	58.0	0	47	-3	1	22	-7				
OMAESAKI	2.33	0.8	0	54	-1	1	37	-1				
SIOMISAKI	2.35	300.9	0	53	-2	1	35	-3				
OWASE	2.45	317.9	0	53	-3	1	37	-3				
OSIMA	2.69	21.6	0	59	1	1	38	-5				
SHIZUOKA	2.71	3.9	0	57	-1	1	41	-2				
AJIRO	2.88	15.2	0	56	-3	1	43	-3				
MISIMA	2.92	12.5	0	56	-4	1	41	-6				
KAMEYAMA	2.95	331.5	1	1	1	1	46	-1				
MERA	2.99	27.0	0	57	-3							
NAGOYA	3.07	341.2	1	0	-1	1	48	-1				
NARA	3.11	321.5	1	0A	-1							
WAKAYAMA	3.19	308.7	1	1A	-1	1	26	-25				
OSAKA	3.25	317.8	1	2	-1	1	48	-4				
HUNATU	3.26	8.5	1	1	-2	1	50	-2				
GIHU	3.34	339.8	1	4	1	1	53	-1				
YOKOHAMA	3.39	20.8	1	2	-2	1	47	-7				
ABUYAMA	3.39	320.7	1	3K	-1							
HIKONE	3.40	332.3	1	2A	-2	1	52	-3				
KOHU	3.41	5.2	1	3	-1	1	53	-2				
KYOTO	3.42	324.0	1	3A	-1	1	53	-2				
SUMOTO	3.43	308.0	1	4A	0	1	54	-1				
KOBE	3.48	314.7	1	5A	0	1	55	-1				
MUROTO	3.51	287.3	1	24	19	2	16	20				
TOKYO C.M.O.	3.65	20.5	1	3	-3	1	52	-7				
HONGO	3.68	20.6	1	13	6						1	54
TITIBU	3.78	11.2	1	7	-1	1	57	-4				
TSURUGA	3.80	333.2	1	8	0	2	1	0				
HIMEJI	3.87	306.2	1	8	-1	2	2	-1				
MAIZURU	3.95	324.8	1	10	1	2	4	0				
TAKAYAMA	3.95	349.0	1	7	-2							
MATUMOTO	3.98	357.6	1	9	-1	2	4	0				
KUMAGAYA	4.00	14.1	1	7K	-3	2	0	-5				
TAKAMATU	4.02	301.8	1	11	1	2	5	0				
OIWAKE	4.07	4.2	1	10	-1	2	6	0				
TYOSI	4.10	32.0	1	1	-10	2	2	-5				
HUKUI	4.11	337.4	1	12	1	2	9	2				
KOTI	4.11	289.4	1	10A	-1	2	7	0				
MAEBASI	4.19	9.9	1	9	-3	2	7	-1				
TUKUBASAN	4.25	21.4	1	6	-6	2	1	-9				
MATUSIRO	4.27	0.3	1	10K	-3	2	5	-5				
KAKIOKA	4.29	22.2	0	56	-17	2	3	-7				

TOYOOKA	4.29	320.3	-1	13	0	2	10	0				
NAGANO	4.40	0.2	1	14K	0	2	11	-1				
SIMIDU	4.43	278.1	1	14	0							
KANAZAWA	4.44	343.9				2	15	2				
UTUNOMIYA	4.50	17.6	1	12	-3	2	7	-7				
TOYAMA	4.50	349.9	1	14	-1	2	0	-14				
MITO	4.52	24.2	1	14	-1	2	8	-7				
TOTTORI	4.64	315.3	1	16	-1	2	16	-1				
MATUYAMA	4.80	290.6	1	19	1	2	22	2				
TAKADA	4.82	0.7	1	17	-2	2	16	-4				
YONAGO	5.11	309.5	1	23	1	2	27	1				
SHIRAKAWA	5.13	18.6	1	20	-2	2	19	-7				
ONAHAMA	5.18	24.9	1	30	8	2	21	-6				
WAZIMA	5.21	348.7	1	23	0	2	28	0				
HIROSIMA	5.25	295.1	1	23	0	2	28	-1				
MATSUE	5.31	308.2	1	26	2							
OOITA	5.61	281.6	1	31	4	2	40	4				
SAIGO	5.62	315.7	1	27	0	2	39	3				
NIIGATA	5.69	7.0				2	36	-1			2	36
AIKAWA	5.74	0.6	1	27K	-2							
HUKUSIMA	5.79	18.3	1	26	-3	2	31	-8				
YAMAGATA	6.23	16.0	1	31	-3	2	43	-5				
SIMONOSEKI	6.31	287.4	1	36	1							
KUMAMOTO	6.34	277.0	1	36	1	2	55	4				
SENDAI	6.39	19.6	1	35	-1	2	45	-7				
KAGOSIMA	6.52	265.9	1	49	11	3	1	6				
ISINOMAKI	6.67	21.8	1	36	-3	2	50	-7				
HUKUOKA	6.69	283.4	1	41K	1	3	1	3				
SAGA	6.71	280.5	1	37	-3	3	38	40				
YAKUSIMA	6.81	256.6	1	28	-13							
NAGASAKI	7.03	276.0	1	43A	0	3	9	4				
MIZUSAWA	7.26	18.5	1	45	-1	3	3	-7				
AKITA	7.60	11.3				3	17	0				
MORIOKA	7.81	17.2	1	50	-3	3	15	-6				
MIYAKO	7.98	21.6				3	16	-9				
AOMORI	8.79	13.0				3	55	12				
HAKODATE	9.75	11.5	2	14	-2	4	2	-1				
MORI	10.00	10.3	2	20	1							
MURORAN	10.28	11.7	2	21	-1							
URAKAWA	10.53	19.1	2	28	3	4	16	-4				
SUTTSU	10.64	8.2									4	22
HIROO	10.80	20.8									4	21
SAPPORO	11.07	12.2	2	31	0	4	26	-6				
OBIHIRO	11.35	19.1	2	35	0	4	36	-2				
KUSIRO	11.77	22.9	2	35	-5	4	41	-6				
VLADIVOSTOK	11.92	337.2	2	41K	0	4	47	-3				
NEMURO	12.49	25.8									5	1
ZO-SE	14.52	269.9	3	9	-2	5	45	0				
Y.-SAKHLINSK	15.14	12.0	3	17	-1	6	1	4				
NANKING	16.43	274.5	3	30K	-1	6	25	3				
UGLEGORSK	17.05	8.8	3	38K	0							
PEKING	19.36	299.8	4	0K	-1	7	21	5			5	32 *SP
HONG KONG	23.49	251.0				8	31	5			6	21 *SP
PAOTOW	24.05	298.1	4	46K	1	8	39	4	5	47		
SIAN	24.51	282.6	4	49K	0	8	47	5	5	52	6	31 *SP
PETROPAVLOVK	25.47	29.4	4	58	0							
ULAN-BATOR	28.34	312.6	5	23	-1	9	44	1				
MAGADAN	28.57	13.5	5	7	-19	9	51	4				
LANCHOW	28.59	287.1	5	26	0	9	47	0				
CHENGTU	29.12	276.0	5	28K	-3	9	53	-3	6	36	7	15 *SP
YAKUTSK	30.27	352.1	5	45K	5	10	12	-1				
IRKUTSK	31.63	319.2	5	53K	1							
KUNMING	31.79	266.2				10	38	1				
ESEN BULAK	34.95	306.2	6	21	1	11	31	5				
TIKSI	39.74	355.4	7	1K	1	12	37	0				
LHASA	40.26	279.1	7	6K	2	12	48	3			16	33 SCS
SHILLONG	40.83	272.8	7	9K	0							
CHITTAGONG	42.08	268.4	7	20K	1	13	12	1			8	55 PP
CHATPA	44.37	276.7	7	39A	2							
ALMATA	48.65	301.5	8	11	1							
NEW DELHI	52.10	282.9	8	37K	1	15	33	2			9	53
ANDIJAN	52.47	299.1	8	40	1							
CHARTERS TS.	52.63	170.4	8	39	-1							
NAMANGAN	52.93	299.5	8	43	1							
LAHORE	53.46	287.5	8	37	-9							
COLLEGE	54.54	30.3	8	54	0							
WARSAK DAM	54.91	291.2	8	56	0	16	12	4				
AMDERMA	55.47	335.8	9	0A	0							

SAMARKAND	56.73	299.1	9 9K	0						
KHEYS	56.78	348.9	9 10	1	16	35	2			
SVERDLOVSK	57.03	320.2	9 12	1						
PORT VILA	57.49	145.4	9 15	1						
QUETTA	59.88	288.6	9 31	0	17	16	3			
NOUMEA	60.62	149.8	9 36K	1						
BRISBANE	60.93	165.1	9 39	1					19	1
MOULD BAY	61.84	15.4	9 46	2						
ALERT	65.03	2.9	10 4A	0						
APATITY	65.94	336.0	10 10K	0	18	32	5		10	37 PCP
APIA	66.25	125.6	10 14A	2						
ADELAIDE	66.88	179.5	10 16A	0						
MUNDARING	67.18	200.2	10 17	-1						
RESOLUTE	67.86	13.3	10 22	0						
CANBERRA	67.99	170.5	10 23A	0						
SODANKYLA	68.32	337.2	10 26A	1	18	55	-1		12	51 PP
MOSCOW	69.49	323.6	10 32	0	19	10	1			
TEHERAN	69.66	300.0	10 35	2						
KAJAANI	69.70	334.0	10 33	0				11 47	13	1 PP
KIRUNA	70.01	339.1	10 35A	0					13	15 PP
THULE	70.31	6.4	10 44	7						
ALBERNI	70.50	43.6	10 40	2						
TIFLIS	71.65	308.1	10 46	1					19	37
VICTORIA	71.67	43.9	10 46A	1						
NURMIJARVI	72.88	331.7	10 52	0				12 12	13	39 PP
HELSINKI	72.95	331.3	10 53	1						
PENTICTON	73.47	41.8	10 57A	2						
TARRALEAH	74.59	173.6	11 2A	0						
BANFF	74.74	38.8	11 2	0						
FORT NELSON	75.30	173.0	11 6A	0						
SKALSTUGAN	75.35	338.0	11 6	0					14	0 PP
UPPSALA	76.04	333.4	11 10	0					14	5 PP
SIMFEROPOL	76.83	315.0	11 15K	1	20	31	0			
MINERAL	76.84	50.6	11 15A	1						
CALISTOGA	77.07	52.5	11 17A	2						
HUNGRY HORSE	77.11	40.7	11 18	2						
KARAPIRO	78.04	150.6	11 22	1						
LICK	78.38	53.2	11 25A	3						
RENO	78.43	50.5	11 25	2						
CHATEAU	79.12	151.3	11 27	1						
KARLSKRONA	79.34	331.3	11 24A	-4					14	28 PP
TUAI	79.45	150.0	11 28	0						
LWOW	79.62	323.1	11 30	1						
GOTEBORG	79.66	333.9	11 29	0						
EUREKA	80.95	48.9	11 38	2						
KRAKOW	81.51	325.0	11 40	1						
KSARA	81.72	304.7	11 44	4						
ISTANBUL UN.	82.14	313.8	11 44K	2						
RACIBORZ	82.32	325.7	11 46	3						
PASADENA	82.47	54.4	11 47	3						
SALT LAKE C.	82.77	46.0	11 48	3						
COLLMBERG	83.85	328.0	11 51A	0				13 15	15	15 PP
FLAMING GRGE	84.16	44.8	11 55	3				13 14		
HALLE	84.16	329.5	11 53	1	21	47	2			
JENA	84.74	329.3	11 56	1					13	19
KASPERSKE H.	85.15	327.1	11 58	1				13 21		
RAPID CITY	85.65	39.4	12 0	0						
LARAMIE	86.15	42.6	11 5	-57						
STUTTGART	87.34	329.0	12 9	1				13 35	15	39 PP
STRASBOURG	88.14	329.6	12 13	2						
MACQUARIE I.	88.25	168.1	12 21A	9						
ALBUQUERQUE	89.72	47.9	12 21	2						
ROSELEND	90.86	328.4	12 24A	0					16	15
GARCHY	91.12	331.3	12 27	2					16	5 PP
FOLINIERE	91.29	334.1	12 27	1						
CLERMONT-FD.	92.31	330.3	12 33	2						
WICHITA MTS.	94.66	43.7	12 43	1				13 59	16	17 PP
PALISADES	101.30	24.2			24	25	71			
HUANCAYO	143.25	64.5	18 53	1						
LA PAZ	151.47	62.9	19 15A	10					20	39

JANUARY 26 6.H 9.M 12.S EPICENTRE -21.44-177.24 DEPTH= 0.KM

A=-0.93055 B=-0.04480 C=-0.36341 D=-0.0481 E= 0.9988
G= 0.3630 H= 0.0175 K=-0.9316 HT= 4.3

SE= 3.67

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
APIA	9.21	35.3	2	18K	1	4	1	-2					
PORT VILA	14.10	282.7	3	52	29								
NOUMEA	15.16	263.8	3	55A	18								
KARAPIRO	17.58	199.2	4	0	-8								
TUAI	17.96	194.3	4	1	-12								
CHATEAU	18.75	197.7	4	9	-14	7	21	-28					
WELLINGTON	20.90	197.1	4	31	-15	7	59	-37					
GEBBIES PASS	23.74	198.4				8	58	-29					
BRISBANE	27.89	251.8	5	57	3								
CANBERRA	32.59	237.5	6	34	-1								
CHARTERS TS.	34.11	265.5	6	53	4						17	19	
PORT MORESBY	36.26	283.7	7	8	1								
MOORLANDS	36.36	226.6	7	12	4								
FORT NELSON	36.45	225.7	7	3A	-6						17	16	
TARRALEAH	36.80	227.1	7	8	-3								
ADELAIDE	40.77	241.0	7	43A	-2								
DARWIN	50.30	271.5	9	5	5								
MUNDARING	59.56	244.7	10	5A	-3								
SOUTH POLE	68.69	180.0	11	55	47								
LICK	78.46	42.2	12	4A	0								
CALISTOGA	78.70	40.7	12	5A	-1								
PASADENA	78.81	46.5	12	4A	-2								
MINERAL	80.36	39.8	12	14K	-1								
RENO	80.95	41.3	12	17K	-1								
TUCSON	82.94	51.5	12	27	-1								
TUCSON TELE.	83.07	51.5	12	27	-2								
EUREKA	83.31	43.1	12	29	-1								
PENTICTON	87.04	33.6	12	48A	-1								
ALBUQUERQUE	87.44	50.9	12	48	-3								
FLAMING GRGE	88.34	44.6	12	53	-2						13	19	PCP
COLLEGE	88.97	12.1	12	58	0						17	21	PP
BOZEMAN	89.74	39.9	13	0	-2								
WICHITA MTS.	93.16	54.0	13	14	-3						13	39	
RAPID CITY	93.86	44.0	13	18	-3								
BULAWAYO	131.56	213.2									22	28	
SODANKYLA	131.67	347.9									22	36	SKP
KAJAANI	134.24	345.0	19	19	-1						22	44	SKP
NURMIJARVI	138.03	344.0	19	26	-1						22	54	SKP
GOTEBORG	143.16	351.7	19	31	-5								
LWIRO	145.31	230.4	19	39A	-1								
RACIBORZ	148.92	340.6	19	45	-1						19	59	PKP2
COLLMBERG	149.14	347.4	19	51A	5				20	41	20	18	PKP2
HALLE	149.15	348.8	19	50	4								
MUNSTER	149.29	354.1	19	52	6								
PRUHONICE	150.03	344.7	19	52A	4						20	20	
KASPERSKE H.	151.05	345.2	19	54	5						21	0	
STUTTGART	152.24	350.7	19	57	6								
GARCHY	154.22	359.5	20	19	25								

JANUARY 26 8.H 17.M 35.S EPICENTRE 35.24 22.73 DEPTH= 0.KM

A= 0.75501 B= 0.31632 C= 0.57437 D= 0.3864 E=-0.9223
G= 0.5298 H= 0.2220 K=-0.8186 HT= 0.0

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	2.84	16.0	0	52K	5	1	26	3					
REGGIO CALA.	6.37	298.7	1	36	-1	2	50	-2					
MESSINA	6.48	299.2	1	39A	0	2	47	-7					
TARANTO	6.79	321.9	1	44	1	2	56	-6					
SKOPJE	6.80	351.8	1	41	-2						3	32	SG
SOFIA	7.47	3.4	1	54	1	3	34	15			4	35	SG
ISTANBUL UN.	7.61	38.5	1	57	2	3	30	7					
TITOGRAD	7.67	340.4	1	56	0						3	9	
BUCHAREST	9.53	14.7	2	21A	0	4	11	1			4	41	S*
BELGRADE	9.73	350.3	2	22	-2	4	49	34			3	19	PG
CAMPULUNG	10.17	9.2	2	31	1								
ROME	10.42	312.7	2	33A	-1				2	51	4	8	P*
TIMISOARA	10.56	354.2	2	36	0	4	39	3					
KSAPA	10.94	93.7	2	39	-2	4	49	4			5	0	SS
FOCSANI	10.99	16.6	2	48	7								
SZEGED	11.18	350.6	2	28	-16	5	25	34			3	4	PPP

KALOCSA	11.63	347.0	2	48	-2	5	6	4	3	4	PP
ZAGREB	11.75	336.2	2	52	0				6	51	
BACAU	11.75	14.3	2	56	4						
KECSKEMET	11.89	349.9	2	54	0	5	10	2	3	6	PP
FLOPENCE X.	12.29	317.4	2	52	-7	5	7	-11			
TRIESTE	12.44	329.4	2	59	-2	5	11	-11	6	33	SGSG
PRATO	12.44	317.4	3	2	1				7	17	
LJUBLJANA	12.46	332.5	2	58A	-3	5	8	-14	3	9	PP
BUDAPEST	12.54	348.3	3	0	-2	5	17	-7	3	16	PP
BOLOGNA	12.73	320.0	3	5	0				9	55	
YALTA	12.75	40.0	3	6	1						
SIMFEROPOL	13.03	38.5	3	9A	0						
HURBANOVO	13.07	346.4	3	11	2	5	49	12	3	33	PP
PADOVA	13.10	324.1	3	9	-1	5	39	2	4	14	
BRATISLAVA	13.58	343.8	3	14K	-2	5	39	-10	3	48	
CHIAVARI	13.72	315.4	3	28	10	5	25	-27	7	12	
VIENNA-H.	13.83	342.0	3	18	-1	5	56	1	4	24	PGPG
SKALNATE PL.	14.05	353.3	3	26	4				3	36	PP
PAVIA	14.33	317.9	3	27	1	6	12	5	12	51	
MONACO	14.53	310.3	3	28	-1	7	20	69			
LWOW	14.60	3.3	3	30	0	6	21	8	8	10	
KRAKOW	14.94	353.0	3	33	-1	6	25	4	3	50	PP
RACIBORZ	15.20	348.8	3	37	0				3	45	PP
CHUR	15.26	323.5	3	40	2	6	3	-26			
ROSELEND	15.38	316.3	3	49K	9	6	56	24			
KASPERSKE H.	15.43	336.9	3	38	-2	6	50	17	6	16	
SOTCHI	15.53	52.5	3	42A	0	6	39	4			
RAVENSBURG	15.89	326.0	3	45	-1						
PRUHONICE	15.90	340.4	3	45	-1	6	49	5			
PRAGUE	16.02	340.3	3	47A	-1	6	44	-3	5	33	
NEUCHATEL	16.68	319.6	3	55	-1						
TUBINGEN	16.69	326.9	3	56	-1						
BASLE	16.70	321.9	3	57	0	7	13	11			
STUTTGART	16.78	327.8	3	58	0	7	1	-3	5	53	
WARSAW	17.03	356.4	4	2A	1	7	11	1	4	19	PP
STRASBOURG	17.33	324.9	4	6A	1	7	21	4	7	41	SS
KARLSRUHE	17.34	326.9	4	9	4	7	21	4			
BESANCON	17.35	318.8	4	3	-2						
HEIDELBERG	17.50	328.3	4	7	0						
COLLMBERG	17.52	339.4	4	6A	-1	7	31	10	4	22	PP
JENA	17.64	336.2	4	7	-1	7	28	4	4	16	PP
HALLE	18.01	337.8	4	14	1				4	27	PP
CLERMONT-FD.	18.20	311.2	4	15	-1				4	28	PP
FELDBERG	18.23	329.6	3	57	-19				7	13	
TORTOSA	18.36	294.3	4	19	2	7	21	-19			
TIFLIS	18.43	62.9	4	19A	1	7	50	8			
ALICANTE	18.84	286.3	4	23	0	8	12	21	4	38	PP
GARCHY	19.00	315.3				8	31	36	13	25	
BAGNERES	19.14	300.9	3	25	-62						
GORIS	19.22	70.2	4	28A	0	7	59	0	4	44	PP
BENSBERG	19.33	329.2	4	29A	0	8	5	3	4	52	PP
DOURBES	19.88	323.9	4	36	1	8	25	11			
MUNSTER	19.92	331.7	4	47	11						
PARIS	20.17	318.4	4	39	0	8	24	4	7	12	
ALMERIA	20.43	281.9	4	40A	-1	8	38	12	5	8	PP
UCCLE	20.47	325.1	4	41	-1	8	33	7			
WITTEVEEN	20.95	332.0	4	48A	1						
DE BILT	21.01	328.7	4	50A	3	8	43	6			
GRANADA	21.32	282.9	4	50K	0	8	53	10	5	26	PP
KARLSKRONA	21.49	349.1	4	49A	-3	8	45	-1			
TOLEDO	21.70	290.3	4	53	-1	8	53	3	5	8	PP
FOLINIERE	21.81	315.4	4	55	0						
MALAGA	21.98	281.8	4	57K	0	9	1	5	5	23	PP
MOSCOW	22.91	21.9	5	5	-1	9	10	-2			
JERSEY	22.94	315.0	5	5	-2						
KEW	23.18	321.5	5	9A	0	9	20	3	5	44	PP
TEHERAN	23.31	80.4	5	12	2	9	32	12	11	14	SCP
GOTEBORG	23.60	345.5	5	13A	0						
UPPSALA	24.85	354.6	5	25A	0	9	50	4			
HELSINKI	24.99	2.6	5	26	0						
PULKOVO	25.04	9.1	5	27	0	9	48	-1			
COIMBRA	25.07	290.7	5	29A	2	9	55	5			
SERRA PILAR	25.24	292.9	5	29A	0	9	51	-2	5	37	6	6	PP
NURMIJARVI	25.32	2.2	5	29A	-1	9	59	5	11	1	SS
LISBON	25.64	287.3	5	32K	-1	10	1	2			
ABERDEEN	27.58	330.4	5	53K	3	10	33	2	11	3	
BERGEN	27.58	341.3				10	36	5			
ASHKABAD	28.62	74.0	5	59	-1				7	19	PPP
KAJAANI	29.03	4.5	5	56	-8						

SKALSTUGAN	29.09	350.4	6	3A	-1							
BANGUI	30.94	188.0	6	21A	0	11	21	-4				
SODANKYLA	32.26	2.8	6	31	-1						9	18 PCP
KIRUNA	32.67	358.4	6	35A	-1	11	45	-7				
APATITY	32.94	7.5	6	37A	-1	11	53	-3			8	22 PCP
SVERDLOVSK	33.39	37.8	6	40A	-2	12	0	-3				
TASHKENT	36.69	66.2	7	11	1	12	54	0			8	35 PP
QUETTA	37.32	85.0	7	16A	1	13	3	-1	7	24	8	47 PP
LWIRO	37.72	170.1	7	20K	1	13	7	-3			19	41
SIDA	37.82	331.8	7	21K	1							
KHOROG	39.01	72.0	7	32	2	13	32	3				
KARACHI	39.46	92.9	7	34	1						9	12 PP
REYKJAVIK	39.49	331.0	7	36K	2							
WARSAK DAM	39.87	77.3	7	35A	-2	13	33	-9				
M•BOUR	41.23	249.9	7	46	-2	14	3	0				
ALMATA	42.11	62.1	7	57	2	14	15	-1			9	58 PCP
LAHORE	42.85	79.7	8	2A	1							
SEMIPALATNSK	43.72	51.4	8	8	0	14	36	-3				
LUANDA	44.76	193.4	8	19K	2						10	1 PP
NEW DELHI	46.23	82.4	8	29A	1	15	14	-1			15	20 PS
DEHRA DUN	46.27	79.8	8	38	9	15	14	-2			18	24 SS
BOMBAY	46.99	96.7	8	35	1	15	27	1			10	30 PP
KHEYS	47.45	7.4	8	38A	0						10	27 PP
POONA	48.01	96.5	8	43	1	15	42	1			10	37 PP
BROKEN HILL	49.71	172.7	8	57	1							
ALERT	54.65	350.7	9	32A	-1							
ESEN BULAK	54.88	54.2	9	34	0	17	16	1				
CHATRA	55.01	79.7	9	34A	-1	17	13	-4				
BOKARO	55.23	83.7	9	36	-1	17	17	-3				
BULAWAYO	55.35	173.3	9	37	-1							
MADRAS	56.10	98.2	9	39K	-4	17	36	5			11	50 PP
VISHAKHAPTNM	56.14	91.5	9	44	1	17	55	23				
THULE	56.32	343.5	9	44	-1							
LHASA	56.91	74.9	9	49A	0	17	42	0				
WINDHOEK	57.74	186.2	9	54A	-1							
IRKUTSK	58.22	45.7	9	57A	-1	17	57	-2			21	25 SS
TANANARIVE	58.79	152.3	10	5	3						10	27
SHILLONG	59.35	78.8	10	4A	-2	18	16	2				
CHITTAGONG	60.81	82.1	10	15A	-1	18	32	-1	10	24	12	35 PP
PRETORIA	60.87	174.4	10	16	0							
TOCKLAI	61.13	76.3	10	18	0							
ULAN-BATOR	61.25	49.8	10	18	-1	18	37	-1				
TIKSI	61.80	20.2	10	21	-2	18	43	-2			12	37 PP
CHANGALANE	61.84	170.4	10	16	-7	18	39	-7	10	30		
RESOLUTE	63.08	344.7	10	31A	0							
KIMBERLEY	63.67	178.0	9	50K	-45							
HALIFAX	63.93	307.5	10	38	1							
LANCHOW	63.95	63.0	10	36A	-1	19	9	-3				
MOULD BAY	66.23	350.7	10	51A	-1							
PAOTOW	66.32	56.2	10	52A	0	19	41	0				
CHENGTU	66.52	68.2	10	53A	-1	19	41	-3				
YAKUTSK	66.82	29.4	10	54	-1	19	42	-5			20	1 PS
KUNMING	68.21	74.0	11	4A	0	20	2	-2				
SIAN	68.48	62.7	11	6A	0	20	8	1				
SHAWINIGAN	68.81	312.5	11	8A	0							
BREBEUF	69.84	311.9	11	15A	1				11	27		
PEKING	70.71	54.3	11	19A	-1	20	33	-1				
PALISADES	72.31	307.9	11	27	-2	20	55	3				
FORDHAM	72.38	307.8	11	31	1							
PENNSYLVANIA	74.96	309.4	11	43A	-2							
GEORGETOWN	75.49	307.4	11	50	2							
MAGADAN	76.28	24.4	11	52	0	21	36	0				
ST. KITTS	76.59	281.8	11	44	-10							
NANKING	76.69	60.2	11	53A	-1							
CLEVELAND	76.85	311.6	11	58A	3							
MORGANTOWN	76.93	309.3	11	57A	1							
CANTON	77.53	70.6	12	0	1	21	52	2				
ST. VINCENT	77.68	277.5	12	2	2							
CHAPEL HILL	78.48	305.8	12	5	1							
HONG KONG	78.60	70.8	11	55	-10	22	3	2				
GRENADA	78.67	276.8	12	7	2							
SAN JUAN	78.71	284.0	12	7	1				12	21		
VLADIVOSTOK	78.79	44.8	12	5	-1	21	58	-6				
ZO-SE	78.93	59.8	12	3	-4	22	0	-5				
TRINIDAD	79.18	275.4	12	12	4							
COLLEGE	79.95	355.9	12	12	0						12	22 PCP
COLUMBIA	80.91	305.2	12	19	2							
BLOOMINGTON	81.26	312.1	12	19A	0				12	25		
DUBUQUE	81.59	316.7	12	22	1				12	30		

Y.-SAKHLINSK	82.01	36.8	12	24	1	22	39	2				
CARACAS	83.76	278.4	12	34A	2						15	50 PP
FLORISSANT	83.83	313.7	12	33	1	22	59	3				
ST. LOUIS 1	83.85	313.5	12	34A	1	22	58	2	12	44		
C. GIRARDEAU	84.29	312.1	12	35A	0				12	45		
BANFF	86.47	335.2	12	46A	0							
LAWRENCE	86.54	316.4	12	47	1							
MATUSIRO	86.74	46.7	12	47K	0	23	15	-9			28	57 SS
RAPID CITY	87.02	324.2	12	50	2							
MANHATTEN	87.13	317.3	12	50A	1				12	56		
LITTLE ROCK	87.68	311.7	12	51	0				13	2		
FAYETTEVILLE	87.90	313.7	12	53A	0						16	17 PP
TANGERANG	88.56	98.5	12	56A	0							
BOZEMAN	89.29	329.6	13	0	1							
PENTICTON	89.41	336.4	12	56A	-4							
BUTTE	89.63	330.7	13	2	1							
LARAMIE	90.26	323.8	13	5	1							
ALBERNI	91.06	339.4	13	8	1							
VICTORIA	91.32	338.3	13	3A	-6							
WICHITA MTS.	91.43	315.3	13	10	1	24	14	7			16	49 PP
DALLAS	91.68	312.9	13	12	2							
FLAMING GRGE	92.36	325.8	13	14	1							
SALT LAKE C.	93.60	327.2	13	20	1							
CHINCHINA	93.96	278.9	13	21K	0							
ALBUQUERQUE	95.59	320.2	13	30	2						17	10
EUREKA	96.45	329.1	13	33	1						17	27 PP
MINERAL	97.92	333.3	13	39	0						17	37 PP
RENO	97.95	331.6	13	41	2						17	39 PP
BOULDER CITY	98.86	326.4	13	45	2							
TUCSON TELE.	99.83	321.4	13	49	2						17	50 PP
TUCSON	99.96	321.4	13	49	1						17	51 PP
LA PAZ	100.02	256.9									17	46 PP
LICK	100.57	331.8	13	45	-6						17	43 PP
PASADENA	101.88	327.7	13	26	-31	24	27	-9			18	11 PP
CHARTERS TS.	128.40	88.6	19	11	2							
ADELAIDE	128.48	109.4	19	14	5							
CANBERRA	136.60	106.3	19	17	-7						22	57 PKS
KARAPIRO	158.03	105.0									20	35 PKP2

JANUARY 27 23.H 7.M 52.S EPICENTRE 31.33-114.30 DEPTH= 65.KM

A=-0.35213 B=-0.77994 C= 0.51739 D=-0.9114 E= 0.4115
G=-0.2129 H=-0.4716 K=-0.8557 HT= 1.4

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
BARRETT	2.42	304.4	0	31	-7	1	14	7				
RIVERSIDE	3.71	316.4	0	51	-5	1	55	16				
PASADENA	4.31	311.8	1	2	-2	1	54	0				
BOULDER CITY	4.66	354.7	1	14	5							
ALBUQUERQUE	7.50	59.1	1	8	-41							
CHIHUAHUA	7.65	108.5	1	50	-1						2	14
EUREKA	8.25	350.9	1	56	-3							
LICK	8.53	316.6	2	2A	-1							
BERKELEY	9.25	317.0	2	8A	-5							
RENO	9.34	332.8	2	14	0							
SALT LAKE C.	9.63	11.2	1	46	-32							
CALISTOGA	9.96	319.3	2	25A	3							
FLAMING GRGE	10.37	21.1	2	49	21							
UKIAH	10.66	319.3	2	34	2							
WICHITA MTS.	13.61	71.4	3	6K	-5	5	38	-3			4	18
GUADALAJARA	14.48	134.5									6	44 SS
BOZEMAN	14.54	9.1	3	27	4							
BUTTE	14.73	4.7	3	30	4	7	14	66				
DALLAS	14.93	79.6	3	32	4							
RAPID CITY	15.44	31.4	3	27	-8							
HUNGRY HORSE	17.00	0.6	3	54	0							
FAYETTEVILLE	17.39	68.7	3	56K	-3							
TACUBAYA	18.07	127.5	4	5K	-3	7	32	8			7	52 SS
PENTICTON	18.41	348.9	4	12	0							
VICTORIA	18.52	340.6	4	11A	-2							
LITTLE ROCK	18.71	73.5	4	13	-2	8	0	22				

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
ALBERNI	19.60	339.1	4 27	2				
BANFF	19.85	357.7	4 27	-1				
VERA CRUZ	20.36	122.1	4 32	-1				4 48 PP
FLORISSANT	20.92	62.6	4 36A	-3	8 36	13		
ST. LOUIS 1	20.99	63.1	4 38	-2	8 35	10		
C. GIRARDEAU	21.28	67.0	4 40	-2	8 30	0		
DUBUQUE	21.86	52.7	4 47	-1	7 55	-46	4 56	
TERRE HAUTE	23.32	62.5	3 38	-85				
BLOOMINGTON	23.95	63.2	5 9K	0	9 31	13	5 19	
CLEVELAND	28.11	59.7			11 39	73		
PENNSYLVANIA	30.74	61.9						15 50
PALISADES	33.75	62.0			12 14	19		
BREBEUF	34.49	54.1	6 42A	-1	12 24	18		
SHAWINIGAN	35.26	52.4	6 50	0				
COLLEGE	39.42	338.2	7 26	1				
CHINCHINA	44.76	117.8	8 8	0	14 49	9		
MOULD BAY	45.05	358.3	8 10	-1				
SAN JUAN	45.25	94.8	8 12	0				
BOGOTA	46.16	116.8	8 21	2	15 7	7		10 32 PPP
CARACAS	48.42	104.7	8 26	-11				10 26 PP
THULE	49.97	12.8	8 47	-2				
ALERT	54.38	7.3	9 20	-2				
KIRUNA	75.52	16.2	11 37	-2				
SODANKYLA	77.29	14.5	11 48	-1				
KAJAANI	80.31	15.9	12 6	1				
FOLINIERE	80.83	37.8	12 8	0				
NURMIJARVI	82.52	19.1	12 17	0				
HELSINKI	82.88	19.2	12 19	1				
RENSBERG	83.21	32.9	12 20A	0				
GARCHY	83.62	37.5	12 22	0				
MATUSIRO	84.29	309.5	12 25	-1				
CLERMONT-FD.	84.62	38.6	12 27	0				
BAGNERES	84.69	42.1	12 27	-1				
HALLE	84.98	30.4	12 32	3				
STRASBOURG	85.12	34.4	12 30	0				
BESANCON	85.14	36.2	12 28	-2				
JENA	85.23	31.0	12 31	1				12 55
COLLMBERG	85.57	30.1	12 31	-1				
STUTTGART	85.71	33.6	12 33	0				
ROSELEND	87.17	36.7	12 35	-5				
PRUHONICE	87.22	30.2	12 39	-1				
RABAUL	95.18	268.2	14 3	46				
BROKEN HILL	142.03	72.3	19 21	-3				
BULAWAYO	144.93	80.5	19 29	0				

JANUARY 28 5.H 40.M 5.S EPICENTRE -17.13-171.94 DEPTH= 0.KM

A=-0.94676 B=-0.13403 C=-0.29271 D=-0.1402 E= 0.9901
G= 0.2898 H= 0.0410 K=-0.9562 HT= 5.3

SE= 1.98

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
APIA	3.31	2.7	0 52K	-2				
SUVA	9.24	262.2	2 20	3				
PORT VILA	18.84	265.2	4 25K	2				
NOUMEA	20.97	252.3	4 45	-2				
ONERAHI	22.20	210.6	5 0	1	9 4	5		
KOUMAC	22.75	257.6	5 7	2				
KARAPIRO	23.46	205.5	5 10	-1	9 31	9		
CHATEAU	24.55	203.9	5 22	0	9 52	11		
WELLINGTON	26.65	202.7	5 53	11	10 28	12		
ROXBURGH	32.32	205.0			11 55	9		
BRISBANE	34.10	246.3	6 45	-3	12 7	-7		
RIVERVIEW	37.00	236.2	7 11A	-2	12 57	-2	7 23	8 42 PP
RABAUL	37.45	285.9	7 16	0				
CANBERRA	39.13	234.7	7 30A	-1	13 29	-2		9 40 PCP
CHARTERS TS.	39.65	259.0	7 33	-2	13 34	-5		
HONOLULU	40.53	20.1	7 44	2				
KIPAPA	40.67	20.1	7 45	2				
MELBOURNE	42.97	232.5	8 1	-1	14 24	-4		
FORT NELSON	43.09	224.6	8 1A	-2	14 22	-7		
ADELAIDE	47.26	238.0	8 35A	-1			8 49	
CAPE HALLETT	56.15	186.5	9 42	-1	17 42	10		
SCOTT BASE	61.66	185.0	10 20	-2				
MUNDARING	65.96	242.2	10 48A	-2				

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WILKES	69.45	204.9	11	9	-3	20	15	-4				
TUKUBASAN	69.78	320.2	11	12A	-2	20	23	0	11	19	11	23 *SP
MATUSIRO	71.15	319.4	11	21	-1	20	37	-2			21	32 SCS
BERKELEY	71.90	39.4	11	27A	0	20	49	2	11	37		
LICK	71.94	40.2	11	27A	0				10	37		
UKIAH	72.14	37.9	11	28	0							
CALISTOGA	72.20	38.6	11	28A	0							
PASADENA	72.24	44.6	11	28A	-1	20	52	1			21	24 SCS
SOUTH POLE	72.98	180.0	11	31	-2							
PETROPAVLOVK	74.34	342.1	11	38	-3	20	58	-17				
RENO	74.44	39.3	11	41A	0				10	52		
BOULDER CITY	75.53	44.7	11	48	0							
Y.-SAKHLINSK	75.73	329.9	11	48	-1							
TUCSON	76.35	49.8	11	53	1				12	4	14	58 PP
TUCSON TELE.	76.48	49.7	12	53	60							
EUREKA	76.78	41.2	11	55	0				12	5		
UGLEGORSK	77.50	331.0	12	9A	10							
GLEN CANYON	78.26	45.3	12	3	0				12	11		
VICTORIA	78.32	30.6	12	3A	0							
TANGERANG	80.04	266.6	12	11	-2							
SALT LAKE C.	80.11	41.9	12	13	0							
ZO-SE	80.12	306.8	12	14	1	22	20	3				
PENTICTON	80.73	31.7	12	15A	-1							
ALBUQUERQUE	80.85	49.2	12	17	0							
FLAMING GRGE	81.78	42.8	12	21	-1				12	33		
MAGADAN	82.20	341.9	12	23	-1							
HONG KONG	82.22	296.1	12	25A	1	23	3	24			15	20 PP
NANKING	82.38	306.8	12	27A	2							
BUTTE	82.56	37.2	12	25	-1							
CANTON	83.23	296.6	12	31A	2	22	43	-6				
BOZEMAN	83.25	38.1	12	30	1				12	41		
CHANGCHUN	83.40	319.6	12	30	0	22	53	2			15	53 PP
COLLEGE	83.80	10.1	12	30	-2							
WICHITA MTS.	86.58	52.2	12	46	0	23	2	-20	12	57	16	22 PP
DALLAS	87.24	54.6	12	50	1							
RAPID CITY	87.31	42.3	12	49	-1						13	34
PEKING	87.67	313.1	12	52A	1	23	36	4			23	18 SKS
FAYETTEVILLE	90.42	52.3	13	4A	0						16	38
SIAN	90.84	305.6	13	8A	2	23	59	-3				
YAKUTSK	91.23	336.3	13	7A	-1							
LITTLE ROCK	91.38	54.1	13	9	0							
PAOTOW	92.21	311.8	13	14A	2	24	21	7			23	48 SKS
HUANCAYO	92.69	103.4	13	17	2							
KUNMING	93.03	295.2	13	18A	2	24	30	9				
CHENGTU	93.62	300.8	13	20A	1	24	34	8			23	53 SKS
FLORISSANT	94.20	50.8	13	21	-1							
ST. LOUIS 1	94.25	51.0	13	21	-1							
C. GIRARDEAU	94.36	52.4	13	22A	0							
LANCHOW	95.37	305.9	13	28A	1							
TIKSI	97.03	344.1	13	33A	-2							
LA PAZ	97.84	109.9	13	39A	1	25	29	73				
MOULD BAY	98.34	11.1	13	39	-1							
SHILLONG	102.63	293.0									18	59
RESOLUTE	103.01	15.4	14	1	0							
LHASA	104.22	297.0	14	9	2							
PALISADES	107.00	51.6				26	41	102				
CARACAS	107.25	84.1									19	3 PP
THULE	109.74	14.1	18	31	777							
KHEYS	112.93	352.2	18	38	-1						19	27 PP
NEW DELHI	116.02	293.9	18	44A	-1							
AMDERMA	118.15	341.5	18	53	4							
WARSAK DAM	121.16	299.7	18	55	0							
TASHKENT	122.63	308.4	18	57	0							
DUZHANBE	123.26	305.2	19	1	2							
SVERDLOVSK	124.33	328.1	19	0	-1							
SAMARKAND	124.55	306.6	19	0	-1							
QUETTA	125.04	295.1	19	4A	2						21	1 PP
TANANARIVE	127.17	229.1	19	10	4							
SODANKYLA	128.37	351.0	19	9	0							
KIRUNA	128.70	354.0	19	8A	-1							
KAJAANI	131.20	348.7	19	9	-5							
NURMIJARVI	135.05	348.5	19	20	-1						22	50 PKS
MOSCOW	135.38	336.6	19	21	-1							
BULAWAYO	137.82	209.4	19	19	-7							
TIFLIS	140.15	315.7	19	32	2							
BROKEN HILL	142.71	213.9	19	31	-4							
WITTEVEEN	144.37	1.4	19	38	0							
SIMFEROPOL	144.69	327.3	19	38	0							

LWOW	144.93	341.9	19 43	4		20 11	
KEW	145.09	9.2	19 39A	0			
MUNSTER	145.24	0.5	19 40	1			
KISHINEV	145.61	334.6	19 40	0			
COLLMBERG	145.68	354.5	19 40A	0		22 57	PP
KRAKOW	145.79	346.4	19 41	1		19 48	PKP2
RACIBORZ	146.13	348.3	19 44	3		19 51	PKP2
JENA	146.16	356.0	19 42	1		22 10	
BENSBERG	146.24	1.0	19 41A	0		20 6	
PRUHONICE	146.81	352.3	19 42A	0			
CHEB	146.95	354.9	19 46	4			
FELDBERG	146.99	359.5	19 47	5			
DOURBES	146.99	4.1	19 45	3			
FOLINIERE	147.68	10.6	19 44	1			
KASPERSKE H.	147.77	353.2	19 43	0		19 57	
PARIS	148.08	7.0	19 49	5		19 59	PKP2
BRATISLAVA	148.17	348.5	19 48	4			
VIENNA-H.	148.22	349.4	19 45A	1		19 50	PKP2
BUDAPEST	148.41	345.7	19 45	1			
STUTTGART	148.43	358.5	19 45	1		20 13	
CAMPULUNG	148.55	336.7	19 52	7			
STRASBOURG	148.63	0.4	19 45A	0		20 56	
TUBINGEN	148.67	358.7	19 45	0			
BUCHAREST	148.83	334.6	19 29	-16		20 51	
GARCHY	149.65	6.7	19 53	7		20 3	PKP2
BASLE	149.68	0.6	19 48A	1			
BESANCON	149.91	2.8	19 48	1		20 50	
KSARA	150.02	309.0	19 54	7		23 27	PP
ISTANBUL UN.	150.11	327.2	19 44	-3			
NEUCHATEL	150.20	1.5	19 3	-44			
CHUR	150.34	358.0	19 54A	6			
BELGRADE	150.49	341.9	19 48	0		23 58	PKS
LJUBLJANA	150.66	350.8	19 48A	0		19 54	PKP2
CLERMONT-FD.	151.15	7.2	19 50A	1			
SOFIA	151.38	336.1	19 50	1		20 7	
PADOVA	151.62	354.3	20 8	19		36 55	
ROSELEND	151.72	0.6	19 49	-1		20 37	
LWIRO	151.90	228.7	19 51	1		23 36	PP
BAGNERES	153.28	13.0	19 52	0			
FLORENCE X.	153.30	354.8	19 55	3			
MONACO	153.48	1.0	20 13	21			
LISBON	153.75	31.5	20 2A	10		20 26	PKP2
TOLEDO	155.01	22.5	19 56	2		23 48	PP
ROME	155.02	352.2	19 55	1		23 59	PP
M.BOUR	155.76	92.9	19 56	1		19 59	PP
GRANADA	157.53	25.0	20 11K	13		24 23	PP
MALAGA	157.59	27.0	19 58A	0		24 15	PKS
ALMERIA	158.26	23.3	19 59	1		24 21	PP

JANUARY 28 16.H 41.M 12.S EPICENTRE -0.10 123.96 DEPTH= 84.KM

A=-0.55866 B= 0.82940 C=-0.00170 D= 0.8294 E= 0.5587
G= 0.0010 H=-0.0014 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.008R

SE= 1.79

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DJAKARTA	18.14	250.2	4	6	-2						9	11	
TANGERANG	18.32	250.5	4	11	1						7	41	
HONG KONG	24.22	337.4	5	12A	2	9	35	15	5	36	10	17	*SS
GUAM	24.60	56.0	5	15	1								
PORT MORESBY	24.86	112.5	5	7A	-9	9	32	1					
CANTON	25.26	336.6	5	22	2								
RABAUL	28.47	98.6	5	49	-1								
CHARTERS TS.	29.52	133.6	5	59	0						16	43	
ZO-SE	31.14	355.4	6	14	1								
NANKING	32.36	351.8	6	24	0								
MUNDARING	32.54	192.3	6	25	0								
CHENGTU	35.99	330.0	6	51A	-4	12	30	3			8	24	PP
ABUYAMA	36.44	16.2	6	58A	-1								
SIAN	36.96	339.1	7	4A	1								
ADELAIDE	37.33	159.8	7	6	0				7	29			
CHITTAGONG	38.45	307.6	7	15	0	13	2	-2			9	7	PP
BRISBANE	38.76	136.8	7	20	2	13	10	1					

MATUSIRO	38.78	18.4	7	17A	-1					9	29 PCP
SHILLONG	40.14	311.9	7	29	-1						
LANCHOW	40.55	334.6	7	34	1	13	39	3			
PEKING	40.57	350.8	7	34	1						
CANBERRA	42.11	148.9	7	47A	1	14	1	2		9	41 PCP
RIVERVIEW	42.15	145.5	8	4A	18	14	2	3		17	20 SS
MELBOURNE	42.25	155.0	7	48	1						
PAOTOW	42.43	344.2	7	50	2						
LHASA	43.12	316.2	7	56A	2	14	15	2			
CHANGCHUN	43.75	1.4	7	58	-1						
KOUMAC	44.35	119.8	8	4K	0						
CHATRA	44.37	310.1	8	6A	2						
TARRALEAH	46.64	157.0	8	23K	1					9	55 PCP
NOUMEA	46.88	121.0	8	23	-1						
MOORLANDS	47.05	156.5	8	24	-1					9	56 PCP
FORT NELSON	47.52	156.7	8	29	0					9	57 PCP
Y.-SAKHLINSK	49.71	16.8	8	45	-1						
UGLEGORSK	51.41	15.2	8	59A	0						
NEW DELHI	53.01	306.7	9	10A	-1						
DEHRA DUN	53.08	309.0								9	58
LAHORE	56.49	308.7	9	35	-1	17	17	-2			
WARSAK DAM	59.62	310.3	9	57	-1	17	59	-1			
PETROPAVLOVK	60.30	23.3	10	2	-1						
KARAPIRO	60.50	134.6	10	4	0						
QUETTA	61.93	304.6	10	12	-1	18	29	0	10 40	10	53 PCP
YAKUTSK	62.11	3.1	10	14A	-1	18	34	3			
TIKSI	71.68	1.6	11	14A	-1	20	24	-3			
SVERDLOVSK	75.80	329.6	11	38	-1						
GORIS	80.52	310.0	12	5	0						
TIFLIS	81.97	312.1	12	13	1						
KHEYS	86.26	351.4	12	33	-1						
COLLEGE	89.33	25.3	12	49	0				13 13	16	19 PP
SOUTH POLE	89.90	180.0	12	52	1						
APATITY	90.29	337.4	12	54	1						
KAJAANI	92.83	334.1	13	3	-2						
SODANKYLA	92.92	337.4	13	5	0						
BULAWAYO	95.00	249.9	13	16A	1						
LWIRO	95.16	267.7	13	9	-6						
KIRUNA	95.19	338.3	13	14K	-2						
BROKEN HILL	95.30	255.6	13	17A	1						
MOULD BAY	96.28	12.4	13	20	0						
RESOLUTE	102.04	9.8	13	47	1					17	58
COLLMBERG	103.06	323.0	17	17	206					18	17 PP
LJUBLJANA	103.48	317.5								18	10 PP
PENTICTON	107.00	37.8	14	10K	777					18	20 PKP
PASADENA	112.87	52.7	18	30	3						
EUREKA	112.88	46.6	18	31	4						
BOZEMAN	113.78	38.9	18	33	4						
RAPID CITY	119.42	37.4	18	35	-5						
MANHATTEN	126.27	38.8	18	56K	3						
WICHITA MTS.	127.43	44.5	18	58	2					20	56 PP
FAYETTEVILLE	129.64	40.5	19	3A	3				19 20		
FLORISSANT	130.26	35.3	19	4A	3						
SHAWINIGAN	131.47	15.4	19	6	3						
BLOOMINGTON	132.14	32.1	19	7K	2						
BREBEUF	132.20	16.7	19	7	2						
HUANCAYO	157.36	122.9	19	49	3						
SAN JUAN	159.31	28.1	20	29	40						
LA PAZ	159.65	144.7	19	55A	6					20	35

JANUARY 30 8.H 34.M 24.S EPICENTRE 12.65 -87.50 DEPTH= 60.KM

A= 0.04261 B=-0.97510 C= 0.21762 D=-0.9990 E=-0.0437
G= 0.0095 H=-0.2174 K=-0.9760 HT= 6.2

DEPTH OF FOCUS= 0.004R

SE= 2.14

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SANTIAGO MA.	1.26	311.4	0	21	-2	0	38	-2				
SAN SALVADOR	1.95	301.8	0	31	-1	0	53	-3				
MERIDA	8.50	346.5	1	54	-9	3	39	0			4	8
BALBOA HTS.	8.62	114.4	2	5	0	4	32	50				
OAXACA	9.96	297.0	2	24	1	4	16	1				

VERA CRUZ	10.55	309.2			4	45	16			3	6	
HOPE	11.65	61.5								6	49	
TACUBAYA	13.09	302.3	3	14	9	6	3	33		6	33	SS
CHINCHINA	13.99	122.0	3	18	1				3 32			
FUQUENE	15.35	116.5	3	33	-2				3 50			
BOGOTA	15.48	119.9	3	38	2	6	39	13	3 49	7	15	*SS
CARACAS	20.26	93.9	4	31	-2	8	16	4				
SAN JUAN	21.36	71.9	4	47	3	8	45	12		5	15	
DALLAS	21.83	338.6	4	51	2							
COLUMBIA	22.05	14.4	4	55	4	9	3	17				
LITTLE ROCK	22.47	349.5	4	56	1	9	6	13				
FAYETTEVILLE	24.10	346.6	5	12	1	9	50	28		8	28	PCP
WICHITA MTS.	24.17	337.2	5	12A	0					12	27	SCP
ST. KITTS	24.36	75.9	5	15	1							
CHAPEL HILL	24.39	16.8	5	19	5							
LUBBOCK	24.61	330.2	5	14	-2							
C. GIRARDEAU	24.63	356.1	5	17	1	9	35	4	5 30			
GRENADA	25.18	88.6	5	25	3							
ANTIGUA	25.18	76.6	5	23	1							
ROLLA	25.45	351.9	5	25	1				5 33			
DOMINICA	25.46	81.0	5	25	1							
ST. VINCENT	25.57	85.9	5	25	0							
ST. LOUIS 1	26.00	355.1	5	30	1	9	55	2	5 45			
FLORISSANT	26.17	354.9	5	30	-1							
BLOOMINGTON	26.45	1.7	5	35	2	10	7	6	5 44			
LAWRENCE	27.10	346.7	5	38	-1							
HUANCAYO	27.35	153.3	5	43	1							
MANHATTEN	27.64	344.7	5	44A	0				5 57			
GEORGETOWN	27.73	17.7	5	47	2							
ALBUQUERQUE	28.07	325.4	5	47	-1	10	40	13				
TUCSON	28.96	316.1	5	56	0					7	6	PP
PENNSYLVANIA	29.29	15.0	6	0	1							
DUBUQUE	29.88	355.3	6	17	13							
PALISADES	30.66	20.4	6	12	1	11	12	4	6 34			
GLEN CANYON	32.44	322.5	6	26	-1							
LARAMIE	32.64	334.3	6	30	1							
BOULDER CITY	33.84	318.0	6	39	0							
RAPID CITY	34.10	339.6	6	42	1					10	30	PP
LA PAZ	34.72	146.0	6	47A	0	12	25	14				
BREBEUF	34.80	17.2	6	47A	0	12	21	8	7 8	8	7	PP
PASADENA	35.13	312.7	6	49	-1	13	6	48		12	24	SCP
SALT LAKE C.	35.22	327.1	6	51	0							
SHAWINIGAN	36.00	17.4	6	58A	1							
WOODY	36.41	314.5	7	0	-1							
EUREKA	36.69	321.9	7	4	1	13	11	29		9	35	
HALIFAX	37.85	28.1	7	14	1							
BOZEMAN	38.51	333.3	7	19	1							
RENO	39.12	319.1	7	24A	1							
LICK	39.17	314.9	7	24A	0							
BUTTE	39.45	332.3	7	26	0							
ANTOFAGASTA	39.80	155.1	7	28	-1							
BERKELEY	39.86	315.2	7	11K	-19	13	42	12				
CALISTOGA	40.46	316.1	7	36K	1							
MINERAL	40.71	318.9	7	37A	0							
BANFF	44.65	335.1	8	8A	-1							
PENTICTON	45.13	330.6	8	12A	-1							
VICTORIA	46.52	327.5	8	23A	-1							
ALBERNI	47.71	327.5	8	33	0							
RESOLUTE	62.15	357.8	10	15A	-3							
THULE	64.58	4.9	10	31	-2							
HAWAII V.OR.	65.14	285.7	10	38	1							
MOULD BAY	65.80	352.0	10	39A	-2							
COLLEGE	66.23	336.1	10	41	-3							
ALERT	70.60	3.4	11	10	-1							
UMEA	86.38	25.0	12	36	-1							
COLLMBERG	86.69	38.2							12 58	16	18	*PPP
KASPERSKE H.	87.66	40.2	12	42	-1							
BYRD STATION	94.01	185.3	13	11	-2							
LWIRO	116.14	86.3	18	48	11							
BROKEN HILL	117.90	99.8	18	39	-1							
BULAWAYO	118.56	106.1	18	41	0							
CANBERRA	124.46	235.8	18	54	1							
WILKES	125.01	188.8								43	7	
CHARTERS TS.	128.07	254.4	19	1	1					22	27	
QUETTA	130.82	29.6	19	19	14							
NEW DELHI	136.42	19.7	19	17K	2							
SHILLONG	142.01	0.9	19	20	-6							
CHITTAGONG	145.20	1.1	19	33	2				19 54			
MUNDARING	150.95	224.7	19	42	2							

JANUARY 30 15.H 22.M 49.S EPICENTRE 20.53 144.76 DEPTH= 165.KM

A=-0.76549 B= 0.54078 C= 0.34869 D= 0.5770 E= 0.8168
G=-0.2848 H= 0.2012 K=-0.9372 HT= 4.5

DEPTH OF FOCUS= 0.021R

SE= 2.23

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	7.03	180.2	1	41	-1							
OSIMA	14.96	342.6	3	29	5	6	19	13				
MERA	14.98	344.1	3	22	-3	6	16	10				
SIOMISAKI	15.15	330.0	3	28	1	6	17	7				
AJIRO	15.30	342.1	3	26	-3	6	11	-3				
MISIMA	15.41	341.8	3	33	3	6	15	-1				
SHIZUOKA	15.44	340.0									6	30
YOKOHAMA	15.51	344.2	3	31	0	6	28	10				
TOKYO C.M.O.	15.72	344.8	3	35K	1	6	32	9				
HONGO	15.74	344.9	3	31	-3						6	33
HUNATU	15.81	341.8	3	36	1	6	28	3				
KOHU	16.03	341.4	3	36	-2	6	29	-1				
NAGOYA	16.12	336.4	3	38	-1	6	34	2				
IIDA	16.13	339.2	3	40	1	6	30	-2				
KAKIOKA	16.15	346.6	3	37	-2	6	31	-2				
TUKUBASAN	16.15	346.3				6	29	-4			4	23
TITIBU	16.18	343.2	3	41	1	6	39	6				
MITO	16.23	347.5	3	42	2	6	44	10				
KUMAGAYA	16.26	344.3	3	41	0	6	41	6				
GIHU	16.39	336.3	3	33	-9							
KYOTO	16.48	333.0	3	41	-2	6	41	1				
HIKONE	16.48	334.7	3	45	2	6	49	9				
UTUNOMIYA	16.52	346.0	3	44	0	6	32	-9				
MAEBASI	16.57	343.7	3	45	1	6	45	3				
OIWAKE	16.65	342.2	3	46	1	6	48	4				
TAKAMATU	16.69	327.6	3	51	5	6	50	5				
ONAHAMA	16.70	349.2	3	44	-2	6	46	1				
MATUMOTO	16.75	340.6	3	46	0							
TSURUGA	16.89	334.9									4	38
MATUSIRO	16.95	341.6	3	45	-4	6	47	-3			6	16
MATUYAMA	16.99	323.7	3	51	2	6	55	4				
SHIRAKAWA	16.99	347.5	3	47	-2	6	48	-3				
NAGANO	17.07	341.8	3	49	-1	6	50	-3				
OOITA	17.22	319.9	3	54K	2	7	8	12				
KUMAMOTO	17.52	317.2	3	47	-8							
HUKUSIMA	17.56	348.7	3	54	-2	7	6	2				
SENDAI	17.99	350.1	4	0	-1	7	12	-1				
SAGA	18.05	317.5	4	6	4						5	32
YAMAGATA	18.06	348.7	4	1	-1	7	16	1				
MATSUE	18.07	327.8									7	11
ISINOMAKI	18.08	351.3	4	0	-2	7	14	-1				
HUKUOKA	18.22	318.5									10	31
MIZUSAWA	18.80	351.2	4	9	0	7	34	4				
MORIOKA	19.35	351.6	4	14	-1	7	47	7				
AKITA	19.54	349.2	4	19	2	7	54	10				
HAKODATE	21.48	351.8	4	36	0							
URAKAWA	21.62	356.0	4	42	4	8	44	22				
OBIHIRO	22.36	357.0	4	54	9	9	15	40				
KUSIRO	22.38	359.3	4	44	-1	8	43	8				
SAPPORO	22.65	353.5	4	52	4	8	49	9			6	16
MANILA	23.30	259.3	4	57	3	9	7	16				
ZO-SE	23.64	301.2	4	56K	-1	9	2	5			5	31 *SP
RABAUL	25.63	162.7	5	14	-2							
NANKING	25.90	301.6				9	24	-10				
Y.-SAKHLINSK	26.47	356.9	5	22	-2							
CHANGCHUN	28.33	329.5	5	38	-3	10	11	-3	6	6	6	23 *SP
UGLEGORSK	28.56	356.3	6	11A	28							
PORT MORESBY	29.84	175.3	5	52	-2	10	35	-2				
PEKING	31.21	314.8	6	4	-2							
PETROPAVLOVK	34.16	15.0	6	30	-1							
SIAN	34.44	301.0	6	32	-2							
PAOTOW	35.65	311.9	6	44K	0							
CHENGTU	37.93	293.8	7	3K	0						7	45 *SP
KUNMING	38.89	284.8	7	13K	2						8	56 *SP
LANCHOW	38.91	302.3	7	11K	0	12	54	-3			7	54 *SP
MAGADAN	39.21	4.9	7	14	0							
CHARTERS TS.	40.40	177.8	7	24	0							
ULAN-BATOR	40.91	320.9	7	27K	-1	13	27	0				
YAKUTSK	42.75	349.6	7	41K	-2	13	52	-1				

IRKUTSK	44.49	325.3	7	55K	-2	14	18	-1				
PORT VILA	44.50	147.1	7	56	-1							
KOUMAC	45.08	153.8	9	1	60							
ESEN BULAK	47.05	314.9	8	17K	0	15	0	5				
NOUMEA	47.55	152.4	8	21	0							
BRISBANE	48.27	170.4	8	27	1						15	1
SHILLONG	48.67	286.4	8	29	0							
LHASA	49.13	291.9	8	35K	2	16	22	58			9	19 *SP
TIKSI	51.94	353.7				16	4	1				
CHATRA	52.74	288.6	9	1K	1							
HONOLULU	53.12	78.3	9	4	1							
KIPAPA	53.17	78.1	9	3	0							
RIVERVIEW	54.40	173.5									22	15
ADELAIDE	55.49	186.0	9	21A	1							
CANBERRA	55.69	175.8	9	22	0							
HAWAII V.OB.	56.08	79.9	9	25	1							
NEW DELHI	61.28	292.0	10	1K	1							
COLLEGE	62.03	26.5	10	3	-2						12	14 PP
LAHORE	63.28	295.8	10	15	1							
NAMANGAN	64.27	306.5									11	21
KARAPIRO	64.96	153.5	10	23	-1				11	11	10	48
TASHKENT	66.03	307.1	10	31K	0	19	8	4				
CHATEAU	66.03	154.2	10	31	0						11	4
TUAI	66.37	152.8	10	32	-1						11	3
DUZHANBE	66.77	304.1	10	37	1							
BOMBAY	67.21	282.5	10	39	0						21	26
SAMARKAND	67.99	305.5	10	43	-1							
AMDERMA	68.52	338.2	10	45K	-2							
KHEYS	69.34	349.9	10	51K	-1							
QUETTA	69.77	295.6	10	55K	1				11	40	11	8 PCP
SVERDLOVSK	69.88	324.4	10	54	-1							
KARACHI	70.93	290.0	11	3K	2							
MOULD BAY	71.61	14.5	11	6K	1							
ALBERNI	74.99	42.7	11	25	0							
VICTORIA	76.07	43.2	11	32K	1							
ALERT	76.36	3.5	11	33K	0							
RESOLUTE	77.86	13.6	11	41K	0						12	43
PENTICTON	78.25	41.7	11	44K	1							
APATITY	78.99	338.6	11	46K	-1							
CALISTOGA	79.47	52.7	11	51K	1							
MINERAL	79.66	50.8	12	5K	14				12	26		
BERKELEY	79.94	53.4	11	53K	1				12	28		
BANFF	80.13	39.0	11	53K	0							
LICK	80.58	53.7	11	57K	1				12	32		
TEHERAN	80.91	304.7	11	59	2						13	31
THULE	81.19	7.5	11	57	-2							
RENO	81.23	51.2	11	59	0				12	35		
SODANKYLA	81.34	339.8	11	58	-2							
MOSCOW	82.45	327.0	12	5	0							
KAJAANI	82.77	336.8	12	4	-3						12	41
KIRUNA	82.99	341.6	12	8	0				12	57		
TIFLIS	83.70	312.1	12	13K	1							
BUTTE	83.87	43.1	12	13	0							
EUREKA	84.03	50.2	12	15	2				12	51		
PASADENA	84.31	55.8	12	15K	0						12	40
BOZEMAN	84.98	43.0	12	20	2				12	55		
UMEA	85.59	338.5	12	17	-4							
NURMIJARVI	85.96	334.6	12	22A	-1						12	59
HELSINKI	86.03	334.2	12	23	0						13	2
BOULDER CITY	86.18	53.1	12	26	2							
SKALSTUGAN	88.36	340.7	12	32	-2							
UPPSALA	89.12	336.3	12	36K	-2						13	10
LARAMIE	90.47	45.2	12	46	2							
RAPID CITY	90.67	41.9	12	46	1							
TUCSON	90.71	55.2	12	48	3				13	23		
KARLSKRONA	92.42	334.3	12	55A	2							
GOTEBORG	92.73	336.8	12	51	-4							
ALBUQUERQUE	92.81	51.1	13	55	60				14	30		
NIEDZIKA	94.71	327.3									13	38
COLLMBERG	96.92	331.9	13	13	-1				13	55	17	11 PP
PRUHONICE	97.14	330.2	13	50	35				14	29	16	14
KASPERSKE H.	98.19	330.0	13	55	35							
WICHITA MTS.	98.54	48.1	13	22	1				13	58	17	18 PP
BULAWAYO	120.50	258.2	18	33A	1							
SAN JUAN	130.89	40.1									22	6 PP
LA PAZ	148.59	88.2	19	28	4				20	9		

JANUARY 31 0.H 5.M 56.S EPICENTRE 38.61 70.17 DEPTH= 40.KM

A= 0.26573 B= 0.73700 C= 0.62146 D= 0.9407 E=-0.3392
G= 0.2108 H= 0.5846 K=-0.7834 HT= -1.2

DEPTH OF FOCUS= 0.001R

SE= 2.79

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
GARM	0.40	14.4									0	11	PG
KULYAB	0.78	205.2									0	13	PG
DZERGETAL	1.02	53.3									0	16	PG
DUZHANBE	1.10	268.3									0	20	PG
KHOROG	1.56	136.1	0	27	1						0	51	SG
FERGANA	2.16	34.6	0	37A	3						1	6	S*
NAMANGAN	2.63	25.5	0	43A	2						1	19	S*
SAMARKAND	2.70	294.1	0	43K	1						1	21	S*
ANDIJAN	2.73	37.8	0	45A	2						1	23	S*
TASHKENT	2.79	346.1	0	45	2	1	20	4					
WARSAK DAM	4.73	166.0	1	9	-2								
NARYN	5.29	56.0	1	18	-1								
FRUNSE	5.40	37.3	1	24	4	2	29	7					
ALMATA	6.93	45.6	1	43	1						3	33	
ALMATA-2	7.16	47.2	1	44	-1						3	44	
LAHORE	7.82	153.0	1	51	-3	3	17	-5					
QUETTA	8.82	198.5	2	7	-1	3	39	-8			2	48	*SP
ASHKABAD	9.32	269.6	2	15	0	4	2	2					
DEHRA DUN	10.52	139.5	2	33	2	4	31	2			4	43	SS
KIZYL-ARVAT	10.85	277.4	2	31	-5						7	27	
NEW DELHI	11.59	147.6	2	42A	-4	4	47	-8			5	1	SS
SEMIPALATNSK	13.79	28.0	3	11	-4								
KARACHI	13.99	191.8	3	22	4								
TEHERAN	15.25	265.0	3	34	0	6	43	21			8	19	PCP
SEHORE	16.48	157.0	3	51	1	6	58	7					
KIROVOBAD	18.47	283.9	4	11	-4								
CHATRA	18.47	124.5	4	13K	-2	7	32	-4			4	28	PP
GORIS	18.53	280.2	4	14K	-1						8	20	
SVERDLOVSK	19.29	344.0	4	23	-1	7	56	2					
LHASA	19.42	111.2	4	24	-2	8	1	4					
TIFLIS	19.62	287.2	4	26K	-2						8	10	
BOMBAY	19.78	172.6	4	30	0	8	14	9			8	42	SS
BOKARO	19.85	133.4	4	30	0						8	32	
EREVAN	19.89	282.6	4	30	-1	8	6	-1			4	48	PP
POONA	20.26	169.9	4	34	-1	8	25	10			8	53	SS
ESEN BULAK	20.68	59.5	4	37	-2								
HOWRAH	22.30	130.6	4	59	3	9	45	-52					
CALCUTTA	22.35	130.6									9	8	
SHILLONG	22.45	119.0	4	55A	-2	9	2	6					
KRASNAYA	23.06	292.3	5	4	1								
SOTCHI	23.41	292.0	5	6	0								
VISHAKHAPTNM	23.76	147.5	5	13	3	10	0	41					
CHITTAGONG	24.61	124.9	5	19	1						5	47	PP
LANCHOW	26.80	84.9	5	38A	0								
MADRAS	27.01	158.1	5	39	-1	10	21	8			6	38	PPP
IRKUTSK	27.29	48.8	5	32	-11								
SIMFEROPOL	27.46	295.0	5	45	1								
MOSCOW	27.62	319.0	5	44	-2								
KSARA	27.98	270.8	6	6	17	11	6	37					
ULAN-BATOR	28.09	58.7	5	50	0								
KYAKHTA	28.14	53.4	5	50	-1								
CHENGTU	28.83	95.6	5	57	0								
KODAIKANAL	29.01	165.1	5	32	-26						10	59	
KUNMING	30.58	106.4	6	12A	0								
PAOTOW	30.60	73.5	6	13	1								
PULKOVO	32.82	323.3									7	45	PP
PEKING	35.31	72.9	6	53	0	12	30	6					
APATITY	35.42	336.6	6	56K	2								
HELSINKI	35.49	322.3	6	58	3								
KAJAANI	35.68	329.4	6	53	-4						8	13	PP
NURMIJARVI	35.74	322.8	6	57A	0						8	18	PP
KRAKOW	37.05	304.7	7	7	-1								
SODANKYLA	37.55	334.1	7	15	3								
RACIBORZ	38.16	304.8	8	23	66						8	39	PP
UMEA	38.68	327.1	7	21	-1								
UPPSALA	39.01	320.5	7	24	0						8	48	PP
BRATISLAVA	39.03	301.8	7	25	0						8	56	
KARLSKRONA	39.73	314.5	7	34	4								
NANKING	39.81	84.2	7	32	1								

KIRUNA	39.90	333.2	7	32	0					
PRUHONICE	40.52	304.9	7	38	1				11	2
HONG KONG	40.85	100.4							24	16
LJUBLJANA	41.08	298.9	8	12	30					
CHANGCHUN	41.15	64.5	7	42	0					
KASPERSKE H.	41.24	303.7	7	43	0					
COLLMBERG	41.38	307.1	7	44	0	13	46	-10	9	20 PP
GOTEBORG	41.76	316.8	7	46	-1					
HALLE	42.01	307.4	7	49	0				8	17
ZO-SE	42.07	84.2	7	50	0					
SKALSTUGAN	42.09	325.6	7	47	-3					
JENA	42.31	306.6	7	46	-6				9	50
KHEYS	42.38	357.1	7	53	1	14	13	3		
YAKUTSK	42.67	36.9	7	55	0	14	15	0		
TIKSI	44.07	22.9	8	4	-2	14	36	1	10	30 PPP
STUTTGART	44.10	303.8	8	14	8				9	51
MUNSTER	44.63	308.6	8	15	5				9	59
BENSBERG	45.06	307.2	8	12	-2					
STRASBOURG	45.12	303.8	8	22	8					
ROSELEND	45.91	299.6	8	28	7				8	57
GARCHY	48.49	303.1	8	44	3					
KEW	49.57	309.2	8	48	-1					
FOLINIERE	50.38	305.9	8	54	-1					
MATUSIRO	52.82	69.6	9	12	-2				30	24
LWIRO	55.72	233.1	9	39	4					
ALERT	56.89	353.3	9	42	-1					
THULE	62.27	349.8	9	16	-64					
MOULD BAY	65.27	2.5	10	38	-2					
BROKEN HILL	65.63	225.0	10	49	7					
RESOLUTE	66.56	355.7	10	51	3					
BULAWAYO	70.24	221.5	11	14A	3					
COLLEGE	72.64	16.0	11	25	0	11	44			
CHARTERS TS.	92.01	114.1	13	7	1					
PENTICTON	92.02	6.4	13	7	1					
EUREKA	102.08	4.9	18	3	251					
WICHITA MTS.	106.30	350.4	18	27	777				18	41 PP

FEBRUARY 1 0.H 39.M 52.S EPICENTRE -31.66-177.20 DEPTH= 0.KM
A=-0.85173 B=-0.04161 C=-0.52233 D=-0.0488 E= 0.9988
G= 0.5217 H= 0.0255 K=-0.8527 HT= 1.3

SE= 2.90

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	2.48	345.4	0	42	0	1	12	-2					
ONERAHI	8.13	237.5	2	2	0						4	50	
TUAI	8.49	211.4	2	0	-7						3	34	
KARAPIRO	8.64	221.7	2	5	-4						3	43	
CHATEAU	9.57	216.2	2	17	-5						4	4	
TONGARIRO	9.57	216.2	2	16	-6						4	1	
WELLINGTON	11.56	211.7	2	43	-6	4	42	-18			5	33	
COBB RIVER	12.41	218.0	2	58	-3	5	3	-18					
KAIMATA	14.12	216.7	3	19	-4	5	42	-20					
GEBBIES PASS	14.44	210.8	3	24	-4	5	47	-23					
NOUMEA	17.28	298.7	4	7A	3	7	27	11					
ROXBURGH	17.33	213.4	4	11	6	7	30	13					
APIA	18.46	16.9	4	15	-4	7	28	-15					
PORT VILA	19.08	313.2	4	27	1								
BRISBANE	26.42	271.5	5	40	0	10	12	0					
RIVERVIEW	26.65	256.8	5	45A	3	10	13	-3			6	20	PP
CANBERRA	28.34	253.4	5	58K	0	10	44	0					
FORT NELSON	30.15	238.0									13	5	SSS
MOORLANDS	30.19	239.0	6	13K	-1				6	23			
TARRALEAH	30.70	239.4									9	15	PCP
MELBOURNE	31.53	248.2	6	26	0	11	34	0					
ADELAIDE	36.76	252.7	7	10K	-1						9	33	PCP
RABAUL	39.66	307.2	7	36	1								
SCOTT BASE	46.84	184.6	8	34	1						10	6	
DARWIN	51.35	279.8	9	7	-1								
WILKES	54.36	208.2	9	29	-2	17	6	-2					
MUNDARING	55.72	250.7	9	38	-3								
MATUSIRO	79.66	324.9	12	10K	-1						22	42	SCS
HONG KONG	84.79	300.0	12	30	-7	23	4	-1					
ZO-SE	85.45	310.8				23	8	-4					

PASADENA	85.87	45.5	12	43	0	23	26	10	16	0 PP
LICK	86.05	41.2	12	45A	1					
BERKELEY	86.08	40.5	12	44K	0					
CALISTOGA	86.46	39.8	12	46K	0					
NANKING	87.63	310.2	12	53	2	23	35	3	23	22 SKS
MINERAL	88.21	39.1	12	53K	-1					
RENO	88.62	40.7	12	56K	0					
TUCSON TELE.	89.43	50.9	13	1	1					
EUREKA	90.75	42.7	13	6	0				31	10 PKKP
GLEN CANYON	91.76	46.9	13	11	0					
VICTORIA	93.16	32.5	13	17K	0					
ALBUQUERQUE	93.83	51.0	13	25	5					
SALT LAKE C.	94.00	43.8	13	21	0					
PEKING	94.29	315.0	13	23	1	24	40	8	23	57 SKS
KUNMING	94.99	296.3	13	28	2	24	41	3	24	4 SKS
PENTICTON	95.50	33.7	13	28A	0					
SIAN	95.53	306.9	13	31A	3	24	7	3	24	53 S
FLAMING GRGE	95.56	44.8	13	27	-1				30	18 PKKP
PORT BLAIR	96.09	279.9							22	51
LA PAZ	96.89	114.0	13	35	1				26	22 PS
CHENGTU	97.02	301.6	13	37	2	24	13	1	25	1 S
BOZEMAN	97.51	40.3	13	37	0					
PAOTOW	98.40	312.7				24	19	0	25	14 S
COLLEGE	98.92	12.2	13	42	-1				18	13 PP
WICHITA MTS.	99.06	54.9	13	43	-1	24	14	-8	17	44 PP
LANCHOW	100.01	306.1	13	50	2	24	29	2		
CHITTAGONG	102.18	288.8				24	30	-8	18	23 PP
MANHATTEN	102.76	51.8							26	40
SHILLONG	103.69	291.6	14	6	1	24	46	1		
ULAN-BATOR	104.28	317.7							17	42
ROLLA	105.32	54.8							26	23
LHASA	106.25	295.0				25	2	6	26	22 S
MADRAS	107.36	274.8	17	54	777	25	9	8	29	12
CHATRA	108.01	290.8				25	13	9		
CARACAS	112.65	91.5							19	35 PP
MOULD BAY	113.48	12.8	18	39A	-1					
BOMBAY	116.36	276.8				25	41	4	31	22 PPS
RESOLUTE	118.24	17.4	18	48K	-1					
BREBEUF	120.81	52.7	18	47A	-7					
SHAWINIGAN	121.65	51.7	18	56K	0					
WARSAK DAM	123.19	292.3	18	59	0					
WINDHOEK	124.36	196.1							20	30 PP
ALERT	124.40	8.3	19	0K	-1					
QUETTA	125.67	286.4	19	5	1	19	16		27	55 SKKS
KHEYS	126.51	350.3	19	5	0					
HALIFAX	127.55	55.6	19	6A	-1					
SVERDLOVSK	133.31	320.2	19	18	0					
LWIRO	138.20	221.1	19	22	-5				23	2
TEHERAN	139.69	289.4	19	31	1				23	12
APATITY	139.83	342.3	19	30	0					
SODANKYLA	141.58	345.4	19	29	-4					
KIRUNA	142.34	349.2	19	35	0					
MAKHACH-KALA	143.09	300.7	19	32	-4					
KAJAANI	144.01	341.6	19	33	-4					
GORIS	144.02	294.9	19	36	-1					
TIFLIS	145.15	298.7	19	40	1					
SIDA	145.28	16.1	19	41A	1					
MOSCOW	145.76	325.0	19	41	1					
PULKOVO	146.43	335.0	20	7	25					
SKALSTUGAN	147.50	352.1	19	48	5					
NURMIJARVI	147.72	339.8	19	46	2					
HELSINKI	147.91	339.2	19	45	1					
SOTCHI	148.67	302.9	19	47	2					
UPPSALA	150.11	345.0	19	52	4					
KSARA	152.15	283.4	19	50	-1				23	44 PP
GOTEBORG	153.21	349.0	20	0	8					
M.BOUR	155.04	129.1	19	55	1				20	21 PKP2
WARSAW	155.51	332.4	19	35	-20					
SKALNATE PL.	158.12	328.1	19	59	0				21	28
RACIBORZ	158.30	332.4							20	33 PKP2
COLLMBERG	158.98	341.9	20	10	10				24	24 PP
HALLE	159.06	343.8	20	0	0				20	37
JENA	159.68	343.8	20	1	1				21	21
PRUHONICE	159.70	337.7	20	1	1				20	41
BENSBERG	160.45	351.7	20	4	3				21	7
VIENNA-H.	160.49	332.0	20	3A	2				20	13 PKP2
KASPERSKE H.	160.75	338.1	20	0	-2				20	44
DOURBES	161.53	356.3	20	2	0					
STUTTGART	162.22	345.8	20	3	0				21	23

FOLINIERE	162.73	7.3	20	3	0					
LJUBLJANA	163.01	331.0	20	5	1			21	8	PKP2
ROSELEND	165.69	346.1	19	57	-9			20	58	PKP2
TOLEDO	170.09	32.2	20	11	2			21	26	PKP2
GRANADA	172.37	42.1	21	37	86			25	33	PP

FEBRUARY 2 7.H 59.M 58.S EPICENTRE 49.80 77.81 DEPTH= 0.KM

A= 0.13686 B= 0.63334 C= 0.76168 D= 0.9774 E=-0.2112
G= 0.1609 H= 0.7445 K=-0.6480 HT= -5.3

SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ESEN BULAK	12.79	98.4	3	16	10								
WARSAK DAM	16.45	198.6	3	50	-4						7	5	
LAHORE	18.42	189.4	4	19	0								
ULAN-BATOR	19.18	84.5	4	28	0								
DEHRA DUN	19.46	179.4	4	33	2								
NEW DELHI	21.20	181.5	4	47A	-3								
QUETTA	21.25	206.7	4	49	-1						5	45	
TEHERAN	23.79	243.8	5	20A	4								
CHATRA	24.05	159.1	5	20K	2								
SHILLONG	26.54	150.6	5	40A	-2								
KAJAANI	29.90	317.4	6	16	4								
SODANKYLA	30.74	323.8	6	19A	0								
NURMIJARVI	31.33	310.4	6	24	-1								
KIRUNA	33.15	324.2	6	40A	-1						7	40	PP
UMEA	33.20	316.9	6	40	-1						7	43	PP
UPPSALA	34.90	310.0	6	55A	-1						8	2	PP
SKALNATE PL.	36.60	291.7	7	11	1						8	23	
SKALSTUGAN	36.75	317.1	7	10A	-1						8	32	PP
KARLSKRONA	36.84	304.4	7	11A	-1						8	32	PP
RACIBORZ	37.46	294.0	7	19	2								
GOTEBORG	38.28	307.7	7	23	-1						8	49	PP
VIENNA-H.	39.32	292.1	7	35	2								
PRUHONICE	39.65	295.4	7	37A	1						9	8	PP
COLLMBERG	40.00	297.9	7	39A	0						9	12	PP
KASPERSKE H.	40.59	294.6	7	45	2						9	13	PP
LJUBLJANA	41.46	290.0	7	52A	1								
STUTTGART	43.27	296.1	8	6	1								
BENSBERG	43.46	299.8	8	8	1								
STRASBOURG	44.24	296.5	8	15	2								
MATUSIRO	44.83	83.4	8	15A	-3						9	55	PP
DOURBES	45.31	299.9	8	23	1						8	56	
CHIAVARI	45.50	290.6	8	6	-17								
ROSELEND	45.90	292.8	8	30A	4						10	19	
BESANCON	45.95	295.8	8	27	0								
ALERT	46.41	353.3	8	31A	0								
KEW	47.34	303.7	8	38	0								
FOLINIERE	48.84	300.6	8	49	-1								
SIDA	49.23	324.3	8	53	0								
THULE	52.19	350.4	9	13	-2								
MOULD BAY	53.76	5.0	9	25A	-2								
RESOLUTE	55.71	357.7	9	39	-2								
COLLEGE	60.31	20.6	10	12	-1								
LWIRO	66.73	235.2	10	5A	-51						10	58	
BANFF	78.76	8.5	12	6	0								
SEVEN FALLS	79.71	338.8	12	10	-2								
PENTICTON	80.13	11.5	12	13A	-1								
VICTORIA	80.37	14.1	12	14A	-1								
HUNGRY HORSE	81.70	7.9	12	21	-1								
BREBEUF	81.88	340.1	12	22	-1								
BUTTE	84.14	7.2	12	34	-1								
RAPID CITY	86.50	0.7	12	46	0								
MINERAL	88.62	14.7	12	56A	-1								
FLAMING GRGE	89.43	5.4	13	1	1								
RENO	89.69	13.5	13	2A	0								
CALISTOGA	90.11	15.8	13	4A	0								
EUREKA	90.27	10.6	13	5	1								
LICK	91.54	15.4	13	11K	1								
GLEN CANYON	93.20	7.5	13	18	0								
WOODY	93.60	13.5	13	19	-1								
FAYETTEVILLE	94.19	353.5	13	22K	0								
ALBUQUERQUE	95.53	3.5	13	19	-10								

WICHITA MTS. 95.79 357.0 13 30 0 17 31 PP

A THERMO-NUCLEAR UNDERGROUND EXPLOSION

FEBRUARY 2 17.H 20.M 20.S EPICENTRE 44.26 148.30 DEPTH= 80.KM

A=-0.61134 B= 0.37756 C= 0.69550 D= 0.5255 E= 0.8508
G=-0.5917 H= 0.3655 K=-0.7185 HT= -3.3

DEPTH OF FOCUS= 0.007R

SE= 3.97

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ABASHIRI	2.90	266.7	0 47	2				
KUSIRO	3.11	247.0	0 41	-7	1 22	-2		
OBIHIRO	3.94	251.9	0 54	-5	1 47	2		
HIROO	4.14	243.2	0 55	-7	1 49	-1		
ASAHIGAWA	4.30	265.7	1 3	-1				
URAKAWA	4.55	244.3	1 2	-6	1 50	-10		
Y.-SAKHLINSK	4.79	307.1	1 10	-1	2 20	14		
RUMOE	4.82	268.6	1 4	-8				
WAKKANAI	4.85	286.1	1 14	2	2 22	15		
TOMAKOMAI	5.16	253.9	1 24	8	2 20	5		
MURORAN	5.68	252.6	1 21	-2	2 25	-3		
HAKODATE	6.04	248.7	1 21	-7	2 27	-10		
SUTTSU	6.05	258.8	1 26	-2				
MORI	6.05	251.8	1 26	-2	2 44	7		
HATINOHE	6.25	235.7	1 21	-10	2 27	-15		
UGLEGORSK	6.45	320.6	1 36	2				
AOMORI	6.53	240.8	1 28	-7	2 35	-14		
MORIOKA	7.00	231.8	1 32	-10	2 45	-15		
MIZUSAWA	7.42	228.8	1 45	-2	2 55	-16		
AKITA	7.61	236.2	2 9	19				
ISINOMAKI	7.84	224.4	1 41	-12	3 2	-19		
SENDAI	8.18	225.5	1 45	-13	3 7	-22		
SAKATA	8.30	232.7			3 23	-9		
YAMAGATA	8.48	227.6	1 56	-6	3 18	-19		
HUKUSIMA	8.79	225.0	1 55	-11	3 24	-21		
ONAHAMA	9.22	220.1	2 29	17	3 35	-20		
SHIRAKAWA	9.40	223.4	2 22	7	3 40	-19		
NIIGATA	9.42	230.9						3 8
MITO	9.88	219.9	2 12	-9	3 51	-20		
UTUNOMIYA	10.03	222.7	2 26	3	3 58	-17		
KAKIOKA	10.14	220.5	2 13	-11				
TUKUBASAN	10.18	220.7	2 12	-13	3 55	-23		2 38
MAEBASI	10.54	225.0	2 28	-2	4 12	-15		
KUMAGAYA	10.58	223.1	2 32	2	4 13	-15		
TOKYO C.M.O.	10.79	220.3						4 14
NAGANO	10.80	228.8	2 36	3				4 59
OIWAKE	10.86	226.5	2 52	18				
MATUSIRO	10.89	228.3	2 24A	-11	4 10	-25		4 37
YOKOHAMA	11.04	219.9						4 21
PETROPAVLOVK	11.11	34.3	2 12	-26				4 19
KOHU	11.37	224.3	3 1	20				
HUNATU	11.40	223.1						4 32
VLADIVOSTOK	11.93	270.2	2 47	-2	4 40	-20		
KYOTO	13.36	230.6	3 2	-5				
MAGADAN	15.39	4.8	3 33	-1				7 8
CHANGCHUN	16.53	276.6	3 44	-4				
YAKUTSK	20.85	335.0	4 35	-2	8 27	7	4 42	9 10 SS
PEKING	24.11	271.1	5 8A	-1	9 27	9	5 17	
ZO-SE	25.03	247.5	5 15A	-3	9 41	7		
NANKING	26.07	252.2	5 28K	0	10 0	9	5 36	
PAOTOW	28.32	276.0	5 49	1	10 37	10		
ULAN-BATOR	28.70	292.1	5 51	0				
TIKSI	29.02	347.4	5 50	-4				6 50 PP
SIAN	31.82	265.3	6 18	-1				
LANCHOW	34.61	271.9	6 43A	0	12 9	3		
HONG KONG	35.59	243.2	6 49	-2	12 34	13		
CHENGTU	37.24	263.9	7 3	-2	12 48	2	7 16	
COLLEGE	40.18	36.5	7 29	-1			7 39	
KUNMING	41.44	258.0	7 38	-2	13 53	4	7 51	
SEMIPALATNSK	45.07	303.0	8 8	-1				
LHASA	47.12	272.0	8 26	0				
MOULD BAY	48.08	18.8	8 32	-1				

SHILLONG	48.90	267.0	8 37A	-3				
CHITTAGONG	50.92	263.8	8 50	-5				10 41 PP
CHATRA	51.52	271.6	8 57	-3				
ALERT	52.55	4.9	9 11	4				
SVERDLOVSK	53.34	316.8	9 12	-1				20 40 SS
RESOLUTE	54.24	17.0	9 18A	-2				9 50
TASHKENT	55.91	296.8	9 32	0				17 35 PS
DEHRA DUN	55.99	281.0						17 25
KHOROG	56.48	291.7	9 35	-1				17 49 PS
THULE	57.35	9.6	9 39	-3				
NEW DELHI	57.61	279.8	9 42A	-2				
LAHORE	57.89	284.4	9 44	-2				
APATITY	58.26	335.8	9 55K	7				
WARSAK DAM	58.40	288.3	9 49	0				
PENTICTON	59.41	49.4	9 52	-4				
SODANKYLA	60.31	337.7	10 1	-1				
KIRUNA	61.57	340.1	10 11	0				
LEMBANG	62.68	226.8	10 24A	6				
HUNGRY HORSE	62.99	47.9	10 18	-3				
MINERAL	63.41	58.7	10 23	0				
QUETTA	63.80	287.4	10 25	-1	18 59	6		
CHARTERS TS.	64.06	182.1	10 32	5				
MOSCOW	64.53	324.1	10 30	-1				
UMEA	64.73	337.3	10 28	-4				
NURMIJARVI	65.96	333.2	10 41	1				
BOZEMAN	66.25	48.8	10 42	0				
EUREKA	67.36	56.5	10 47	-2				
UPPSALA	68.65	335.7	10 56	-1				
PASADENA	69.39	62.2	11 2	1				
FLAMING GRGE	70.26	51.9	11 8	2				
BOULDER CITY	70.30	58.8	11 5	-2				
TIFLIS	70.40	309.4	11 9A	2				11 30 PCP
TEHERAN	70.48	301.0	11 8	0				
GORIS	71.02	306.8	11 12K	1				11 26 PCP
RAPID CITY	71.47	46.1	11 30	16				
GOTEBORG	72.08	337.1	11 17	0				
KARLSKRONA	72.31	334.4	11 14	-5				
KRAKOW	75.87	328.6	11 40	1				11 59 PCP
ALBUQUERQUE	76.03	54.8	11 41	1				
SKALNATE PL.	76.46	327.9	11 45	2				11 56 PCP
RACIBORZ	76.48	329.5	11 44	1			11 50	12 1 PCP
COLLMBERG	77.25	333.1	11 46	-1				12 46
HALLE	77.42	333.8	11 48	0				
PRUHONICE	77.86	331.5	11 51	1				
JENA	78.03	333.7	11 51	0			12 12	
MUNSTER	78.31	336.4	11 56	3				
BRATISLAVA	78.47	329.1	11 56	2				
VIENNA-H.	78.67	329.5	11 57	2				
KASPERSKE H.	78.91	331.6	11 56	0				13 34
ISTANBUL UN.	79.12	317.8						33 31
BENSBERG	79.34	336.2	11 58	0				
STUTTGART	80.64	333.9	12 6	1				
WICHITA MTS.	80.68	50.2	12 4	-2	22 14	9		26 43 SS
DOURBES	80.84	337.3	12 10	4				
KSARA	80.96	308.8	12 10	3				
LJUBLJANA	81.21	329.4	12 14	6				
STRASBOURG	81.28	334.7	12 10	1				12 54
FAYETTEVILLE	82.01	46.5	12 10K	-3				
BREBEUF	83.20	28.2	12 4	-15				
FOLINIERE	83.40	339.8	12 21	1				
PALISADES	87.03	30.6			23 16	8		

FEBRUARY 3 0.H 38.M 6.5 EPICENTRE -1.55 137.36 DEPTH= 107.KM

A=-0.73535 B= 0.67716 C=-0.02685 D= 0.6774 E= 0.7356
G= 0.0197 H=-0.0182 K=-0.9996 HT= 7.2

DEPTH OF FOCUS= 0.012R

SE= 3.50

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DARWIN	12.56	210.7	2 55	-1				
GUAM	16.61	25.9	3 39	-9				
CHARTERS TS.	20.38	155.3	4 29	-1	8 18	10		
HONIARA	23.79	110.0	4 59	-5				9 14

HENGCHUN	28.48	326.2							12	1
TAWU	28.67	326.9	6	47	58					
TAITUNG	28.86	327.7	5	59	8	9	59	-33		
HWALIEN	29.62	329.9	6	11	13	10	46	2		
BRISBANE	29.64	151.4	5	57	-1	11	3	19		
LEMBANG	30.11	259.1	6	2A	0				7	11
ILAN	30.23	330.9	6	3	0	10	39	-14		
TAICHUNG	30.25	328.6	5	14	-49					
TAIPEI	30.56	330.9	6	25	19	11	2	4		
DJAKARTA	30.80	260.6	6	6	-2				11	12
TANGERANG	30.99	260.6	6	10	0					
YAKUSIMA	32.48	348.9	6	25	2					
HONG KONG	32.77	317.6	6	22A	-3	11	35	2		
ADELAIDE	33.27	178.0	6	30K	0	11	40	-1	6 40	7 34 PP
KAGOSIMA	33.57	349.5	6	36	4	11	45	0		
MIYAZAKI	33.76	350.9	6	39	5	12	1	13		
CANTON	33.87	317.7	6	32A	-3	11	53	3		
SIMIDU	34.39	353.4	7	5	26	11	56	-2		
RIVERVIEW	34.61	159.6	6	41A	0	12	13	11	6 51	16 30
MUROTO	34.74	355.3	6	43	1					16 54
KUMAMOTO	34.76	350.1	6	45	3					16 14
NAGASAKI	34.82	348.9	6	39	-4	12	7	2		
SIOMISAKI	34.84	357.7	6	36	-7					7 55 PP
TOMIE	34.94	347.3	6	47	3	12	16	9		
NOUMEA	35.00	128.3	6	42	-2					
OOITA	35.01	351.6	6	46	2					14 53
KOTI	35.10	354.4	6	40	-5	12	12	3		7 58 PP
CANBERRA	35.30	163.4	6	47A	0	12	23	11		8 8 PP
OWASE	35.45	358.3	6	41	-7					
MATUYAMA	35.46	353.4	6	47	-1	12	19	4		
SUMOTO	35.77	356.5	6	53	2	12	21	2		8 9
ZO-SE	35.93	336.0	6	50	-2	12	22	0		
OMAESAKI	35.97	1.2								8 12
HIROSIMA	36.03	353.1	6	44	-9	12	25	2		
OSAKA	36.05	357.4	6	55	2					
KOBE	36.10	357.0	6	44	-10					
KAMEYAMA	36.22	358.8	6	51	-4	12	15	-11		
MUNDARING	36.24	211.2	6	56A	1	12	52	25		
SHIZUOKA	36.34	1.4								8 12
KYOTO	36.41	357.7	6	52	-4	12	32	3		
PERTH	36.42	211.7	6	59	3	12	51	22		9 1 PPP
MISIMA	36.51	2.2	7	14	17					
HIKONE	36.64	358.5	6	56	-2	12	32	-1		
YOKOHAMA	36.85	3.1	7	6	6					
IIDA	36.88	0.6	7	4	4					
TOYOOKA	36.96	356.6	6	55	-6	12	35	-3		15 19
MATSUE	37.02	354.2	6	59	-2					
KOHU	37.04	1.6	7	11	9					18 55
TOKYO C.M.O.	37.10	3.2	7	16	14					12 23
MATUMOTO	37.61	0.8	7	2	-4					
TUKUBASAN	37.66	3.6	6	58K	-9	12	41	-7	7 6	8 48 PPP
OIWAKE	37.70	1.6	7	14	7					17 18
NANKING	37.78	333.8	7	7A	-1	12	55	5		
MAEBASI	37.79	2.3	7	4	-4					8 44
MITO	37.85	4.1	7	4	-4					12 52
MATUSIRO	37.90	1.1	7	3	-6	12	44	-8		8 36 PP
UTUNOMIYA	37.98	3.3	7	7	-2	12	51	-2		
NAGANO	38.03	1.1	7	16	6					9 14
ONAHAMA	38.44	4.6	7	10A	-3	13	2	2		
SHIRAKAWA	38.56	3.7	7	11	-3	13	4	2		
HUKUSIMA	39.21	3.9	7	19	-1					
YAMAGATA	39.70	3.7	7	20	-4	13	21	2		
SENDAI	39.76	4.4	7	20	-4	13	7	-13		
ISINOMAKI	39.95	4.8	7	21	-5					
MIZUSAWA	40.63	4.5	7	33	2	13	33	0		
AKITA	41.15	3.2	7	33	-2	13	45	5		
MIYAKO	41.22	5.4	7	34	-2					
TARRALEAH	41.39	169.8	7	38A	1					
MOORLANDS	41.65	169.0	7	40A	0					
HATINOHE	42.05	4.7	7	52	9	13	52	-2		
FORT NELSON	42.16	169.1	7	46A	2	14	11	16		
AOMORI	42.28	3.9	7	43	-2	14	1	4		
KUNMING	42.74	310.6	7	48A	-1	14	11	7		
HAKODATE	43.27	3.7	7	56	3					
SUVA	43.54	114.9	8	48	53	14	24	9		
MORI	43.54	3.5	7	58	3					
URAKAWA	43.77	5.8	7	59	2					
TOMAKOMAI	44.14	4.5	8	0	0					

SUTTSU	44.22	3.0	8	2	1	14	27	2				
SIAN	44.51	325.8	8	0A	-3	14	33	4				
SAPPORO	44.56	4.2	8	0	-3	14	27	-3			17	25 SS
OBIHIRO	44.58	6.1	8	0	-3							
VLADIVOSTOK	44.74	354.3	8	2K	-3	14	37	4			9	46 PP
KUSIRO	44.78	7.3	8	0	-5	14	31	-2				
CHENGTU	45.09	318.0	8	6	-1	14	43	5				
NEMURO	45.28	8.4									14	30
PEKING	45.70	337.2	8	9A	-3	14	50	4				
PORT BLAIR	46.26	287.7	8	15	-2	15	18	24				
CHANGCHUN	46.45	348.0	8	15	-3	14	57	0				
WAKKANAI	46.92	4.2	8	22	0	15	8	4				
ONERAHI	48.34	139.1	8	33	0						9	34
Y.-SAKHLINSK	48.59	4.9	8	30K	-5						10	18 PP
LANCHOW	48.73	323.4	8	36A	0	15	37	8				
PAOTOW	48.78	332.3	8	35A	-1	15	36	6				
CHITTAGONG	50.36	300.9	8	49A	1	15	59	7	8	56	10	47 PP
KARAPIRO	50.37	140.6	8	48A	-1							
COBB RIVER	50.67	145.5	8	50	-1							
KAIMATA	50.93	147.8	9	3	10	16	9	9			9	30
TONGARIRO	51.13	141.9	8	54	0							
CHATEAU	51.14	141.9	8	54	0							
SHILLONG	51.58	304.7	8	55A	-3	16	15	6			10	45 PP
AFIAMALU	51.75	106.4	8	57K	-2	16	17	6				
TUAI	51.91	140.5	8	58	-2							
WELLINGTON	51.97	144.5	8	59	-2	16	24	10			20	57
ROXBURGH	51.99	151.8	9	0	-1	16	23	9			20	16 SS
GEBBIES PASS	52.39	148.1	9	4	0							
CALCUTTA	53.40	299.6	9	9	-2	16	39	6			11	9 PP
HOWRAH	53.45	299.7	9	14	2	16	47	13				
LHASA	54.00	308.9	9	16A	0	16	51	10				
MACQUARIE I.	55.67	164.9	9	28	0							
CHATRA	55.95	304.1	9	29A	-1	17	16	9			11	34 PP
ULAN-BATOR	55.96	335.7	9	26A	-4	17	13	5				
BOKARO	56.06	300.2	9	30	-1							
VISHAKHAPTNM	56.56	292.4	9	34A	0	17	28	13			11	43 PP
PETROPAVLOVK	57.23	15.1	9	34K	-5	17	29	5			11	52 PP
MADRAS	58.53	286.2	9	47A	-1	17	52	11			12	1 PP
ESEN BULAK	59.88	328.3	9	56	-1	18	9	10				
IRKUTSK	60.41	337.3	9	58A	-3	18	13	8			19	48 SCS
HYDERABAD	61.00	290.8	10	5A	0	18	23	10			10	44 PP
MAGADAN	61.83	7.7	10	9	-1	18	31	8				
YAKUTSK	63.67	356.0	10	18A	-4						12	42 PP
DEHRA DUN	64.68	304.7	10	30	1	19	10	11			13	4 PP
NEW DELHI	64.87	302.6	10	28A	-2	19	8	7			12	44 PP
POONA	65.51	291.1	10	33A	-1	19	17	8			13	2 PP
BOMBAY	66.53	291.3	10	40	-1	19	27	5			13	3 PP
HONOLULU	66.98	66.2	10	48	4							
KIPAPA	67.08	66.1	10	43	-1							
WILKES	67.38	191.4	10	47	1	19	44	12			19	58 SP
LAHORE	68.09	304.9	10	49	-2							
HAWAII V.OB.	69.26	68.7	11	0	2	20	58	64				
ALMATA	69.99	317.5	11	3A	1	20	12	9			24	54 SS
SEMIPALATNSK	70.93	325.3	11	6A	-2	20	21	8				
WARSAK DAM	71.01	306.7	11	9	1	20	24	10				
KHOROG	71.98	310.2	11	14A	0	20	32	7				
KARACHI	72.86	296.5	11	17	-2				11	27		
TIKSI	73.26	357.2	11	18A	-4	20	44	4			14	7 PP
CAPE HALLETT	73.60	170.0	11	25	1	21	9	25				
QUETTA	73.93	301.9	11	27A	1	20	59	12	11	33		
TASHKENT	74.73	313.6	11	30	0	21	6	10			14	21 PP
SCOTT BASE	77.83	173.9	11	49	1							
ASHKABAD	82.29	308.5	12	11	0						22	30 SCS
SVERDLOVSK	84.05	327.5	12	20	0	22	41	7			15	38 PP
COLLEGE	84.98	24.4	12	23	-2	22	42	-1			15	50 PP
AMDERMA	86.51	340.3	12	30A	-2							
TEHERAN	87.62	305.7	12	38A	0						23	6
SOUTH POLE	88.46	180.0	12	42	0						13	4
TANANARIVE	89.32	251.2	12	51A	5						15	57 PP
SITKA	89.83	33.1	12	55	7							
GORIS	91.77	309.3	12	57A	0						16	35 PP
TIFLIS	92.94	311.5	13	2A	-1						16	50 PP
MOULD BAY	94.66	13.5	13	7A	-3							
ALBERNI	96.28	40.8	13	16	-2							
APATITY	96.73	338.0	13	22	2							
MOSCOW	96.76	325.8	13	17A	-3	24	33	47			17	20 PP
VICTORIA	97.27	41.4	13	27K	5							
ALERT	98.66	2.6	13	29	0							

CALISTOGA	98.83	51.3	13	30	1					
BERKELEY	99.15	52.0	13	32	1	24	10	12	17	42 PP
SODANKYLA	99.30	338.5	13	30	-2				17	40 PP
MINERAL	99.42	49.5	13	30	-2					
PENTICTON	99.65	40.3	13	33	0					
LICK	99.69	52.5	13	38A	5					
PULKOVO	99.87	330.6				24	8	7	17	44 PP
KSARA	100.40	304.0							17	45 PP
SIMFEROPOL	100.46	315.3							17	48 PP
RESOLUTE	100.87	12.4	13	36	-3					
RENO	100.88	50.2	13	36K	-3	24	17	11	17	42 PP
KIRUNA	101.34	339.8				24	20	11	32	15 SS
NURMIJARVI	102.37	332.1							17	59 PP
PASADENA	102.84	55.4	13	50	3	24	26	10	17	47 PP
UMEA	103.07	336.1	13	47	-1	24	26	9	18	7 PP
HUNGRY HORSE	103.46	40.5	13	52	2					
EUREKA	103.82	49.8	13	52	0				19	10 PP
ISTANBUL UN.	104.82	312.0							17	5
BOULDER CITY	105.29	53.2	14	4	777					
UPPSALA	105.87	332.9							18	23 PP
LWOW	106.07	321.8							17	23 PP
BOZEMAN	106.09	42.7	14	7	777					
WARSAW	107.10	324.8				25	28	53	28	2 PS
GLEN CANYON	107.68	51.7	17	49	777				29	47
FLAMING GRGE	108.45	47.2	14	17	777					
LWIRO	108.47	267.1	14	16	777	24	59	18	18	38 PP
SKALNATE PL.	108.61	321.9	18	2	777				18	46 PP
TUCSON	109.21	56.4	18	57	777					
GOTEBORG	109.48	332.3							18	55 PP
BELGRADE	109.93	317.5	18	31	777	24	58	11	19	9 PP
BUDAPEST	109.97	320.6	14	1	777				20	47 PPP
BRATISLAVA	110.93	321.8							18	59 PP
PRUHONICE	111.73	324.3	18	13	-9	24	54	113	14	26 P
HERMANUS	111.99	231.8				25	16	21	19	19 PP
COLLMBERG	112.03	326.0	18	23	0				14	31 P
ALBUQUERQUE	112.19	52.8	18	0	-23				29	28
HALLE	112.52	326.5				25	12	15	18	37
KASPERSKE H.	112.66	323.7	18	26	2				19	21 PP
JENA	112.99	326.1	18	28	3				19	17 PP
LJUBLJANA	113.38	320.4							19	54 PP
TARANTO	113.57	313.9							29	12 PS
TRIESTE	114.03	320.2							21	57 PPP
STUTTGART	115.34	324.8	18	32	3	27	27	139	19	34 PP
BENSBERG	115.39	327.7	18	44	15				19	35 PP
MESSINA	115.57	312.1							19	28 PP
DE BILT	115.80	329.5				27	30	140	19	54 PP
ABERDEEN	115.87	336.8				27	38	148	29	48 PPS
STRASBOURG	116.30	325.2	19	0	29	27	17	125	19	37 PP
ROME	116.40	316.9							29	36 PS
DOURBES	117.23	327.9	18	35	2					
ROSELEND	117.94	322.2							19	54
MANHATTEN	118.30	45.5							28	57
WICHITA MTS.	118.44	50.9	18	37	2	25	33	14	19	49 PP
BANGUI	118.77	274.1							19	58 PP
KEW	118.90	331.2							29	50 PPS
PARIS	119.10	327.6	18	47	10				19	42
GARCHY	119.67	325.9	18	40	2				19	10
FOLINIERE	120.69	328.9	18	42	2					
FAYETTEVILLE	121.28	47.9	18	41	0				28	46 PKKP
ROLLA	122.18	45.1							28	44
SHAWINIGAN	128.03	26.1	18	56	2					
TOLEDO	128.20	322.4	18	56	2				20	57 PP
SEVEN FALLS	128.41	24.3	18	55	0					
BREBEUF	128.45	27.5	18	56	1	26	10	20	21	0 PP
ALMERIA	128.96	318.3	18	55	-1				22	18 PKS
GRANADA	129.51	319.3							21	23 PP
PALISADES	131.62	31.7	19	4	3	26	12	13	16	12 P
COLUMBIA	131.75	43.8	19	4	3				22	26
BALBOA HTS.	142.54	77.3	18	58	-23					
ANTOFAGASTA	143.13	134.6	19	22	0					
HUANCAYO	144.83	113.5	19	28	3					
CHINCHINA	146.91	83.3	19	31A	3				19	41 PKP2
BOGOTA	148.47	83.7	19	38	7				19	50 PKP2
LA PAZ	149.10	126.5	19	36	4				23	0 PP
SAN JUAN	151.53	52.5	19	43	8				23	26 PP
M.BOUR	151.61	298.0	19	37	1	26	25	-5		
CARACAS	154.28	68.8	19	43	4				30	7 SKKS

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.

FEBRUARY 4 2.H 54.M 50.S EPICENTRE -4.70 118.85 DEPTH= 141.KM

A=-0.48092 B= 0.87298 C=-0.08134 D= 0.8759 E= 0.4825
G= 0.0392 H=-0.0712 K=-0.9967 HT= 7.0

DEPTH OF FOCUS= 0.017R

SE= 2.26

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
LEMBANG	11.37	258.7	2	39	0	5	3	19					
TANGERANG	12.25	262.6	2	49	-1								
DARWIN	14.09	123.6	3	8	-6	5	15	-32					
MANILA	19.37	6.5	4	20	3	8	12	29					
HONG KONG	27.22	350.5	5	36	4	10	37	38			12	33	SCP
MUNDARING	27.24	184.9	4	35K	-58								
PEPTH	27.26	185.6	5	40	7	10	21	21			12	20	
CHARTERS TS.	30.75	122.2	6	3	-1	11	10	15			7	9	PP
RABAUL	33.22	90.5	6	24	-1								
KUNMING	33.52	332.9	6	28	0	11	50	12					
ADELAIDE	35.29	151.1	6	41K	-2						8	2	PP
ZO-SE	35.66	3.4	6	46	0								
NANKING	36.55	359.9	6	55	2								
CHITTAGONG	37.71	316.5	7	4	1	12	55	13	7	29	8	24	PP
CHENGTU	37.91	339.0	7	4	-1								
BRISBANE	39.42	128.6	7	20	3	13	19	11					
SIAN	39.86	347.1	7	21	0								
SHILLONG	39.89	320.3	7	19A	-2	13	17	2					
MELBOURNE	40.69	147.7	7	28	0								
HONIARA	41.04	98.9	7	30	-1								
CANBERRA	41.27	141.5	7	33	0						8	17	
VISHAKHAPTNM	41.56	303.3	7	36A	1						16	37	
RIVERVIEW	41.72	138.1	7	35	-1	13	58	16	7	55			
LANCHOW	42.91	342.0	7	45	-1								
BOKARO	42.92	312.8	7	48	2								
LHASA	43.33	323.7	7	50	1								
PEKING	44.57	357.1	7	59	0								
TARRALEAH	44.78	150.8	8	1	0						8	55	PCP
MATUSIRO	44.84	22.2	8	0	-1	14	38	11					
MOORLANDS	45.25	150.3	8	4	-1						8	44	*SP
FORT NELSON	45.69	150.7									18	33	SS
CHANGCHUN	48.65	6.2	8	29	-2								
VLADIVOSTOK	49.04	12.6	8	30	-4								
NOUMEA	49.22	115.4	8	37A	1								
POONA	49.99	298.8	8	39A	-2								
BOMBAY	51.03	298.8	8	49	0	16	7	13			10	50	PP
ULAN-BATOR	53.44	350.0	9	6	-1								
ESEN BULAK	54.68	341.0	9	16	0								
WARSAK DAM	58.92	314.5	9	46	0								
MACQUARIE I.	59.28	154.1	9	49	0								
ROXBURGH	59.73	141.1									24	16	
QUETTA	60.54	308.5	9	55	-2						18	36	*SS
KARAPIRO	61.14	131.0	10	2	1								
TONGARIRO	61.54	132.4									10	46	
WILKES	61.81	183.8				18	45	29					
TUAI	62.61	131.5	10	10	-1								
PETROPAVLOVK	66.56	24.9	10	38	1								
YAKUTSK	67.05	5.5	10	40	0								
TANANARIVE	70.81	251.7	11	4K	1								
TEHERAN	74.72	308.8	11	39	13	21	27	38					
TIKSI	76.46	3.3	11	35	0								
SVERDLOVSK	77.26	331.4	11	37	-3								
TIFLIS	81.31	313.3	12	9	7								
AMDERMA	83.59	342.9	12	12	-1								
KSARA	86.76	304.1	12	32	3								
LWIRO	89.87	267.8	12	43	-1	23	41	20					
KHEYS	90.03	351.8	12	44	0								
APATITY	92.55	337.5	12	56	0								
SODANKYLA	95.16	337.2	13	10	2								
COLLEGE	95.64	25.4	13	13	3								
MINERAL	115.35	47.4	18	31	6								
BERKELEY	115.52	50.2	19	31	66						29	15	
LICK	116.13	50.6	18	38A	12								
RENO	116.90	47.8	19	41	73								
HUNGRY HORSE	117.51	36.8	18	33	4								
PASADENA	119.70	53.2	18	39	6								
EUREKA	119.73	46.8	18	37	4						28	47	PKKP
BOZEMAN	120.54	38.5	18	40	5								
BOULDER CITY	121.76	50.2	18	44	7								

FLAMING GRGE	123.78	42.8	18 45	4							
TUCSON	126.13	53.1	18 51	6							
RAPID CITY	126.14	36.7	18 50	5						19 27	
TUCSON TELE.	126.19	53.0	18 50	4							
ALBUQUERQUE	128.48	48.2	18 26	-24						18 54	
WICHITA MTS.	134.27	44.4	18 58	-3						21 39	PP
ROLLA	136.67	36.1	19 15	10							
SHAWINIGAN	137.11	11.8	19 12	6							
LITTLE ROCK	138.41	40.0	19 14	5							
BLOOMINGTON	138.69	30.3	19 18	9							
PALISADES	142.08	15.8	19 24	9							
CHAPEL HILL	144.82	25.7	19 22	2							
LA PAZ	157.84	162.0	19 40	1							
HUANCAYO	158.19	139.8	19 47	7							
SAN JUAN	165.56	19.3	19 52	5						20 51	

FEBRUARY 4 21.H 29.M 33.S EPICENTRE -0.54 -20.22 DEPTH= 0.KM
A= 0.93835 B=-0.34556 C=-0.00931 D=-0.3456 E=-0.9384
G=-0.0087 H= 0.0032 K=-1.0000 HT= 7.2

SE= 3.05

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
M.BOUR	15.17	12.1	3	33	-4	6	9	-18					
LOME	22.40	72.5	5	4	3	9	13	10					
LUANDA	34.31	104.9	6	57K	7								
BANGUI	39.11	82.4	7	29	-1						8	55	
LISBON	40.37	13.4	7	44K	3	13	57	7			16	41	SS
GRANADA	40.56	20.6	7	42A	0	14	3	10			9	18	PP
ALMERIA	40.68	22.0	7	44A	1	14	4	10			9	16	PP
COIMBRA	41.95	13.5	7	55A	1								
WINDHOEK	42.39	123.8	7	54	-3								
ALICANTE	42.75	23.0	7	57	-3								
SERRA PILAR	42.79	12.9	8	1K	0	14	27	1			9	42	PP
TOLEDO	42.85	18.4	8	4A	3	14	32	5			9	39	PP
BAGNERES	47.11	20.4	8	36A	1						10	24	PP
CARACAS	47.73	284.7	8	42	2						10	26	PP
SAN JUAN	48.86	295.1	8	49	0								
LWIRO	49.03	92.5	8	49	-1	15	50	-5			10	46	PP
LA PAZ	49.79	248.8	8	57	1	16	7	2					
HERMANUS	49.94	136.7				16	7	-1			19	56	
MONACO	50.53	25.8	9	2	0								
MESSINA	50.69	36.5	9	4	1	16	26	8			11	4	PP
ISOLA	50.72	25.2	9	4	1								
KIMBERLEY	51.29	127.3	9	7A	-1								
ROME	51.54	31.0	9	9A	0	16	30	0			11	7	PP
GARCHY	51.79	20.0	9	13A	2						11	9	PP
CHIAVARI	51.83	26.8	10	18	66						10	53	PP
FOLINIERE	52.00	16.5	9	13	0								
ROSELEND	52.02	24.6	9	11	-2						11	8	PP
BESANCON	52.81	22.2	9	19	0						11	13	PP
AREQUIPA	52.92	249.8	9	18	-2								
PARIS	52.93	18.7	9	21	1						9	47	
PRETORIA	52.93	122.3	9	49	29								
ANTOFAGASTA	53.81	240.8	9	26	0								
PADOVA	53.83	27.6	9	44	17	16	27	-34			11	47	
CHUR	53.91	24.9	9	26	-1								
BOGOTA	54.04	276.1	9	31	3	17	6	2					
KEW	54.49	15.2	9	32K	1	17	10	0					
STRASBOURG	54.59	22.5	9	31	-1						20	57	
RAVENSBURG	54.68	24.3	9	32	-1								
DOURBES	54.73	19.3	9	33	0								
EBINGEN	54.73	23.6	9	33	0								
TRIESTE	54.89	28.6	9	35	1	17	16	1			11	33	PP
STUTTGART	55.33	23.3	9	36	-2	17	18	-3			11	37	PP
LJUBLJANA	55.55	28.8	9	39A	0						11	37	PP
CHINCHINA	55.61	276.4	9	39A	-1	17	25	0					
HEIDELBERG	55.62	22.5	9	39	-1								
ATHENS	55.71	41.6	9	40A	0						10	2	
HUANCAYO	55.85	255.9									13	38	
ZAGREB	56.11	29.8	9	45	2								
FELDBERG	56.19	21.8	9	28	-16								
BENSBERG	56.34	20.5	9	45A	0				9	55	11	48	PP
DE BILT	56.64	18.5				17	47	9					

DURHAM	57.22	12.7	10	3A	12						
KASPERSKE H.	57.40	25.7	9	51	-1					11	57 PP
WITTEVEEN	57.73	18.9	10	4	9						
BELGRADE	57.77	33.2	9	55	0					10	32
JENA	57.95	23.2	9	55	-1	17	57	1		12	1 PP
VIENNA-H.	58.01	28.0	9	56	-1					12	4 PP
SOFIA	58.13	36.7	9	58	1					12	6 PP
BRATISLAVA	58.30	28.5	9	57A	-2					12	6 PP
PRUHONICE	58.45	25.6	9	59	-1						
HALLE	58.54	23.0	9	59	-1					12	6 PP
COLLMBERG	58.80	23.7	10	1A	-1					12	6 PP
HALIFAX	59.17	325.2	10	5A	0						
BALBOA HTS.	59.85	280.6	9	50	-19						
RACIBORZ	60.16	27.5	10	11	-1					10	59 PCP
SKALNATE PL.	60.52	29.3	10	14	0					12	27 PP
KRAKOW	60.95	28.4	10	17	0						
KSARA	62.67	51.1	10	26	-2					14	6
GOTEBORG	63.48	18.6	10	33	-1						
FORDHAM	63.68	317.0	10	35	0						
PALISADES	63.77	317.2	10	36	0	19	13	3	10 41		
KISHINEV	63.79	35.2	10	34	-2						
SEVEN FALLS	64.75	324.3	10	42A	0						
CHAPEL HILL	65.50	310.2	10	45	-2						
SHAWINIGAN	65.61	323.0	10	48A	0						
BREBEUF	65.63	321.7	10	48A	0	19	36	3		26	45 SSS
SIMFEROPOL	65.96	39.2	11	1	11						
PENNSYLVANIA	66.41	315.6	10	51	-2						
UPPSALA	67.02	19.6	10	55A	-2						
MORGANTOWN	67.46	313.8	11	0A	1						
TANANARIVE	68.83	110.0	11	20	12						
HELSINKI	69.86	22.2	11	14	0						
NURMIJARVI	69.97	21.8	11	15	0						
PULKOVO	71.73	24.3	11	24	-2						
TIFLIS	71.94	45.5	11	27A	0	20	50	2			
BLOOMINGTON	72.14	311.6	11	33	5						
GORIS	72.42	48.1	11	28A	-2	20	53	0			
MOSCOW	72.94	30.1	11	31	-2						
KIRUNA	73.78	14.9	11	38	0						
ST. LOUIS 1	74.82	310.3	11	33	-11						
FLORISSANT	74.96	310.4	11	33A	-12					21	3
SODANKYLA	75.16	17.0	11	45A	-1					14	22
TEHERAN	75.45	52.9	11	47A	0	21	30	3			
ROLLA	75.94	309.3	11	30	-20						
DUBUQUE	76.05	314.1	11	49A	-2					21	32
APATITY	77.35	18.5	11	58A	0					14	41 PP
FAYETTEVILLE	77.40	307.1	11	57K	-1	21	35	-14		12	43 PCP
LAWRENCE	78.73	309.8	12	4	-2						
MANHATTEN	79.79	309.9	12	10	-1						
WICHITA MTS.	80.75	305.2	12	16	0	22	27	3		23	13 PS
THULE	81.44	349.8	12	20	0						
ALERT	84.93	354.9	12	33	-5						
RAPID CITY	85.32	314.1	12	41	1						
SVERDLOVSK	85.43	33.0	12	41A	1						
RESOLUTE	86.49	345.1	12	48	2						
LARAMIE	86.86	311.2	12	49	2					16	10
AMDERMA	87.69	20.2	12	52A	1						
QUETTA	87.81	59.9	12	54	2	23	36	2			
SAMARKAND	88.18	50.5	12	55A	1						
KHEYS	88.61	9.2	12	57	1						
SOUTH POLE	89.47	180.0	12	2	-58						
FLAMING GRGE	89.72	310.7	13	1	0						
TASHKENT	89.97	48.9	13	3	1						
TUCSON TELE.	90.71	302.2	13	6	0						
TUCSON	90.80	302.1	13	7	1					14	8
BOZEMAN	90.96	315.5	13	7	0						
GLEN CANYON	91.42	306.8	13	10	1						
WARSAK DAM	91.77	56.2	13	10	-1					16	47 PP
MOULD BAY	92.69	346.3	13	17	2						
BOMBAY	93.05	71.2				25	37	76		23	49 PS
EUREKA	94.79	309.4	13	26	1						
PENTICTON	96.54	319.5	13	47	14						
DEHRA DUN	97.41	59.6								17	51
MINERAL	99.02	310.7	13	25A	-19						
MADRAS	100.25	77.0	17	43	234					24	30
CHATRA	105.74	62.4	17	27	777						
SHILLONG	110.10	63.0	17	46	-47						
ULAN-BATOR	114.38	36.1								19	35
VLADIVOSTOK	130.81	26.9	19	11	-2						
MATUSIRO	138.98	26.8								22	20 PP

CANBERRA	142.93	165.3	19	44	9										
CHARTERS TS.	155.59	147.9	20	15	20										21 38

FEBRUARY 5 22.H 55.M 52.S EPICENTRE 35.93 139.32 DEPTH= 135.KM

A=-0.61544 B= 0.52908 C= 0.58422 D= 0.6519 E= 0.7583
G=-0.4430 H= 0.3809 K=-0.8116 HT= -0.2

DEPTH OF FOCUS= 0.016R

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
TITIBU	0.20	284.3	0	19K	0	0	32	-2				
KUMAGAYA	0.22	13.6	0	19A	0	0	32	-2				
HONGO	0.43	120.7	0	20A	0	0	35	-1				
TOKYO C.M.O.	0.43	125.2	0	20A	0	0	35	-1				
MAEBASI	0.51	337.1	0	21K	0	0	36	-1				
YOKOHAMA	0.57	151.3	0	21A	0	0	36	-1				
HUNATU	0.62	226.0	0	19	-2	0	34	-4				
KOHU	0.67	247.2	0	20A	-2	0	37	-1				
TUKUBASAN	0.70	65.4	0	21	-1							
OIWAKE	0.74	302.9	0	23	1	0	38	-1				
KAKIOKA	0.76	66.7	0	21A	-1	0	36	-3				
UTUNOMIYA	0.76	35.8	0	22	0	0	37	-2				
MISIMA	0.86	200.3	0	21A	-2	0	36	-4				
AJIRO	0.90	191.3	0	22A	-1	0	38	-3				
MITO	1.04	64.1	0	25A	1	0	42	0				
MATUSIRO	1.08	304.5	0	24	0	0	42	-1				
MERA	1.09	157.2	0	24A	0	0	41	-2				
MATUMOTO	1.13	286.7	0	25K	0	0	44	0				
OSIMA	1.16	177.4	0	24A	-1	0	41	-4				
NAGANO	1.16	309.6	0	26K	1	0	44	-1				
SHIZUOKA	1.22	218.2	0	26A	0	0	44	-2				
TYOSI	1.27	99.2	0	27A	1	0	47	0				
IIDA	1.28	251.7	0	27	0	0	47	0				
NAGATURO	1.38	196.1	0	27	-1	0	49	0				
SHIRAKAWA	1.39	31.3	0	29K	1	0	51	2				
TAKADA	1.45	324.0	0	29K	1	0	51	1				
OMAESAKI	1.60	214.3	0	30K	0	0	50	-3				
ONAHAMA	1.63	51.0	0	31	1	0	55	1				
TAKAYAMA	1.69	278.0	0	32	1	0	55	0				
HAMAMATU	1.78	227.6	0	31	-1	0	56	-1				
TOYAMA	1.87	294.8	0	34K	1	0	59	0				
HUKUSIMA	2.04	26.7	0	36K	1	0	59	-3				
NAGOYA	2.06	249.0	0	36A	1	0	58	-4				
GIHU	2.14	256.4	0	37	1	1	3	-1				
KANAZAWA	2.24	286.3	0	39K	1	1	9	3				
AIKAWA	2.25	338.1	0	38K	0	1	5	-2				
WAZIMA	2.42	307.4	0	42K	2	1	13	2				
YAMAGATA	2.46	19.4	0	42K	2	1	10	-1				
HUKUI	2.50	273.6	0	43K	2	1	38	25				
KAMEYAMA	2.56	245.9	0	43A	1	1	10	-4				
HIKONE	2.58	256.1	0	43	1	1	12	-2				
TU	2.59	242.6	0	45	3	1	16	1				
TSURUGA	2.65	264.9	0	43	0	1	13	-3				
SENDAI	2.66	28.0	0	43K	0	1	16	0				
HATIDYOZIMA	2.85	172.0	0	43	-3	1	17	-3				
ISINOMAKI	2.96	32.1	0	47K	0	1	17	-6				
SAKATA	2.99	7.7	0	50K	3	1	25	1				
KYOTO	3.06	253.8	0	49	1	1	18	-7				
NARA	3.11	247.4	0	50	1	1	22	-4				
OWASE	3.16	234.9	0	46	-4	1	19	-9				
MAIZURU	3.23	262.9	0	51A	0	1	20	-9				
ABUYAMA	3.24	252.0	0	50K	-1	1	21	-8				
OSAKA	3.35	248.7	0	53K	1	1	29	-3				
MIZUSAWA	3.50	23.8	0	55	1	1	33	-3				
KOBE	3.60	250.9	0	57	2	1	35	-3				
WAKAYAMA	3.80	244.7	1	0	2	1	43	0				
SIOMISAKI	3.83	230.7	0	58K	0	1	35	-8				
AKITA	3.83	9.1	1	0K	2	1	47	4				
SUMOTO	3.94	247.5	1	1	1	1	40	-6			8	29
MORIOKA	4.04	20.8	1	0	-1	1	48	0				
TOTTORI	4.20	265.7	1	5	2	1	50	-2				
MIYAKO	4.27	28.7	1	4	0	1	51	-3				
HIMEJI	4.27	251.9	0	59	-5	1	43	-11				

TOKUSIMA	4.31	245.8	1 8	3	1 57	2		
OKAYAMA	4.59	255.8	1 12	3	2 2	1		
TAKAMATU	4.60	251.1	1 8	-1	2 0	-2		
SAIGO	4.86	274.9	1 12	0	2 8	0		
HATINOHE	4.91	20.1	1 11	-2	2 5	-4		
MUROTO	5.01	239.2	1 14	0	2 7	-5		
AOMORI	5.01	12.8	1 14K	0	2 17	5		
MATSUE	5.11	266.4	1 19	4				
KOTI	5.32	245.2	1 18	0	2 19	0		
TORISIMA	5.50	171.1	1 19	-2	2 31	8		
MATUYAMA	5.76	250.7	1 26	2	2 38	8		
HIROSIMA	5.85	256.6	1 25	0	2 31	-1		
HAKODATE	5.98	10.4	1 26	-1				
SIMIDU	6.12	240.9	1 29	0	2 35	-3		
MORI	6.24	8.6	1 31	0	2 9	-32		
MURORAN	6.51	11.0	1 34	0	2 12	-36		
URAKAWA	6.77	22.4	1 36	-2	2 49	-5		
OOITA	6.89	249.2	1 41	1	2 45	-12		
SUTTSU	6.90	5.6	1 40	0				2 15
TOMAKOMAI	6.92	14.0	1 42	2	3 2	4		
HIROO	7.06	24.9	1 39	-3	2 54	-7		
SAPPORO	7.30	11.8	1 43	-2	3 10	3		2 19
OBIHIRO	7.60	22.1	2 48	59	4 8	54		
MIYAZAKI	7.68	240.9	1 36	-14	3 19	3		
HUKUOKA	7.72	254.9	1 51A	0	3 15	-2		
KUMAMOTO	7.77	248.9	1 52	1	3 20	2		
SAGA	7.90	252.8	1 55	2	4 0	39		
KUSIRO	8.06	27.6	1 52K	-3	3 16	-9		
ASAHIGAWA	8.18	15.7	1 56	-1				
RUMOE	8.20	11.7	1 55	-2				
NAGASAKI	8.43	250.5	2 0	0	3 16	-18		
KAGOSIMA	8.49	241.7	2 11	10	3 38	2		
NEMURO	8.83	31.3	2 2	-3	3 35	-9		
VLADIVOSTOK	9.18	323.7	2 10	0				
YAKUSIMA	9.19	236.0	2 13	3				
TOMIE	9.33	252.3						3 2
WAKKANAI	9.65	10.0	2 15	-1	4 4	1		
Y.-SAKHLINSK	11.37	11.9	2 36	-3				
CHANGCHUN	13.33	310.5	3 4	0	5 33	3		3 40 *SP
ZO-SE	15.87	257.5	3 36A	-1	6 31	3		4 13 *SP
NANKING	17.46	263.1	3 53A	-3	7 1	-3		4 36 *SP
PEKING	18.69	289.6	4 6A	-4	7 29	-1		8 17 *SS
GUAM	22.90	166.3	4 51	-1				
MAGADAN	24.79	14.0	5 11	1	9 24	4		
SIAN	24.88	275.1	5 10A	-1				
HONG KONG	25.74	245.0	5 18	-1	9 39	3		
CANTON	25.89	247.5	5 19A	-2	9 38	0		10 34 *SS
ULAN-BATOR	26.73	306.7	5 27	-1	9 53	1		
YAKUTSK	26.80	350.0	5 28A	-1				
LANCHOW	28.62	280.8	5 43A	-2	10 19	-4		6 27 *SP
CHENGTU	29.87	270.1	5 53	-4	10 41	-1		
KUNMING	33.12	261.3	6 22A	-3	11 29	-4		
ESEN BULAK	33.69	301.6	6 30	0	11 51	9		
TOCKLAI	38.85	269.2	7 13	0				
LHASA	40.74	275.3	7 29A	0				
SHILLONG	41.71	269.3	7 34A	-3	13 39	-4		
CHITTAGONG	43.23	265.1	7 48A	-1	14 2	-3	8 30	17 34 SCS
SEMIPALATNSK	44.28	308.2	7 57A	-1				
CHATRA	44.98	273.6	8 3A	0				
BOKARO	47.42	270.6	8 21	-1	15 2	-3		
HONIARA	49.13	152.6	8 35	-1				
DEHRA DUN	50.89	282.3	8 50	1	15 52	-1		
COLLEGE	50.92	31.7	8 48	-1			9 23	
LEMBANG	51.92	221.5	8 54K	-3	16 3	-4		
NEW DELHI	52.28	280.6	8 58A	-1				
AMDERMA	52.54	334.7	9 1	0				
LAHORE	53.33	285.3	8 30	-37				
KHEYS	53.38	348.3	9 8A	1	16 28	1		
TASHKENT	53.63	298.4	9 8A	-1	16 33	3		
WARSAK DAM	54.53	289.2	9 16	0				
SVERDLOVSK	54.86	318.8	9 18A	0	16 49	2		
SAMARKAND	55.84	297.3	9 25A	0	16 58	-2		
KIPAPA	55.99	86.9	9 28	2				
CHARTERS TS.	56.10	172.1	9 26	-1				9 56
MADRAS	57.56	262.5	9 37	0	17 26	3		
MOULD BAY	58.07	16.1	9 41A	0				
SITKA	58.32	39.8	9 45	2				
HAWAII V.OB.	59.21	87.4	9 51	2				

QUETTA	59.66	287.0	9	51A	-1	17	52	2		18	44 *SS
POONA	59.72	271.7	9	50A	-2						
ALERT	61.33	3.2	10	1A	-2						
KARACHI	62.06	281.6	10	4	-4				10 51	10	39 PCP
APATITY	62.99	335.5	10	13A	-1	18	32	0			
NOUMEA	63.35	151.8	10	17A	0						
RESOLUTE	64.09	13.9	10	21A	-1						
SODANKYLA	65.32	336.9	10	29A	0					12	51 PP
THULE	66.56	6.9	10	35	-2						
KIRUNA	66.94	338.8	10	38A	-2				11 13		
MOSCOW	67.12	323.0	10	40A	-1	19	22	-1			
ALBERNI	67.22	45.0	10	43	1						
PULKOVO	68.27	329.0	10	39	-9						
VICTORIA	68.40	45.2	10	50A	1						
TEHERAN	68.68	299.2	10	52	1					11	39
UMEA	69.60	335.6	10	55A	-1				11 28		
NURMIJARVI	70.11	331.4	10	59A	0					11	18 PCP
PENTICTON	70.13	43.1	11	0A	1						
TIFLIS	70.15	307.5	10	59A	-1						
HELSINKI	70.20	331.0	11	0A	0				11 35	11	19 PCP
ADELAIDE	70.54	180.5	11	1A	-1	20	5	2	11 33	11	21 PCP
BANFF	71.31	39.9	11	7A	1						
CANBERRA	71.46	171.7	11	7A	0				11 40		
UPPSALA	73.19	333.3	11	17A	-1				11 52		
HUNGRY HORSE	73.74	41.7	11	22	1				11 56		
MINERAL	73.81	51.8	11	23K	2						
CALISTOGA	74.12	53.7	11	24A	1						
BERKELEY	74.75	54.2	11	28A	1						
SIMFEROPOL	74.91	314.8	11	26A	-1						
RENO	75.40	51.7	11	32A	2						
LICK	75.45	54.4	11	32A	2						
BUTTE	75.93	43.1	11	35	2						
KISHINEV	76.60	318.8	11	37A	0						
GOTEBORG	76.79	334.0	11	37A	-1				12 14		
BERGEN	76.87	338.5	11	38	0						
BOZEMAN	76.98	42.7	11	41	2				12 14		
IASI	77.16	319.5	11	40	0				12 32		
EUREKA	77.85	50.0	11	46	2				12 18		
TARRALEAH	78.13	174.6	11	46	1						
SIDA	79.01	350.0	11	53	3						
KRAKOW	79.05	325.1	11	51	1				12 24	11	57 PCP
SALT LAKE C.	79.57	47.0	11	14	-39						
PASADENA	79.60	55.4	11	54A	1					14	7
RACIBORZ	79.83	325.9	11	56	1				12 28	12	7 PCP
ISTANBUL UN.	80.28	314.0	11	56A	-1						
KSARA	80.41	304.8	11	57A	-1				12 43		
BOULDER CITY	80.68	52.2	12	1	2				12 36		
COLLMBERG	81.20	329.2	12	1A	-1				12 35	15	14 PP
HALLE	81.48	329.8	12	3	0	21	34	-28			
PRUHONICE	81.52	327.6	12	4A	0					14	50
BRATISLAVA	81.70	325.1	12	5	1				12 38	15	14 PP
VIENNA-H.	81.98	325.5	12	7A	1				12 54		
JENA	82.07	329.6	12	6	0				12 40	15	16 PP
RAPID CITY	82.24	40.2	12	9	2					13	23
SOFIA	82.38	318.0	12	9	1				12 40	15	43 PP
BELGRADE	82.44	321.0	12	9	1					12	47
KASPERSKE H.	82.58	327.5	12	8	-1					12	42
MUNSTER	82.82	332.3	12	12	2						
BENSBERG	83.79	331.9	12	15	0				12 48		
FELDBERG	83.88	330.8	12	26	10						
HEIDELBERG	84.42	330.1	12	18	0						
LJUBLJANA	84.45	324.9	12	18A	0				12 52	15	36 PP
STUTTGART	84.68	329.4	12	20A	0				12 53		
TUBINGEN	84.96	329.4	12	22	1				12 54		
TRIESTE	85.11	325.1	12	21A	-1				12 56	15	41 PP
EBINGEN	85.27	329.2	12	24	2						
ATHENS	85.36	314.3	12	23K	0						
STRASBOURG	85.45	330.1	12	24	1					13	17
DOURBES	85.46	332.7	12	24	1						
TUCSON	85.60	53.1	12	26	2				13 0		
TUCSON TELE.	85.62	52.9	12	26	2						
KEW	86.04	336.0	12	26	0				13 0		
BASLE	86.36	329.6	12	28A	0						
BESANCON	87.24	330.3	12	32	0						
PARIS	87.30	333.1	12	33	1				13 6	13	19 *SP
ROSELEND	87.96	328.3	12	36	1					16	0
GARCHY	88.35	331.9	12	38	1				13 10	15	57 PP
FOLINIERE	88.40	334.7	12	38	0						
MANHATTEN	89.19	40.0	12	42	1						

MONACO	89.45	327.3	12	42	0							
CLERMONT-FD.	89.58	331.0	12	45	2							
WICHITA MTS.	91.37	44.3	12	53	2				13	28	16	43 PP
ROLLA	92.57	38.1	12	58	1							
FAYETTEVILLE	92.77	40.7	12	59A	1				13	33	13	45 *SP
SHAWINIGAN	92.97	21.5	13	OK	1							
BAGNERES	93.01	331.3	12	59	0							
SEVEN FALLS	93.01	20.1	12	59A	0							
BREBEUF	93.66	22.5	13	4K	2							
LWIRO	107.88	280.5	18	29	777							
HUANCAYO	140.75	61.5	19	10	-4							
LA PAZ	148.86	58.7	19	32	5						19	45 PKP2

FEBRUARY 8 11.H 49.M 11.S EPICENTRE -3.12 141.19 DEPTH= 38.KM

A=-0.77806 B= 0.62585 C=-0.05406 D= 0.6268 E= 0.7792
G= 0.0421 H=-0.0339 K=-0.9985 HT= 7.1

DEPTH OF FOCUS= 0.001R

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	8.60	136.8	2	6K	1	3	48	6					
GUAM	16.84	12.0	4	0	5	7	27	27					
CHARTERS TS.	17.58	164.0	4	1	-3	7	21	5			4	59	
HONIARA	19.67	109.4	4	29K	0	8	9	6					
BRISBANE	26.56	156.4	5	37	0	10	5	-2					
MANILA	26.63	312.1	5	40	3	10	0	-8			6	40	PP
KOUMAC	28.40	129.4	5	49	-4								
PORT VILA	30.31	120.5	6	11	1								
NOUMEA	31.05	130.0	6	18	1								
ADELAIDE	31.77	183.9	6	25K	2	11	36	6			12	15	
RIVERVIEW	31.94	164.2	6	26A	1	11	40	8			7	31	PP
CANBERRA	32.85	168.2	6	31	-2				6	51	7	46	PP
LEMBANG	33.64	262.4	6	39	-1								
DJAKARTA	34.37	263.7	6	19	-27						13	39	
TANGERANG	34.57	263.7	6	26	-22						7	52	
MELBOURNE	34.72	174.7	6	50	1	12	23	8					
NHATRANG	35.24	296.2	6	53	0				7	17			
HONG KONG	36.54	315.0	7	1	-3	12	37	-6			8	31	PP
MUNDARING	37.08	216.5	7	7	-2	11	38	-74					
PERTH	37.29	216.9	7	12	1	13	5	10					
CANTON	37.63	315.2	7	14	1	13	7	7					
ABUYAMA	38.15	352.5	7	18A	0								
ZO-SE	39.01	332.2	7	25	0	13	27	6					
TUKUBASAN	39.15	358.6	7	19K	-7	13	15	-8	7	56	9	25	PP
TARRALEAH	39.29	173.8	7	29	2								
MATUSIRO	39.55	356.2	7	26	-3	13	31	2					
FORT NELSON	40.02	173.0	7	36	3	13	45	9					
NANKING	40.95	330.4	7	42	1	14	0	10					
AUCKLAND	45.64	141.6									20	30	
KUNMING	46.68	309.2	8	28K	1	15	21	8					
KARAPIRO	46.77	142.2	8	27	-1								
VLADIVOSTOK	46.78	350.7	8	27	-1	15	17	2					
TONGARIRO	47.57	143.6	8	34	0								
CHATEAU	47.58	143.6	8	34	0								
SIAN	48.00	323.5	8	37	-1	15	38	6					
TUAI	48.30	142.1	8	39	-1								
PEKING	48.69	334.4	8	43	0	15	46	4					
ROXBURGH	48.86	153.9									14	27	
CHANGCHUN	48.87	344.8	8	44	0	15	51	7					
UGLEGORSK	51.99	0.7	9	10	2								
LANCHOW	52.30	321.6	9	12K	2	16	41	10					
SHILLONG	55.62	303.9	9	33K	-2						11	22	
HOWRAH	57.55	299.1	9	48	-1								
PETROPAVLOVK	57.83	12.4	9	53A	2	17	53	7					
LHASA	57.96	308.0	9	52K	1	17	55	8					
ULAN-BATOR	59.01	333.8	9	59K	0	18	11	10					
CHATRA	60.00	303.4	10	7	1								
BOKARO	60.15	299.7	10	7	0	18	25	9			13	49	PPP
VISHAKHAPTNM	60.69	292.2	10	11K	1	18	30	7			18	45	PS
MADRAS	62.64	286.3	10	21K	-2	18	52	5			10	54	PCP
MAGADAN	62.94	5.5	9	27	-58								
ESEN BULAK	63.25	326.8	10	28K	1	19	7	12					
IRKUTSK	63.37	335.6	10	28K	0	19	4	8					

HONOLULU	64.15	64.7	10	37	4						
KIPAPA	64.25	64.5	10	36	2						
HYDERABAD	65.13	290.7	10	42	2	19	21	3			
YAKUTSK	65.55	354.1	10	42	0	19	19	-4			
HAWAII V.OB.	66.30	67.3	10	50	3						
WILKES	66.67	193.0	11	44	55				19	49	
DEHRA DUN	68.72	304.1	11	7	5	20	8	7			
NEW DELHI	68.93	302.1	11	0A	-4	20	9	5			
POONA	69.64	290.9	11	4	-4	20	17	5	15	19	PPP
BOMBAY	70.66	291.1	11	14	0	20	30	6	13	50	PP
CAPE HALLETT	71.43	171.0	11	22	3	20	46	13	21	18	SCS
MIRNY	71.58	198.3	11	20	0						
LAHORE	72.13	304.4	11	24	1						
WARSAK DAM	75.02	306.3	11	40A	0	21	18	4			
TIKSI	75.05	356.0	11	38K	-2	21	19	5			
ANDIJAN	76.17	313.2	11	48K	2	21	36	10			
NAMANGAN	76.75	313.2	11	51	1						
QUETTA	78.00	301.6	11	56	-1	21	52	6			
TASHKENT	78.58	313.1	11	59A	-1	22	0	8			
SAMARKAND	79.90	311.0	12	7	0	22	13	7			
COLLEGE	84.84	23.9	12	30	-2				14	38	
SOUTH POLE	86.90	180.0	12	41	-1						
AMDERMA	89.28	340.0	12	53	-1						
TEHERAN	91.64	305.5	13	5	0	24	13	13			
KHEYS	91.93	350.6	13	8	2						
MAKHACH-KALA	94.81	312.7				23	41	-46	17	13	PP
MOULD BAY	95.27	13.7	13	21	0						
TIFLIS	96.83	311.5	13	29	0						
PENTICTON	98.35	40.8	13	36	1						
APATITY	99.61	338.2	13	47	6						
MOSCOW	100.19	326.0							18	24	
PASADENA	100.55	56.0				24	25	5	26	55	PS
RESOLUTE	101.55	13.0	13	50	0						
EUREKA	101.89	50.5	13	55	4				17	59	PP
HUNGRY HORSE	102.14	41.3	13	55	2						
UMEA	106.04	336.7							27	58	PS
ALBUQUERQUE	110.05	54.0	18	31	3						
LWIRO	112.20	266.3	18	11	-21				19	21	
HERMANUS	113.99	230.1							29	19	PS
COLLMBERG	115.45	326.9	18	42	4				19	52	PP
WICHITA MTS.	116.40	52.6	18	44	4	25	42	15	19	51	PP
MANHATTEN	116.61	47.3	18	45	4						
FAYETTEVILLE	119.42	49.9	18	47	1				20	9	PP
ROLLA	120.50	47.2	18	51	3						
LITTLE ROCK	121.28	50.8	18	52	2						
PARIS	122.44	328.9	18	57	5						
C. GIRARDEAU	122.46	47.0	18	54	2						
BLOOMINGTON	123.81	43.8	19	9	14						
SHAWINIGAN	127.64	29.1	19	5	3						
BPEREUF	127.96	30.6	19	6	3				38	49	SS
PALISADES	130.81	35.1				26	23	11			
HUANCAYO	140.70	113.2	19	29	3						
CHINCHINA	143.24	85.9	19	30A	-1				23	15	PKS
BOGOTA	144.79	86.4	19	34	1						
LA PAZ	145.08	124.8	19	35	1				23	1	PP
CARACAS	151.15	73.9	19	59	15				30	14	
M.BOUR	155.72	298.7	19	57	7				20	23	PKP2

FEBRUARY 8 19.H 40.M 30.S EPICENTRE 0.62 98.59 DEPTH= 52.KM
A=-0.14936 B= 0.98872 C= 0.01081 D= 0.9888 E= 0.1494
G=-0.0016 H= 0.0107 K=-0.9999 HT= 7.2

DEPTH OF FOCUS= 0.003R

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
TANGERANG	10.49	130.2	2	31	0	5	16	48				
DJAKARTA	10.65	129.5	2	48	15							
LEMBANG	11.66	129.6	2	45	-2						5	28
NHATRANG	15.61	42.0	3	40	2	6	43	13				
MADRAS	22.00	304.7	4	52A	0	8	57	11			5	18 PP
VISHAKHAPTNM	22.69	319.3	4	57K	-1	9	6	8				
KUNMING	24.68	9.0	5	19	1	9	51	18	6	34		
SHILLONG	25.64	345.9	5	28A	1	9	50	1				

BOKARO	26.19	332.7	5	33	1	10	2	4		6	16 PP
TOCKLAI	26.23	352.3	5	22A	-10						
HONG KONG	26.35	34.1	5	34	1	10	3	2			
CHATRA	28.28	338.1	5	50A	-1						
LHASA	29.74	346.7	6	5A	1	10	57	2		7	49 *SP
POONA	30.11	307.7	6	7	0	11	3	2		12	35 SS
CHENGTU	30.31	9.3	6	8	-1	11	2	-2	7 19	7	49 *SP
BOMBAY	31.13	307.2	6	16	0	11	21	4		13	23 SS
DARWIN	34.51	113.1	6	49	3						
NEW DELHI	34.51	325.5	6	45A	-1	12	8	-2			
SIAN	34.82	15.1	6	49A	1	12	18	4			
DEHRA DUN	35.40	328.4	7	3	10	12	26	3			
LANCHOW	35.58	7.3	6	56A	1	12	29	3			
NANKING	36.62	29.4	7	4A	1	13	26	44		8	49 *SP
ZO-SE	37.11	33.1	7	7	-1	12	48	-2		8	51 *SP
LAHORE	38.38	325.6	7	18	0	13	8	-1			
PAOTOW	41.11	13.3	7	42	1	13	55	5			
WARSAK DAM	41.76	325.5	7	46	0	13	57	-2			
QUETTA	42.05	317.3	7	49A	1	14	5	1			
PEKING	42.37	20.1	7	53A	2	14	15	7			
ESEN BULAK	45.63	357.7	8	17A	0	14	57	1			
ANDIJAN	46.48	332.4	8	25A	1	15	11	3			
NAMANGAN	46.99	332.0	8	29A	1	15	17	2			
ULAN-BATOR	47.66	7.6	8	33	0	15	30	6			
SAMARKAND	48.38	327.2	8	38A	-1	15	33	-1			
TASHKENT	48.40	330.5	8	39A	0	15	38	3			
ABUYAMA	48.47	41.4	8	39A	-1						
KYOTO	48.67	41.3	8	39A	-2						
CHANGCHUN	49.17	25.5	8	44	-1						
CHARTERS TS.	51.01	116.6	8	56	-3	16	8	-3		10	13 PCP
MATUSIRO	51.19	41.2	8	59A	-1	16	19	6		40	45 PKPPKP
ADELAIDE	51.56	137.5	9	3K	0				9 16	10	17 PCP
VLADIVOSTOK	51.74	30.8	9	5	0	16	23	2			
SEMIPALATNSK	51.99	345.2	9	6	-1	16	26	1			
TEHERAN	56.01	314.0	9	35	-1						
BRISBANE	58.98	122.7	9	57	0						
CANBERRA	59.01	132.7	9	56A	-1					10	45 PCP
TARRALEAH	60.63	140.9	10	8	0				10 18		
SAVANNAH	60.80	140.0	10	10	1						
MOORLANDS	61.17	140.7	10	12	0				10 22		
FORT NELSON	61.52	141.1	10	16	2						
TIFLIS	63.30	317.5	10	25A	-1						
SVERDLOVSK	63.74	337.8	10	25A	-4						
YAKUTSK	65.59	15.5	10	40A	-1	19	21	0			
SOTCHI	67.47	317.7	10	52A	-1						
LWIRO	69.83	267.4	11	7	0					11	45
AMDERMA	73.25	347.4	11	26A	-2						
TIKSI	73.50	9.6	11	28A	-1	20	53	-1			
MOSCOW	73.53	329.0	11	28	-1						
ISTANBUL UN.	74.29	312.6	11	33	-1						
KIMBERLEY	76.13	240.3	11	44	0						
ATHENS	77.71	308.7	11	52K	-1						
PULKOVO	78.66	331.4	11	58	0						
SOFIA	78.76	313.4	11	59	0						
LWOW	79.59	320.6	12	4	0						
KARAPIRO	80.10	128.6	12	8	2						
APATITY	80.14	339.3	12	6	0						
TONGARIRO	80.28	129.8	12	7	0						
HELSINKI	81.35	331.0	12	14	1						
TUAI	81.48	129.2	12	13	-1						
NURMIJARVI	81.58	331.3	12	14K	0						
KHEYS	82.22	353.8	12	16A	-1						
WINDHOEK	82.38	247.3	12	18	0						
SODANKYLA	82.54	338.2	12	18A	-1						
RACIBORZ	83.35	320.2	12	24	1						
BRATISLAVA	83.65	318.3	12	30	4					12	54
UMEA	84.30	334.1	12	28	0						
UPPSALA	84.91	330.0	12	31	0						
KIRUNA	84.96	338.1	12	31	0						
LJUBLJANA	85.43	316.0	12	33A	-1					13	6
KARLSKRONA	85.58	326.2	12	35	1						
PRUHONICE	85.68	319.9	12	35	0						
KASPERSKE H.	86.26	319.0	12	36	-2						
COLLMBERG	86.75	321.2	12	40A	0					16	4 PP
HALLE	87.42	321.3	12	44	1						
JENA	87.63	320.8	12	45	1					16	22 PP
GOTEBORG	87.66	327.6	12	44	0						
SKALSTUGAN	87.80	333.5	12	45	0						

STUTTGART	89.08	318.6	12 52	1								
MUNSTER	90.11	321.8	12 58	2								
ROSELEND	90.24	315.3	13 0	3								
BENSBERG	90.42	320.8	12 57	0					13 9			
SOUTH POLE	90.62	180.0	12 59	1								
GARCHY	93.30	317.2	13 12	1								
COLLEGE	99.27	23.4	13 35	-3							16	58
MOULD BAY	100.28	8.6	13 42	0								
RESOLUTE	104.37	3.7	14 1	0							18	11
PENTICTON	120.39	28.0	18 47	1								
HUNGRY HORSE	123.63	25.6	18 53	1								
BOZEMAN	126.99	25.7	19 1	2								
EUREKA	129.09	34.4	19 5	2								
CHINA LAKE	130.51	39.1	19 8	2								
RAPID CITY	131.43	20.9	19 10	3								
FLAMING GRGE	131.46	28.3	19 8	1							22	29
LARAMIE	132.86	24.9	19 11	1							22	34
GLEN CANYON	133.30	33.6	19 13	2								
ALBUQUERQUE	137.56	31.0	19 9	-10							22	51
MANHATTEN	138.00	17.7	19 6	-13								
FLORISSANT	139.91	10.9	19 18	-5								
ROLLA	140.46	13.1	19 20K	-4								
WICHITA MTS.	141.33	22.9	19 20	-6							22	29 PP
FAYETTEVILLE	141.58	16.8	19 20	-6							22	25 PP
LITTLE ROCK	143.32	15.2	19 26	-3								
LA PAZ	159.50	219.0	19 58	5								

FEBRUARY 9 21.H 51.M 16.5 EPICENTRE 0.01 124.25 DEPTH= 69.KM

A=-0.56277 B= 0.82661 C= 0.00019 D= 0.8266 E= 0.5628
G=-0.0001 H= 0.0002 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.006R

SE= 2.86

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MANILA	14.90	348.0	3	25	-2	6	7	-4					
LEMBANG	17.93	247.4	4	5A	-1						4	41	
DJAKARTA	18.44	250.2									4	54	
TANGERANG	18.63	250.4	4	12	-2	7	33	-3					
NHATRANG	19.23	309.6	4	24A	3	7	56	7					
HONG KONG	24.23	336.7	5	9	-2	9	21	-1					
PORT MORESBY	24.64	112.9	5	21A	6	9	40	12			10	43	SS
CANTON	25.27	335.9	5	22	1								
RABAUL	28.21	98.9	5	54	6								
CHARTERS TS.	29.39	134.1	6	3	5						9	5	
ZO-SE	31.06	354.9	6	15	2								
NANKING	32.29	351.3	6	25	1								
KUNMING	32.49	321.8	6	27	1				6	55			
MUNDARING	32.70	192.7	6	28K	1								
CHENGTU	36.04	329.6	6	57	1								
ABUYAMA	36.26	15.8	7	1A	3								
HONIARA	36.76	105.8	7	6	4								
SIAN	36.97	338.6	7	4	0				7	28	7	44	*SP
ADELAIDE	37.34	160.2	7	10K	3				7	21	7	38	
MATUSIRO	38.59	18.2	7	19A	2	13	8	0			8	50	PP
CHITTAGONG	38.61	307.3	7	18	1	13	2	-6	7	33	8	52	PP
BRISBANE	38.64	137.1	7	24	6						9	32	
SHILLONG	40.28	311.6	7	30A	-1						13	15	
PEKING	40.51	350.4	7	34	1								
LANCHOW	40.57	334.2	7	35	1								
MIZUSAWA	41.89	19.8	7	51	5								
CANBERRA	42.05	149.3	7	50A	4						9	42	PCP
RIVERVIEW	42.08	145.8	7	51A	5	14	8	8					
LHASA	43.24	315.9	7	57K	1	14	13	-4			17	42	SCS
VLADIVOSTOK	43.46	8.1	7	59	2								
VISHAKHAPTNM	43.95	295.8	8	3K	2						10	5	
TARRALEAH	46.63	157.3	8	26	3						9	58	PCP
NOUMEA	46.69	121.2	8	28A	5								
LAHORE	56.65	308.6	9	35	-3								
WARSAK DAM	59.76	310.1	9	57	-3	18	0	-4					
KARAPIRO	60.37	134.8	10	8	4								
WELLINGTON	61.38	138.5	10	12	1								
TUAI	61.89	135.0	10	17	3								
YAKUTSK	61.99	2.9	10	20A	5								

QUETTA	62.10	304.5	10	16	1	18	34	1				
TIKSI	71.57	1.5	11	14	-1	20	19	-8				
SVERDLOVSK	75.85	329.5	11	37A	-3							
TANANARIVE	77.42	250.7	11	49	0						12	46
HONOLULU	78.49	68.4	12	0	5							
AMDERMA	80.77	341.8	12	6	-1							
HAWAII V.OB.	81.02	70.4	12	13	5							
TIFLIS	82.11	312.0	12	13	-1							
KHEYS	86.19	351.3	12	34	0							
COLLEGE	89.11	25.3	12	49	1							
SOUTH POLE	90.01	180.0	12	54	1							
APATITY	90.30	337.4	12	55	1							
SODANKYLA	92.93	337.4	13	4	-2							
KIRUNA	95.19	338.3	13	17	1							
MOULD BAY	96.11	12.5	13	21A	0							
UMEA	96.15	334.3	13	19	-2							
RESOLUTE	101.89	9.9	13	47	0							
FLAMING GRGE	116.69	43.1	18	39	3							
WICHITA MTS.	127.15	44.6	18	59	3						20	57
FAYETTEVILLE	129.37	40.6	19	3K	3						22	14 SKP
ROLLA	129.69	37.3									22	27
SHAWINIGAN	131.29	15.6	19	6	2						22	22
PALISADES	135.97	19.8	19	16	3							
HUANCAYO	157.18	122.3	19	53	6							
SAN JUAN	159.08	28.6	20	30	41							

FEBRUARY 10 19.H 31.M 55.S EPICENTRE 17.89 -62.10 DEPTH= 63.KM

A= 0.44557 B=-0.84157 C= 0.30534 D=-0.8838 E=-0.4679
G= 0.1429 H=-0.2698 K=-0.9522 HT= 5.2

DEPTH OF FOCUS= 0.005R

SE= 2.15

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ST. KITTS	0.81	227.7	0	17A	0							
FORT FRANCE	3.27	163.7	0	58	8	1	37	8				
SAN JUAN	3.85	277.9	0	57	-2	1	43	0				
ST. VINCENT	4.76	170.2	1	10A	-1	2	2	-4				
BARBADOS	5.32	152.7	1	19	0							
GRENADA	5.82	176.4	1	23A	-3							
TRINIDAD	7.23	174.5	1	45A	-1						3	10
CARACAS	8.71	213.1	2	4	-2	3	40	-4				
HOPE	13.94	272.7	3	16	0							
GALERAZAMBA	14.58	242.8				7	9	64				
BERMUDA	14.61	351.3				6	5	0				
FUQUENE	16.78	224.0	3	53K	1							
BOGOTA	17.64	223.0	4	3	0	7	24	9	4	20	7	44 *SS
CHINCHINA	18.43	227.4	4	16	3	7	40	7				
BALBOA HTS.	19.15	244.7	4	1	-20							
COLUMBIA	23.32	317.1	5	0	-3						9	15
CHAPEL HILL	23.41	323.4	5	5	1							
GEORGETOWN	24.66	331.1	5	17	1							
PALISADES	25.18	338.7	5	20	-1	9	57	18				
PENNSYLVANIA	26.56	332.5	6	5	31							
MORGANTOWN	26.62	328.1	5	35	0	10	40	37				
CLEVELAND	28.81	328.8	5	55	1							
BREBEUF	29.16	343.2	5	57A	0							
SHAWINIGAN	29.91	345.2	6	4	0							
BLOOMINGTON	29.99	320.0	6	5A	0	11	3	6	6	19		
SEVEN FALLS	30.02	348.0	6	4A	-1							
C. GIRARDEAU	30.89	314.3	6	13K	0				6	28		
ST. LOUIS 1	32.06	315.9	6	23K	0							
HUANCAYO	32.49	204.6	6	26	-1							
ROLLA	32.81	313.5	6	29K	-1	11	11	-30				
FAYETTEVILLE	33.64	309.0	6	37K	0						9	29 PCP
DUBUQUE	34.52	321.4	6	44K	0							
LA PAZ	34.69	190.2	6	45	-1							
AREQUIPA	35.36	195.7	6	48	-3							
LAWRENCE	35.63	313.0	6	53	-1							
WICHITA MTS.	36.51	304.6	7	1	0	12	44	6	7	17	8	29 PP
MANHATTEN	36.67	312.6	7	2K	0							
ALBUQUERQUE	42.83	302.3	7	54	1						8	37
RAPID CITY	43.21	316.2	7	57	0							
LARAMIE	43.83	311.5	8	3	1						9	45

TUCSON TELE.	45.94	297.9	8 20	2					
TUCSON	46.02	297.7	8 20	1				9 3	
FLAMING GRGE	46.48	309.8	8 23	0					
GLEN CANYON	47.29	304.0	8 30	1					
SALT LAKE C.	48.25	309.0	8 37	0		8 55			
BOZEMAN	48.99	315.5	8 43	1					
BOULDER CITY	49.73	302.2	8 50	2					
EUREKA	51.10	306.6	8 59	1		9 16			
HUNGRY HORSE	51.74	318.0	9 2	-1					
CHINA LAKE	51.96	301.7	9 6	1					
BANFF	53.53	321.0	9 14	-3					
LICK	55.31	303.3	9 31K	1					
MINERAL	55.51	307.0	9 31A	0					
PENTICTON	55.56	318.0	9 30K	-1					
BERKELEY	55.83	303.9	9 35A	2					
CALISTOGA	56.13	304.8	9 36A	1					
VICTORIA	57.86	316.5	9 46K	-2					
THULE	58.64	358.3	9 56	3					
ALBERNI	58.89	317.2	9 54	-1					
RESOLUTE	59.53	350.4	9 57	-2				29 23	
PARIS	60.05	43.6	10 19	16					
GARCHY	60.27	45.4	10 2	-2					
STUTTGART	64.53	44.0	10 29	-4					
ALERT	64.65	360.0	10 31	-2					
MOULD BAY	65.17	347.2	10 36	-1					
JENA	66.06	41.6	10 55	13				11 34	
COLLMBERG	66.96	41.2	10 46	-2				11 12	PCP
SKALSTUGAN	67.18	27.9	11 0	10					
KASPERSKE H.	67.36	43.6	10 48	-3				11 8	
PRUHONICE	67.97	42.7	10 53	-1				11 13	
COLLEGE	72.15	333.4	11 19	-1				11 52	
SODANKYLA	73.16	23.8	11 26	0					
LWIRO	91.54	91.9	13 2K	1					
SHILLONG	129.92	31.1	19 13A	10					
MOORLANDS	145.09	219.3	19 33A	3					
SAVANNAH	145.50	220.3	19 34	3					
TARRALEAH	145.61	218.9	19 34A	3					
RIVERVIEW	146.31	235.4	19 37A	4					
BRISBANE	146.54	247.3	19 36	3					
CANBERRA	147.41	231.6	19 37	3					
CHARTERS TS.	153.11	260.8	19 46	3					
ADELAIDE	154.85	223.4	19 43	-2					

FEBRUARY 11 2.H 42.M 39.S EPICENTRE 29.65 139.32 DEPTH= 425.KM

A=-0.66014 B= 0.56749 C= 0.49211 D= 0.6519 E= 0.7583
G=-0.3732 H= 0.3208 K=-0.8705 HT= 1.9

DEPTH OF FOCUS= 0.062R

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
TORISIMA	1.19	45.5	0	54	0	1	34	-4				
HATIDYOZIMA	3.47	6.6	1	6	-3	2	0	-4				
OMAESAKI	5.03	349.6	1	36	12	2	30	0				
OSIMA	5.11	0.6	1	25	0	2	28	-3				
OWASE	5.15	329.8	1	24	-1	2	31	-1				
MERA	5.28	4.6	1	24	-2	2	31	-3				
SHIZUOKA	5.37	351.9				2	36	0				
AJIRO	5.39	358.1	1	25	-2	2	35	-2				
MISIMA	5.47	356.9	1	26	-2	2	36	-2				
TU	5.57	335.5	1	29	0							
MUROTO	5.67	310.6	1	32	2	2	45	3				
KAMEYAMA	5.72	335.8	1	34A	3	2	44	1				
YOKOHAMA	5.78	2.7	1	40	9	2	42	-2				
NARA	5.82	330.4	1	32	0	2	45	0				
NAGOYA	5.85	340.8	1	32	0	2	46	1				
HUNATU	5.86	355.6	1	33	1	2	41	-4				
OSAKA	5.93	328.2	1	35	2	2	47	0				
IIDA	5.99	348.3	1	33	-1	2	48	0				
SUMOTO	5.99	322.5	1	36	2	2	48	0				
TOKYO C.M.O.	6.03	3.4	1	32	-2	2	41	-7				
KOHU	6.04	354.1	1	35	1	2	47	-2				
HONGO	6.06	3.5	1	35	1	2	43	-6			3	4
ABUYAMA	6.10	329.6	1	35K	0							

KOBE	6.12	326.1	1	38	3	2	52	2		
GIHU	6.13	340.1	1	36	1	2	51	1		
KYOTO	6.16	331.4	1	36	1	2	51	0		
HIKONE	6.18	336.0	1	37	1	2	54	3		
TYOSI	6.19	11.6	1	34	-2	2	47	-5		
SIMIDU	6.27	301.5	1	37	0	2	54	1		
KOTI	6.29	309.7	1	38	1	2	54	1	14	7 SCS
TITIBU	6.32	358.3	1	36	-1	2	52	-2		
HIMEJI	6.39	320.5	1	41	3	3	0	4		
TAKAMATU	6.46	317.5	1	40	1	3	0	3		
KUMAGAYA	6.49	0.5	1	36	-3	2	55	-2		
TSURUGA	6.58	336.3	1	41	1	2	59	0		
TUKUBASAN	6.59	5.5	1	36K	-4	2	49	-11		
KAKIOKA	6.61	6.1	1	38	-2	2	56	-4		
MATUMOTO	6.68	350.6	1	41	0	3	4	3		
MAIZURU	6.69	331.3	1	41	0	3	1	0		
OIWAKE	6.70	354.7	1	40	-1	2	59	-3		
TAKAYAMA	6.71	345.6	1	41	-1					
MAEBASI	6.74	358.3	1	41	-1	2	54	-8		
MITO	6.79	7.9	1	39K	-3	2	57	-6		
HUKUI	6.89	338.7	1	43	0	3	8	2		
UTUNOMIYA	6.90	3.7	1	42	-2	2	58	-8		
MATUSIRO	6.94	352.6	1	41A	-3	3	3	-3	10	36 SCP
MATUYAMA	6.96	308.6	1	46	2	3	12	5		
TOYOOKA	6.99	328.3	1	47	3	3	10	3		
NAGANO	7.07	352.7	1	44	-1	3	8	-1		
MIYAZAKI	7.16	290.4	2	1	15	3	16	5		
TOYAMA	7.26	346.4	1	48	1	3	12	-1		
TOTTORI	7.28	324.8	1	45	-3	3	9	-4		
OOITA	7.48	300.5	1	51	1	3	12	-5		
TAKADA	7.49	353.4	1	56	6					
SHIRAKAWA	7.49	5.6	1	48	-2	3	12	-6		
YAKUSIMA	7.68	278.2	1	52	0	3	25	4		
KAGOSIMA	7.79	286.4	1	56	2	3	30	6		
MATSUE	7.83	319.3	1	58	4	3	28	4		
KUMAMOTO	8.03	295.4	1	58	2	3	34	6		
HUKUSIMA	8.14	6.5	1	56	-1	3	25	-6		
NIIGATA	8.26	358.5	2	10	11				4	33
SIMONOSEKI	8.33	303.2	1	59	0					
HUKUOKA	8.57	299.5	2	4	2	3	46	7		
YAMAGATA	8.63	5.4	2	1	-2	3	38	-2		
NAGASAKI	8.65	293.2	2	5	2	3	46	5		
SENDAI	8.70	8.3	2	4	0	3	38	-4		
ISINOMAKI	8.92	10.2	2	5A	-1	3	43	-3		
SAKATA	9.24	2.5	2	11	1	3	55	2		
MIZUSAWA	9.58	8.5	2	13	-1	3	56	-4		
ITUHARA	9.66	300.6	2	15	0	4	0	-2		
AKITA	10.07	3.5	2	20K	1	4	12	2		
MORIOKA	10.15	8.1	2	21	1				3	9
MIYAKO	10.22	11.6	2	21	0	4	12	-1		
HATINOHE	11.01	8.9	2	29	-1	4	27	-2		
AOMORI	11.21	5.7	2	32	0	4	36	2		
HAKODATE	12.19	5.1	2	45	2	4	50	-4		
URAKAWA	12.79	11.7	2	50	0	5	8	2		
HIROO	13.02	13.3	2	48	-4	5	10	0		
SUTTSU	13.15	3.0	2	52	-2	5	14	1		
SAPPORO	13.50	6.4	2	57	0	5	9	-11		
OBIHIRO	13.61	12.2	2	58	-1	5	24	2		
KUSIRO	13.92	15.7	3	3	1	5	30	2		
NEMURO	14.55	18.5	3	9	1	5	41	1		
VLADIVOSTOK	14.70	338.1	3	11	1					
ZO-SE	15.72	279.8	3	18K	-2	5	58	-4		
WAKKANAI	15.86	6.1	3	22K	0	6	9	4		
HWALIEN	16.77	254.5	3	32	1	6	24	2		
GUAM	16.87	161.5	3	25	-7	5	21	-63		
YUSHAN	17.53	253.8	3	39	0					
Y.-SAKHLINSK	17.55	7.7	3	37	-2	6	37	1		
ALISHAN	17.64	254.1	3	43	3					
TAITUNG	17.68	251.4	3	40	0				6	46
NANKING	17.80	283.0	3	40K	-1	6	39	-2		
CHANGCHUN	18.03	325.5	3	45	1	6	49	4		
TAWU	18.07	250.6	3	45	1					
HENGCHUN	18.35	249.8	3	48	1					
UGLEGORSK	19.52	5.4	3	59	1	7	15	4		
PEKING	21.58	304.9	4	17	-1	7	44	-2	6	13 *SP
MANILA	22.48	232.4	4	27	1	8	17	16		
HONG KONG	23.73	257.9	4	37K	0	8	9	-12	5 57	5 46 PP
CANTON	24.14	260.4	4	39	-2					

SIAN	26.15	288.0	4	59	0					7	1	*SP
PAOTOW	26.21	302.5	4	59	-1	9	1	0	6 14	7	0	*SP
PETROPAVLOVK	27.33	25.8	5	10K	0	9	18	0	6 21	15	7	SCS
LANCHOW	30.37	291.5	5	34	-2	10	4	-2	6 52	7	3	PP
CHENGTU	30.47	280.9	5	35	-2	10	5	-2	6 51			
ULAN-BATOR	30.86	315.3	6	10K	30	10	11	-2				
MAGADAN	30.91	11.4	5	42	1	10	15	1				
KUNMING	32.70	271.0	5	55	-1	10	40	-2	7 15	7	25	PP
YAKUTSK	32.99	351.7	5	58	-1	10	42	-4		13	15	SS
IRKUTSK	34.26	321.2	6	10K	1	11	5	-1		13	27	SS
ESEN BULAK	37.31	308.8	6	36K	1	11	52	0				
PORT MORESBY	39.54	167.8	6	54	1	12	27	2		14	46	SS
LHASA	41.71	282.4	7	10	-1	12	58	2	8 32	8	55	PP
SHILLONG	42.01	276.3	7	11K	-2	13	2	1	9 1	15	29	*SS
TIKSI	42.42	355.1	7	13	-3	13	5	-1		9	1	PCP
DARWIN	42.57	192.3	7	16	-1					8	46	
CHITTAGONG	43.06	271.8				13	14	-2	8 41	9	10	PP
CHATRA	45.71	279.7	7	33A	-9							
LEMBANG	47.36	225.2	7	54K	-1	14	17	1				
TANGERANG	47.47	226.8	7	54	-2							
BOKARO	47.80	276.3	7	59	1							
SEMIPALATNSK	48.35	312.7	8	0	-2	14	27	-3				
CHARTERS TS.	49.90	171.5	8	13	-1	14	49	-2				
DEHRA DUN	52.48	287.1	8	33	0	15	26	0				
NEW DELHI	53.68	285.2	8	39K	-3	15	43	1				
LAHORE	55.22	289.6	8	51	-2	16	2	0				
KOUMAC	55.41	151.3	8	55	1							
KHOROG	55.94	297.3	8	57	-1	16	15	3				
COLLEGE	56.32	29.4	9	0	0	16	16	0		11	3	PP
HONOLULU	56.53	82.9	9	3	1							
KIPAPA	56.55	82.7	9	3	1							
WARSAK DAM	56.80	293.2	9	2	-2	16	27	4				
TASHKENT	56.80	302.2	9	4K	0	16	24	1		11	8	PP
MADRAS	56.96	266.5	9	8	3					11	15	
NOUMEA	57.87	150.1	9	11	0					10	36	
BRISBANE	58.16	165.9	9	13	0	16	42	2	10 38	11	32	PP
AMDERMA	58.25	336.4	9	12	-2							
KHEYS	59.53	349.2	9	21	-1	16	59	2		18	27	SCS
SVERDLOVSK	59.67	321.4	9	21K	-2	16	50	-9				
POONA	60.10	275.4	9	24	-2					18	32	
BOMBAY	60.85	276.2	9	29	-2	17	15	1	10 58	19	48	*SS
QUETTA	61.67	290.4	9	35	-1	17	24	0		19	59	*SS
SITKA	63.22	37.6	9	48	2							
KARACHI	63.49	284.7	9	51	3	17	49	2				
MOULD BAY	64.10	15.1	9	51A	-1							
RIVERVIEW	64.12	169.1	9	53K	1	17	56	2		19	6	SCS
ADELAIDE	64.27	180.5	9	52A	-1							
MUNDARING	65.09	201.6	9	57	-1							
CANBERRA	65.26	171.3	9	59A	0	18	9	1	11 29	10	27	PCP
ASHKABAD	65.83	301.2	10	3	0					10	22	PCP
ALERT	67.59	3.0	10	17	3							
APATITY	68.72	336.6	10	20	-1	18	44	-5				
RESOLUTE	70.18	13.3	10	29A	0							
SODANKYLA	71.10	337.8	10	35	0							
ALBERNI	71.72	43.3	10	39A	0							
TARRALEAH	71.89	174.4	10	39	-1				12 10			
MOORLANDS	72.09	173.9	10	40	-1					12	32	
MOSCOW	72.18	324.4	10	41	0							
THULE	72.79	6.6	10	42	-3	19	35	0				
KIRUNA	72.80	339.6	10	45	0							
VICTORIA	72.88	43.6	10	46A	1							
TIFLIS	74.04	309.1	10	53	1							
PENTICTON	74.76	41.7	10	56A	0							
KARAPIRO	75.28	151.1	10	59	0				12 34			
UMEA	75.32	336.4	10	58	-1							
NURMIJARVI	75.64	332.3	10	59	-2	20	4	-2		11	26	
BANFF	76.16	38.7	11	4	0							
TONGARIRO	76.35	151.8	11	11	6				12 44			
TUAI	76.69	150.5	11	6	-1				12 43			
MINERAL	77.74	50.6	11	13A	1							
WELLINGTON	77.82	153.4	11	14	1				12 50			
CALISTOGA	77.88	52.5	11	15A	2							
SKALSTUGAN	78.14	338.6	11	13	-1					14	17	PP
HUNGRY HORSE	78.45	40.7	11	18	2					11	35	
BERKELEY	78.47	53.0	11	17K	1	20	34	-2				
UPPSALA	78.81	334.0	11	17	-1				12 55			
LICK	79.16	53.3	11	21A	1							
RENO	79.34	50.6	11	23A	2							
SIMFEROPOL	79.37	315.8	11	23	2	20	44	-2				

BOZEMAN	81.62	41.9	11	34	1				13	7	14	48	PP
EUREKA	81.92	49.1	11	35	1	21	10	-1	13	7	14	48	PP
IASI	81.95	320.2	11	36	2						12	12	
KARLSKRONA	82.10	332.0	11	40	5								
GOTEBORG	82.43	334.5	11	36	-1								
PASADENA	83.19	54.6	11	42A	1	21	24	0	13	4	23	15	*SS
SALT LAKE C.	83.88	46.3	11	46	2				13	19	15	7	PP
KSARA	84.02	305.5	11	43	-2	21	45	13	13	24	14	53	PP
KRAKOW	84.21	325.6	11	47	1								
BOULDER CITY	84.55	51.6	12	49	62								
RACIBORZ	85.04	326.4	11	48	-2								
FLAMING GRGE	85.32	45.1	11	52	1				13	26			
MACQUARIE I.	85.50	168.7	11	49A	-3								
GLEN CANYON	86.18	49.3	11	57	2						15	23	PP
COLLMBERG	86.60	329.6	11	56K	-1				13	33	15	30	PP
PRUHONICE	86.83	327.9	11	57	-1						14	35	
BRATISLAVA	86.85	325.4	11	59	0						13	59	
RAPID CITY	87.04	39.8	12	0	1	22	3	2	13	37	15	31	PP
VIENNA-H.	87.16	325.8	12	1	1						14	3	
LARAMIE	87.40	43.1	12	3	2								
JENA	87.49	329.9	11	59	-3				13	41	15	54	PP
KASPERSKE H.	87.87	327.8	12	3	0				14	31			
BENSBERG	89.33	332.0	12	12	2								
TUCSON	89.38	52.8	12	12	2				13	48	15	49	PP
TUCSON TELE.	89.41	52.7	12	13	3				13	46	15	50	PP
LJUBLJANA	89.59	325.1	12	11K	0						13	57	
ATHENS	89.76	314.5	12	11A	-1								
STUTTGART	90.08	329.6	12	14	0								
ALBUQUERQUE	90.73	48.5	12	18	1				13	51	15	56	PP
BASLE	91.77	329.6	12	22	1								
TARANTO	91.97	319.7									30	1	
PARIS	92.89	333.1	12	28	1								
CHIAVARI	93.38	326.6	12	41	12						29	11	SS
ROME	93.57	323.2									31	11	
GARCHY	93.88	331.8	12	30	-1				14	8	16	25	PP
MANHATTEN	93.99	40.2	12	33	1								
WICHITA MTS.	95.85	44.5	12	42	2	22	38	4	13	14	16	37	PP
ROLLA	97.49	38.5	12	49K	1								
FAYETTEVILLE	97.51	41.1	12	49K	1				14	26	16	47	PP
ST. LOUIS 1	97.83	37.0	12	50	1	23	34	50					
BLOOMINGTON	99.31	34.4	12	58K	2								
BREBEUF	99.44	22.8	12	58	2						17	8	PP
PALISADES	103.26	25.2				23	11	0			24	27	S
LWIRO	108.91	278.4									18	17	PP
SOUTH POLE	119.48	180.0	18	0	0								
KIMBERLEY	123.57	253.5	18	10K	3								
SAN JUAN	126.32	30.4									19	53	
CHINCHINA	131.97	50.1	18	23	-1						21	10	PP
CARACAS	132.75	36.3									21	15	
BOGOTA	133.25	48.9	18	27	1						21	20	PP
TRINIDAD	135.24	29.6									21	23	
HUANCAYO	143.39	68.8	18	45	0								
AREQUIPA	148.87	71.9	18	58	5								
LA PAZ	151.65	68.6	19	3	6						22	49	PP
ANTOFAGASTA	152.82	84.5	19	10	11						20	54	

FEBRUARY 11 10.H 1.M 24.S EPICENTRE 51.74-168.36 DEPTH= 73.KM

A=-0.60906 B=-0.12542 C= 0.78314 D=-0.2017 E= 0.9794
G=-0.7670 H=-0.1580 K=-0.6218 HT= -6.1

DEPTH OF FOCUS= 0.006R

SE= 2.33

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
COLLEGE	16.90	31.0	3	51	-2						4	59	
ALBERNI	27.50	77.7	5	47	6								
VICTORIA	28.64	78.5	5	53	2								
PENTICTON	30.62	74.9	6	11A	2								
MOULD BAY	30.91	20.6	6	13	1								
BANFF	32.33	69.7	6	25	1								
MINERAL	33.84	90.9	6	38K	1								
CALISTOGA	34.25	94.2	6	42A	2								
HUNGRY HORSE	34.38	73.7	6	44	2								
BERKELEY	34.92	95.0	6	48A	2						8	19	PP

RENO	35.43	90.6	6	53	2			
LICK	35.64	95.2	6	54K	2			
RESOLUTE	36.68	25.3	7	3	2			
BOZEMAN	37.46	76.0	7	10	2			
EUREKA	37.85	87.8	7	14	3			9 27 PCP
PASADENA	39.85	96.1	7	29	2			
MATUSIRO	40.30	269.4	7	31	0			
BOULDER CITY	40.73	91.2	7	37	2			
FLAMING GRGE	41.07	81.2	7	38	0			
ALERT	41.08	11.1	7	39	1			
GLEN CANYON	42.11	87.5	8	35	49			
THULE	42.67	20.1	7	49	-2			
RAPID CITY	43.02	73.5	7	45	-9			
LARAMIE	43.18	78.3	7	56	1			
TUCSON	45.68	92.1	8	16	1			
ALBUQUERQUE	46.59	85.9	8	23	1			9 56
MANHATTEN	49.91	74.8	8	48K	0			
WICHITA MTS.	51.60	80.5	9	1	0			10 14 PCP
ROLLA	53.55	73.0	9	13	-2			
ST. LOUIS 1	54.05	71.2	9	18	-1			
C. GIRARDEAU	55.34	72.0	9	29	1			
LITTLE ROCK	55.36	76.1	9	27	-1			
BLOOMINGTON	55.86	68.4	9	31K	-1			
SHAWINIGAN	58.34	53.8	9	50A	1			
BREBEUF	58.63	55.2	9	51A	0			
SEVEN FALLS	58.91	52.2	9	52A	-1			
MORGANTOWN	59.28	63.9	9	56A	0			
SODANKYLA	60.68	353.4	10	7	1			
PALISADES	61.62	59.0	10	11	-1			
UMEA	64.59	355.8	10	32A	1			
HONG KONG	65.14	274.9				18 48 -22		
NURMIJARVI	67.62	353.1	10	52A	1			
UPPSALA	68.66	356.8	10	58	1			
HALLE	77.14	359.8	11	50	3		12 5	
COLLMBERG	77.33	359.1	11	49	1			12 27
BENSBERG	77.61	2.9	11	52A	2		12 5	
JENA	77.71	0.0	11	52	2			12 18
DOURBES	78.36	4.6	11	55	1			
RACIBORZ	78.41	355.7	11	52	-2			12 9 PCP
PRUHONICE	78.63	358.1	11	57A	2			12 14
FOLINIERE	79.34	8.1	12	1	2			
KASPERSKE H.	79.50	358.7	12	2	2			
PARIS	79.53	6.1	12	3	3			
WARSAK DAM	79.81	313.1	12	15	13			
STUTTGART	79.85	1.6	12	4	2			12 28
STRASBOURG	80.01	2.6	12	6	3			
BRATISLAVA	80.36	356.3	12	7K	2			12 22 PCP
GARCHY	81.09	5.9	12	10	2			12 52
BESANCON	81.27	3.9	12	44	35			
CHARTERS TS.	81.77	222.5	12	11	-1			
CLERMONT-FD.	82.60	6.0	12	23	7			
SAN JUAN	83.10	69.2	12	20	1		12 34	
BAGNERES	85.05	8.4	12	30	2			
QUETTA	85.11	314.4	12	31	2			
TEHERAN	86.19	328.6	12	37	3			
LWIRO	128.63	337.8	19	1A	2			
SOUTH POLE	141.55	180.0	19	16	-7			

FEBRUARY 11 18.H 55.M 35.S EPICENTRE -4.47 153.35 DEPTH= 121.KM

A=-0.89107 B= 0.44722 C=-0.07745 D= 0.4486 E= 0.8938
G= 0.0692 H=-0.0347 K=-0.9970 HT= 7.1

DEPTH OF FOCUS= 0.014R

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
RABAUL	1.21	282.9	0	25	0							
PORT MORESBY	7.86	231.2	1	52	-1	3	22	1				
HONIARA	8.20	127.3	1	52	-6							
CHARTERS TS.	16.99	203.4	3	51	-1	7	0	5				
PORT VILA	19.71	133.1	4	18	-4	7	51	-2				
GUAM	19.76	334.5	4	25	2	8	5	11				
NOUMEA	21.80	145.6	4	40A	-3	8	32	1				
BRISBANE	22.80	181.3	4	53	0	8	55	6			5	30 PP

DARWIN	23.60	249.2	5	2	1	7	58	-65					
SUVA	28.04	121.0				10	20	4			11	50	SS
RIVERVIEW	29.28	183.7	5	51	-2	10	32	-4	6	15	6	26	*SP
CANBERRA	30.96	186.9	6	6	-2	11	4	2			7	14	PP
ADELAIDE	33.23	202.2	6	26A	-2	11	37	-1	6	49	7	41	PP
MELBOURNE	34.07	191.9	6	34	-1	12	18	27					
AFIAMALU	35.63	107.6	7	0	12	12	18	3					
ONERAHI	36.69	150.8	7	17	20				7	47			
MANILA	37.21	301.3	7	3	2						16	7	
SAVANNAH	37.49	187.6	7	3	-1								
AUCKLAND	37.78	151.4									10	12	
TARRALEAH	38.16	188.3	7	8	-1				7	34			
MOORLANDS	38.20	187.4	7	9A	-1				7	32			
FORT NELSON	38.66	187.1	7	13A	0	13	3	2					
KARAPIRO	38.98	151.7	7	15	-1				7	39	9	23	PCP
CHATEAU	40.00	152.8	7	24	0				7	47			
COBB RIVER	40.39	157.2	7	30	2						8	1	
TUAI	40.44	150.9	7	28	0	14	5	38	7	52			
KAIMATA	41.16	159.6	7	44	10								
WELLINGTON	41.37	155.4	7	34	-2				7	55	9	57	PCP
TUKUBASAN	42.34	344.0	7	40	-4	13	33	-22	8	50	17	17	SS
ABUYAMA	42.56	338.2	7	44K	-1								
GEBBIES PASS	42.63	159.3	7	48	2						8	19	
ROXBURGH	43.16	163.6	7	49	-1	14	1	-6			9	33	PP
MATUSIRO	43.18	342.1	7	48A	-2	13	53	-14			17	36	SCS
MUNDARING	44.25	227.3	7	59A	0								
PERTH	44.52	227.6	8	1	0	14	32	5			17	51	
LEMBANG	45.55	264.8	8	9A	0	14	32	-9					
DJAKARTA	46.34	265.7	8	7	-9								
TANGERANG	46.54	265.8	8	15A	-2	14	15	-40					
HONG KONG	46.64	306.4	8	20A	2	14	56	-1	8	49	18	5	SCS
ZO-SE	46.83	321.2	8	19	0								
CANTON	47.70	306.8	8	28A	2	15	16	4	8	50	15	57	*SS
NANKING	48.99	320.3	8	34	-2	15	30	0	8	57	16	9	*SS
MACQUARIE I.	50.08	175.7	8	43	-2				9	5			
VLADIVOSTOK	51.19	339.9	8	53	0								
HONOLULU	54.02	59.7	9	14	0	16	45	6	9	44			
KIPAPA	54.14	59.6	9	14	-1								
CHANGCHUN	54.31	335.2	9	17	1				9	39			
HAWAII V.OB.	55.83	63.0	9	26	-1	17	17	14					
PEKING	55.92	325.9	9	26	-2	17	6	2	9	51	17	53	*SS
SIAN	56.88	316.2	9	35A	0				9	56			
KUNMING	57.26	303.6	9	39A	2	17	28	6	10	1	18	8	*SS
PETROPAVLOVK	57.45	3.8	9	37	-2	17	27	3	10	1	18	21	*SS
CHENGTU	58.63	310.0	9	47	0	17	45	5	10	9	18	29	*SS
PAOTOW	59.85	322.8	9	55	0				10	15			
LANCHOW	61.37	315.4	10	7A	2	18	19	4	10	28	18	55	*SS
PORT BLAIR	62.39	285.6	10	16A	4	18	32	4					
MAGADAN	63.85	358.6	10	20	-2	18	51	5					
TOCKLAI	64.53	302.3	10	31	5								
CHITTAGONG	65.75	296.8	10	35A	1	19	18	9	10	57	13	2	PP
ULAN-BATOR	66.12	327.8	10	35A	-2	19	17	3					
SHILLONG	66.63	300.2	10	39A	-1	19	23	3			11	13	PCP
WILKES	68.53	197.1	10	49A	-3	19	44	2			23	57	SS
CAPE HALLETT	68.57	174.5	10	48	-4	19	50	7			20	38	SCS
LHASA	68.58	304.1	10	54A	2				11	15			
YAKUTSK	68.75	348.3	10	51	-2	19	51	6			11	27	
CALCUTTA	68.88	296.1	10	56	2	19	51	5			13	26	PP
IRKUTSK	70.08	330.4	11	1A	0	20	6	5					
CHATRA	71.03	300.2	11	8A	1	20	17	5					
ESEN BULAK	71.40	322.2	11	8A	-1	20	28	12					
BOKARO	71.48	296.8	11	10	1								
VISHAKHAPTNM	72.49	290.0	11	20	5	20	39	11			21	3	PS
SCOTT BASE	73.67	177.1	11	21	-1								
MIRNY	74.43	201.2	11	24	-3	20	52	2	11	55	14	16	PP
MADRAS	74.69	284.7	11	30A	2	21	1	8			14	17	PP
HYDERABAD	77.00	288.9									26	13	
11KSI	77.63	352.3	11	43	-2	21	27	2	12	10	14	49	PP
DEHRA DUN	79.64	301.8	12	6	10	22	13	27			15	11	PP
NEW DELHI	80.03	299.9	11	58A	0	21	53	3			26	43	SS
COLLEGE	81.35	21.7	12	2	-3	22	4	0	12	27	38	35	PKPPKP
POONA	81.49	289.4	12	5	0	22	12	7			16	57	PPP
BOMBAY	82.51	289.6	12	10	-1	22	54	38			15	46	PP
ALMATA	83.20	314.4	12	19	5								
SOUTH POLE	85.56	180.0	12	24	-2								
WARSAK DAM	85.70	304.5	12	27	0	22	51	4					
MAWSON	86.08	202.6	12	28A	0				13	2	13	22	*SP
KHOROG	86.22	307.9	12	30	1	22	59	7					

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ALBERNI	88.04	40.4	12	37	-1						
CALISTOGA	88.14	51.2	13	22A	44						
BERKELEY	88.29	52.0	12	32A	-7	23	2	-10	13 2	23 58	SS
KARACHI	88.51	294.9	12	39	-1				13 2	23 44	*SS
LICK	88.72	52.6	12	43K	2						
VICTORIA	88.84	41.3	12	39	-3						
MINERAL	89.10	49.6	12	42A	-1						
QUETTA	89.11	300.2	12	44A	1	23	25	6		23 49	*SS
RENO	90.38	50.5	13	11	22						
PASADENA	91.22	56.0	12	52	-1	23	32	-6		24 43	PS
PENTICTON	91.42	40.8	12	52	-2						
EUREKA	93.34	50.8	13	2	0				13 29	30 11	PKKP
MOULD BAY	93.67	13.9	13	2	-2						
BOULDER CITY	94.07	54.4	13	4	-2				13 34	17 26	PKP
BANFF	94.15	39.1	13	5	-1						
AMDERMA	94.74	339.6	13	6	-3						
HUNGRY HORSE	95.06	42.0	13	9	-1						
SVERDLOVSK	95.20	326.5	13	9	-2						
BOZEMAN	97.09	44.7	13	23	3					13 47	
FLAMING GRGE	98.40	49.4	13	24	-1						
RESOLUTE	99.96	14.5	13	31	-2						
ALBUQUERQUE	100.90	55.4	13	44	7						
LARAMIE	101.25	48.9								18 22	
TEHERAN	102.30	305.5	17	17	214						
RAPID CITY	102.76	45.9	13	44	-1					14 40	
GORIS	105.95	309.7								18 20	PP
WICHITA MTS.	107.37	55.1	14	36	777	24	41	9		18 56	PP
MANHATTEN	108.34	50.3	14	32	777						
LAWRENCE	109.40	50.3	18	48	777						
FAYETTEVILLE	110.73	53.2								19 5	PP
NURMIJARVI	112.06	335.4	18	47	26						
ROLLA	112.18	50.9	14	22A	-239						
KSARA	115.20	305.3	18	29	2					19 34	PP
BLOOMINGTON	115.97	48.4	14	48	-221						
KIMBERLEY	120.58	232.9								19 31	
HERMANUS	122.02	224.4								20 19	PP
BREBEUF	122.25	37.4	19	1K	20						
BRATISLAVA	122.66	326.6								18 42	PPP
COLLMBERG	122.83	331.5	18	42	0				19 8	19 20	*SPKP
PRUHONICE	122.92	329.6	18	42	0						
VIENNA-H.	123.01	327.1	18	43	1					19 3	
SEVEN FALLS	123.02	34.6	18	41	-1						
ATHENS	123.37	313.2	18	43K	0					19 17	
JENA	123.75	331.9	19	6	22				19 32	20 52	PP
KASPERSKE H.	123.94	329.2	18	45	1					20 33	
LWIRO	124.19	264.3	18	47A	2					20 35	
PALISADES	124.24	42.2				27	19	104			
LJUBLJANA	125.33	325.8	18	47	0					19 25	
BENSBERG	125.72	334.3	19	16	29					19 36	
STUTTGART	126.31	331.2	18	49	0				19 15	20 38	PP
STRASBOURG	127.16	331.9	19	21	31						
BALBOA HTS.	127.30	82.2								20 55	PP
HUANCAYO	128.90	109.3	18	55	1						
BESANCON	128.95	331.8	19	21	27					19 51	
ROME	128.97	322.7								38 55	
MESSINA	129.02	317.1								20 19	
CHIAVARI	129.28	327.0	17	45	-69					20 5	PP
ROSELEND	129.39	329.2	18	57	2					23 6	
WINDHOEK	129.50	235.9								22 12	
GARCHY	130.26	333.7	18	58	2					21 53	PP
AREQUIPA	131.04	116.2	19	29	31						
CHINCHINA	131.20	87.3	19	4	6					22 28	PPP
CLERMONT-FD.	131.38	332.4	19	35	37					23 25	
BOGOTA	132.74	87.9	19	7	6					21 45	PP
FUQUENE	133.10	86.7	19	8	6						
LA PAZ	134.01	117.9	19	13	10					22 41	PKS
BAGNERES	134.82	332.2	19	35	30					23 30	
BANGUI	134.87	271.7	19	6	1					21 37	PP
SAN JUAN	139.04	67.0	18	57	-15					20 7	
TOLEDO	139.27	333.1	19	39	26						
CARACAS	139.65	79.1	19	37	23					22 41	
M.BOUR	166.29	316.6	19	51	0					24 36	PP

FEBRUARY 12 17.H 26.M 4.S EPICENTRE 33.97 138.26 DEPTH= 301.KM

A=-0.62010 B= 0.55327 C= 0.55621 D= 0.6658 E= 0.7462
G=-0.4150 H= 0.3703 K=-0.8310 HT= 0.5

DEPTH OF FOCUS= 0.042R

SE= 1.93

	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
OMAESAKI	0.63	357.0	0	40	1	1	11	0				
SHIZUOKA	1.00	6.6	0	42	2	1	13	1				
OSIMA	1.22	49.1	0	41	-1	1	13	-2				
MISIMA	1.28	26.3	0	42	0	1	15	0				
AJIRO	1.28	32.6	0	42A	0	1	14	-1				
HATIDYOZIMA	1.55	123.8	0	44	0							
IIDA	1.58	347.2	0	44A	0	1	19	0				
NAGOYA	1.60	318.7	0	44A	0	1	16	-3				
MERA	1.61	53.5	0	53	9	1	17	-2				
KOHU	1.71	8.2	0	45	0	1	19	-1				
KAMEYAMA	1.72	301.1	0	45	0	1	19	-1				
YOKOHAMA	1.85	37.9	0	39	-7	1	21	-1				
GIHU	1.88	319.6	0	49	3	1	24	2				
TOKYO C.M.O.	2.10	35.3	0	48K	0	1	24	-1				
HIKONE	2.10	308.5	0	49	1	1	24	-1				
TITIBU	2.11	18.4	0	51	3	1	24	-1				
HONGO	2.13	35.2	0	48	0	1	24	-2				
SIOMISAKI	2.14	256.6	0	47	-1	1	24	-2				
MATUMOTO	2.28	354.1	0	49	0	1	28	0				
KYOTO	2.34	297.3	0	49	-1							
KUMAGAYA	2.36	22.6	0	49A	-1	1	27	-2				
OIWAKE	2.36	5.7	0	51	1	1	28	-1				
ABUYAMA	2.40	292.7	0	49	-1							
TSURUGA	2.46	313.5	0	51	0	1	29	-2				
MAEBASI	2.51	15.1	0	50	-1	1	30	-2				
MATUSIRO	2.56	359.1	0	51A	-1	1	30	-3				
NAGANO	2.69	359.0	0	52	-1	1	32	-3				
TUKUBASAN	2.70	33.4	0	51	-2	1	23	-12				
KAKIOKA	2.75	34.4	0	52	-2	1	32	-4				
TYOSI	2.75	50.0	0	54	0	1	34	-2				
MAIZURU	2.80	303.1	0	53	-1							
UTUNOMIYA	2.89	26.7	0	54	-1	1	33	-5				
MITO	3.01	36.4	0	57	1	1	37	-3				
TOKUSIMA	3.06	272.8				1	39	-2				
TAKADA	3.12	359.9	1	1	4							
TOYOOKA	3.23	299.7				1	40	-5				
MUROTO	3.48	259.2	1	2	1	1	47	-2				
TAKAMATU	3.51	276.8	1	22	21	1	48	-1				
SHIRAKAWA	3.52	26.4	1	1	0	1	46	-4				
TOTTORI	3.69	295.7									1	36
KOTI	3.96	265.2	1	8	2	1	57	-1				
HUKUSIMA	4.17	24.8	1	8	0	1	59	-3				
MATUYAMA	4.56	269.9	1	11	-2	2	8	-2				
YAMAGATA	4.59	21.0	1	13	0	2	6	-5				
SENDAI	4.79	25.7				2	11	-4			1	58
ISINOMAKI	5.09	28.2	1	17A	-2	2	16	-5				
KUSIRO	10.20	26.3									4	8
GUAM	21.25	162.4	4	24	1							
SHILLONG	40.85	270.9	7	12	-2							
DARWIN	46.63	190.0	7	59	-1							
COLLEGE	53.04	30.9	8	48	0							
CHARTERS TS.	54.30	170.7	8	56	-1							
RESOLUTE	66.19	13.·	10	17A	0							
SODANKYLA	66.78	337.0	10	20	-1							
KIRUNA	68.45	338.8	10	30	-1							
CANBERRA	69.66	170.6	10	38A	0							
PENTICTON	72.16	42.2	10	54	1							
KARAPIRO	79.49	150.8	11	35	1							
EUREKA	79.78	49.2	11	37	1							
CHINA LAKE	80.85	53.0	11	42	1							
FLAMING GRGE	82.90	44.9	11	53	1							
WICHITA MTS.	93.38	43.7	12	43	1							
ROLLA	94.64	37.5									18	1 PP

FEBRUARY 14 6.H 36.M 11.S EPICENTRE -37.46 -72.06 DEPTH= 84.KM

A= 0.24510 B=-0.75710 C=-0.60558 D=-0.9514 E=-0.3080
G=-0.1865 H= 0.5761 K=-0.7958 HT= -0.8

DEPTH OF FOCUS= 0.008R

SE= 3.45

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
CONCEPCION	0.63	0.8	0	14	-3								
SANTIAGO	4.18	16.4	1	5	2	2	11	20					
BUENOS AIRES	11.36	79.5	2	42	1								
LA PLATA	11.70	81.6	2	25	-20	5	7	12					
ANTOFAGASTA	13.78	6.3	3	13	0	6	34	50					
LA PAZ	21.16	10.5	4	44	4	8	49	24					
HUANCAYO	25.47	352.5	5	23	1								
BOGOTA	41.90	357.0	7	46	2								
CHINCHINA	42.34	354.7	7	47A	0	14	15	13	8	4	9	36	PP
FUQUENE	42.73	357.6	7	49	-1								
BALBOA HTS.	46.70	349.8	8	3	-19	14	57	-8					
CARACAS	47.94	6.8	8	32A	0	15	33	11					
GALERAZAMBA	48.07	355.8									9	23	
TRINIDAD	48.89	14.0	8	42	3								
GRENADA	50.19	13.2	8	53	4								
ST. VINCENT	51.37	13.5	9	0	2								
BARBADOS	51.65	15.5	9	5	5								
SOUTH POLE	52.73	180.0	8	59	-9	16	27	-1					
FORT FRANCE	52.91	13.3	9	9	-1								
SANTIAGO MA.	52.97	339.9	9	14	4	16	41	10					
SAN SALVADOR	53.36	339.1	9	12	-1	16	46	9					
ANTIGUA	55.15	11.9	9	29	3								
ST. KITTS	55.21	10.9	9	25	-1						10	18	
HOPE	55.33	354.6	9	35	8								
SAN JUAN	55.82	6.8	9	31A	0	16	52	-18	9	44	11	42	PP
COMITAN	56.66	336.8	9	29	-8	17	30	9			24	4	
OAXACA	58.97	332.2	9	56	3	18	4	13					
MERIDA	60.40	341.1	10	4	1	18	19	10			12	4	PP
VERA CRUZ	60.74	333.8	10	10	5	18	11	-3			22	17	SS
PUEBLA	61.34	331.6									26	25	
TACUBAYA	62.06	330.8	10	11K	-3	18	27	-3			12	33	PP
CAPE HALLETT	62.39	197.8	10	14	-2	18	32	-2			12	14	PP
MANZANILLO	63.90	325.8				18	54	1			30	22	SCS
GUADALAJARA	64.89	327.5	10	33	0	19	4	-2					
MAZATLAN	68.43	326.1				19	32	-16			11	45	
MAWSON	69.89	163.2	11	0	-4	20	3	-3	11	12	13	39	PP
HOUSTON	70.31	338.5	11	6	0								
HERMANUS	70.98	119.0	11	9	-1						14	2	PP
M.BOUR	73.03	56.2	11	27	4	21	6	24					
CHIHUAHUA	73.07	329.1	11	20	-3	20	39	-3			28	45	SSS
CHAPEL HILL	73.29	354.1	11	21	-3	20	52	7					
LITTLE ROCK	74.30	342.8	11	27	-3								
MIRNY	75.69	173.9	11	31	-7	21	6	-5			14	22	PP
WICHITA MTS.	75.93	337.7	11	35	-4	21	20	6			14	33	PP
FAYETTEVILLE	76.00	341.7	11	36A	-4	20	57	-18			15	12	PP
WINDHOEK	76.00	107.7	11	41K	1								
WASHINGTON	76.12	356.0	11	39	-1	21	51	35					
C. GIRARDEAU	76.14	345.7	11	37	-3	21	20	4					
WILKES	76.51	181.1	11	35A	-8	21	19	-1			26	17	SS
MORGANTOWN	77.05	353.8	11	43K	-3								
ROLLA	77.19	344.0	11	43A	-3				11	52			
BLOOMINGTON	77.42	348.5	11	44A	-4	21	31	1					
ST. LOUIS 1	77.55	345.5	11	44A	-4	21	34	3					
TERRE HAUTE	77.73	347.9									16	19	
FLORISSANT	77.73	345.5	11	46	-3								
FORDHAM	77.95	358.6	11	54	3	21	47	11					
PENNSYLVANIA	78.06	355.5	11	49	-2								
KIMBERLEY	78.08	117.0	11	48	-3								
PALISADES	78.11	358.6	11	49A	-2	21	46	9					
TUCSON	78.22	327.2	11	48K	-4	21	45	7			14	56	PP
TUCSON TELE.	78.25	327.3	11	49K	-3								
ALBUQUERQUE	78.81	331.8	11	52A	-3	21	37	-8					
LAWRENCE	78.99	341.8	11	55	-1								
CLEVELAND	79.03	352.8	11	54A	-2	21	54	7					
MANHATTEN	79.55	340.9	11	58A	-1	21	55	2					
GEBBIES PASS	80.19	221.7	12	6	3	21	46	-13					
CHICAGO JSA.	80.25	348.3	12	2	-1								
ROCHESTER	80.31	356.2	12	7	4								
LOME	80.59	74.8	12	13	9	22	36	37					

ROXBURGH	80.67	218.7	12	5	0	21	55	-9		15	13 PP
WELLINGTON	80.68	224.6	12	8	3	21	57	-7		15	13 PP
TUAI	80.96	227.7	12	10	3						
LUANDA	80.96	94.2	12	11A	4					14	15 PP
DUBUQUE	81.38	346.2	12	6	-3	22	17	5			
CHATEAU	81.63	226.6	12	12	2					12	44
COBB RIVER	81.94	223.7	12	11	-1	22	10	-7			
HALIFAX	82.06	6.1	12	12A	0						
KARAPIRO	82.48	227.5	12	13	-2					15	28 PP
BREBEUF	82.59	358.9	12	16	1	22	35	11	12 31	15	13 PP
GLEN CANYON	82.59	329.1	12	13	-2	22	25	1			
BOULDER CITY	83.13	326.3	12	15A	-3						
PASADENA	83.16	323.0	12	17A	-1	22	34	4	12 44	15	36 PP
AUCKLAND	83.63	227.9	12	26	6	22	37	3		23	43 PS
SHAWINIGAN	83.63	359.5	12	19A	-1						
LARAMIE	84.17	335.3	12	20	-3	22	49	9			
ONERAHI	84.63	228.5	12	37	12					22	46
CHANGALANE	84.78	119.1	12	25K	-1	23	0	14	12 45	15	49 PP
FLAMING GRGE	85.17	332.5	12	25K	-3	22	0	-49			
RAPID CITY	85.92	338.1	12	29	-3					13	59
ANGRA DO HO.	86.26	33.6				23	46	46		36	5 SSS
EUREKA	86.55	327.5	12	32A	-3	23	19	16	12 43	29	55 PKKP
LICK	87.39	322.6	12	38A	-1					16	10 PP
BERKELEY	88.11	322.5	12	42K	0	23	9	-9			
RENO	88.29	325.1	12	43	0	23	16	-3			
CALISTOGA	88.87	322.8	12	47K	1						
MINERAL	89.76	324.4	12	46	-4						
BOZEMAN	89.89	333.8	12	50K	-1					13	24
BUTTE	90.73	333.1	12	55K	0	23	24	-17			
FORT NELSON	92.33	207.8	13	40	38	23	50	-5			
MOORLANDS	92.81	208.0	13	4	0				13 13		
BANGUI	93.17	86.9	13	30	24					19	49
HUNGRY HORSE	93.24	333.5	13	3K	-3	23	34	-29		17	2 PP
SAVANNAH	93.43	208.3	13	4	-3						
SUVA	93.74	243.9	13	18	9	23	35	-33		17	0 PP
LISBON	95.38	44.4	13	21K	5	23	53	10	13 35	17	25 PP
PENTICTON	96.11	330.9	13	16	-3						
BANFF	96.14	334.2	13	16	-3						
COIMBRA	96.81	43.7	13	28K	5	24	8	17		17	35 PP
VICTORIA	97.01	328.5	13	22A	-1						
LWIRO	97.25	98.4	13	27A	2	24	7	14		17	28 PP
SERRA PILAR	97.37	43.0	13	27A	2	24	50	57		17	30 PP
GRANADA	97.53	48.5	13	39K	13	23	51	-3		17	30 PP
MELBOURNE	97.65	208.8	13	32	6					24	43
ALMERIA	97.99	49.4	13	33	5	24	8	11		17	27 PP
CANBERRA	98.17	212.9	13	28	-1	23	55	-3		26	12 PS
RIVERVIEW	98.47	215.2	13	30A	0	24	0	1		17	36 PP
NOUMEA	99.00	233.1	13	35	2					18	37
TOLEDO	99.06	46.3	13	38	5	24	20	18		17	40 PP
HONOLULU	99.64	289.3	13	37	2						
ALICANTE	100.17	49.3	13	35	-3	25	3	55		17	51 PP
TANANARIVE	100.20	123.3	13	43	5	24	35	27		17	50 PP
KOUMAC	101.65	232.8	13	47	3						
ADELAIDE	102.47	205.5	13	37	-11	24	17	-2		18	0 PP
BRISBANE	102.98	220.0	13	50	0	24	21	0		17	57 PP
FOLINIERE	106.72	41.0	18	32	777						
CUGLIERI	106.85	52.2								20	19
CLERMONT-FD.	106.86	45.0	18	40	777					29	20
GARCHY	107.73	43.7								19	33 PP
PARIS	108.32	42.2								18	58 PP
KEW	108.45	38.8	14	12	777	24	48	3		18	48 PP
CHIAVARI	109.64	48.9	14	9	777	25	19	29		18	9 PP
NEUCHATEL	109.74	45.5								19	11
EDINBURGH	109.82	33.9								28	38 PS
DURHAM	109.85	35.5				24	59	8		19	7 PP
DOURBES	110.19	41.9	18	25	3	25	0	7			
ROME	110.27	52.4				24	17	-36		19	8 PP
PRATO	110.47	50.0								19	25 PP
PERTH	110.56	187.2	14	26	-237					19	6 PP
BOLOGNA	110.94	49.6								55	59
ABERDEEN	111.06	33.3	14	35K	-229	25	25	29		19	15 PP
STRASBOURG	111.07	44.5	14	36	-228	24	49	-7		19	7 PP
CHUR	111.13	46.7	18	36	12					28	57 PS
KARLSRUHE	111.66	44.3	14	40	-225	25	10	12			
PADOVA	111.75	49.0								19	38 PP
STUTTGART	112.01	44.9	14	34	-231	25	10	10		19	14 PP
BENSBERG	112.03	42.1	14	32	-233					19	27 PP
CHARTERS TS.	112.34	219.1				24	52	-9		15	12

TARANTO	112.60	55.7								19	26 PP
HONIARA	112.63	237.4	14	34	-233	25	7	5			
RESOLUTE	112.88	353.6	14	35	-232						
TRIESTE	113.01	49.5								19	40 PP
LJUBLJANA	113.67	49.4								19	43 PP
JENA	114.40	43.7	18	34	4	25	31	22		19	26 PP
CHEB	114.42	44.8				25	29	20		22	6
KASPERSKE H.	114.64	46.1	18	32	1					19	33
TITOGRAD	114.88	54.7								19	50 PP
COLLMBERG	115.36	43.8	18	35	3					19	47 PP
PRAGUE	115.58	45.5								19	44
PRUHONICE	115.60	45.6	18	36	4					19	42 PP
VIENNA-H.	115.84	47.9	18	30	-3	25	51	36		19	56 PP
BERGEN	116.06	32.6								27	32
SKOPJE	116.09	56.0				25	32	17		29	20
BRATISLAVA	116.24	48.3	18	32	-2					19	56 PP
BELGRADE	116.76	52.8				25	47	29		19	47 PP
BUDAPEST	117.07	49.6	18	41	6	25	21	2		19	41 PP
MOULD BAY	117.30	348.6	18	33	-3						
COLLEGE	117.64	332.1	18	33K	-3					19	57 PP
TIMISOARA	117.66	52.1				25	47	26		20	7 PP
SOFIA	117.67	56.0	18	42	6					19	57
RACIBORZ	117.74	46.7	18	41	4					20	9 PP
GOTEBORG	117.81	37.1	18	40	3						
SKALNATE PL.	118.56	48.3	18	57	19					20	13 PP
KRAKOW	118.74	47.3	18	43	5	25	36	11		22	43 PP
KARLSKRONA	118.93	39.7	18	48	9						
ALERT	119.80	1.5	17	38	-63						
BUCHAREST	120.22	55.2								20	14
WARSAW	120.25	45.3								20	13 PP
PORT MORESBY	120.67	226.5				25	37	5		20	16 PP
ISTANBUL UN.	120.76	59.8	15	21	-201					20	8 PP
LWOW	121.07	48.8	18	47	4					20	14 PP
UPPSALA	121.37	36.2	18	46	2	25	35	1		20	19 PP
IASI	122.26	52.7	18	58	13						
KSARA	122.65	70.2	18	50K	4	26	7	29		20	27 PP
UMEA	123.84	32.3	18	47	-1					20	36 PP
NURMIJARVI	124.91	36.8	18	49	-1	25	51	6		20	56 PP
HELSINKI	124.97	37.3	18	51	0					20	56 PP
KIRUNA	124.99	27.6	18	51	0	25	49	4		20	46 PP
SIMFEROPOL	125.72	57.1	18	56	4	25	59	12		20	46 PP
SODANKYLA	127.22	28.7	18	53	-2					21	9 PP
PULKOVO	127.49	38.5	15	44	-191					20	57 PP
APATITY	129.85	28.8	18	58K	-2	26	7	8		21	17 PP
MOSCOW	130.62	44.6	19	6	5					21	21 PP
TIFLIS	132.12	64.2	19	7	3					21	29 PP
GORIS	132.56	67.5	19	6	1	26	3	-3		21	32 PP
KHEYS	132.96	9.9	19	5	-1	26	3	-4		21	35 PP
TEHERAN	135.16	74.3	19	0	-10					21	51 PKS
LEMBANG	135.94	179.5	19	18	7						
DJAKARTA	136.58	178.4	19	13	1					28	48
TANGERANG	136.58	178.1	19	13	1						
AMDERMA	139.39	22.7	19	10	-8						
GUAM	139.46	243.7	19	21	3					22	52 PP
ASHKABAD	141.14	73.6	19	14	-7					22	24 PP
KODAIKANAL	141.44	126.8	19	19	-2					29	29
PETROPAVLOVK	141.91	310.7	19	13	-9	26	17	-5		22	34 SKP
KARACHI	143.08	98.0	19	24A	0				19 41	22	45 PP
SVERDLOVSK	143.37	42.6	19	22	-3					22	40 PP
TIKSI	144.10	348.9	19	20	-6						
BOMBAY	144.22	111.3	19	23	-3					22	51 PP
POONA	144.75	112.9	19	25A	-2					22	49 PP
MAGADAN	144.91	322.9	19	22	-5					32	58 PS
MADRAS	145.26	127.2	19	26	-2	26	31	4		22	58 PP
QUETTA	145.39	89.8	19	29A	1					22	55 PP
HYDERABAD	147.31	119.5	19	33	2	26	9	-20		23	7 PP
TASHKENT	150.04	70.4	19	36	0					23	21 PP
WARSAK DAM	150.37	85.6	19	37	1						
VISHAKHAPTNM	150.77	125.5	19	47A	10					23	47 PP
NEMURO	150.91	293.5	19	56	19					33	23
PORT BLAIR	150.92	148.1	19	49	12					41	49
KHOROG	151.21	78.7	19	37	0					23	26 PP
KUSIRO	151.77	292.8	19	38	0					23	37 PP
LAHORE	151.78	92.0	19	43	5					24	5 PP
YAKUTSK	151.95	338.2	19	37	-2					23	19 PP
HIROO	152.55	291.2	19	48	9						
OBIHIRO	152.65	292.6	19	49	9						
Y.-SAKHLINSK	152.73	301.6	19	35	-5	26	31	-6		33	13 PS

NEW DELHI	152.84	100.0	19	41A	1					23	37 PP
WAKKANAI	153.63	298.3	19	57	16					32	32
ISINOMAKI	153.73	282.5	19	39	-2						
MIZUSAWA	153.97	284.0	19	57	16	29	19	161			
MORIOKA	154.00	285.3								20	34
SAPPORO	154.01	293.0	19	30	-11					42	59 SS
SENDAI	154.04	282.0	20	8	27						
KAKIOKA	154.23	277.2	19	43	1					40	33
DEHRA DUN	154.26	97.2	19	44A	2					23	44 PP
HUKUSIMA	154.29	280.7	19	42	0					23	53 PP
TUKUBASAN	154.29	277.1	19	36A	-6					23	36 PP
SHIRAKAWA	154.38	279.2	20	8	26						
AOMORI	154.39	287.8	19	36	-6						
HONGO	154.44	275.8	20	9	27						
HAKODATE	154.44	290.1	19	59	17						
TOKYO C.M.O.	154.45	275.7	20	10	28						
YAMAGATA	154.46	281.8	19	55	13						
YOKOHAMA	154.47	275.1	19	44	2						
MANILA	154.48	210.7	19	43	1						
OSIMA	154.52	273.5	20	12	30						
UTUNOMIYA	154.54	277.8	19	48	6						
MORI	154.59	290.7	20	5	23						
AJIRO	154.81	274.0	19	42	0						
AKITA	154.83	285.1								44	12
KUMAGAYA	154.85	276.6	19	44	1						
MISIMA	154.95	274.1	19	59	16						
TITIBU	155.05	276.1	19	57	14						
MAEBASI	155.14	277.1	20	7	24						
SHIZUOKA	155.35	273.5	20	21	38						
KOHU	155.39	275.2	20	17	34						
OIWAKE	155.54	276.7	19	58	15					23	56 PP
ALMATA	155.77	66.4	19	45	1					23	55 PP
MATUSIRO	155.85	277.1	19	41A	-3					23	52 PP
NAGANO	155.88	277.4	20	20	36						
IIDA	155.93	274.5	20	3	19						
MATUMOTO	155.98	276.3	20	19	35						
AIKAWA	156.07	280.7	19	56	12						
SEMIPALATNSK	156.39	47.9	19	44	-1					23	51 PP
BOKARO	156.68	119.3	19	51	6					28	52
GIHU	156.75	273.7	20	18	33						
KAMEYAMA	156.85	272.2	20	22	37						
OWASE	156.86	270.1	20	40	55						
SIOMISAKI	157.01	268.4	20	12	27					23	59 PP
HIKONE	157.13	273.1	19	45	-1					20	25
KYOTO	157.48	272.2	20	13	27						
OSAKA	157.55	271.2								20	58
ABUYAMA	157.57	271.8	19	43A	-3						
SUMOTO	157.96	270.0								53	1
TOYOOKA	158.33	273.1	20	1	14					24	6 PP
TAKAMATU	158.64	269.5	20	34	47						
KOTI	158.83	267.1	20	12	24					24	12 PP
MATUYAMA	159.51	267.3	20	25	37					45	22
CHATRA	159.51	115.1	19	52	4	26	59	15		24	22 PP
CHITTAGONG	159.51	132.7	19	47A	-1			20	4	24	14 PP
HIROSIMA	159.94	268.6								20	41
OOITA	160.24	264.8	20	1	12					34	38
KAGOSIMA	160.48	259.2								45	25
KUMAMOTO	160.83	262.8	19	13	-37						
VLADIVOSTOK	160.89	294.7	19	46	-4						
TAWU	161.24	220.2	19	52	2						
HUKUOKA	161.34	264.8	20	23	33					44	29 SS
NAGASAKI	161.45	261.8	19	37	-13						
SHILLONG	161.92	126.4	19	53A	2	27	3	17		24	33 PP
TOMIE	162.28	260.4	20	50	59					31	8
TAIPEI	163.04	226.9	21	8	76						
LHASA	163.91	114.0	19	53	0					24	33 PP
HONG KONG	163.96	201.3	19	58	5					24	32 PP
CANTON	164.95	199.5	19	53	-1					24	43 PP
IRKUTSK	164.97	8.6	19	51	-3						
CHANGCHUN	165.37	301.2	19	51	-3					24	40 PP
KUNMING	166.93	158.7	19	54	-2					24	45 PP
ZO-SE	167.35	243.8	19	53	-3					24	53 PP
ESEN BULAK	167.54	40.5	19	54	-2					31	45 SKKS
ULAN-BATOR	169.52	3.8								25	2 PP
NANKING	169.59	242.1	19	54	-3					24	57 PP
CHENGTU	172.48	153.2	19	57	-2					25	14 PP
PEKING	173.07	294.3	19	56	-3					25	20 PP
LANCHOW	176.41	111.8	19	58	-2					25	34 PP
PAOTOW	176.48	333.1	19	57	-3					25	33 PP

SIAN		176.70	194.3		19 59	-1							25 37	PP

FEBRUARY 16 15.H 54.M 40.S EPICENTRE 49.47 156.28 DEPTH= 70.KM

A=-0.59729 B= 0.26239 C= 0.75789 D= 0.4022 E= 0.9155
G=-0.6939 H= 0.3048 K=-0.6524 HT= -5.2

DEPTH OF FOCUS= 0.006R

SE= 3.34

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SEVERO-KUR.	1.21	354.4	0	23	1	0	40	1					
PETROPAVLOVK	3.85	21.8	0	58	-1	0	45	-58			1	36	
OKHA	9.27	301.2	2	14	0						4	15	
UGLEGORSK	9.30	273.0	2	15	1	4	6	8					
Y.-SAKHLINSK	9.38	260.0	2	12A	-3	4	1	1					
MAGADAN	10.59	344.6	2	33	2						5	3	
VLADIVOSTOK	17.96	258.6	3	59	-8						7	38	SS
MATUSIRO	18.42	232.2	4	5	-7	7	31	-1					
YAKUTSK	19.35	320.5	4	21	-2						8	8	SS
ABUYAMA	21.08	234.0	4	36A	-5								
CHANGCHUN	21.90	266.9	4	44	-5								
TIKSI	25.52	340.2	5	22A	-2						9	20	SS
PEKING	29.70	266.9	6	0	-2	10	47	-4					
ZO-SE	32.07	248.3	6	11	-12								
COLLEGE	32.70	40.9	6	28	0								
LANCHOW	39.98	270.7	7	28A	-2								
MOULD BAY	41.31	21.2	7	43A	2								
HONG KONG	42.77	246.2	7	53	0						13	47	
KHEYS	42.92	346.2	7	43	-11						9	32	PP
AMDERMA	46.18	331.3	8	18	-2								
ALERT	46.83	6.5	8	25A	0								
RESOLUTE	47.57	19.9	8	32A	1								
THULE	51.20	12.3	8	58	-1								
PENTICTON	51.90	55.8	9	4	0								
LHASA	52.36	273.2	9	7	0								
SVERDLOVSK	53.29	317.0	9	13	-1								
SHILLONG	54.56	268.9	9	22A	-2								
HUNGRY HORSE	55.46	54.1	9	30	0								
APATITY	55.68	337.0	9	30A	-2								
CHATRA	56.77	273.5	9	39K	-1								
CHITTAGONG	56.84	266.2	9	39	-1						9	53	11 50 PP
SODANKYLA	57.47	339.3	9	43	-1								
KIRUNA	58.43	341.9	9	50	-1								
BOZEMAN	58.73	55.0	9	58	5								
EUREKA	60.01	63.2	10	3	1						10	16	
WOODY	60.80	68.2	10	7	0								
WARSAK DAM	61.86	290.3	10	13	-2								
FLAMING GRGE	62.79	58.2	10	21	0								
NURMIJARVI	63.63	335.6	10	25	-1								
UPPSALA	65.98	338.6	10	41	-1								
QUETTA	67.32	290.2	10	49	-1								
ALBUQUERQUE	68.62	61.1	10	51	-7								
CHARTERS TS.	69.82	190.0	11	6	1								
MANHATTEN	70.87	51.8	11	13	1								
TIFLIS	71.12	312.6	11	15A	2								
POONA	71.28	276.8	11	13A	-1								
BOMBAY	71.68	277.8	11	27	10	20	54	25					
GORIS	72.07	310.1	11	20	1								
TEHERAN	72.28	304.4	11	21	1								
WICHITA MTS.	73.17	56.2	11	25	0	20	54	8			25	50	SS
ROLLA	74.23	49.7	11	30	-2								
FAYETTEVILLE	74.46	52.4	11	32A	-1								
SKALNATE PL.	74.71	331.8	11	36	2						11	48	PCP
COLLMBERG	74.84	337.1	11	35	0								
HALLE	74.91	337.8	11	35	0								
SHAWINIGAN	75.32	32.6	11	39	1								
JENA	75.53	337.8	11	39	0						12	0	
PRUHONICE	75.63	335.6	11	40	0								
BREBEUF	75.92	33.7	11	42K	1								
BENSBERG	76.53	340.5	11	46	1								
BRATISLAVA	76.55	333.3	11	43K	-2						11	54	PCP
KASPERSKE H.	76.67	335.9	11	46	1								
DOURBES	77.88	341.8	11	55	3								
STUTTGART	78.09	338.4	11	54	1								

LJUBLJANA	79.22	334.0	12	0	0
FOLINIERE	80.11	344.6	12	6	2
KSARA	81.66	313.5	12	19	7
SOUTH POLE	139.28	180.0	19	13	-7

FEBRUARY 18 7.H 0.M 27.S EPICENTRE 36.44 8.18 DEPTH= 103.KM

A= 0.79822 B= 0.11472 C= 0.59135 D= 0.1423 E=-0.9898
G= 0.5853 H= 0.0841 K=-0.8064 HT= -0.4

DEPTH OF FOCUS= 0.011R

SE= 4.49

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MESSINA	6.13	71.1	1	9	-20						1	49	
ALICANTE	7.15	288.1	1	44	1						3	14	
CHIAVARI	7.92	6.0	2	3	9	4	13	51			2	49	
ALMERIA	8.57	275.9	2	1	-1						2	17	PPP
ROSELEND	9.05	357.5	2	9	0	3	48	-2					
BAGNERES	9.06	319.4	2	7	-2								
PADOVA	9.39	16.1				4	3	4			5	33	
GRANADA	9.48	278.0	1	43	-32								
CLERMONT-FD.	10.07	339.3	2	18	-5								
TRIESTE	10.12	22.8									5	43	SG
TOLEDO	10.22	293.3	2	26	1								
CHUR	10.45	5.1	2	24	-4								
LJUBLJANA	10.72	24.4	2	18K	-13								
BESANCON	10.93	352.1	2	33	-1								
GARCHY	11.48	342.3	2	41	0								
STRASBOURG	12.14	358.7	2	48	-2								
STUTTGART	12.35	3.4	2	57	4						3	48	
BELGRADE	12.52	44.3	2	59	4						6	50	
PARIS	13.05	343.1	3	2	0								
VIENNA-H.	13.26	24.5	2	52	-13								
KASPERSKE H.	13.29	15.6	2	46	-19						3	15	
BUDAPEST	13.65	32.7									7	2	
FOLINIERE	13.86	335.4	3	11	-2								
DOURBES	13.90	350.4	3	10	-3	6	45	60					
PRUHONICE	14.30	16.9	3	11	-7								
BENSBERG	14.54	357.5	3	23	2						3	46	
JENA	14.69	8.5	3	29	6						4	21	
COLLMBERG	15.25	11.6	3	24	-6	6	23	6			3	34	PP
BUCHAREST	15.78	54.2	3	21A	-16						3	56	
KEW	16.21	340.7	3	39	-3								
LWOW	17.63	35.7	3	51	-9						7	15	
IASI	17.97	47.2	4	53	49								
KISHINEV	18.64	49.0	3	57	-15	7	20	-12					
UPPSALA	24.21	11.7	5	2	-6								
SKALSTUGAN	27.29	4.0	5	31	-5								
MOSCOW	27.77	36.7	5	33A	-8								
UMEA	28.38	11.2	5	45	-1								
TIFLIS	28.77	68.1	5	55	5								
KIRUNA	32.20	8.7	6	9	-11								
SODANKYLA	32.72	13.1	6	24	0								
APATITY	34.30	16.9	6	31	-7								
SVERDLOVSK	40.17	42.5	7	22	-5								
LWIRO	43.02	148.9	7	44	-6						17	44	
AMDERMA	43.84	23.8	7	52	-5								
KHEYS	48.04	9.7	8	24	-6								
QUETTA	48.87	79.5	8	22	-15								
SEVEN FALLS	57.52	307.4	9	42	2								
RESOLUTE	58.56	342.3	9	45	-3								
SHAWINIGAN	59.97	307.3	9	53K	2								
BREBEUF	59.91	306.4	9	58	1								
MORGANTOWN	66.67	302.8	10	44	3								
SAN JUAN	66.89	276.3	10	46	3								
YAKUTSK	71.19	25.1	11	7	-2								
COLLEGE	77.28	349.7	11	45	1						12	10	
HUNGRY HORSE	81.15	325.2	12	6	1								
WICHITA MTS.	81.74	307.2	12	8	0								
PENTICTON	82.89	328.6	12	19	5								
EUREKA	88.62	320.2	12	46	4								
CANBERRA	148.38	99.8	19	32K	2								

FEBRUARY 18 10.H 42.M 35.S EPICENTRE 41.32 142.63 DEPTH= 64.KM

A=-0.59865 B= 0.45718 C= 0.65773 D= 0.6069 E= 0.7948
G=-0.5227 H= 0.3992 K=-0.7533 HT= -2.2

DEPTH OF FOCUS= 0.005R

SE= 2.56

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
URAKAWA	0.84	7.6	0	16K	-1	0	29	-1				
HIROO	1.09	27.9	0	19	-1	0	34	-1				
HATINOHE	1.15	227.0	0	17K	-4	0	31	-5				
AOMORI	1.49	251.0	0	24K	-1	0	44	0				
HAKODATE	1.49	289.9	0	24K	-1	0	45	1				
TOMAKOMAI	1.53	329.4	0	28	2	0	48	3				
MURORAN	1.59	309.6	0	28K	1	0	48	1				
OBIHIRO	1.66	14.6	0	30	3	0	51	3				
MORI	1.73	297.5	0	30	2	0	54	4				
MIYAKO	1.74	197.1	0	28	-1	0	45	-5				
MORIOKA	1.96	215.1	0	31K	-1	0	54	-1				
SAPPORO	1.99	331.9	0	32K	0	0	57	1				
KUSIRO	2.12	37.8	0	33	-1	0	57	-2				
SUTTSU	2.32	310.4	0	36	-1	1	4	0				
MIZUSAWA	2.47	208.2	0	37	-2	1	5	-3				
AKITA	2.50	231.2	0	44	5	1	9	0				
RUMOE	2.73	344.5	0	44	2	1	16	1				
NEMURO	2.97	46.4	0	42	-4	1	17	-4				
ISINOMAKI	3.06	199.7	0	44	-3	1	18	-5				
SAKATA	3.23	222.6	0	51	2	1	29	2				
SENDAI	3.32	204.2	0	52	1	1	27	-2				
YAMAGATA	3.53	210.6	0	53	-1	1	33	-2				
HUKUSIMA	3.94	205.8	0	58	-1	1	42	-3				
WAKKANAI	4.16	350.7	1	13	11							
NIIGATA	4.38	220.3				2	20	24			1	42
SHIRAKAWA	4.59	204.8	1	7	-1	2	5	4				
MITO	5.21	199.6	1	14	-3	2	15	-2				
UTUNOMIYA	5.23	205.2	1	16	-1	2	26	9				
KAKIOKA	5.43	201.4	1	18	-2	2	25	3				
TUKUBASAN	5.46	202.0	1	16A	-4						2	17
MAEBASI	5.64	210.6	1	25	2	2	35	8				
Y.-SAKHLINSK	5.70	0.6	1	23A	-1	2	28	-1				
KUMAGAYA	5.75	207.3	1	24	0	2	36	6				
TYOSI	5.76	194.6	1	20	-5	2	42	12				
NAGANO	5.78	218.1	1	37	12	2	57	26				
MATUSIRO	5.89	217.3	1	25A	-1	2	37	4				
OIWAKE	5.91	213.9	1	32	5	3	1	27				
TOKYO C.M.O.	6.07	202.8	1	29	0	2	40	2				
MATUMOTO	6.23	217.2	1	36	5							
YOKOHAMA	6.33	202.7	1	39	7	2	57	13				
KOHU	6.48	210.8	1	41	6	2	59	11				
MISIMA	6.83	206.3	1	45	5							
AJIRO	6.85	205.1	1	35	-5	2	52	-5				
IIDA	6.91	214.6	1	44	3	2	12	-47				
GIHU	7.49	219.8	1	46	-3							
OMAESAKI	7.56	208.8	1	31	-19							
NAGOYA	7.58	217.8	1	52	2							
VLADIVOSTOK	8.17	286.3	1	56	-2	3	41	11				
ABUYAMA	8.51	223.1	2	2A	-1							
ZO-SE	20.04	246.3	4	28	-2							
PEKING	20.09	275.1	4	27	-3							
NANKING	21.19	251.8	4	39	-3							
PAOTOW	24.56	279.1	5	12	-3							
KUNMING	36.72	256.5	7	3	1							
COLLEGE	45.00	34.5	8	11	1						14	13
CHITTAGONG	46.42	262.1	8	20	-2							
KHEYS	48.66	347.4	8	38	-1							
AMDERMA	48.86	332.9	8	40A	-1							
MOULD BAY	52.17	17.5	9	5	-1							
NEW DELHI	53.95	278.4	9	18	-1							
WARSAK DAM	55.32	287.1	9	29	0							
ALERT	55.80	3.9	9	31A	-2							
RESOLUTE	58.23	15.3	9	48A	-2							
APATITY	59.19	335.0	9	56	0							
QUETTA	60.64	285.7	10	6	0							
THULE	60.89	8.0	10	7	-1							
SODANKYLA	61.40	336.7	10	10	-1							
KIRUNA	62.86	338.8	10	20	-1						10	41
KAJAANI	63.17	333.5	10	24A	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.

PENTICTON	64.47	45.9	P0	32	0					
UMEA	65.77	335.7	10	39	-1					
NURMIJARVI	66.62	331.6	10	45A	0					
TIFLIS	68.95	307.4	11	2	2					
EUREKA	72.46	52.7	11	22	1				11	38
WOODY	73.06	57.3	11	26	1					
BOULDER CITY	75.40	54.9	11	39	1					
RAPID CITY	76.48	42.6	11	45	1					
LARAMIE	77.18	45.8	11	50	2					
COLLMBERG	77.86	330.4	11	52K	0				14	45 PP
PRUHONICE	78.33	328.7	11	56	1					
JENA	78.68	330.9	11	57	0				12	19
KASPERSKE H.	79.39	328.7	12	1	1					
ALBUQUERQUE	81.13	51.0	12	12	2					
STUTTGART	81.31	330.9	12	11	0					
FOLINIERE	84.57	336.5	12	28	1					
ROSELEND	84.67	330.0	12	30	2					
WICHITA MTS.	85.74	46.4	12	33	0				13	1
FAYETTEVILLE	87.03	42.8	12	40	1					
BREBEUF	87.69	24.6	12	43K	1					
LA PAZ	143.77	56.1	19	36	8					

FEBRUARY 18 17.H 25.M 10.S EPICENTRE 8.13 -74.82 DEPTH= 0.KM

A= 0.25918 B=-0.95555 C= 0.14056 D=-0.9651 E=-0.2618
G= 0.0368 H=-0.1357 K=-0.9901 HT= 6.8

SE= 2.11

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
FUQUENE	2.86	157.6	0	51	4							
CHINCHINA	3.24	194.2	0	54	1	1	20	-13			1	0 PG
BOGOTA	3.57	167.8	0	59	2	1	30	-11				
BALBOA HTS.	4.75	280.3	0	58	-16	1	44	-27				
CARACAS	8.14	72.6	2	3K	1	3	31	-5				
HOPE	9.98	349.4	2	31	4	4	25	4				
SAN JUAN	13.24	38.9	3	10	-1	5	36	-5				
GRENADA	13.47	72.1	3	12	-2	5	43	-3				
TRINIDAD	13.48	78.3	3	13	-2							
ST. VINCENT	14.23	68.3	3	22	-2							
ST. KITTS	14.92	51.0	3	31	-3	6	14	-7				
DOMINICA	14.94	60.3	3	32	-2							
SAN SALVADOR	15.15	292.6	3	36	-1							
ANTIGUA	15.50	53.5	3	46	5							
COMITAN	18.73	297.1	4	15	-7	7	41	-7			11	18
MERIDA	19.14	313.3	4	24	-3	7	54	-4			4	45
HUANCAYO	20.06	181.4	4	37	0	8	20	2				
VERA CRUZ	23.41	300.2	5	12	1	9	24	3			17	3
AREQUIPA	24.66	172.3	5	21	-2	9	37	-6				
LA PAZ	25.36	164.9	5	28K	-2							
TACUBAYA	26.15	297.9	5	41	4	10	21	13				
COLUMBIA	26.37	348.3	5	41	2						6	2
CHAPEL HILL	27.92	352.7	5	56	3							
WASHINGTON	30.70	356.6	5	59	-19							
GEORGETOWN	30.70	356.6	6	19	1	11	2	-19				
LITTLE ROCK	31.02	331.3	6	20	-1							
MORGANTOWN	31.70	352.5	6	29A	2							
C. GIRARDEAU	31.97	337.5	6	29K	0	11	39	-2				
PENNSYLVANIA	32.64	355.7	6	38K	3							
BLOOMINGTON	32.65	343.1	6	37K	2							
PALISADES	32.75	1.3	6	37	1	11	55	2	6	52		
FAYETTEVILLE	32.97	330.4	6	37K	-1				6	51	9	21 PCP
ST. LOUIS 1	33.39	337.8	6	42K	0	12	0	-3				
FLORISSANT	33.59	337.8	6	43K	0	12	4	-2				
CLEVELAND	33.74	350.9	6	44K	-1	12	7	-1				
WICHITA MTS.	34.30	323.9	6	49K	-1	12	14	-3	7	3	8	17 PP
LUBBOCK	35.54	319.3	7	0	0							
MANHATTEN	36.58	331.1	7	8K	-1	12	46	-6	7	23		
DUBUQUE	36.98	340.4	7	12K	0				7	27		
BREBEUF	37.24	1.4	7	16K	1	13	4	2	7	36	8	52 PCP
HALIFAX	37.63	13.2	7	21K	3							
SHAWINIGAN	38.32	2.3	7	26	2							
SEVEN FALLS	39.00	4.3	7	32	3							
ALBUQUERQUE	39.41	317.3	7	33	0							
TUCSON TELE.	41.08	311.0	7	47	0							

TUCSON	41.12	310.8	7	47	0						
LARAMIE	42.83	325.5	8	1	0						
RAPID CITY	43.51	330.2	8	6	0						
GLEN CANYON	44.00	316.4	8	12	2						
FLAMING GRGE	44.81	322.4	8	17	0						
BOULDER CITY	45.79	313.3	8	25	0				8	39	
SALT LAKE C.	46.23	320.7	8	29	1				8	40	
EUREKA	48.24	316.9	8	44	0				9	2	
BOZEMAN	48.68	326.5	8	48	1				9	4	
BUTTE	49.73	326.0	8	55	-1				9	10	
RENO	50.90	315.2	9	5K	1				9	18	
LICK	51.32	311.9	9	8A	0				9	22	
HUNGRY HORSE	51.94	327.6	9	12	0						
BERKELEY	51.98	312.3	9	12K	-1	16	32	-4	9	26	11 10 PP
MINERAL	52.49	315.4	9	15A	-1						
CALISTOGA	52.51	313.1	9	16K	-1						
PENTICTON	55.53	326.0	9	37	-2						
M.BOUR	56.96	78.2	9	44	-5	17	35	-7			
VICTORIA	57.29	323.7	9	51K	0						
ALBERNI	58.46	323.9	9	57	-3						
LISBON	66.01	51.3	10	50A	0				11	4	
COIMBRA	66.79	49.8	10	54K	-1				11	13	
SERRA PILAR	66.82	48.8	10	50K	-5	19	34	-13	11	14	13 21 PP
RESOLUTE	67.50	354.3	10	58	-2						
THULE	68.34	1.7	11	3	-2				11	16	
SIDA	68.47	23.5	11	7	1						
TOLEDO	70.08	50.6	11	16K	1	20	25	-1	11	32	14 15 PP
GRANADA	70.18	53.5	11	14A	-2	20	18	-9			13 18 PP
ALMERIA	71.05	53.9	11	22A	1	20	26	-12	11	35	11 41 PCP
MOULD BAY	72.21	349.8	11	27K	-1						
ALICANTE	72.73	52.5	11	53	22	20	35	-22			
BAGNERES	73.52	47.6	11	36	0						
FOLINIERE	73.61	41.6	11	36	-1						
DURHAM	73.74	35.3	11	39K	2				11	57	11 52 PCP
KEW	74.03	38.8	11	35K	-4	21	8	-3	11	55	11 49 PCP
ALERT	74.53	1.7	11	40K	-2						
COLLEGE	75.48	335.0	11	45	-2						14 37 PP
PARIS	75.57	41.8	11	48	0						12 0 PP
CLERMONT-FD.	75.81	44.9	11	50	1	21	34	3			
GARCHY	75.86	43.4	11	48	-1				12	1	13 6
DOURBES	77.02	40.5	11	57	1	21	50	6			
DE BILT	77.49	38.5	12	0	1	22	20	31			
BESANCON	77.84	43.5	12	4	4						12 37
BERGEN	78.09	30.0	12	17	15						
HAWAII V.OB.	78.37	288.2	12	4	1						
WITTEVEEN	78.43	37.8	12	5	1						12 25
NEUCHATEL	78.50	43.7	12	5	1						
BENSBERG	78.69	39.7	12	6A	1				12	19	15 14 PP
MONACO	78.84	47.1	12	7	1						
BASLE	78.93	43.2	12	7	1				12	21	14 59
ROSELEND	78.97	45.3	12	4	-3						13 4
MUNSTER	78.99	38.7	12	7	0						
STRASBOURG	79.06	42.1	12	8A	1	22	14	8			12 28
FELDBERG	79.50	40.5	12	9	-1				12	22	
HEIDELBERG	79.68	41.3	12	11	0				12	26	
EBINGEN	79.86	42.5	12	12	0						
TUBINGEN	79.92	42.2	12	11	-1				12	25	
STUTTGART	80.06	41.9	12	10	-3	22	9	-8	12	26	22 55 PS
KIPAPA	80.77	290.4	12	17	1						
HONOLULU	80.86	290.3	12	17	0						
GOTEBORG	81.48	32.8	12	21	1				12	34	
JENA	81.48	39.7	12	20	0	22	26	-5	12	34	15 33 PP
SKALSTUGAN	81.48	26.9	12	20K	0				12	34	
HALLE	81.69	39.1	12	21	0	22	24	-10			
PADOVA	81.95	45.3	12	24	1	22	36	0	12	38	23 20 PS
COLLMBERG	82.36	39.3	12	25K	0						15 39 PP
ROME	82.63	48.8	12	26K	0	22	43	0			23 46 PS
KASPERSKE H.	82.87	41.4	12	26	-1						13 25
TRIESTE	83.25	44.9	12	26	-3	22	52	2			12 43 *PPP
PRUHONICE	83.44	40.5	12	31	1	23	2	11			
KARLSKRONA	83.54	34.3	12	26	-5						
LJUBLJANA	83.76	44.5	12	32K	0				12	52	15 33 PP
UPPSALA	84.26	30.5	12	33	-1				12	47	
KIRUNA	84.51	22.3	12	35K	-1	22	49	-13	12	48	
VIENNA-H.	84.79	42.1	12	37	0						
UMEA	85.00	26.3	12	37K	-1	22	56	-11	12	52	
BRATISLAVA	85.29	42.2	12	40A	0						15 55 PP
MESSINA	85.33	52.2	12	53	13	23	6	-4			24 3 PS
RACIBORZ	85.77	40.2	12	45	3						12 56 PCP

TARANTO	86.36	49.8	12	50	5					21	20
BUDAPEST	86.66	42.7	12	50	4			12	56		
SODANKYLA	86.93	22.3	12	47K	-1					13	1
NURMIJARVI	87.63	29.2	12	50	-1					16	22 PP
HELSINKI	87.85	29.5	12	52	0						
BELGRADE	88.05	45.2	12	55	2	23	39 3			16	38 PP
KAJAANI	88.18	25.4	12	54	0						
KHEYS	88.39	6.9	12	54	-1						
APATITY	89.39	21.4	12	59A	0					16	39 PP
LWOW	89.52	39.8	13	0	0					24	58
SOFIA	90.49	46.9	13	7	2						
PULKOVO	90.55	29.2	13	6	1						
ATHENS	91.73	51.4	13	10K	0					13	32
BUCHAREST	92.09	44.8	13	12K	0					19	30
IASI	92.41	41.8	13	25	12						
BANGUI	92.79	85.2	13	16	1	24	7 -12				
KISHINEV	93.29	41.8	13	17	0						
WINDHOEK	94.84	112.0	13	24K	-1						
MOSCOW	95.62	31.7	13	29	1						
AMDERMA	96.78	14.0	13	33K	0	24	28 18				
HERMANUS	97.87	123.6				24	16 0			26	21 PS
SOUTH POLE	98.08	180.0	13	38	-1						
LWIRO	103.80	90.3	14	5	0	24	53 8			18	50 PP
SVERDLOVSK	105.69	23.6	14	14	777						
TEHERAN	113.21	45.6	15	14	-205					19	28 PP
Y.-SAKHLINSK	115.76	332.4								19	48 PP
IRKUTSK	119.83	0.6								20	13 PP
VLADIVOSTOK	123.49	336.7	19	0	1						
ULAN-BATOR	124.17	358.6	19	1	1					20	45 PP
TUKUBASAN	125.01	325.6								37	53 SS
MATUSIRO	125.81	327.2	19	3A	-1					38	1 SS
QUETTA	127.10	42.2	19	7	1			19	22	21	3 PP
WARSAK DAM	127.35	35.4	18	56	-10						
MOORLANDS	129.72	220.1	19	10K	-1						
TARRALEAH	130.26	219.9	19	12	0						
KARACHI	130.46	47.5	19	15	3			19	30	21	28 PP
LAHORE	130.73	35.3	19	15	2						
PEKING	131.01	348.8	19	15	1			19	28	21	27 PP
BRISBANE	131.14	240.7								19	48
PAOTOW	131.32	355.1	19	15	1					21	32 PP
CANBERRA	131.68	229.3	19	15	0					19	55
RABAUL	133.14	271.9	19	10	-8					22	45
DEHRA DUN	133.74	33.1	19	32	13					22	50
NEW DELHI	134.60	35.4	19	21A	1						
LANCHOW	136.04	1.6	19	24K	1			19	38	22	3 PP
SIAN	137.70	355.4	19	28K	2			19	42	22	13 PP
NANKING	137.97	342.6	19	28A	2			19	43	22	14 PP
ZO-SE	138.08	339.3	19	27K	0			19	43	22	15 PP
BOMBAY	138.29	49.6	19	40	13					23	5 PKS
CHARTERS TS.	138.54	248.9	19	18	-9					31	14
ADELAIDE	139.28	224.1	19	29	0						
POONA	139.29	49.1	19	31	2					23	5 PKS
LHASA	140.06	19.3	19	34A	4			19	49	22	31 PP
CHATRA	141.10	26.1	19	26	-6						
CHENGTU	141.41	1.6	19	29	-4					22	28 PP
BOKARO	143.02	30.3	19	33	-2					23	15
SHILLONG	144.08	20.8	19	35K	-2					23	31
HOWRAH	145.32	28.1	19	36	-3						
KUNMING	146.86	4.0	19	43	1			20	1	23	7 PP
CHITTAGONG	146.99	23.1	19	46	4			19	59		
MADRAS	147.48	50.0	19	48	5					23	16 PP
CANTON	147.96	345.7	19	47K	3			20	5	23	18 PP
HONG KONG	148.50	343.9	19	47	2					23	17 PP
MANILA	152.39	325.1	20	1	10						
MUNDARING	154.16	201.9	19	53	0						
LEMBANG	177.25	298.0	20	12A	0					33	24

FEBRUARY 18 23.H 25.M 26.S EPICENTRE -0.62 -91.58 DEPTH= 79.KM

A=-0.02759 B=-0.99956 C=-0.01078 D=-0.9996 E= 0.0276
G= 0.0003 H= 0.0108 K=-0.9999 HT= 7.2

DEPTH OF FOCUS= 0.007R

SE= 1.68

	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	
CHINCHINA	16.88	70.6	3	51A	-2				3	59	7	21	SS
BOGOTA	18.25	73.3	4	3	-6				4	10	7	49	SS
FUQUENE	18.83	71.0	4	17A	1				4	24			
HUANCAYO	19.72	125.8	4	26	0								
VERA CRUZ	20.20	347.5				8	10	3			10	6	
TACUBAYA	21.26	339.8	4	45	3						9	35	SS
AREQUIPA	25.29	129.5	5	19	-2								
CARACAS	26.89	65.1	4	39	-57						10	22	SS
LA PAZ	27.98	125.5	5	46	0	10	20	-2					
SAN JUAN	31.35	51.7	6	23	8								
LITTLE ROCK	35.22	358.9	6	48	-1								
WICHITA MTS.	35.76	350.1	6	53	0	12	39	15			9	20	PCP
COLUMBIA	35.84	15.1	6	54	0								
FAYETTEVILLE	36.60	356.5	7	0A	-1								
TUCSON TELE.	37.44	332.8	7	7	-1								
C. GIRARDEAU	37.80	2.7	7	10A	0								
ALBUQUERQUE	38.03	340.0	7	12	0								
ROLLA	38.33	359.6	7	15A	0				7	23			
ST. LOUIS 1	39.09	1.7	7	21	0								
LAWRENCE	39.54	355.5	7	25	0								
BLOOMINGTON	39.89	6.2	7	28A	0				7	33			
MANHATTEN	39.89	353.9	7	28A	0				7	34			
MORGANTOWN	41.45	13.6	7	41K	0								
GLEN CANYON	41.75	335.7	7	44	1								
BOULDER CITY	42.36	331.6	7	49	1								
PASADENA	42.65	326.8	7	37A	-13								
DUBUQUE	42.94	1.0	7	52A	-1				8	0			
LARAMIE	43.63	344.7	7	59	1								
WOODY	44.18	327.6	8	2	-1								
FLAMING GRGE	44.41	340.7	8	5	0								
PALISADES	44.44	19.2	8	5	0	15	7	34					
RAPID CITY	45.70	348.3	8	15	0						9	59	PCP
EUREKA	45.73	333.5	8	15	0								
LICK	46.90	326.9	8	25A	1								
RENO	47.59	330.3	8	30	0								
CALISTOGA	48.35	327.3	8	36A	0								
BREBEUF	48.60	16.8	8	37A	-1								
BOZEMAN	49.20	342.0	8	43	1								
SHAWINIGAN	49.80	16.9	8	46	-1								
BUTTE	50.00	341.0	8	47	-1						10	8	
SEVEN FALLS	50.90	18.2	8	55A	0								
HUNGRY HORSE	52.52	341.3	9	6	-2								
PENTICTON	55.29	338.0	9	27A	-1								
BANFF	55.46	341.9	9	27	-2								
VICTORIA	56.17	335.0	9	33	-1								
ALBERNI	57.34	334.8	9	41	-1								
RESOLUTE	75.23	359.1	11	35A	-1								
COLLEGE	76.85	338.6	11	44	-1								
MOULD BAY	78.37	353.5	11	53A	-1								
ALERT	84.01	3.7	12	23A	0								
SOUTH POLE	89.38	180.0	12	50	1								
FOLINIERE	91.19	41.4	12	58	0								
CHATEAU	91.85	230.9	13	2	1								
KARAPIRO	91.90	232.2	13	1	0								
GARCHY	93.62	42.8									14	31	
WARSAK DAM	143.22	23.7	19	23	-2								
QUETTA	144.21	32.8	19	27	0								
KARACHI	148.27	39.0	19	38	4								
NEW DELHI	150.20	20.1	19	39A	2								
SHILLONG	154.97	352.6	19	46A	2								

FEBRUARY 19 11.H 5.M 31.S EPICENTRE -21.75-175.43 DEPTH= 588.KM

A=-0.92670 B=-0.07414 C=-0.36841 D=-0.0797 E= 0.9968
G= 0.3672 H= 0.0294 K=-0.9297 HT= 4.2

DEPTH OF FOCUS= 0.088R

SE= 3.65

	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	
SUVA	6.80	300.7	1	5	-43						1	51	
PORT VILA	15.81	281.8	3	3K	-13								
ONERAHI	16.57	210.3	3	21	-2								

NOUMEA	16.82	264.7	3	17K	-9							
KARAPIRO	17.91	203.8	3	35	-1							
TUAI	18.15	198.9	3	37	-1	7	2	28				
KOUMAC	18.97	269.9	3	43A	-3							
CHATEAU	19.04	202.0	3	44	-2	7	23	34				
WELLINGTON	21.16	200.8	4	7	1	8	3	40				
COBB RIVER	21.72	204.8	4	16	5	8	17	44				
KAIMATA	23.46	205.0	4	32	5	8	57	57				
GEBBIES PASS	24.03	201.6	4	36	4	9	3	54				
BRISBANE	29.41	252.6	5	17K	-1						13	1
CANBERRA	33.86	238.6	5	59K	3							
CHARTERS TS.	35.77	265.5	6	14	2						6	44
RABAUL	35.94	294.4	6	7	-6							
SAVANNAH	37.13	228.9	6	29	6							
MOORLANDS	37.39	227.7	6	31	6							
MELBOURNE	37.61	235.8	6	31	4							
PORT MORESBY	37.97	282.9	6	27K	-3							
ADELAIDE	42.10	241.5	7	7A	4							
HAWAII V.OB.	45.43	27.2	7	15	-14							
HONOLULU	46.01	22.7	7	20	-13							
KIPAPA	46.15	22.7	7	21	-13							
DARWIN	52.00	271.1	8	22	4							
MUNDARING	60.96	244.6	9	26K	7							
SOUTH POLE	68.38	180.0	9	26	-39							
MATUSIRO	72.65	322.4	10	30	0							
LICK	77.57	41.2	11	7K	10							
PASADENA	77.81	45.5	10	43	-15							
MINERAL	79.53	38.9	11	6A	-2							
RENO	80.07	40.4	11	10	0							
BOULDER CITY	81.10	45.7	11	16	0							
TUCSON TELE.	81.95	50.6	12	21	61							
EUREKA	82.39	42.3	11	22	0						11	57
ALBERNI	83.79	30.6	11	29	0							
GLEN CANYON	83.82	46.3	11	33	4							
VICTORIA	83.96	31.8	11	30A	0							
SALT LAKE C.	85.72	43.0	11	40	2							
PENTICTON	86.37	32.8	11	42A	0							
FLAMING GRGE	87.38	43.9	11	47	1							
BUTTE	88.21	38.3	11	51	1							
HUNGRY HORSE	88.71	35.9	11	53	0							
BOZEMAN	88.90	39.2	11	56	3							
COLLEGE	88.93	11.4	11	54	0				12	18	12	53
BANFF	89.57	33.0	11	57A	0							
LARAMIE	90.06	45.0	12	1	2							
WICHITA MTS.	91.98	53.4	12	10	2	22	29	11	12	33	29	36 PKKP
RAPID CITY	92.92	43.4	12	14	2							
FAYETTEVILLE	95.82	53.6	12	27A	2							
MOULD BAY	103.50	11.8	17	42K	283							
RESOLUTE	108.33	16.0	18	1	777							
KAJAANI	134.96	345.9	18	24	11							
NURMIJARVI	138.78	345.1	18	37	17							
LWIRO	146.39	227.8	18	53K	20						19	15 PKP2
HALLE	149.75	350.8	18	52	14						19	33
COLLMBERG	149.78	349.5	18	53A	15				19	16	19	5 PKP2
JENA	150.36	351.0	18	53	14				19	18	20	1
PRUHONICE	150.75	346.8	18	56	16						19	19
BENSBERG	150.78	356.6	18	56	16						19	18
DOURBES	151.71	360.0	18	57	16						19	20
KASPERSKE H.	151.75	347.5	18	58	17						19	21
FOLINIERE	152.74	7.3	19	0	17							
STUTTGART	152.78	353.2	19	0	17						19	23
PARIS	152.95	3.0	19	1	18							
STRASBOURG	153.11	355.3	18	45	2							
LJUBLJANA	154.44	343.8	19	5	20						19	27
CLERMONT-FD.	156.01	2.5	19	23	36						19	47

FEBRUARY 20 9.H 15.M 58.S EPICENTRE 6.80 92.53 DEPTH= 20.KM

A=-0.04388 B= 0.99208 C= 0.11766 D= 0.9990 E= 0.0442
G=-0.0052 H= 0.1175 K=-0.9931 HT= 6.9

SE= 2.86

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PORT BLAIR	4.84	2.2	1	15	1	2	11	1				

MADRAS	13.63	297.8	3	9K	-6	5	34	-13		3	19 PP
VISHAKHAPTNM	14.10	321.1	3	21K	0	5	58	0		3	31 PP
KODAIKANAL	15.28	283.9	3	40	3	6	54	28			
CHITTAGONG	15.48	357.5	3	38	-1	6	22	-9			
HOWRAH	16.17	345.9	3	48	0						
NHATRANG	17.30	70.6	4	1	-1					4	19 PP
HYDERABAD	17.34	308.8								4	59
BOKARO	18.12	339.8	4	12K	-1	7	43	11		4	29 PP
SHILLONG	18.67	358.1	4	17A	-2	7	47	3		8	9 SS
TANGERANG	19.08	132.2	4	25	1						
DJAKARTA	19.23	131.8	4	24	-2					7	46
TOCKLAI	19.95	5.9	4	26	-8	8	7	-5		4	45 PP
LEMBANG	20.25	131.7	4	33A	-4	8	13	-5			
CHATRA	20.56	346.2	4	40K	0	8	29	5		4	58 PP
KUNMING	20.67	27.1	4	42A	1	8	32	5			
POONA	21.61	304.4	4	49K	-2	8	45	0		5	20 PP
SEHORE	22.04	319.2	4	57	2	9	2	9		5	21 PP
BOMBAY	22.64	303.9	5	2	1	9	8	5		5	23 PP
LHASA	22.76	356.6	5	3K	0	9	10	4			
CANTON	25.75	48.8	5	32	1	9	57	0			
HONG KONG	25.94	51.3	5	34	1	9	52	-8		9	19
CHENGTU	26.06	23.0	5	35	1	10	2	0			
NEW DELHI	26.06	328.0	5	33K	-1	10	4	2		6	19 PP
MANILA	29.09	72.0	6	4	2	10	49	-2		7	35 PP
LAHORE	29.93	327.7	6	9	0						
KARACHI	30.28	309.1	6	13	1						
LANCHOW	30.90	18.0	6	17	-1	11	17	-3			
SIAN	31.23	26.8				11	23	-2			
WARSAK DAM	33.30	327.2	6	39	0						
QUETTA	33.44	317.3	6	40	0	12	4	5			
NANKING	35.07	40.8	6	53A	-1	12	23	-2			
ZO-SE	36.10	44.3	7	3A	0	12	40	-1			
PEKING	39.29	29.1	7	30	0	13	30	1			
ESEN BULAK	39.58	4.0	7	33K	1	13	36	2			
TASHKENT	40.13	332.5	7	36K	0						
ULAN-BATOR	42.76	14.2	8	18	20						
SEMIPALATNSK	44.65	348.8	8	13	0						
MUNDARING	44.69	151.0	8	11	-3						
CHANGCHUN	46.73	32.6	8	29	-1	15	17	-1			
TEHERAN	47.40	313.4	8	34	-1	15	29	2			
MATUSIRO	51.06	47.8	9	3	0	16	19	1		20	2 SS
TANANARIVE	51.17	239.2	9	5	1					9	27
TIFLIS	54.69	317.2	9	27	-3	17	6	-2			
SVERDLOVSK	55.82	339.4	9	38	-1	17	23	0			
PORT MORESBY	56.75	105.8	9	50	5					14	30
CHARTERS TS.	59.20	118.1	10	1	-1					11	17
ADELAIDE	60.17	136.9	10	6A	-3				10 20		
YAKUTSK	61.52	18.9	10	16K	-2	18	35	-2			
LWIRO	64.24	264.2	10	48A	12						
MOSCOW	65.16	329.3	10	40	-2						
AMDERMA	65.99	348.7	10	49K	1						
BRISBANE	67.40	123.3	10	56	0	19	53	3			
CANBERRA	67.61	132.5	10	56	-2				11 9		
RIVERVIEW	68.58	130.2								28	4
TIKSI	68.58	11.6	10	1	-63	20	1	-3			
APATITY	72.27	339.8	11	23A	-3						
KAJAANI	73.06	335.4	11	28	-3						
NURMIJARVI	73.30	331.4	11	30	-2						
SKALNATE PL.	73.32	319.3	11	29	-3						
KIMBERLEY	74.11	237.7	11	35	-2						
SODANKYLA	74.61	338.5	11	37	-3						
BRATISLAVA	75.25	317.9	11	42K	-2					12	11
KHEYS	75.50	354.5	11	43	-2						
VIENNA-H.	75.74	318.0	11	45	-1					11	58 PCP
UMEA	76.15	334.2	11	47	-2						
UPPSALA	76.58	329.9	11	48	-3						
LJUBLJANA	76.82	315.6	11	51	-1					12	31
KIRUNA	77.02	338.2	11	51	-3						
KASPERSKE H.	77.66	318.7	11	55	-2					12	24
HALLE	78.85	321.1	12	14	10						
JENA	79.05	320.5	12	2	-3					14	51
WINDHOEK	79.28	245.6	12	5	-1						
SKALSTUGAN	79.60	333.4	12	5	-3						
CHUR	80.29	316.3	12	10	-1						
STUTTGART	80.48	318.2	12	12	0						
STRASBOURG	81.48	318.0	12	20	2					12	51
BENSBERG	81.84	320.4	12	26	6						
ISOLA	82.07	313.6	12	20	-1						
BESANCON	82.71	316.7								14	30

GARCHY	84.69	316.9	12 32	-2	
CLERMONT-FD.	84.77	315.3	12 33	-1	
FOLINIERE	86.92	318.6	12 44	-1	
BAGNERES	87.14	312.9	13 4	18	
ALERT	90.11	356.8	12 59	-1	
MOULD BAY	95.04	7.3	13 22	-1	
COLLEGE	95.93	21.9	13 39	12	
THULE	96.16	355.5	12 31	-57	
RESOLUTE	98.53	2.0	13 39	0	
EUREKA	126.93	27.5	19 3	0	
RAPID CITY	127.40	14.2	19 16	12	
FLAMING GRGE	128.41	21.2	19 5	-1	
ROLLA	135.34	5.0	19 20	1	
WICHITA MTS.	137.39	13.6	19 28	5	22 32 PP
TRINIDAD	148.79	303.5	18 48	-55	

FEBRUARY 20 10.H 7.M 27.S EPICENTRE -25.95 178.29 DEPTH= 660.KM
A=-0.89991 B= 0.02681 C=-0.43524 D= 0.0298 E= 0.9996
G= 0.4350 H=-0.0130 K=-0.9003 HT= 3.1

DEPTH OF FOCUS= 0.099R

SE= 2.11

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
SUVA	7.77	1.0	1 53	-7	3 36	1		2 27
ONERAHI	10.35	198.0	2 26	3	4 30	12		
AUCKLAND	11.28	194.5	2 33	1	3 36	-58		
NOUMEA	11.41	286.1	2 34A	1	4 43	7		
KARAPIRO	12.17	190.4	2 41A	1	4 59	10		9 57
PORT VILA	12.35	309.5	2 43	1	4 59	7		
TUAI	12.85	184.0	2 44	-3	4 57	-4		13 35 SCS
CHATEAU	13.41	189.3	2 50	-2	5 15	5		13 37 SCS
KOUMAC	13.95	289.7	2 59K	2	5 25	5		
AFIAMALU	15.18	39.8	3 5K	-4	5 36	-4		
WELLINGTON	15.56	189.9	3 11	-2	5 46	-1		13 43 SCS
COBB RIVER	15.78	195.6	3 14	-1	5 50	0		
KAIMATA	17.46	197.1	3 30	0	6 14	-5		
GEBBIES PASS	18.29	193.1	3 36	-2	6 27	-5		10 11 SCS
BRISBANE	22.84	260.7	4 17K	-2	7 4	-41		
HONIARA	23.93	310.1	4 25K	-3	7 58	-5		
RIVERVIEW	24.76	245.1	4 36K	1	8 16	1		10 32 SCP
CANBERRA	26.80	242.6	4 53K	0				10 33 SCP
CHARTERS TS.	30.01	274.5	5 20	0	9 35	-2		
SAVANNAH	30.04	230.6	5 29	8				10 43 SCP
MOORLANDS	30.31	229.3	5 24K	1				8 1 PCP
FORT NELSON	30.40	228.3	5 25K	1				
MELBOURNE	30.51	239.0	5 25	0				
TARRALEAH	30.76	229.9	5 27	0				
RABAUL	33.08	306.4	5 43	-3				8 7
PORT MORESBY	33.80	293.5	5 56A	4	10 32	-2		10 59 SCP
ADELAIDE	35.09	245.5	6 3K	0	10 50	-3		
GUAM	51.00	316.2	8 4	-2			10 10	
HAWAII V.OB.	51.91	32.3	8 12	0				
SCOTT BASE	52.25	183.1	8 15	0				
HONOLULU	52.26	28.2	8 15	0				
MUNDARING	54.01	248.1	8 25K	-2				
SOUTH POLE	64.20	180.0	9 34	0				
MANILA	68.76	299.2	10 3	1				
LEMBANG	69.68	272.2	10 8K	0				19 11
TANGERANG	70.85	272.4	10 9	-5				
MATUSIRO	72.74	327.1	10 24K	-1	18 57	-3		11 1 PCP
HONG KONG	78.48	301.7	10 57	0				
ZO-SE	78.72	312.7	10 57K	-1	19 57	-6		
Y.-SAKHLINSK	79.42	336.1	11 2	1			13 14	
CANTON	79.56	302.0	11 3K	1	20 15	3		14 22 *SP
PETROPAVLOVK	80.48	348.1	11 5	-2	20 21	0		
VLADIVOSTOK	80.90	327.5	11 8	-1				
NANKING	80.91	312.2	11 9K	0	20 24	-1		14 25 *SP
BERKELEY	84.48	43.2	11 28A	1				
LICK	84.54	43.9	11 27K	0				
CHANGCHUN	84.73	324.5	11 28K	0			13 41	14 46 *SP
CALISTOGA	84.77	42.5	11 29A	1				
CHINA LAKE	86.22	47.1	11 36	1				
MINERAL	86.43	41.6	11 37A	1				

RENO	87.02	43.1	11	41	2						15	1	*SP
PEKING	87.46	317.2	11	41K	0	21	6	-21	13	55	15	1	*SP
KUNMING	88.86	298.6	11	48K	1	21	17	-23	14	5	15	8	*SP
SIAN	88.92	309.2	11	49K	1	21	17	-23	14	5	15	0	*SP
EUREKA	89.39	44.9	11	51	1								
CHENGTU	90.61	303.9	11	56	1	21	26	-29			15	27	*SP
PAOTOW	91.61	314.9	12	0K	0				14	17	15	19	*SP
PENTICTON	93.06	35.4							14	19	26	55	
LANCHOW	93.42	308.5	12	9K	1	21	42	-37					
COLLEGE	94.27	13.8	12	10	-2						14	30	
FLAMING GRGE	94.41	46.4	12	13	0								
YAKUTSK	95.90	339.2	12	18	-2	21	50	-3	14	36	16	20	PP
CHITTAGONG	96.51	291.6	16	25A	243								
ULAN-BATOR	97.40	320.0	12	27	1								
WICHITA MTS.	99.08	55.9							14	55	28	56	PKKP
LHASA	100.17	297.9				22	17	2					
MANHATTEN	102.39	52.4									19	43	
ESEN BULAK	103.18	315.3									17	11	
MOULD BAY	108.82	13.0	17	15	777								
NEW DELHI	111.07	292.3	17	20K	0								
RESOLUTE	113.97	16.9	17	25	-1						20	1	
WARSAK DAM	117.24	296.5	17	32	0								
QUETTA	120.10	291.2	17	39	1								
KHEYS	120.25	350.6	17	38	0						19	13	PP
TASHKENT	120.48	304.3	17	38	-1						19	12	PP
SEVEN FALLS	122.48	49.2	17	42	-1								
WINDHOEK	128.44	202.4									20	17	
ASHKABAD	128.45	299.0									20	18	PP
APATITY	133.21	342.3									20	33	PP
TEHERAN	133.86	295.5									20	38	
SODANKYLA	135.07	344.9	18	4	-3						20	38	SKP
KIRUNA	135.99	348.1	17	58	-10						20	41	SKP
KAJAANI	137.36	341.4	18	2	-9						20	46	SKP
TIFLIS	138.80	304.5							20	50			
MOSCOW	138.84	327.0	18	8	-5						20	52	PP
UMEA	139.51	345.2	18	9	-6								
NURMIJARVI	141.02	339.6	18	12	-7						20	56	SKP
HELSINKI	141.18	339.0	18	13	-6						20	57	SKP
SKALSTUGAN	141.27	350.0	18	14	-5								
UPPSALA	143.57	343.7	18	20K	-3								
BERGEN	145.23	353.9	18	27	2								
SIMFEROPOL	145.57	312.7	18	28	2								
GÖTEBORG	146.81	346.6	18	30K	3								
KARLSKRONA	147.32	342.1	18	30	2								
SKALNATE PL.	151.21	329.4	18	42	8				19	16			
RACIBORZ	151.43	332.7	18	43	9						18	54	PKP2
WITTEVEEN	152.44	349.0	18	44	8								
HALLE	152.45	341.4	18	44	8						19	3	PKP2
PRUHONICE	152.92	336.6	18	38	2						21	26	
JENA	153.06	341.3	18	37	1				21	14	23	0	PP
BRATISLAVA	153.36	331.2	18	38K	1						19	2	
SOFIA	153.56	315.5									20	46	
VIENNA-H.	153.61	332.2	18	38	1						19	5	PKP2
KASPERSKE H.	153.98	336.7	18	38	0				21	7	22	12	*SPKP
BENSBERG	154.12	347.1	18	49A	11						19	6	PKP2
KEW	154.50	358.0									19	6	PKP2
FELDBERG	154.54	344.7	18	42	4						19	17	
DOURBES	155.40	350.2									19	51	
STUTTGART	155.66	342.2	18	41	1				21	30	22	49	PP
TUBINGEN	155.93	342.3									19	14	
LJUBLJANA	156.12	331.3	18	42	1				19	23	19	14	PKP2
STRASBOURG	156.22	344.3	18	42	1						19	15	PKP2
EBINGEN	156.28	342.0									19	15	
RAVENSBURG	156.45	340.6									19	15	
TRIESTE	156.76	331.7	18	43	2				21	27	19	16	PKP2
PARIS	156.95	352.9	19	18	36								
FOLINIERE	157.20	357.9	19	18	36								
GARCHY	158.38	351.1	18	45	1						20	23	PKP2
ROSELEND	159.11	341.3	19	9	25						19	28	PKP2
CHIAVARI	159.61	336.8				26	13	85			23	58	PP
CLERMONT-FD.	159.85	350.2	19	31	46								
ISOLA	160.48	340.9	19	33	47								
MONACO	160.77	339.5									19	34	PKP2
BAGNERES	162.86	355.4									19	43	

FEBRUARY 20 16.H 5.M 48.S EPICENTRE 43.00 144.76 DEPTH= 46.KM

A=-0.59922 B= 0.42336 C= 0.67949 D= 0.5770 E= 0.8167
G=-0.5550 H= 0.3921 K=-0.7337 HT= -2.8

DEPTH OF FOCUS= 0.002R

SE= 2.52

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KUSIRO	0.26	266.5	0 11K	1	0 19	2		
NEMURO	0.69	60.7	0 13A	-1	0 21	-4		
OBIHIRO	1.15	266.7	0 22K	2	0 39	4		
HIROO	1.28	236.5	0 24K	2	0 42	4		
URAKAWA	1.69	240.6	0 30K	3	0 54	6		
TOMAKOMAI	2.37	262.2	0 42	5	1 12	7		
RUMOE	2.48	293.7						1 33
SAPPORO	2.50	272.8	0 41K	2	1 13	4		
MURORAN	2.87	257.6	0 46K	2	1 24	6		
HAKODATE	3.19	249.5	0 51K	2	1 29	3		
MORI	3.22	255.3	0 53K	4	1 32	5		
WAKKANAI	3.28	318.6	0 54K	4	1 42	14		
SUTTSU	3.33	268.2	0 53	2	1 33	3		
HATINOHE	3.45	225.5	0 52A	0	1 30	-3		
AOMORI	3.68	235.1	0 57	1	1 37	-1		
MIYAKO	3.95	213.1	0 58A	-1	1 38	-7		
MORIOKA	4.26	220.6	1 2A	-2	1 47	-6		
Y.-SAKHLINSK	4.27	340.9	1 5K	1	1 48	-5		
MIZUSAWA	4.74	216.6	1 11	1	1 59	-6		
AKITA	4.80	228.5	1 10	-1	2 5	-1		
ISINOMAKI	5.26	210.9	1 16A	-2	2 12	-6		
SAKATA	5.54	224.0	1 22	0	2 11	-14		
SENDAI	5.56	213.1	1 19A	-3	2 17	-8		
YAMAGATA	5.81	216.7	1 23A	-2	2 27	-5		
HUKUSIMA	6.18	213.4	1 28A	-3	1 35	-66		
UGLEGORSK	6.37	343.9	1 36K	3	2 55	9		
NIIGATA	6.68	222.5	1 38	0	2 53	0		
ONAHAMA	6.73	207.4	1 30	-8	2 45	-9		
SHIRAKAWA	6.82	212.2	1 37	-3	2 51	-6		
AIKAWA	7.02	227.1	1 43A	1	2 56	-6		
MITO	7.39	208.0	1 43K	-5	3 1	-10		
UTUNOMIYA	7.46	211.9	1 45	-3	3 6	-7		
KAKIOKA	7.62	209.1	1 46A	-5	3 5	-12		
TUKUBASAN	7.66	209.5	1 45K	-6	3 1	-17		2 11 *SP
TAKADA	7.72	222.4	1 51A	-1	3 15	-4		
TYOSI	7.87	203.9	1 50	-4	3 10	-13		
MAEBASI	7.91	215.5	1 58	3	3 20	-4		
KUMAGAYA	8.00	213.0	1 56	0	3 19	.-7		
NAGANO	8.08	220.8	1 58	1	3 38	10		
MATUSIRO	8.18	220.2	1 57A	-2	3 25	-6		40 51 PKPPKP
OIWAKE	8.20	217.8	2 1	2	3 29	-2		
WAZIMA	8.22	229.6	2 59A	60				
HONGO	8.24	209.6	1 58	-1	3 22	-10		
TITIBU	8.27	213.9	2 0	0	3 24	-9		
TOKYO C.M.O.	8.27	209.6	1 56	-4	3 23	-10		
YOKOHAMA	8.53	209.4	2 4	1	3 30	-9		
MATUMOTO	8.53	220.1	2 3	0	3 32	-7		
TOYAMA	8.56	225.2	2 3	-1	3 34	-6		
KOHU	8.75	215.3	2 5	-1	3 40	-5		
HUNATU	8.81	213.8	2 8	1	3 38	-8		
MERA	8.93	207.1	2 19	10	3 43	-6		
TAKAYAMA	8.96	222.8	2 8	-1				
MISIMA	9.07	211.8	2 13	2	3 46	-7		
AJIRO	9.07	210.9	2 7	-4	3 41	-12		
IIDA	9.19	218.0	2 11	-1	3 51	-5		
OSIMA	9.22	208.8	2 12	-1	3 44	-12		
VLADIVOSTOK	9.42	275.1	2 17	1	4 5	4		
SHIZUOKA	9.42	213.8	2 13	-3	3 55	-6		
HUKUI	9.56	226.3	2 17	-1				3 5
GIHU	9.79	221.9	2 19	-2				
OMAESAKI	9.81	213.5	2 27	6				
TSURUGA	9.95	225.4	2 23	0				
HIKONE	10.15	223.4	2 25	-1	4 18	-1		
KAMEYAMA	10.38	221.2	2 34	5	4 37	12		
MAIZURU	10.45	227.1	2 32	2	4 23	-3		
TU	10.48	220.5	2 32	2				
KYOTO	10.61	224.4	2 31	-1	4 22	-8		
HATIDYOZIMA	10.63	203.2	2 31	-1	4 19	-12		
OKHA	10.63	354.1	2 34	2	4 40	9		

TOYOOKA	10.71	229.2	2	32A	-1	4	26	-7		
NARA	10.83	222.9	2	34	-1					
SEVERO-KUR.	10.91	41.4	2	40	4	4	46	8	8	11
OSAKA	11.00	223.8							2	59
TOTTORI	11.09	231.1	2	39	1	4	43	1		
KOBE	11.16	225.1	3	12	33	5	19	35		
WAKAYAMA	11.52	223.7	2	48	4					
SUMOTO	11.57	224.9	2	42	-3	4	43	-10		
YONAGO	11.63	233.3	2	44	-2					
HIMEJI	11.71	227.0	2	42	-5					
SIOMISAKI	11.86	219.5	3	4	15	5	21	20		
TOKUSIMA	11.95	225.1	2	48	-2					
TAKAMATU	12.04	227.5	2	49	-2					
MUROTO	12.80	224.0	2	59	-2					
KOTI	12.90	226.7	3	0	-3	5	25	-1		
HIROSIMA	12.91	232.2	3	1	-2	5	23	-3		
TORISIMA	12.99	197.4							4	12
MATUYAMA	13.09	229.7	3	3	-2	5	39	9		
PETROPAVLOVK	13.65	37.9	3	10	-2				3	22 PP
SIMIDU	13.79	226.2	3	2	-12	5	52	5		
CHANGCHUN	14.16	280.0	3	20	1	5	58	2		
OOITA	14.20	231.0	3	18	-2				6	15
HUKUOKA	14.67	234.9	3	24	-2	6	23	15		
SAGA	14.95	234.2	3	31	2					
KUMAMOTO	15.02	232.1	3	29A	-1	6	39	23		
MIYAZAKI	15.29	228.1	3	32	-2	6	42	20		
NAGASAKI	15.57	233.7	3	35A	-2	6	44	15		
KAGOSIMA	16.03	229.3	3	43	0	6	36	-3		
KLYUCHI	16.87	32.2	3	55	1	7	44	45		
MAGADAN	16.99	10.6	3	54	-1				7	10
YAKUTSK	21.04	340.1	4	38A	-4	8	31	3	4	56 PP
PEKING	21.57	271.9	4	46A	-1	8	39	1		
ZO-SE	22.17	245.4	4	53A	0	8	52	3		
NANKING	23.23	250.6	5	3A	0	9	12	4		
PAOTOW	25.90	276.6	5	30A	1	9	57	4		
ULAN-BATOR	26.82	293.8	5	38A	1	10	11	2		
IRKUTSK	28.45	303.2	5	52A	0					
SIAN	29.15	264.7	6	0A	2	10	48	2		
TIKSI	29.75	349.9	6	1	-3				12	57 SS
LANCHOW	32.08	271.5	6	25A	1	11	33	1		
CANTON	32.70	242.7	6	31A	1	11	45	3		
HONG KONG	32.73	240.7	6	32A	2	11	39	-3		
ESEN BULAK	34.22	292.8	6	44	1	12	9	4		
CHENGTU	34.54	262.8	6	46	0	12	10	0		
MANILA	34.79	222.9	6	51	3	12	19	5	8	24 PP
KUNMING	38.65	256.3	7	22A	2	13	15	2		
COLLEGE	42.72	35.5	7	53	-1	14	12	-2	10	2
NHATRANG	43.41	235.8	8	1A	2				9	45 PP
TOCKLAI	43.45	264.8	7	44	-16				8	22
SEMIPALATNSK	43.60	303.1	8	1A	0	14	27	0		
LHASA	44.58	270.9	8	10A	1	14	43	2		
SHILLONG	46.25	265.6	8	25A	3	15	13	8	9	59 PCP
KHEYS	47.38	347.1	8	30	-1	15	10	-11	10	12 PP
RABAUL	47.45	169.9	8	33	1					
AMDERMA	48.10	332.4	8	36	-1	15	28	-3		
ALMATA	48.20	294.9	8	38	1	15	36	4	10	34 PP
CHITTAGONG	48.22	262.2	8	38	0	15	32	-1	10	31 PP
CHATRA	48.97	270.3	8	44A	1	15	45	2		
MOULD BAY	50.09	18.1	8	51	-1					
HOWRAH	50.65	265.0	8	57	1				11	0
BOKARO	51.72	268.1	9	5	1				11	4
KIPAPA	51.91	95.5	9	18	12					
HONOLULU	51.93	95.7	9	18	12					
SVERDLOVSK	52.49	316.4	9	17A	7	16	32	0		
DEHRA DUN	53.69	279.7	9	19	0	16	50	2	11	31 PP
HONIARA	53.98	161.4	9	33	12	16	51	-1		
ALERT	54.02	4.3	9	18	-3					
TASHKENT	54.16	295.9	9	22	0	16	55	1		
PORT BLAIR	54.64	251.3	9	29	3					
HAWAII V.OB.	55.17	95.5	9	30	0					
NEW DELHI	55.27	278.5	9	29A	-2	17	8	-1	10	19 PCP
LAHORE	55.69	283.1	9	33	-1	17	17	2	9	52
RESOLUTE	56.19	16.0	9	35	-2					
WARSAK DAM	56.34	287.1	9	37A	-1	17	24	1		
SAMARKAND	56.50	295.2	9	38A	-1	17	23	-3		
DARWIN	56.56	196.4	9	41	1				11	0
VISHAKHAPTNM	57.34	264.0	9	49K	4	17	45	8	11	56 PP
APATITY	58.34	335.1	9	50A	-2	17	47	-3		

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SEHORE	58.51	273.3	9	57	3					
KEVO	58.79	338.9	9	54	-1					
THULE	59.01	8.6	9	55	-2				10	21
ALBERNI	59.34	49.6	9	58	-1					
TANGERANG	59.91	225.2	9	49	-14					
LEMBANG	59.97	223.8	10	2A	-2					
SODANKYLA	60.48	336.9	10	5A	-2					
VICTORIA	60.52	49.8	10	14A	7					
QUETTA	61.70	286.0	10	14A	-1	18	34	1	39	31 PKPPKP
KIRUNA	61.86	339.2	10	15A	-1	18	23	-12		
PENTICTON	62.17	47.4	10	17A	-1					
KAJAANI	62.37	333.8	10	19A	-1					
MADRAS	62.69	262.2	10	19A	-3	19	0	15	12	40 PP
CHARTERS TS.	62.78	178.4	10	18	-5	18	36	-11		
ASHKABAD	63.10	297.8	10	23	-2	18	54	4	12	43 PP
POONA	63.75	271.3	10	28A	-1	19	0	1	15	7 PCP
MOSCOW	64.02	323.0	10	30A	-1	19	2	0		
BOMBAY	64.27	272.3	10	31	-1	19	4	-1	12	54 PP
PULKOVO	64.37	329.3	10	31	-2	19	4	-2	24	3 SS
UMEA	64.88	336.2	10	34A	-2			10 49		
HUNGRY HORSE	65.73	45.9	10	40	-2			10 53	39	17 PKPPKP
KOUMAC	65.75	159.9	10	53	11					
NURMIJARVI	65.89	332.0	10	41A	-2					
HELSINKI	66.03	331.7	10	44	0					
MINERAL	66.26	56.4	10	44	-1					
SCORESBY SD.	66.43	355.2	10	45	-1					
CALISTOGA	66.68	58.4	10	47K	-1					
SKALSTUGAN	67.29	339.0	10	50A	-2			11 4		
BERKELEY	67.35	58.9	10	51K	-1					
RENO	67.84	56.2	10	54	-1					
BUTTE	67.96	47.2	10	54	-2					
NOUMEA	67.98	158.3	11	9K	13					
LICK	68.06	59.0	10	56A	0					
UPPSALA	68.72	334.4	10	59A	-1			11 17		
TEHERAN	68.90	299.5	11	2	0	20	6	5	13	30 PP
BOZEMAN	69.00	46.7	11	1	-1			11 14		
TIFLIS	69.18	307.9	11	3A	0	20	7	3	13	10 PP
GORIS	69.68	305.3	11	7A	1	20	13	3	13	40 PP
EUREKA	70.20	54.3	11	9	-1			11 21	11	46
BRISBANE	70.42	172.4	11	10	-1	20	20	1		
BERGEN	71.76	340.1	11	19	0					
GOTEBORG	72.20	335.5	11	20A	-2					
PASADENA	72.26	59.8	11	21	-1	20	42	2	14	13 PP
KARLSKRONA	72.31	332.9	11	22	0					
REYKJAVIK	72.70	353.9	11	22	-2					
SIDA	72.70	352.1	11	26	2					
SIMFEROPOL	72.85	315.9	11	25A	0	20	48	1	11	42 PCP
FLAMING GRGE	73.05	49.6	11	24	-3					
WARSAW	73.43	327.7	11	29	0	20	54	1		
LWOW	74.05	324.6							11	46 PCP
RAPID CITY	74.18	44.0	11	32	-1			11 45		
IASI	74.43	321.0	11	33	-2	21	1	-3		
GLEN CANYON	74.44	53.9	11	39	4					
LARAMIE	74.88	47.3	11	36	-1					
SKALNATE PL.	76.11	326.1	11	44	0				11	58 PCP
RACIBORZ	76.22	327.8	11	46	1				12	2 PCP
RIVERVIEW	76.68	174.5	11	46A	-1	21	27	-2	26	20 SS
BUCHAREST	77.18	319.8	11	50A	0				14	33
HALLE	77.37	332.0	11	50	-1	21	37	0		
PRAGUE	77.66	329.8							21	39
PRUHONICE	77.69	329.7	11	53	0	21	38	-2		
ADELAIDE	77.79	185.1	11	53A	-1				12	6 PCP
WITTEVEEN	77.96	335.5	11	56A	1					
BUDAPEST	77.96	325.7	11	55	0	21	47	4	14	39 PP
JENA	77.97	331.8	11	53	-2	21	40	-3	12 14	14 51 PP
CANBERRA	78.04	176.5	11	54	-1					
TUCSON	78.11	57.0	11	35	-20					
BRATISLAVA	78.19	327.2	11	54K	-2	21	47	1		
ISTANBUL UN.	78.28	315.9	11	56A	0	21	49	3	14	51 PP
CHEB	78.40	330.9	11	57	0				12	34
VIENNA-H.	78.41	327.7	11	58A	1					
DURHAM	78.47	340.9	11	58K	1					
KASPERSKE H.	78.75	329.7	11	59	0				12	9 PCP
ALBUQUERQUE	78.85	52.4	11	59	0					
DE BILT	79.03	336.0	12	2A	2	21	59	5		
MUNDARING	79.06	204.4	12	4A	3				27	26 SS
BENSBERG	79.41	334.3	12	2A	0	21	57	-1	12 21	12 15 PCP
BELGRADE	79.45	323.3	12	2A	-1	22	2	3		12 23 PCP

FELDBERG	79.63	333.2	12	15	11						
KSARA	79.70	306.8	12	2	-2					15	6
SOFIA	79.80	320.3	12	5	0	22	5	2		12	13 PCP
MELBOURNE	80.45	179.8	12	21	13						
ZAGREB	80.54	326.4	12	10	1						
STUTTGART	80.59	332.0	12	9	0	22	12	1		22	46
KARLSRUHE	80.69	332.6	12	14	5					12	40
TUBINGEN	80.87	331.9	12	10	0						
LJUBLJANA	80.94	327.4	12	10A	-1				12 31	15	40 PP
DOURBES	80.96	335.3	12	10	-1	22	17	2			
MANHATTEN	81.13	43.6	12	10A	-2	22	21	5			
KEW	81.15	338.8	12	11A	-1	22	15	-2		22	45 PS
EBINGEN	81.21	331.8	12	11	-1						
STRASBOURG	81.27	332.7	12	13	1	21	37	-41		12	38
RAVENSBURG	81.32	331.2	12	13	0						
DUBUQUE	81.39	38.0	12	13A	0	22	14	-5			
TRIESTE	81.57	327.6	12	15	1	22	37	16	12 34	15	42 PP
LAWRENCE	81.97	43.0	12	48	32						
BASLE	82.24	332.3	12	20	3						
PADOVA	82.50	328.6	12	22	3	22	35	5		17	15 PPP
PARIS	82.75	335.9	12	19	-1					12	49
ONERAHI	82.92	156.1	12	28	7				12 42		
BESANCON	83.02	333.1	12	20	-1						
ATHENS	83.26	317.0	12	22K	-1					13	30
WICHITA MTS.	83.45	47.8	12	23A	-1	22	41	1	12 36	23	54 PPS
FOLINIERE	83.64	337.7	12	24	-1						
GARCHY	83.93	334.9	12	26	0						
AUCKLAND	84.07	156.2				22	47	1			
PRATO	84.08	328.3	12	45	18	22	45	-1			
TARANTO	84.35	322.5	12	1	-27	22	41	-8			
ROLLA	84.45	41.6	12	27A	-2	22	43	-7			
FLORISSANT	84.48	40.1	12	28A	-1	22	50	0			
ST. LOUIS 1	84.67	40.1	12	29A	-1	22	47	-5			
FAYETTEVILLE	84.72	44.2	12	29A	-1				12 49	12	37 PCP
SHAWINIGAN	84.83	25.0	12	29A	-1						
SEVEN FALLS	84.90	23.5	12	30A	-1						
MOORLANDS	85.08	178.2	12	46A	14						
ROME	85.20	326.3	12	32A	0	23	0	3		23	31 PS
CLERMONT-FD.	85.26	334.2	12	33	0						
KARAPIRO	85.27	156.0	12	34	1				12 48	16	4 PP
ISOLA	85.33	330.9	12	31	-2						
BREBEUF	85.50	26.0	12	33A	-1	22	54	-6	12 59		
MONACO	85.58	330.5	12	34	0						
BLOOMINGTON	85.94	37.4	12	36	0	23	3	-1			
C. GIRARDEAU	86.06	40.5	12	36A	-1						
CHATEAU	86.44	156.5	12	38	0				12 52	16	14 PP
TUAI	86.56	155.2	12	40	1				12 52	13	11 PP
LITTLE ROCK	86.68	43.8	12	39	-1						
MESSINA	86.96	322.3	12	35	-6	23	10	-4	12 45	16	3 PP
COBB RIVER	87.42	159.2							12 59		
PENNSYLVANIA	88.14	31.0	12	45A	-2						
WELLINGTON	88.15	157.8	12	46	-1				13 0		
MORGANTOWN	88.34	32.9	12	48K	0						
KAIMATA	88.44	160.6							13 4		
BAGNERES	88.62	334.9	12	49	0						
PALISADES	89.39	28.2	12	15	-38	23	36	-1	12 53		
GEBBIES PASS	89.86	160.2							13 10		
ROXBURGH	90.77	163.0								29	55 SS
TOLEDO	92.81	336.5	13	8A	0	24	6	-1		25	28 PS
ALICANTE	93.10	333.3	13	10	0	24	11	1			
COIMBRA	93.71	339.7	13	12A	0						
GRANADA	95.16	335.1	13	20	1	24	34	44		31	1 SS
TANANARIVE	107.83	260.6								18	47 PP
LWIRO	110.33	286.6	19	3K	37					29	5 PS
M.BOUR	120.49	339.4								20	14 PP
AREQUIPA	139.38	60.6	19	24	2						
LA PAZ	141.52	56.8	19	22A	-4					22	55
ANTOFAGASTA	145.21	67.8	19	33	1					19	48 PP

FEBRUARY 20 22.H 2.M 35.S EPICENTRE 26.13 96.94 DEPTH= 0.KM

A=-0.10856 B= 0.89238 C= 0.43804 D= 0.9927 E= 0.1208
G=-0.0529 H= 0.4348 K=-0.8990 HT= 3.0

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	
TOCKLAI	2.04	288.1	0	47K	11								
SHILLONG	4.60	264.1	1	13K	0	2	3	-4					
KUNMING	5.34	99.6	1	24K	1	2	31	5			1	43	PG
CHITTAGONG	5.99	232.3	1	32	0	2	41	-2			1	42	*SP
LHASA	6.28	305.2	1	38A	2	2	54	4					
CHENGTU	7.69	52.5	1	56	0	3	28	3			4	6	SG
HOWRAH	8.63	247.4	2	8	-1						3	38	
BOKAPO	10.36	259.6	2	30K	-3	4	18	-13			3	51	PPP
LANCHOW	11.51	29.2	2	47	-2	5	0	1					
SIAN	13.14	49.2	3	7K	-4								
PORT BLAIR	14.92	196.2	3	31	-3	6	20	-1					
VISHAKHAPTNM	15.16	239.2	3	40K	3	6	44	17			3	53	PP
CANTON	15.22	98.0	3	34	-4	6	20	-8					
HONG KONG	16.18	100.0	3	49	-1	6	47	-4					
DEHRA DUN	17.16	288.4	4	2	-1	7	3	-10			4	27	PP
NEW DELHI	17.70	282.4	4	5K	-5	7	6	-20			4	23	PP
NHATRANG	18.03	137.8	4	15	1	7	49	16					
PAOTOW	18.06	33.8	4	12K	-2	7	32	-2			4	28	PP
SEHORE	18.29	265.0	4	15	-2	7	35	-4			7	59	SS
HYDERABAD	19.21	246.9	4	22K	-6	8	1	1					
NANKING	19.97	67.7	4	35K	-2	8	17	0					
ESEN BULAK	20.24	358.6	4	40	0	8	18	-4					
MADRAS	20.46	233.5	4	40K	-2	8	30	3			5	6	PP
LAHORE	20.51	290.5	4	44	2								
PEKING	21.20	44.4	4	50K	0	8	44	3					
TAINAN	21.40	93.4	4	58	6								
TAICHUNG	21.58	90.1	4	54	1								
HSINCHU	21.74	88.2									7	17	
ALISHAN	21.81	91.7	5	1	5						11	45	
ZO-SE	21.83	71.3	4	56K	0	8	56	3					
YUSHAN	21.95	91.7	5	2	5						12	11	
HENGCHUN	22.12	95.7	5	18	19						12	21	
TAIPEI	22.20	87.4	5	2	2	9	6	6					
TAITUNG	22.29	93.5	5	8	7	9	18	16					
ILAN	22.44	88.0	5	1	-1						11	35	
HWALIEN	22.46	90.1	5	5	3	9	12	7					
POONA	22.63	255.2	5	4	0	9	7	-1			5	30	PP
ULAN-BATOR	23.12	17.2	5	8	-1	9	18	1					
WARSAK DAM	23.29	295.7	5	12A	2	9	24	4					
BOMBAY	23.39	257.0	5	12	1	9	20	-1			5	42	PP
ALMATA	23.62	321.4	5	16A	2	9	28	3					
KODAIKANAL	24.28	232.9	5	20	0	9	34	-3					
KHOROG	24.30	304.0	5	22	2	9	43	6					
MANILA	25.29	112.1	5	35	5								
IRKUTSK	26.69	10.1	5	43A	0	10	19	2					
QUETTA	26.71	285.6	5	44	1	10	17	0			10	41	*SS
KARACHI	26.99	273.8	5	47	1						10	55	*SS
TASHKENT	27.39	310.5	5	51	2	10	32	3			11	8	
SEMIPALATNSK	27.42	336.5	5	50A	1	10	31	2					
CHANGCHUN	28.99	45.2	6	1	-3	10	52	-2			6	51	PP
VLADIVOSTOK	33.10	50.2	6	38A	-2	11	52	-7			15	54	
LEMBANG	34.37	161.0	6	52	1						15	9	
ASHKABAD	34.54	299.6	6	53	1	12	23	2			8	17	PP
MATUSIRO	36.51	63.3	7	7	-2	12	42	-10			8	39	
TUKUBASAN	38.01	63.9	7	18K	-4	13	3	-12	7	40	8	51	PP
TEHERAN	39.92	295.2	7	38	0	13	44	1			9	23	PP
SVERDLOVSK	40.17	329.7	7	40	0	13	49	2			16	49	SS
Y.-SAKHLINSK	41.55	47.7	7	49	-2	14	4	-4			9	21	PP
YAKUTSK	42.04	22.4	7	56A	1	14	13	-2			9	39	PP
GORIS	44.03	300.7	8	12A	1						10	5	PP
TIFLIS	45.29	303.7	8	22A	1	15	9	7			10	12	PP
GUAM	46.47	96.2	8	35	4								
AMDERMA	48.24	344.4	8	43	-2	15	41	-3					
TIKSI	48.90	12.9	8	47A	-3	15	47	-6			11	37	PPP
MOSCOW	51.63	321.6	9	9	-2	16	27	-4			12	9	PPP
PETROPAVLOVK	52.67	42.0	9	15	-3	16	38	-7			11	16	PP
KSARA	52.78	293.8	9	26	7								
SIMFEROPOL	53.13	307.8	9	20A	-2	16	49	-3					
APATITY	56.05	335.5	9	43K	0	17	29	-2					
PULKOVO	56.06	326.0	9	41	-2	17	31	0			11	59	PP
KHEYS	56.85	352.9	9	48	-1	17	41	-1			12	0	PP
ISTANBUL UN.	57.19	303.5	9	51K	0	17	43	-3			11	57	PP
IASI	57.56	310.9	8	50	-64	17	42	-9					
KAJAANI	57.75	330.9	9	55	0	17	56	3					
SODANKYLA	58.59	334.7	10	0	-1	18	4	0					
HELSINKI	58.77	326.2	10	3K	1						12	28	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.

KEVO	58.80	337.5	10	3	0							
BUCHAREST	58.87	307.7	8	55	-68	20	9	121			10	49 PP
NURMIJARVI	58.93	326.6	10	3K	0							
LWOW	59.68	314.2	10	9	0	18	16	-3			12	25 PP
PORT MORESBY	60.23	119.1	10	14A	2						18	29
MUNDARING	60.63	161.2	10	13	-2							
KIRUNA	61.00	335.0	10	17K	-1						22	34 SS
UMEA	61.03	330.4	10	17K	-1	18	36	0				
SOFIA	61.12	306.1	10	18	0	18	37	0			12	38 PP
WARSAW	61.32	317.2				18	44	4			14	6 PPP
RABAUL	61.35	111.0	10	20	0							
ATHENS	61.74	300.8	10	23K	0						11	29
UPPSALA	62.46	326.0	10	27K	-1	18	53	-1			23	18 SS
BELGRADE	62.79	308.9	10	29K	-1	18	58	0			12	47 PP
BUDAPEST	63.29	312.1	10	32	-1	18	51	-13			19	5 PS
RACIBORZ	63.38	315.0	10	34	0						13	1 PP
KARLSKRONA	63.98	322.0	10	38	1							
BRATISLAVA	64.43	313.1	10	39A	-1						13	4 PP
SKALSTUGAN	64.58	330.5	10	43	2							
VIENNA-H.	64.89	313.3	10	43	0							
TANANARIVE	65.62	232.1	10	44	-4						11	20 PCP
GOTEBORG	65.67	324.1	10	47K	-1							
ZAGREB	65.67	310.7	10	56	8	19	35	1				
PRUHONICE	65.71	315.4	10	49K	0	19	33	-1				
PRAGUE	65.76	315.5									19	39
TARANTO	66.05	304.8	10	20	-31						19	40
CHARTERS TS.	66.35	128.9	10	51	-2	19	41	-1				
COLLMBERG	66.39	317.1									27	35 SSS
KASPERSKE H..	66.51	314.6	10	53	-1	19	45	1			13	58
LJUBLJANA	66.61	311.2	10	54	0						13	24 PP
HALLE	66.98	317.4	10	56	-1	19	47	-3				
CHEB	67.05	315.9	11	1	4							
TRIESTE	67.23	310.9	10	58	0	19	49	-4			13	28 PP
JENA	67.34	316.9	10	58	-1	19	49	-5			13	33 PP
MESSINA	67.92	302.8	11	4	1	19	56	-5	11	16	15	10 PPP
BERGEN	68.44	327.8	11	13	7						35	35
PADOVA	68.57	311.1	11	5	-2	20	5	-4			12	55 PP
ROME	69.13	307.3	11	24K	14	20	10	-5			13	3 PP
STUTTGART	69.34	315.1	11	11	-1	20	18	0			21	0 SCS
RAVENSBURG	69.40	314.0	11	11	-1							
FELDBERG	69.45	316.7	11	18	6							
HEIDELBERG	69.52	315.8	11	15	2							
TUBINGEN	69.54	314.8	11	13	0							
EBINGEN	69.71	314.5	11	13	-1							
CHUR	69.73	313.0	11	13	-1	20	19	-4				
WITTEVEEN	69.78	319.7	11	15	1							
BENSBERG	70.02	317.7	11	15K	-1	20	1	-25			14	6 PP
STRASBOURG	70.35	315.2	11	18K	0	20	25	-5			25	1 SS
PAVIA	70.46	311.4									20	5
CHIAVARI	70.62	310.5				20	18	-15			26	15 SS
HONIARA	70.66	111.3	11	19	-1							
BASLE	70.79	314.1	11	18	-2	20	35	0			21	7
DE BILT	70.87	319.3				20	37	1			28	25 SSS
NEUCHATEL	71.37	313.8	11	25	1							
LWIRO	71.49	257.9	11	24K	-1	20	42	-1			21	35 SCS
DOURBES	71.85	317.4	11	26	-1	20	43	-4				
BESANCON	71.91	314.2	11	25	-2						12	1
ROSELEND	72.00	312.5	11	27	-1						14	2 PP
MONACO	72.10	310.4	11	29	1							
ISOLA	72.21	310.9	11	28	-1							
ADELAIDE	72.51	145.0	11	30K	-1							
PARIS	73.58	316.6	11	37	0							
DURHAM	73.75	323.4	11	39	1							
GARCHY	73.77	315.0	11	37	-1						14	27
CLERMONT-FD.	74.28	313.5	11	43	2							
KEW	74.29	319.9	11	40	-1	21	12	-3			21	50 PS
FOLINIERE	75.42	317.3	11	49	1							
MOULD BAY	75.42	8.4	11	46	-2							
BRISBANE	75.62	130.6	11	50	1	21	34	4				
COLLEGE	76.56	23.4	11	52	-2						12	19
SIDA	77.07	335.6	11	58	1							
THULE	77.28	356.5	11	56	-2							
BAGNERES	77.28	311.8	11	57	-1						14	55 PP
BANGUI	77.60	268.8				21	48	-3				
MELBOURNE	77.97	143.0	12	4	2							
CANBERRA	78.47	138.8	12	5	0							
RIVERVIEW	78.76	136.5	12	12A	6	22	8	4			22	36
RESOLUTE	79.14	3.2	12	7	-1							
ALICANTE	79.66	307.6	12	15	4	22	8	-5			22	23 SKS

TOLEDO	81.49	310.2	12	20	-1	22	32	0	15	31	PP
ALMERIA	81.74	306.9	12	23	1	22	33	-2	15	29	PP
GRANADA	82.40	307.6	12	53A	28	22	41	0	16	3	PP
MOORLANDS	82.47	145.0	12	27	1						
PRETORIA	84.00	237.7	13	10	36						
COIMBRA	84.31	312.1	12	36K	1				15	52	PP
LISBON	85.52	311.1	12	45	4	23	47	34			
KIMBERLEY	88.15	236.7	12	42	-12						
WILKES	92.76	174.6							27	25	
HERMANUS	95.06	234.2							26	41	PPS
ALBERNI	96.22	26.0	13	32	1						
KARAPIRO	97.34	128.6	13	40	4						
BANFF	97.88	20.0	13	41	2						
CHATEAU	97.92	129.7	13	43	4						
PENTICTON	98.12	23.2	13	38	-2						
HUNGRY HORSE	100.83	20.5	17	57	245						
MINERAL	104.77	29.5	18	26A	256						
RENO	106.22	28.8	18	36	777						
LICK	107.19	31.3							19	16	
EUREKA	107.86	26.2	18	49	777				30	3	PKKP
FLAMING GRGE	108.94	20.8	18	23	777						
LARAMIE	109.73	17.8	18	45	777						
ROLLA	115.77	7.8	18	43	-2						
SOUTH POLE	115.98	180.0	18	44	-1						
FAYETTEVILLE	117.23	10.1	18	50	3				20	15	
WICHITA MTS.	117.72	14.4	18	48	0				20	16	PP
LITTLE ROCK	118.79	8.7	18	51	0						
CARACAS	140.35	334.6	19	49	18				35	25	PS
LA PAZ	163.12	301.6	20	7	3				21	5	PKP2
AREQUIPA	165.56	309.5	20	7	1						

FEBRUARY 21 17.H 22.M 16.S EPICENTRE 16.78 -92.94 DEPTH= 248.KM

A=-0.04912 B=-0.95672 C= 0.28685 D=-0.9987 E= 0.0513
G=-0.0147 H=-0.2865 K=-0.9580 HT= 5.4

DEPTH OF FOCUS= 0.034R

SE= 1.93

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
COMITAN	0.94	123.9	0	37	2	1	1	-1					
OAXACA	3.68	274.3	1	16	15	1	28	-20					
VERA CRUZ	3.88	308.9	1	22	19	1	46	-6					
SAN SALVADOR	4.74	130.0	1	9	-4								
MERIDA	5.21	36.6				2	30	9					
PUEBLA	5.49	294.9									1	58	
TACUBAYA	6.50	294.6	1	29	-6	2	37	-13					
LITTLE ROCK	17.94	1.6	3	53	-1	7	11	8					
WICHITA MTS.	18.57	345.2	3	58	-3	7	27	12			4	44	
FAYETTEVILLE	19.27	356.9	4	7	-1						5	8	
COLUMBIA	20.22	29.7	4	19	2								
ROLLA	21.06	2.3	4	25	-1	8	8	8					
ALBUQUERQUE	21.77	328.8	4	32	0								
ST. LOUIS 1	21.91	5.7	4	33	-1								
FLORISSANT	22.06	5.4	4	36A	1	8	23	6					
TUCSON TELE.	22.35	317.2	4	39	1								
TUCSON	22.36	316.8	4	38	0								
MANHATTEN	22.57	352.6	4	28	-12								
BLOOMINGTON	23.03	12.9	4	45	0	8	24	-10					
GLEN CANYON	26.01	324.3	5	13	1								
LARAMIE	26.77	338.5	5	19	0								
BOULDER CITY	27.28	318.7	5	24	0								
FLAMING GRGE	27.95	332.8	5	29	-1				6	6			
PASADENA	28.48	312.2	5	34	-1				5	50			
EUREKA	30.23	323.0	5	49	-1						8	45	PCP
BOZEMAN	32.55	336.1	6	11	1								
LICK	32.55	314.6	6	10K	0								
RENO	32.58	319.5	6	10	0								
BERKELEY	33.24	315.0	6	16K	0								
CALISTOGA	33.86	316.0	6	21A	0								
MINERAL	34.17	319.3	6	23A	-1								
HUNGRY HORSE	35.91	335.8	6	37	-1								
PENTICTON	39.01	332.2	7	4	0								
LA PAZ	41.13	142.3	7	21A	-1				7	46			
ANTOFAGASTA	45.85	150.7	7	59	0						9	32	PP

RESOLUTE	57.92	359.4	9	27A	-1						
COLLEGE	60.35	336.3	9	45	0				10	27	
MOULD BAY	61.05	353.0	9	49A	-1						
FOLINIERE	79.17	42.3	11	46	7						
KIRUNA	83.04	20.5	12	0K	1						
UMEA	84.85	24.2	12	9K	1						
SODANKYLA	85.32	19.7	12	11	1						
NURMIJARVI	88.30	26.0	12	24	-1						
WARSAK DAM	127.39	16.2	18	38	3						
QUETTA	129.46	22.7	18	42	3						
NEW DELHI	133.91	12.1	19	10K	22						
SHILLONG	137.65	353.5	18	57	2						
MUNDARING	149.57	234.8	19	17K	2						

FEBRUARY 23 11.H 40.M 51.S EPICENTRE -6.21 147.76 DEPTH= 49.KM

A=-0.84090 B= 0.53043 C=-0.10737 D= 0.5335 E= 0.8458
G= 0.0908 H=-0.0573 K=-0.9942 HT= 6.9

DEPTH OF FOCUS= 0.003R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	3.23	190.7	0	50K	0	1	17	-11					
RABAUL	4.83	65.8	1	12	0								
CHARTERS TS.	13.88	185.9	3	16	0	5	57	8					
GUAM	19.76	351.3	4	31	2								
KOUMAC	21.46	133.2	4	45K	-1	8	45	9					
BRISBANE	21.60	167.8	4	49	1	8	45	6					
PORT VILA	23.12	121.5	5	2	-1								
NOUMEA	24.12	133.4	5	12	0	9	40	16					
RIVERVIEW	27.67	173.9	5	42	-4						10	47	
CANBERRA	29.00	177.9	5	57	-1				6	14	12	51	PCS
ADELAIDE	29.81	195.0	6	5	0	10	58	1					
TARRALEAH	35.96	181.6	7	0	2				7	27			
MOORLANDS	36.09	180.7	7	0A	1				7	27			
MUNDARING	39.04	224.9	7	25A	1								
PERTH	39.30	225.2				13	29	6			9	6	PP
LEMBANG	39.87	266.8	7	30A	-1								
KARAPIRO	40.42	145.4	7	36	1								
CHATEAU	41.32	146.7	7	45	2								
NHATRANG	42.47	295.5	8	13	21								
GEBBIES PASS	43.28	153.6	8	4	5								
ROXBURGH	43.38	157.9				14	27	3			17	41	
HONG KONG	43.40	311.8	8	1	1	14	22	-2			13	42	PCS
MATUSIRO	43.45	348.8	8	0A	0	14	28	3					
CANTON	44.49	312.0	8	10A	1								
ZO-SE	44.96	327.1	8	11A	-1	14	44	-2					
NANKING	47.02	325.8	8	30A	1	15	23	7					
KUNMING	53.72	307.3	9	20	0								
CHANGCHUN	53.78	340.0	9	19	-1								
PEKING	54.44	330.4	9	23A	-2	16	59	1					
PAOTOW	58.04	326.7	9	50A	-1								
LANCHOW	58.84	318.9	9	57A	1	18	1	5					
CHITTAGONG	61.65	299.4	10	15	0								
ULAN-BATOR	64.76	330.9	10	35A	-1								
LHASA	65.03	306.6	10	38A	0								
ESEN BULAK	69.47	324.7	11	5	0								
NEW DELHI	76.12	301.3	11	43K	-2								
POONA	76.85	290.6	11	48	-1								
WARSAK DAM	82.12	305.5	12	17	0								
COLLEGE	85.06	22.7	12	30	-2						12	54	
QUETTA	85.19	300.9	12	32	-1								
CALISTOGA	93.57	51.7	13	14K	2								
LICK	94.20	53.0	13	17K	2								
PENTICTON	96.37	41.1	13	24	-1								
PASADENA	96.81	56.4	13	28	1								
EUREKA	98.75	51.1	13	36	0						17	36	PP
FLAMING GRGE	103.75	49.5	13	59	1								
ALBUQUERQUE	106.46	55.5	18	21	777								
WICHITA MTS.	112.92	55.0	18	34	2						19	36	PP
PRUHONICE	121.43	326.5	18	51	3								
COLLMBERG	121.54	328.5	18	49	0								
KASPERSKE H.	122.42	326.1	18	50	0								
JENA	122.48	328.7									25	8	

STUTTGART	124.96	327.6	18	56	1							
SHAWINIGAN	126.82	34.1	19	0	1							
BREBEUF	126.94	35.6	19	0K	1							
SEVEN FALLS	127.53	32.5	19	0A	0							
HUANCAYO	133.47	112.9	19	14	3							
LA PAZ	137.94	122.9	19	24	4						22	49 PKS
SAN JUAN	144.84	66.8	19	32	0							
ST. KITTS	148.22	67.0	19	44	6							
ST. VINCENT	150.58	74.2	19	48	7							
TRINIDAD	150.83	79.3	19	49	8							

FEBRUARY 23 20.H 21.M 25.S EPICENTRE -3.72 152.19 DEPTH= 0.KM

A=-0.88267 B= 0.46555 C=-0.06452 D= 0.4665 E= 0.8845
G= 0.0571 H=-0.0301 K=-0.9979 HT= 7.1

SE= 2.35

	DELTA	AZ.	P	O-C	S	O-C	*PP		SUPP.	
	DEG.	DEG.	M	S	S	M	S	S	M	S
RABAUL	0.47	182.6	0	11	-2					
PORT MORESBY	7.54	221.4	1	55K	1	3	14	-7		
HONIARA	9.57	126.7	2	21	-1	4	12	1		
CHARTERS TS.	17.26	199.1	4	3	-1	7	27	12		
GUAM	18.61	336.7	4	20	-1					
KOUMAC	20.46	145.8	4	40A	-2					
PORT VILA	21.06	132.5	4	50	2					
DARWIN	22.81	246.6	5	10	5	9	16	5		
NOUMEA	23.07	144.4	5	5A	-3	9	22	7		
BRISBANE	23.54	178.7	5	13	0	9	29	5		
SUVA	29.42	121.1	6	59	52	11	49	48	13	25 SS
RIVERVIEW	29.97	181.7	6	10A	-2	11	7	-3	7	12 PP
CANBERRA	31.58	185.0	6	24A	-2	11	35	0		
ADELAIDE	33.51	200.3	6	41A	-2	12	3	-2		
MELBOURNE	34.58	190.1	6	51	-1	12	21	-1		
MANILA	35.84	301.3	6	54	-9	12	26	-15	8	19
AFIAMALU	36.96	108.2	7	18	5				8	41 PP
TARRALEAH	38.75	186.8	7	28	0					
MOORLANDS	38.81	185.9	7	28	0					
FORT NELSON	39.28	185.6				13	29	-4		
CHATEAU	41.19	152.1	7	47	-1					
TUKUBASAN	41.31	345.1	7	47A	-2	13	56	-8	9	13 PP
COBB RIVER	41.52	156.4	7	51	1					
TUAI	41.65	150.3	7	51	-1				18	26 SCS
MATUSIRO	42.13	343.1	7	53	-2	13	55	-21	9	37 PP
KAIMATA	42.26	158.8	7	57	0	14	28	10		
WELLINGTON	42.53	154.7	7	58	-1	14	22	0	9	53 PP
GEBBIES PASS	43.73	158.5	8	7	-2	14	37	-2		
MUNDARING	43.92	226.0	8	8K	-2	14	39	-3		
PERTH	44.18	226.3				14	45	-1	18	7 SS
ROXBURGH	44.21	162.7				14	43	-3	18	17
HONG KONG	45.27	306.6	8	22	1	15	7	5	10	55 PPP
ZO-SE	45.53	321.7	8	23K	0	15	1	-4		
NHATRANG	45.56	291.0	8	22	-1	14	52	-14		
CANTON	46.33	307.0	8	31K	2	15	14	-3		
NANKING	47.68	320.8	8	40K	0	15	33	-3		
VLADIVOSTOK	50.10	340.7	8	57	-2					
Y.-SAKHLINSK	51.21	351.7	9	6	-1	16	26	1		
CHANGCHUN	53.15	335.9	9	20K	-2	16	46	-6		
PEKING	54.66	326.4	9	32K	-1	17	5	-7		
SIAN	55.55	316.5	9	39K	0	17	17	-7		
KUNMING	55.89	303.7	9	42K	0					
PETROPAVLOVK	56.80	4.7	9	47	-1	17	35	-6		
CHENGTU	57.27	310.2	9	51	-1	17	39	-8		
PAOTOW	58.56	323.2	10	0K	-1	17	56	-8		
LANCHOW	60.03	315.6	10	11K	0					
MAGADAN	63.09	359.2	10	30	-1					
CHITTAGONG	64.39	296.8	10	41	1					
ULAN-BATOR	64.88	328.1	10	43K	0	19	23	-1		
SHILLONG	65.26	300.2	10	46K	0	19	35	6	23	39 SS
LHASA	67.21	304.2	10	59K	1	20	20	28		
CALCUTTA	67.51	296.1	11	0	0	20	7	11		
HOWRAH	67.56	296.1	11	2	2				12	47
YAKUTSK	67.79	348.8	11	0K	-2	19	55	-4		
WILKES	68.91	196.7				20	7	-6		
CHATRA	69.66	300.2	11	14A	1	20	27	6		

ESEN BULAK	70.11	322.4	11	17	1	20	32	5			
BOKARO	70.12	296.8	11	17	1	20	31	4			
VISHAKHAPTNM	71.15	290.0	11	24	2	20	47	8			
MADRAS	73.38	284.7	11	37	1	21	6	2	14	22	PP
SCOTT BASE	74.47	176.8	11	50	8						
TIKSI	76.74	352.6	11	52K	-3						
NEW DELHI	78.66	300.0	12	5A	0	22	2	0			
POONA	80.16	289.4	12	14A	1	22	21	3	27	35	SS
COLLEGE	81.09	22.0	12	17	-1						
BOMBAY	81.17	289.7	12	20	1	22	27	-2	15	24	PP
SEMIPALATNSK	81.47	322.0	12	19	-1						
LAHORE	81.63	302.5	12	21	0						
WARSAK DAM	84.32	304.5	12	34	-1						
ANDIJAN	84.72	311.3	12	38K	1						
NAMANGAN	85.28	311.5	12	41K	1						
TASHKENT	87.12	311.5	12	49K	0						
QUETTA	87.74	300.3	12	52	0	23	22	-11	23	7	SKS
PENTICTON	91.61	40.9	13	19	9						
CHINA LAKE	92.32	54.4	13	30	17						
SVERDLOVSK	93.95	326.6	13	24	3						
COLEMAN	94.95	40.7	13	24	-1						
RESOLUTE	99.53	14.4	13	50	4						
TEHERAN	100.93	305.5				26	17	106	17	59	PP
ALBUQUERQUE	101.43	55.3	14	3	8						
GORIS	104.59	309.7	14	7	-2						
TIFLIS	105.43	312.2							18	36	PP
MOSCOW	106.73	327.5	14	22	777						
WICHITA MTS.	107.89	54.8				25	5	2	18	48	PP
SIMFEROPOL	112.26	317.4							19	24	PP
KSARA	113.83	305.3							19	47	PP
UPPSALA	114.15	336.8							35	27	SS
COLLMBERG	121.63	331.2	19	2	6				20	39	PP
PRUHONICE	121.69	329.3							20	39	PP
JENA	122.55	331.5	19	22	24				20	33	PP
KASPERSKE H.	122.71	328.9	18	59	1				20	12	
STUTTGART	125.10	330.8	19	3	1				43	4	SSS
MESSINA	127.69	316.9							23	23	
HUANCAYO	130.23	109.1	19	21	9						
CHINCHINA	132.32	86.7							22	44	PKS
BOGOTA	133.86	87.2							22	52	PKS
FUQUENE	134.20	86.0	19	28	8				22	53	PKS
LA PAZ	135.37	117.9	19	26	4				23	1	PKS
TOLEDO	138.08	332.4	19	25	-2						
TRINIDAD	145.99	76.5	19	39	-2						

FEBRUARY 26 1.H 13.M 17.S EPICENTRE 42.06 141.56 DEPTH= 49.KM

A=-0.58329 B= 0.46292 C= 0.66744 D= 0.6217 E= 0.7833
G=-0.5228 H= 0.4149 K=-0.7447 HT= -2.4

DEPTH OF FOCUS= 0.002R

SE= 6.51

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
MURORAN	0.50	300.9	0	13	0	0	27	5				
TOMAKOMAI	0.57	1.3	0	14	1	0	30	7				
HAKODATE	0.65	247.5	0	12K	-2	0	26	1				
MORI	0.74	273.3	0	16K	1	0	35	8				
URAKAWA	0.91	84.1	0	9A	-8	0	23	-7				
SAPPORO	1.02	351.2	0	20K	2	0	38	6				
SUTTSU	1.23	307.2	0	24	3	0	47	10				
HIROO	1.32	79.9	0	14	-8	0	30	-10				
AOMORI	1.37	205.6	0	17	-6	0	33	-8				
OBIHIRO	1.48	54.1	0	22	-3	0	42	-1				
HATINOHE	1.53	180.9	0	12	-13	0	29	-16				
RUMOE	1.89	1.3	0	33	3	1	4	11				
KUSIRO	2.29	65.4	0	27K	-9	0	52	-11				
MORIOKA	2.38	187.3	0	28	-9	0	55	-11				
MIYAKO	2.43	172.6	0	24	-14	0	45	-22				
AKITA	2.59	205.8	0	43	3	1	5	-6				
MIZUSAWA	2.95	186.6	0	37	-8	1	8	-12				
NEMURO	3.22	65.5	0	39	-10	1	12	-15				
WAKKANAI	3.36	1.4									1	17
SAKATA	3.42	203.3	0	49	-3	1	26	-6				
ISINOMAKI	3.63	183.0	0	44	-11	1	18	-19				

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SENDAI	3.82	187.9	0 49 -9	1 26 -16		
YAMAGATA	3.92	194.1	0 49 -10	1 30 -14		
HUKUSIMA	4.39	191.4	0 56 -10			
NIIGATA	4.56	205.8			2 2	
AIKAWA	4.77	213.3	1 5 -6		2 40	
Y.-SAKHLINSK	5.03	9.1	1 14 -1	2 15 3		
SHIRAKAWA	5.04	192.3	1 7 -8	2 3 -10		
ONAHAMA	5.13	185.9	1 16 0	2 5 -10		
UTUNOMIYA	5.66	194.0	1 13 -10	2 19 -9		
MITO	5.74	188.9	1 18 -6	2 38 8		
KAKIOKA	5.92	190.9	1 16 -11	2 28 -7		
TUKUBASAN	5.94	191.5	1 14K -13	2 18 -17		
MAEBASI	5.98	199.7	1 27 -1	2 31 -5		
NAGANO	5.98	206.9	1 35 7	3 8 32		
MATUSIRO	6.10	206.3	1 20 -9	2 50 11	2 31	
KUMAGAYA	6.14	196.7	1 29 -1	2 39 -1		
OIWAKE	6.18	203.2	1 28 -3	2 34 -7		
TYOSI	6.36	185.2	1 18 -15	2 42 -3		
TITIBU	6.37	198.5	1 44 11			
MATUMOTO	6.44	206.9	1 30 -4			
TOKYO C.M.O.	6.53	193.1			2 14	
YOKOHAMA	6.79	193.3			2 54	
KOHU	6.80	201.1	1 49 10			
HUNATU	6.91	199.3	1 36 -5	3 8 9		
IIDA	7.15	205.3	1 39 -5	3 9 4		
VLADIVOSTOK	7.21	281.7	1 45 0			
MISIMA	7.23	197.3	2 30 45			
AJIRO	7.26	196.2	1 33 -13	2 49 -19		
OSIMA	7.48	193.9			2 54	
SHIZUOKA	7.50	200.3	1 48 -1	3 19 5		
GIHU	7.63	210.9	2 1 10			
NAGOYA	7.76	209.1	1 49 -4	3 18 -2		
OMAESAKI	7.90	200.5			3 24	
HIKONE	7.95	213.2	2 9 14			
KAMEYAMA	8.23	210.7			2 44	
PETROPAVLOVK·	15.87	40.5		6 21 -12		
PEKING	19.24	272.4	4 16 -7	7 42 -10		
ZO-SE	19.64	242.7	4 20 -7	7 53 -7		
YAKUTSK	21.21	344.5	4 36 -7	8 32 1		
ULAN-BATOR	25.06	295.4	5 18 -3	9 42 3		
LANCHOW	29.74	271.0	6 0 -4			
LHASA	42.22	269.7	7 47 -3	14 7 1		
SHILLONG	43.82	264.2	7 57 -6			
COLLEGE	44.84	34.8	8 4 -7		8 48	
CHITTAGONG	45.74	260.5	8 13 -5			
SVERDLOVSK	51.53	316.1	8 57 -6			
MOULD BAY	51.70	17.5	8 58 -6			
LAHORE	53.59	282.0	9 14 -4			
WARSAK DAM	54.34	286.1	9 18 -6			
ALERT	55.11	3.7	9 23 -6			
RESOLUTE	57.72	15.2	9 40A -8		10 3	
QUETTA	59.67	284.7	9 56 -5			
THULE	60.27	7.8	9 55 -10			
SODANKYLA	60.40	336.2	10 5 -1			
KIRUNA	61.88	338.4	10 34 18			
KAJAANI	62.15	333.0	10 13 -5			
UMEA	64.76	335.2	10 42 7			
NURMIJARVI	65.59	331.0	10 35 -6		10 57	
HELSINKI	65.71	330.6			11 1	
SKALSTUGAN	67.29	338.0	11 9 18			
TIFLIS	67.86	306.6	10 47 -8			
UPPSALA	68.51	333.2	11 11 12			
MINERAL	68.73	54.5	10 53K -7			
RENO	70.32	54.3	11 21 11			
EUREKA	72.65	52.3	11 16 -8		11 47	
CHINA LAKE	74.03	56.1	11 41 9			
FLAMING GRGE	75.44	47.7	11 33 -7			
COLLMBERG	76.82	329.7	11 45 -3		12 20	
LARAMIE	77.23	45.4	11 48 -2			
PRUHONICE	77.27	328.1	12 4 13		12 24	
JENA	77.64	330.2	12 9 16			
KASPERSKE H.	78.33	328.1	11 53 -3		12 15	
KSARA	78.34	305.1	11 54 -2			
ALBUQUERQUE	81.27	50.4	12 6 -6			
MANHATTEN	83.41	41.6	12 30 7			
DUBUQUE	83.56	36.0	12 38 14			
FLORISSANT	86.69	38.0	12 47 8			
ROLLA	86.70	39.5	12 48 9			
FAYETTEVILLE	87.02	42.1	12 33K -8		13 15 *SP	

BREBEUF 87.34 23.9 12 38 -5

FEBRUARY 26 8.H 44.M 56.S EPICENTRE -0.49 122.11 DEPTH= 86.KM

A=-0.53150 B= 0.84701 C=-0.00850 D= 0.8470 E= 0.5315
G= 0.0045 H=-0.0072 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.008R

SE= 2.43

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
DARWIN	14.64	144.1	3 21	-2				
MANILA	15.10	356.2	3 33	4	6 27	13		
LEMBANG	15.76	246.1	3 39	1	6 44	14		
DJAKARTA	16.26	249.3	3 56	12				6 55
TANGERANG	16.44	249.6	3 51	5				
NHATRANG	17.98	315.0	4 4	-1	7 28	8		
HONG KONG	23.94	341.6	5 2	-4	9 22	8		
CANTON	24.94	340.6	5 17	1	9 38	7		
PORT MORESBY	26.45	110.3	5 32A	2	10 27	31		6 23 PP
RABAUL	30.26	97.5	6 4	0				
CHARTERS TS.	30.63	131.0	6 7	-1				
ZO-SE	31.43	358.5	6 14	-1	11 20	5		
KUNMING	31.61	325.0	6 19	3	11 25	7		
MUNDARING	31.80	189.5	5 16	-62				
NANKING	32.53	354.7	6 23	-1	11 36	4		
CHENGTU	35.44	332.5	6 49	0	12 20	3		
SIAN	36.71	341.6	7 1	1	12 42	6		
CHITTAGONG	37.24	309.5	7 5	1	12 45	0	7 12	
ADELAIDE	37.65	157.4	7 7	-1			7 18	
HONIARA	38.69	104.5	7 15	-2				
SHILLONG	39.05	313.8	7 19	0	13 20	8		
MATUSIRO	39.76	20.4	7 23A	-2	13 24	1		
BRISBANE	40.00	134.7	7 29	1	13 41	15		
LANCHOW	40.14	336.8	7 30	1	13 33	5		
PEKING	40.69	353.0	7 31	-2	13 33	-4		
LHASA	42.14	318.0	7 47	2	14 7	9		
VISHAKHAPTNM	42.26	297.3	7 48	2				
PAOTOW	42.33	346.3	7 48	1	14 6	5		
CANBERRA	42.76	147.0	7 50A	0				
RIVERVIEW	42.91	143.6	7 53	2				15 9
CHATRA	43.22	311.6	7 54	0	14 20	6		
VLADIVOSTOK	44.30	10.3	8 1	-1	14 30	1		
ULAN-BATOR	50.00	346.7	8 45	-2	15 55	5		
POONA	51.03	294.4	8 52	-3				
NEW DELHI	51.77	307.8	8 59A	-1				
DEHRA DUN	51.90	310.2			16 23	7		9 26
BOMBAY	52.07	294.5	9 2	-1	16 23	5		16 45
UGLEGORSK	52.30	16.5	9 5K	1				
IRKUTSK	54.66	346.7	9 23	1				
LAHORE	55.30	309.7	9 26	0	17 9	7		
WARSAK DAM	58.46	311.2	9 48	-1	17 51	7		
QUETTA	60.63	305.4	10 2	-2	18 16	5	10 9	12 21 PP
KAIMATA	60.81	140.0	10 15	10				
ANDIJAN	60.96	318.5	10 6	0	18 25	9		
PETROPAVLOVK	61.41	24.2	10 8	-1				
NAMANGAN	61.53	318.4	10 10	0	18 31	8		
KARAPIRO	61.56	133.8	10 10	0				
CHATEAU	62.08	135.1	10 15	2				
YAKUTSK	62.62	4.0	10 15	-2	18 40	3		
TUAI	63.06	134.1	10 19	-1				
TASHKENT	63.29	317.8	10 23	1				
MAGADAN	63.93	15.8	10 26	0	18 59	6		
SAMARKAND	64.16	315.3	10 27	0				
SVERDLOVSK	75.20	330.0	11 37	3				
TANANARIVE	75.24	250.7	11 36A	1				12 7
AMDERMA	80.58	342.1	12 4	0				
TIFLIS	80.86	312.3	12 7	1				
KHEYS	86.37	351.5	12 25	-8				
COLLEGE	90.47	25.3	12 52	-1				
LWIRO	93.29	267.7						25 47 PS
EUREKA	114.49	46.2	18 32	2				
ALBUQUERQUE	123.26	47.4	18 48	1				
MANHATTEN	127.72	37.9	18 57K	2				
ROLLA	131.37	36.1	18 32K	-30				

LITTLE ROCK	133.12	39.6	19	8	3
BLOOMINGTON	133.44	30.8	19	9	3

FEBRUARY 27 5.H 40.M 53.S EPICENTRE 36.65 71.13 DEPTH= 83.KM

A= 0.26005 B= 0.76103 C= 0.59432 D= 0.9463 E=-0.3234
G= 0.1922 H= 0.5624 K=-0.8042 HT= -0.5

DEPTH OF FOCUS= 0.008R

SE= 2.57

	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	
KHOROG	0.89	20.8	0	20	1	0	35	2					
GARM	2.44	344.5	0	41	2								
DZERGETAL	2.57	1.7	0	43	2								
WARSAK DAM	2.66	172.5	0	39A	-3	1	8	-6					
DUZHANBE	2.68	316.3	0	44	2						1	21	
ANDIJAN	4.21	12.9	1	4K	1	1	53	1					
NAMANGAN	4.35	5.4	1	6	1	1	56	1			1	32	*SP
TASHKENT	4.88	343.4	1	13K	0	2	9	0			1	32	
LAHORE	5.73	151.6	1	19	-5	2	18	-12					
TCHIMKENT	5.77	348.6	1	25	0	2	27	-3			3	6	
NARYN	6.09	36.9	1	28	-1								
FRUNSE	6.73	22.4	1	38	0	2	52	-2			2	5	*SP
QUETTA	7.34	209.6	1	45	-2	3	5	-4			2	13	*SP
FABRICHNAYA	7.65	30.5	1	49	-2								
ALMATA	7.98	32.2	1	55	0	3	21	-4			2	46	
PRZHEVALSK	8.08	41.7	1	56	-1								
DEHRA DUN	8.55	135.6	1	59	-4	3	24	-15			3	37	SS
CHILIK	8.93	36.5	2	5	-3								
NEW DELHI	9.53	145.9	2	9A	-7	3	44	-19			4	54	
ASHKABAD	10.27	281.1	2	23	-3	4	14	-6			2	51	*SP
KARACHI	12.29	197.7	2	48	-5						3	16	SP
SEHORE	14.38	157.4	3	43	22	5	59	1			6	22	SSS
SEMIPALATNSK	15.23	22.7	3	33	1	6	25	7					
TEHERAN	15.97	272.6	3	43	2	6	51	16					
CHATRA	16.77	121.2	3	44	-7	6	38	-15					
BOMBAY	17.74	174.8	4	29	26	7	47	32			7	18	
POONA	18.21	171.7	4	21	12	7	28	3			7	43	SS
MAKHACH-KALA	19.19	296.5	4	16	-4								
GORIS	19.72	285.8	4	26	1								
CALCUTTA	20.51	128.6	5	5	31						8	9	
SHILLONG	20.86	116.1	4	33	-4	7	53	-27			4	51	PP
TIFLIS	20.99	292.0	4	41A	2						8	41	
SVERDLOVSK	21.38	344.0	4	42K	0						8	43	
VISHAKHAPTNM	21.70	147.1	4	50	4	8	44	9					
CHITTAGONG	22.89	122.8	4	52	-5	8	39	-18	5	16	5	28	PP
MADRAS	24.91	158.7	5	40	23						12	36	
MOSCOW	29.61	320.8	5	59	0								
ISTANBUL UN.	32.88	290.8									18	43	
HELSINKI	37.52	323.7	7	8	0						8	35	PP
APATITY	37.52	337.3	7	7	-1								
KAJAANI	37.76	330.4	7	10	0								
NURMIJARVI	37.77	324.1	7	10A	0				7	29	8	37	PP
SODANKYLA	39.65	334.8	7	26	1								
UMEA	40.74	328.2	7	34	0								
UPPSALA	41.02	321.8	7	37	0								
KARLSKRONA	41.65	316.0	7	43	1								
KIRUNA	42.00	334.0	7	45	0								
KASPERSKE H.	42.98	305.6	7	53	0						9	33	
COLLMBERG	43.18	308.8	7	56A	2				8	21	9	33	PP
GOTEBORG	43.71	318.2	7	58	-1								
HALLE	43.83	309.2	8	0	1						10	48	
SKALSTUGAN	44.14	326.6	8	2	0								
TIKSI	45.59	22.0	8	11	-3	14	45	-4			17	36	
STUTTGART	45.84	305.6	8	17	1								
ROSELEND	48.20	301.9	8	34A	0								
KEW	51.41	310.7	8	59A	0								
FOLINIERE	52.16	307.3	9	4	0								
SIDA	57.49	328.2	8	44	-59								
THULE	64.33	350.2	10	49	20								
MOULD BAY	67.20	2.7	10	46	-1								
COLLEGE	74.32	16.2	11	28	-2								
CHARTERS TS.	90.51	114.7	12	50	-4								

FEBRUARY 27 5.H 52.M 28.S EPICENTRE 62.95-149.89 DEPTH= 101.KM

A=-0.39550 B=-0.22934 C= 0.88937 D=-0.5016 E= 0.8651
G=-0.7694 H=-0.4461 K=-0.4572 HT= -9.8

DEPTH OF FOCUS= 0.011R

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	
COLLEGE	2.13	24.5	0	36	1	0	56	-5					
SITKA	9.38	122.5	2	11	-3								
MOULD BAY	16.71	25.1	3	48	-1						6	54	
VICTORIA	20.54	122.4	4	33K	1						5	7	
PENTICTON	21.42	115.4	4	42	1								
RESOLUTE	22.01	35.5	4	47K	0								
HUNGRY HORSE	24.53	109.7	5	12	1						13	2	
ALERT	27.84	16.4	5	42A	0								
BOZEMAN	27.90	110.0	5	45	3								
MINERAL	28.21	130.0	5	7K	-38								
THULE	28.36	29.5	5	47	1								
CALISTOGA	29.40	133.0	6	17K	21								
BERKELEY	30.21	133.2	6	24A	21				6	35			
LICK	30.89	132.7	6	30A	21								
EUREKA	31.04	123.1	6	11	1				6	31	12	38	SCP
FLAMING GRGE	32.45	113.5	5	53	-29				6	12			
RAPID CITY	32.59	103.2	6	24	0				6	55			
CHINA LAKE	33.67	128.4	6	54	21								
LARAMIE	33.77	108.8	6	35	1								
GLEN CANYON	34.92	119.9	7	5	21								
ALBUQUERQUE	38.75	115.5	7	14	-2						13	7	SCP
TUCSON	39.37	122.7	7	44	23								
MANHATTEN	39.46	101.4	7	22A	0				7	43			
DUBUQUE	39.48	92.6	7	21	-1				7	41			
LUBBOCK	41.86	111.5	7	42	1								
WICHITA MTS.	42.29	107.2	7	46	1				8	6	8	41	
FLORISSANT	42.59	95.7	7	47	0						8	8	
ROLLA	42.63	97.9	7	42A	-6				8	3			
ST. LOUIS 1	42.79	95.7	7	49	0								
FAYETTEVILLE	43.09	101.6	7	50A	-1						8	54	
BLOOMINGTON	44.04	91.8	7	59	0				8	30			
SHAWINIGAN	44.44	73.9	8	3	1								
SEVEN FALLS	44.85	71.9	8	6	0								
BREBEUF	44.88	75.5	8	6K	0				8	37			
LITTLE ROCK	45.01	100.9	8	6	-1								
MORGANTOWN	46.68	85.7	8	21	1								
KEVO	47.55	1.5	8	26	-1								
KIRUNA	49.32	4.8	8	40K	-1								
APATITY	49.77	358.3	8	43	-1								
HALIFAX	49.93	68.6	8	45A	0								
SODANKYLA	49.95	1.8	8	46	1								
MATUSIRO	50.09	273.6	8	47A	1								
SKALSTUGAN	53.08	9.9	9	9	0								
KAJAANI	53.27	1.3	9	11	1								
UMEA	53.32	5.4	9	12K	1						10	16	PCP
NURMIJARVI	56.79	3.2	9	33	-3								
HELSINKI	57.14	3.1	9	36	-2								
UPPSALA	57.15	7.5	9	37	-1								
GOTEBORG	58.87	11.3	10	0	10								
KASPERSKE H.	67.50	11.7	10	48	1								
ROSELEND	70.10	17.3	11	3	0								
KIMBERLEY	145.62	8.3	19	28K	2								
SOUTH POLE	152.79	180.0	19	48	11								

FEBRUARY 27 6.H 34.M 57.S EPICENTRE 27.57 102.13 DEPTH= 63.KM

A=-0.18660 B= 0.86787 C= 0.46042 D= 0.9777 E= 0.2102
G=-0.0968 H= 0.4501 K=-0.8877 HT= 2.6

DEPTH OF FOCUS= 0.005R

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KUNMING	2.50	167.3	0	36K	-4	1	8	-2			0	40	PG
CHENGTU	3.49	27.6	0	55	1	1	52	18			1	4	PG

TOCKLAI	6.61	264.6	1	52	15	2	56	4	3	33	SG
LANCHOW	8.57	9.3	2	5	1	3	48	8			
SIAN	8.84	39.5	2	5A	-3	3	43	-4			
SHILLONG	9.40	260.1	2	10	-6	3	57	-4			
LHASA	9.97	284.5	2	19	-4	4	15	1			
CHITTAGONG	10.70	243.2	2	27	-6	4	23	-9	2	38	•SP
CANTON	11.07	111.3	2	38K	0	4	46	5			
HONG KONG	12.11	113.0				5	2	-4	8	13	
CHATRA	13.34	270.3	3	3A	-5	5	29	-7	5	41	SS
CALCUTTA	13.44	251.1							6	40	
PAOTOW	14.52	24.7	3	22	-2	6	3	0			
NANKING	15.12	68.8	3	31	-1	6	28	10			
NHATRANG	16.65	155.1	3	50	-1						
ZO-SE	16.97	73.5	3	54	-1	7	10	10			
PEKING	17.02	39.5	3	57A	2	7	13	12			
PORT BLAIR	18.12	211.0	3	38	-31						
VISHAKHAPTNM	19.93	244.5	4	31	1	8	17	12			
ULAN-BATOR	20.65	9.1	4	37	0	8	24	5			
DEHRA DUN	21.25	283.1	4	48	5				11	35	
NEW DELHI	22.02	278.5	4	47A	-4						
LAHORE	24.48	286.0	5	14	-1						
IRKUTSK	24.72	3.2	5	22	5						
CHANGCHUN	24.72	42.9	5	20	3	9	49	17			
MADRAS	25.12	239.1	5	21	0						
ALMATA	25.68	314.2	5	28K	2	10	5	17			
WARSAK DAM	26.98	291.3	5	36	-2						
POONA	27.49	256.9	5	45	2	10	29	12			
ANDIJAN	27.77	306.0	5	45K	0						
BOMBAY	28.23	258.5				10	46	17	14	58	
SEMIPALATNSK	28.24	329.7	6	7	18						
NAMANGAN	28.35	306.1	5	51	1						
VLADIVOSTOK	28.62	49.4	5	47	-6						
TASHKENT	30.17	305.6	6	6	-1						
QUETTA	30.85	283.3	6	10	-3	11	24	13	6	22	7 4 PP
SAMARKAND	31.47	301.6	6	17	-1						
MATUSIRO	31.71	64.5	6	20K	0	11	41	17			
TANGERANG	33.82	172.0	6	37A	-1						
YAKUTSK	39.01	20.3	7	22	0						
SVERDLOVSK	41.40	326.6	7	42A	0						
TIKSI	46.53	11.3	8	23	0						
AMDERMA	48.19	342.4	8	44	8						
PETROPAVLOVK	48.49	42.3	8	39	0						
KHEYS	56.03	352.1	9	36A	1						
KSARA	56.45	293.9	9	37	-1						
APATITY	56.71	334.7	9	38	-2						
RABAUL	57.64	115.2	9	47	1						
KAJAANI	58.78	330.3	9	54	0						
KEVO	59.27	337.0	9	56	-2						
SODANKYLA	59.30	334.2	9	58	0						
HELSINKI	60.18	325.8	10	4	0						
NURMIJARVI	60.31	326.2	10	4A	-1						
KIRUNA	61.67	334.7	10	13A	-1						
UMEA	62.08	330.2	10	16A	-1						
UPPSALA	63.87	326.0	10	28	-1						
SKALSTUGAN	65.62	330.6	10	39A	-1						
COLLMBERG	68.48	317.6	10	59	1				13	36	PP
KASPERSKE H.	68.78	315.2	11	5	5						
ALERT	69.90	357.9	11	7	0						
ADELAIDE	71.17	148.9	11	17	3						
MOULD BAY	73.28	9.5	11	28K	1						
COLLEGE	73.36	24.8	11	28	1				13	17	
ROSELEND	74.41	313.6	11	32	-1				11	57	
THULE	76.08	357.7	12	43	60						
CLERMONT-FD.	76.62	314.7	11	55	9						
RESOLUTE	77.40	4.6	11	51K	1						
SIDA	77.63	336.9	11	55	4						
PENTICTON	94.89	25.9	13	13	-4						
EUREKA	104.42	29.5							18	19	

FEBRUARY 27 12.H 40.M 54.S EPICENTRE -37.20 -72.26 DEPTH= 77.KM

A= 0.24336 B=-0.76053 C=-0.60197 D=-0.9524 E=-0.3048
G=-0.1835 H= 0.5733 K=-0.7985 HT= -0.7

DEPTH OF FOCUS= 0.007R

SE= 3.57

	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	
SANTIAGO	4.19	22.7	1	0	-3								
ANTOFAGASTA	13.55	7.2	3	9	-1	6	15	36					
AREQUIPA	20.67	2.1	4	37	2								
LA PAZ	20.94	11.1	4	41A	3	8	44	22					
HUANCAYO	25.19	352.9	5	21	2	9	46	9					
CHINCHINA	42.07	355.0	7	45	0	14	17	18			14	37	PS
CARACAS	47.71	7.1	8	31A	1						10	36	PP
FORT FRANCE	52.70	13.6	9	10	2								
SOUTH POLE	52.99	180.0	9	3	-8	16	42	9					
SAN JUAN	55.58	7.1	9	30	1								
COMITAN	56.36	336.9				17	24	6					
MERIDA	60.11	341.2									12	12	PP
VERA CRUZ	60.44	333.9									25	24	
TACUBAYA	61.76	331.0	10	23	11	18	33	5			12	37	PP
HERMANUS	71.24	119.2	11	16	4	20	37	15			11	37	PCP
CHIHUAHUA	72.77	329.2									25	21	SS
M.BOUR	73.02	56.4	11	25	2	21	5	22					
LITTLE ROCK	74.01	342.9	11	25	-4								
LUBBOCK	75.62	334.8	11	39	1								
WICHITA MTS.	75.63	337.8	11	34	-4	21	17	5			14	25	PP
FAYETTEVILLE	75.70	341.8	11	36	-2						14	45	PP
GEORGETOWN	75.85	356.1	11	38	-1	21	23	9					
WINDHOEK	76.23	107.9	11	13	-28						11	40	
WILKES	76.77	181.2	11	40	-4	21	22	-2			26	22	SS
MORGANTOWN	76.78	353.9	11	45K	1								
ROLLA	76.90	344.2	11	37A	-8	21	27	2	11	46			
BLOOMINGTON	77.14	348.7	11	44	-2	21	31	3	11	53			
ST. LOUIS 1	77.26	345.7	11	44K	-3	21	33	4	11	53			
FLORISSANT	77.44	345.6	11	45A	-3	21	35	4					
PALISADES	77.84	358.7	11	49	-1	21	47	11					
TUCSON	77.92	327.3	11	48	-3								
KIMBERLEY	78.34	117.1	11	51K	-2								
ALBUQUERQUE	78.51	331.9	11	51	-3								
LAWRENCE	78.70	341.9	11	54	-1								
CLEVELAND	78.76	352.9	11	58A	3	21	49	4					
MANHATTEN	79.25	341.0	11	55	-3				12	3			
CHICAGO USA.	79.97	348.4	12	2	0								
ROXBURGH	80.77	218.8	12	8	2	22	0	-6			27	16	SS
TUAI	81.02	227.8	12	10	3								
DUBUQUE	81.09	346.3	12	3	-5	22	13	3					
CHATEAU	81.70	226.6	12	11	0								
HALIFAX	81.81	6.2	12	12A	0								
GLEN CANYON	82.29	329.2	12	9	-5								
BREBEUF	82.33	359.0	12	16	2	22	30	8					
KARAPIRO	82.54	227.6	12	15	0								
PASADENA	82.86	323.1	12	17	0	22	37	9			28	0	SS
SHAWINIGAN	83.37	359.6	12	19	-1								
LARAMIE	83.87	335.4	12	19	-3								
SEVEN FALLS	83.95	1.0	12	21A	-1								
FLAMING GRGE	84.87	332.7	11	55	-32								
RAPID CITY	85.63	338.2	12	28	-3						12	55	
EUREKA	86.24	327.6	12	31	-3						30	29	PKKP
LICK	87.09	322.7	12	32	-6								
BERKELEY	87.81	322.6	12	44A	3	23	6	-10			25	12	PPS
RENO	87.99	325.2	12	40	-2								
CALISTOGA	88.57	322.9	12	43A	-2								
MINERAL	89.46	324.6	12	44	-5								
BOZEMAN	89.59	333.9	12	52	2								
BUTTE	90.43	333.2	12	54	0								
FORT NELSON	92.48	207.9				23	51	-7					
HUNGRY HORSE	92.93	333.6	13	2	-3								
MOORLANDS	92.97	208.1	13	14A	8								
BANGUI	93.32	87.0	13	8	1						16	47	
TARRALEAH	93.36	207.7	13	15	8								
PENTICTON	95.81	331.1	13	16	-2								
BANFF	95.84	334.3	13	22	3								
VICTORIA	96.70	328.6	13	22	-1								
LWIRO	97.44	98.5	13	26	0						17	25	PP
GRANADA	97.48	48.6				24	18	23			17	42	PP
ALBERNI	97.87	328.3	13	38	10								
ALMERIA	97.94	49.5	13	33	5	24	6	8					
CANBERRA	98.31	213.0									31	30	SS
RIVERVIEW	98.59	215.3	13	25	-6	24	1	0			26	18	PS
TOLEDO	98.99	46.3	13	42	9	24	15	12			17	46	PP
BRISBANE	103.08	220.2	14	8	17	25	27	64					
BAGNERES	103.46	45.9									18	12	PP

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CLERMONT-FD.	106.79	45.0								25	5
GARCHY	107.65	43.7								18	51 PP
KEW	108.35	38.8								28	16 PS
DURHAM	109.72	35.5								28	35 PS
DOURBES	110.10	41.9	14	32	-230	25	9	16			
ROME	110.23	52.4								28	34 PS
STRASBOURG	110.99	44.5								19	20 PP
DE BILT	111.51	40.3								19	6 PP
STUTTGART	111.94	44.9								19	21 PP
TARANTO	112.58	55.7								25	27
RESOLUTE	112.60	353.6								21	46
TRIESTE	112.96	49.5								21	52 PPP
LJUBLJANA	113.62	49.4								19	30
JENA	114.32	43.7				24	54	-16		19	42 PP
KASPERSKE H.	114.57	46.1								19	24
HALLE	114.80	43.2				25	42	30		19	39 PP
COLLMBERG	115.28	43.8	18	34	2						
BRATISLAVA	116.18	48.2								19	41 PP
BELGRADE	116.72	52.7								20	4 PP
MOULD BAY	117.01	348.6	18	33K	-3						
BUDAPEST	117.02	49.6	18	55	19	25	44	24		19	24 PP
COLLEGE	117.34	332.3	18	32	-4						
ALERT	119.54	1.5	18	37	-4						
WARSAW	120.18	45.3				25	42	11		23	2 PPP
BUCHAREST	120.20	55.1								29	50
LWOW	121.01	48.7								20	14 PP
UPPSALA	121.25	36.2								20	19 PP
RABAUL	121.67	235.1	18	42	-3					20	16
KSARA	122.71	70.1	18	47	0	25	46	7		20	37 PP
UMEA	123.71	32.2	18	46	-3					37	35 SS
NURMIJARVI	124.80	36.7	18	49	-2						
KIRUNA	124.83	27.5	18	49	-2					37	49 SS
HELSINKI	124.86	37.2	18	48	-3						
SIMFEROPOL	125.71	57.0				25	59	10		20	46 PP
KAJAANI	126.97	32.8	18	54	-1						
SODANKYLA	127.07	28.6	18	53	-2						
PULKOVO	127.39	38.4	18	53	-3					38	24 SS
APATITY	129.70	28.7	18	59	-1					38	28 SS
MOSCOW	130.55	44.4	19	3	1					22	29 SKP
TIFLIS	132.15	64.1	19	7	2	26	10	4		22	29 PP
GORIS	132.61	67.4	19	4	-2	25	59	-8		21	30 PP
KHEYS	132.73	9.8	19	8	2					21	35 PP
TEHERAN	135.23	74.1	19	9	-2					21	50
AMDERMA	139.21	22.5	19	9	9						
ASHKABAD	141.22	73.4	19	17	-5					22	32 PP
PETROPAVLOVK	141.62	311.0	19	12	-10	26	12	-10		22	34 SKP
KARACHI	143.27	97.8	19	23	-2					22	32 PP
SVERDLOVSK	143.28	42.4								22	35 PP
TIKSI	143.81	348.8	19	19	-7						
BOMBAY	144.46	111.2	19	24	-3					22	52 PP
MAGADAN	144.61	323.1	19	24	-3						
POONA	144.99	112.7	19	26	-2					28	6
MADRAS	145.54	127.1	19	31	2					19	56
QUETTA	145.54	89.5	19	29	0				19 44	22	50 PP
TASHKENT	150.10	70.0	19	38	2					23	20 PP
WARSAK DAM	150.51	85.2	19	37	0						
KHOROG	151.31	78.3	19	38	0					23	26 PP
YAKUTSK	151.65	338.2	19	35	-4					23	23 PP
LAHORE	151.94	91.6	19	42	3						
Y.-SAKHLINSK	152.46	302.0	19	40	0	26	40	3		33	45 SKSP
NEW DELHI	153.04	99.6	19	40A	-1					23	38 PP
TUKUBASAN	154.11	277.7	19	41A	-1					23	41 PP
DEHRA DUN	154.44	96.8	19	46	4					23	46 PP
MANILA	154.62	211.4	20	4	21						
NHATRANG	155.09	183.4	19	45	2					23	52 PP
MATUSIRO	155.66	277.7	19	49	5					23	48 PP
ALMATA	155.81	65.8	19	43	-1					23	52
SEMIPALATNSK	156.33	47.4	19	46	1					23	40 PP
BOKARO	156.94	119.1								20	16
CHITTAGONG	159.80	132.6	19	52	3				20 9	24	6 PP
VLADIVOSTOK	160.64	295.3	19	47	-3						
HONG KONG	164.15	202.3								20	37 PKP2
LHASA	164.16	113.5	19	53A	-1					24	34 PP
IRKUTSK	164.74	8.0	19	51	-3						
CHANGCHUN	165.10	301.9	19	54	-1					24	45 PP
CANTON	165.14	200.5	19	53	-2					24	36 PP
KUNMING	167.22	159.0	19	54A	-2					24	43 PP
ZO-SE	167.32	245.3	19	54	-2					24	51 PP
ESEN BULAK	167.44	39.4	19	56	0						

ULAN-BATOR	169.27	3.0	19	37	-20						
NANKING	169.57	243.8	19	55	-3					25	2 PP
CHENGTU	172.78	153.5	19	58	-1					25	10 PP
PEKING	172.82	295.8	19	56	-4					25	21 PP
PAOTOW	176.18	332.9	19	59	-2					25	45 PP
LANCHOW	176.65	108.8	20	0	-1					25	42 PP
SIAN	176.91	198.4	19	59A	-2					25	29 PP

FEBRUARY 28 7.H 19.M 54.S EPICENTRE 32.75 140.55 DEPTH= 36.KM

A=-0.65065 B= 0.53546 C= 0.53846 D= 0.6354 E= 0.7721
G=-0.4158 H= 0.3422 K=-0.8427 HT= 0.9

DEPTH OF FOCUS= 0.001R

SE= 5.08

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
HATIDYOZIMA	0.72	298.6	0	8	-6	0	20	-5				
OSIMA	2.23	334.5	0	34	-1							
MERA	2.24	344.8	0	38	3	1	11	9				
TORISIMA	2.28	185.4	0	25	-11	0	56	-7				
AJIRO	2.59	332.7	0	39	-1	1	17	6				
OMAESAKI	2.67	314.1	0	47	6	1	12	-1				
MISIMA	2.71	331.1	0	43	1	1	19	5				
YOKOHAMA	2.77	344.7	0	44K	1	2	31	76				
SHIZUOKA	2.84	321.6	0	44	0	1	24	7				
TOKYO C.M.O.	2.99	347.5	0	48K	2	1	28	7				
HONGO	3.02	347.9	0	49	3	1	36	14				
HUNATU	3.11	332.2	0	49	1	1	37	13				
KOHU	3.34	331.0	0	51	0	1	42	12				
TITIBU	3.44	339.7	0	54	2							
TUKUBASAN	3.48	354.0	0	54A	1	1	40	7			2	16
KAKIOKA	3.48	355.1	1	4	11							
KUMAGAYA	3.52	344.4	0	55K	2	1	42	8				
IIDA	3.56	321.5	0	50	-4	1	39	4				
MITO	3.62	359.0	0	57A	2	1	49	12				
NAGOYA	3.83	310.0	0	54	-4	1	34	-8				
UTUNOMIYA	3.83	351.8	0	58	0						2	12
OWASE	3.86	291.0	0	46	-12	1	25	-18				
TU	3.88	301.1	1	3	5							
OIWAKE	3.93	335.8	1	3	4	1	57	12				
KAMEYAMA	3.99	302.7	0	58	-2	1	33	-13				
SIOMISAKI	4.07	281.1	0	50	-11	1	28	-20				
MATUMOTO	4.08	329.3	1	7	6	2	0	11				
GIHU	4.10	311.1	0	55	-7	2	1	12				
ONAHAMA	4.20	3.9	1	17	14							
MATUSIRO	4.24	333.6	1	2	-2	1	57	4				
NAGANO	4.36	334.3	1	6	1	2	3	7				
HIKONE	4.36	306.3	1	8	3	1	48	-8				
SHIRAKAWA	4.36	356.6	1	8	3	2	3	7				
OSAKA	4.59	295.7	1	4	-5							
KYOTO	4.60	300.7	0	57	-12	1	50	-12				
ABUYAMA	4.65	298.3	0	59A	-10							
TSURUGA	4.70	309.1	1	14	4							
WAKAYAMA	4.73	289.6	1	4	-6	1	49	-16				
TAKADA	4.73	337.1	1	13A	3							
TOYAMA	4.80	325.9	1	30	18	2	23	16				
SUMOTO	4.97	290.1	1	3	-11	1	54	-17				
HUKUSIMA	4.98	359.3	1	19	5							
TOKUSIMA	5.16	286.4	1	10	-7							
YAMAGATA	5.49	358.4	1	23	2	2	31	7				
SENDAI	5.51	2.9	1	38	17							
TAKAMATU	5.65	287.8	1	15	-8	2	11	-17				
ISINOMAKI	5.70	6.1	1	26	2	2	35	6				
TOTTORI	5.95	299.2									1	51
KUMAMOTO	8.29	273.1	1	43	-17							
CHANGCHUN	16.26	317.2	3	45	-2	6	58	12				
ZO-SE	16.53	269.5	3	47	-3	7	0	8				
NANKING	18.39	273.7	4	4	-9	7	30	-4				
GUAM	19.58	167.7	4	17	-10							
PEKING	20.88	297.3	4	38	-3	8	35	8				
HONG KONG	25.54	252.6				9	50	1			8	11
PAOTOW	25.60	296.5	5	23	-4	9	56	6				
SIAN	26.36	282.0	5	31	-3	10	11	8				
LANCHOW	30.36	286.5	6	1	-9							

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RABAUL	38.37	161.1							27	9
SHILLONG	42.80	273.4	7	46	-10					
CHARTERS TS.	52.83	173.3	9	8	-6					
COLLEGE	53.11	30.4	9	17	1					
LAHORE	55.22	288.0	9	25	-6					
WARSAK DAM	56.59	291.7	9	32	-9					
MOULD BAY	60.84	15.7	10	9K	-2					
QUETTA	61.62	289.2	10	7	-9					
ALERT	64.43	3.3	10	32K	-3					
RESOLUTE	66.92	13.8	10	48K	-2					
CANBERRA	68.18	172.6	10	57	-1					
SODANKYLA	68.64	337.7	10	57	-4					
THULE	69.59	7.0	11	5	-2					
KAJAANI	70.13	334.5	11	7	-3					
KIRUNA	70.26	339.6	11	7	-4					
PENTICTON	71.76	42.8	11	20K	0					
UMEA	72.91	336.4	11	22	-5					
NURMIJARVI	73.39	332.3	11	25A	-5					
HELSINKI	73.47	331.9	11	26A	-4					
MINERAL	74.97	51.6	11	39K	0					
HUNGRY HORSE	75.42	41.6	11	42	1					
BERKELEY	75.78	54.1	11	44A	0					
LICK	76.47	54.3	11	48A	1					
UPPSALA	76.49	334.2	11	42	-6					
RENO	76.57	51.6	11	49	1					
KARAPIRO	77.51	152.3	11	48	-5					
BUTTE	77.55	43.1	11	54	1					
CHATEAU	78.61	153.0	11	54	-5					
BOZEMAN	78.62	42.7	11	59	0					
EUREKA	79.11	50.0	12	2	0					
CHINA LAKE	80.03	53.9	12	7	0					
GOTEBORG	80.08	334.8	12	3A	-4					
FLAMING GRGE	82.39	45.9	12	20	1					
LARAMIE	84.42	43.8	12	30	0					
COLLMBERG	84.45	330.0	12	25K	-5				12 44	15 41 PP
HALLE	84.74	330.6	12	42	11					
PRUHONICE	84.75	328.4	12	27	-4					
KASPERSKE H.	85.81	328.2	12	32	-5					15 52
BENSBERG	87.07	332.6	12	39	-4					13 0
FOLINIERE	91.70	335.4	13	1	-4					
LA PAZ	149.45	64.9	19	46	6					

MARCH 1 2.H 12.M 39.5 EPICENTRE -15.63 -74.40 DEPTH= 85.KM

A= 0.25909 B=-0.92802 C=-0.26767 D=-0.9632 E=-0.2689
G=-0.0720 H= 0.2578 K=-0.9635 HT= 5.6

DEPTH OF FOCUS= 0.008R

SE= 2.22

	DELTA DEG.	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	3.67	345.6	0	58	2	1	11	-27					
LA PAZ	6.09	99.1	1	28	-1	2	42	4					
CHINCHINA	20.50	356.5	4	34A	1	8	20	7	4	52	5	11	PP
FUQUENE	20.97	1.9	4	41	3	8	36	14					
GALERAZAMBA	26.25	358.1									11	20	SS
TRINIDAD	29.11	27.0	5	56	1						11	37	
GRENADA	30.22	25.2	6	4	-1								
ST. VINCENT	31.42	25.1	6	14	-1								
ST. KITTS	34.72	19.8	6	41	-3								
SAN JUAN	34.76	13.9	6	44	0								
ANTIGUA	34.83	21.3	6	44	-1								
COLUMBIA	49.75	352.8	8	46	0								
LITTLE ROCK	52.95	341.5	9	9	-1								
GEORGETOWN	54.29	357.4	9	21	1								
C. GIRARDEAU	54.55	345.2	9	21	-1								
FAYETTEVILLE	54.74	340.4	9	23A	0				9	39	10	16	PCP
WICHITA MTS.	55.09	335.7	9	25	-1	17	2	2			11	25	PP
MORGANTOWN	55.21	354.8	9	40	13								
LUBBOCK	55.50	332.2	9	29	0								
BLOOMINGTON	55.69	348.6	9	30A	0	16	59	-9	9	43			
ROLLA	55.72	343.3	9	29A	-1	16	57	-11	9	42			
ST. LOUIS 1	55.98	345.1	9	31	-1								
FLORISSANT	56.17	345.0	9	32	-1								
PALISADES	56.35	0.4	9	34	-1	17	54	37	9	53			

LONDON ONT.	58.70	354.2	9	49	-2					
ALBUQUERQUE	58.79	329.4	9	51	-1			10	10	
HALIFAX	60.76	8.8	10	6A	1					
BREBEUF	60.84	0.6	10	6A	0			10	26	
SHAWINIGAN	61.90	1.3	10	14A	1					
SEVEN FALLS	62.54	2.7	10	17A	0					
GLEN CANYON	62.97	327.1	10	15	-5					
LARAMIE	63.58	334.2	10	25	1					
BOULDER CITY	64.00	324.2	10	28	1					
M.BOUR	64.11	65.2	10	28	0					10 48 PCP
PASADENA	64.69	320.6	10	34	3					
FLAMING GRGE	64.95	331.3	10	24	-9					10 47
SALT LAKE C.	65.99	329.6	10	41	1					
EUREKA	67.14	326.1	10	49	2			11	3	11 33
LICK	68.92	321.2	11	0A	2					
RENO	69.31	323.9	11	0	0					
BERKELEY	69.64	321.2	11	5K	3					
CALISTOGA	70.32	321.7	11	8A	1					
HUNGRY HORSE	72.81	333.6	11	22	1					
SOUTH POLE	74.47	180.0	11	30	-1					
PENTICTON	76.01	331.4	11	41A	1					
ALBERNI	78.47	329.0	12	0	7					
SERRA PILAR	82.94	44.0	12	21K	4			12	31	15 34 PP
WINDHOEK	85.48	112.0	12	30A	0					
TOLEDO	85.51	46.6	12	32K	2					
KIMBERLEY	90.40	119.9	12	53K	0					
RESOLUTE	91.04	354.7	12	55	-1					
FOLINIERE	91.38	39.5	12	59	1					
GARCHY	93.08	41.7	13	7	1					
ROSELEND	94.91	44.0	13	15	1					
MOULD BAY	95.54	350.2	13	18	1					
BULAWAYO	96.44	112.9	13	22	1					
COLLEGE	97.16	335.6	13	25	1			13	39	17 18 PP
STUTTGART	97.50	41.5	13	27	1			13	43	
JENA	99.47	39.8	13	35	0					
COLLMBERG	100.42	39.6	13	40	1					
CHARTERS TS.	126.55	229.7	18	56	2					
QUETTA	141.77	60.9	19	21	-1					22 26 PP
WARSAK DAM	144.31	52.9	19	27	1					
MATUSIRO	144.32	311.9	19	27	1					
LAHORE	147.40	55.3								19 38 PKP2
ULAN-BATOR	147.78	358.4	19	37	5					
ESEN BULAK	148.34	12.4	19	39	6					
POONA	149.53	80.0	19	42A	7					
SHILLONG	163.79	50.2	20	49K	56					

MARCH 1 4.H 52.M 6.S EPICENTRE 25.60 125.14 DEPTH= 116.KM

A=-0.51969 B= 0.73843 C= 0.42970 D= 0.8178 E= 0.5755
G=-0.2473 H= 0.3514 K=-0.9030 HT= 3.2

DEPTH OF FOCUS= 0.013R

SE= 2.22

	DELTA DEG.	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	3.18	255.7	0	50	0	1	27	0				
TAIPEI	3.32	261.0	0	54	2	1	14	-17				
HWALIEN	3.58	243.8	0	54	-1	1	57	20				
HSINCHU	3.86	259.0	1	7	8						1	29
HSINKONG	4.24	234.9	1	3	-1	1	48	-5				
TAICHUNG	4.30	251.3	1	5	0							
YUSHAN	4.36	241.9	1	7	2	1	53	-3				
ALISHAN	4.46	243.3	1	6	-1	1	57	-1				
TAITUNG	4.61	232.9	1	7	-2	1	57	-5				
TAWU	5.05	231.0	1	13	-2	2	4	-8				
TAINAN	5.18	241.1	1	9	-8							
KAOHSIUNG	5.34	237.3	1	36	17							
HENGCHUN	5.38	229.2	1	22	3	2	21	0				
ZO-SE	6.49	328.4	1	36K	2	2	49	1				
NANKING	8.51	320.6	2	4K	2	3	41	4				
HONG KONG	10.55	254.2	2	27A	-2	4	32	6				
CANTON	11.04	259.4	2	35A	-1	4	42	5				
MANILA	11.52	200.1	2	44	2	4	54	5				
MATUSIRO	15.62	42.6	3	38A	3	6	32	8				
PEKING	16.23	334.6	3	45K	3	6	48	10				

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SIAN	16.48	305.3	3	47K	2	6	51	7				
TUKUBASAN	16.62	46.9	3	47K	0	6	32	-15				
CHANGCHUN	18.19	0.4	4	7	1	7	27	5			4	40 *SP
VLADIVOSTOK	18.34	15.9	4	6	-2	7	29	4				
MIZUSAWA	19.05	41.0	4	25	9	7	57	17				
CHENGTU	19.30	290.0	4	20	2	7	46	1			4	53 *SP
PAOTOW	19.54	323.6	4	21K	0	7	57	7				
KUNMING	20.25	273.5	4	29A	1	8	9	6				
LANCHOW	21.01	304.8	4	36K	0	8	22	4	4	56	5	4 *SP
GUAM	22.04	119.5	5	50	64	9	0	24				
Y.-SAKHLINSK	25.53	28.7	5	21	2	9	46	10				
ULAN-BATOR	26.51	331.9	5	27K	-1	10	3	11				
UGLEGORSK	26.91	25.0	5	34A	2							
SHILLONG	29.96	277.3	5	58K	-1	10	45	-2				
LHASA	30.41	285.4	6	4	1	10	52	-2			16	29 SCS
CHITTAGONG	30.57	271.0	5	59	-6	10	56	-1			6	51 PP
IRKUTSK	30.94	334.9	6	7K	-1							
ESEN BULAK	30.98	319.5	6	8K	0	11	2	-1				
CALCUTTA	33.64	272.7									11	58
CHATRA	34.00	280.6	6	35K	0							
BOKARO	35.69	275.7	6	50	1	12	14	-2			7	13
TANGERANG	36.34	212.2	7	0	6							
LEMBANG	36.46	210.2	6	57	2	12	33	5				
PETROPAVLOVK	37.13	33.5	7	0K	-1							
DARWIN	38.15	171.0	7	9	0							
MAGADAN	38.34	20.8	7	8	-3							
DEHRA DUN	41.63	287.6	8	19	41						8	19
SEMIPALATNSK	42.30	317.9	7	43	-1							
MADRAS	44.04	262.2	8	0	2	14	22	1			10	15 PPP
LAHORE	44.69	289.8	8	3	0	14	26	-4				
ANDIJAN	46.01	302.8	8	14K	1	14	50	1				
TIKSI	46.11	1.6	8	12	-2							
WARSAK DAM	46.81	293.5	8	21	1	15	0	0				
POONA	47.81	272.3	8	27	-1	15	14	0				
TASHKENT	48.37	303.5	8	32K	0							
BOMBAY	48.63	273.2				15	27	1			16	15
CHARTERS TS.	49.84	153.7	8	44	1						9	11
QUETTA	51.16	289.1	8	54	1	16	1	0			19	26 55
KARACHI	52.19	282.5	9	1	0							
SVERDLOVSK	55.07	322.8	9	21K	-1							
ADELAIDE	61.60	167.3	10	8K	1							
TEHERAN	62.90	298.7	10	17	1							
CANBERRA	64.66	158.5	10	29	1							
COLLEGE	65.89	27.9	10	35	0							
TIFLIS	66.52	306.4	10	40	1							
APATITY	67.27	335.4	10	42A	-2						19	59
MOSCOW	67.88	322.4	10	47	-1							
SODANKYLA	69.85	335.9	10	59K	-1							
KAJAANI	70.45	332.5	11	4	0							
MOULD BAY	71.10	13.2	10	44	-24						11	7
KIRUNA	71.91	337.3	11	10	-2							
HELSINKI	73.00	329.0	11	18	-1							
NURMIJARVI	73.01	329.4	11	17K	-2							
UMEA	73.61	333.5	11	21	-1							
UPPSALA	76.48	330.3	11	37	-2							
RESOLUTE	76.68	10.1	11	38K	-2						14	23
SKALSTUGAN	76.86	335.0	11	40	-1							
KARLSKRONA	79.21	327.5	11	55	1							
GOTEBORG	80.10	329.9	11	57	-1							
RACIBORZ	80.84	321.4	12	3	1							
BRATISLAVA	82.41	320.0	12	11	0						12	17 PCP
VIENNA-H.	82.79	320.4	12	14	2							
PRUHONICE	82.93	322.5	12	14K	1							
ALBERNI	82.99	38.3	12	15	1							
COLLMBERG	83.06	324.1	12	14	0						15	26 PP
HALLE	83.50	324.7	12	17	1							
KASPERSKE H.	83.91	322.1	12	17	-1						12	48
JENA	84.01	324.3	12	19	0							
VICTORIA	84.17	38.5	12	21K	2							
MUNSTER	85.44	326.6	12	26	0							
PENTICTON	85.82	36.4	12	29K	1							
BENSBERG	86.27	326.0	12	30K	0							
STUTTGART	86.46	323.4	12	31	0							
BANFF	86.82	33.4	12	34K	2							
STRASBOURG	87.39	323.8	12	36	1							
DOURBES	88.09	326.3	12	39	0							
WELSCHBRUCH	88.24	324.3	12	37	-2							
HUNGRY HORSE	89.35	34.9	12	47	3							
ROSELEND	89.75	322.0	12	47	1						13	17

BOZEMAN	92.64	35.7	13	3	3						16	12	PKP
EUREKA	93.76	42.8	13	7	2								
CHINA LAKE	94.92	46.5	13	11	1						16	52	
SALT LAKE C.	95.40	39.8	13	15	3								
FLAMING GRGE	96.70	38.4	13	20	2								
ALBUQUERQUE	102.46	41.2	13	46	2						17	57	PP
WICHITA MTS.	107.09	36.6	14	10	777	24	38	6			18	36	PP
FLORISSANT	107.83	28.5	14	12	777								
C. GIRARDEAU	109.43	28.7	14	13	777								
TRINIDAD	143.41	10.8	19	21	0								
HUANCAYO	156.45	58.9	19	54	13								

MARCH 1 18.H 35.M 15.S EPICENTRE 43.09 146.27 DEPTH= 33.KM

A=-0.60927 B= 0.40682 C= 0.68065 D= 0.5553 E= 0.8316
G=-0.5661 H= 0.3780 K=-0.7326 HT= -2.8

DEPTH OF FOCUS= 0.000R

SE= 2.07

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
Y.-SAKHLINSK	4.67	328.6	1	11	1	2	8	5				
MIZUSAWA	5.54	226.2	1	29	7	2	18	-7				
TUKUBASAN	8.34	216.8	1	56A	-5	3	22	-13				
MATUSIRO	9.01	226.1	2	7K	-3	3	52	0				
VLADIVOSTOK	10.51	275.1	2	30	-1	4	35	6				
CHANGCHUN	15.24	280.0	3	35	1							
MAGADAN	16.72	8.0	3	52K	-1							
PEKING	22.67	272.6	4	58	-1	9	2	1				
ZO-SE	23.22	247.3	5	6	1							
NANKING	24.30	252.2	5	15	0	9	32	3				
PAOTOW	26.99	277.2	5	40	0	10	17	3				
ULAN-BATOR	27.79	293.8	5	47A	-1	10	28	1				
SIAN	30.26	265.7	6	12	2							
LANCHOW	33.18	272.3	6	35	0							
ESEN BULAK	35.20	293.1	6	53K	0							
COLLEGE	42.00	35.6	7	50	1				8	5		
SHILLONG	47.36	266.6	8	31	-1							
RABAUL	47.37	172.0	8	32	0							
CHITTAGONG	49.33	263.2	9	10	22							
MOULD BAY	49.66	18.3	8	49	-1							
CHATRA	50.08	271.2	8	56	3							
SVERDLOVSK	53.19	316.8	9	16K	-1							
ALERT	53.84	4.5	9	20	-2							
RESOLUTE	55.79	16.4	9	34	-2							
NEW DELHI	56.35	279.3	9	39A	-1							
LAHORE	56.75	283.9	9	42	-1							
WARSAK DAM	57.37	287.9	9	47	0							
ALBERNI	58.44	50.2	9	55	0							
APATITY	58.72	335.5	9	56A	-1							
THULE	58.75	9.0	9	54	-3							
KEVO	59.10	339.3	9	59	0							
LEMBANG	60.81	225.3	10	9	-2							
SODANKYLA	60.83	337.3	10	10K	-1							
PENTICTON	61.29	48.1	10	15K	1							
KIRUNA	62.17	339.6	10	19K	-1							
BANFF	62.41	44.7	10	21	-1							
QUETTA	62.74	286.8	10	23	-1							
KAJAANI	62.78	334.3	10	25	1							
CHARTERS TS.	62.86	180.0	10	24	-1							
MOSCOW	64.61	323.6	10	35	-1							
POONA	64.85	272.3	10	48	10							
HUNGRY HORSE	64.87	46.6	10	38	0							
UMEA	65.24	336.7	10	37K	-3							
NURMIJARVI	66.33	332.6	10	46A	-1							
HELSINKI	66.47	332.2	10	45	-3							
SKALSTUGAN	67.60	339.6	10	54	-1							
BOZEMAN	68.13	47.5	11	0	2							
UPPSALA	69.11	335.0	11	4K	0							
EUREKA	69.24	55.1	11	5	0							
TEHERAN	69.81	300.3	11	10	1							
BERGEN	72.04	340.8	11	22	0							
BOULDER CITY	72.17	57.3	11	25	2							
GOTEBORG	72.57	336.2	11	25	0							
KARLSKRONA	72.72	333.6	11	28K	2							

GLEN CANYON	73.49	54.8	11	30	-1						
LARAMIE	74.00	48.1	11	34	0						
LWOW	74.61	325.4	11	38	1						
SKALNATE PL.	76.65	326.9	11	51	2					12 3	PCP
RACIBORZ	76.73	328.6	11	51	2					12 1	PCP
COLLMBERG	77.61	332.1	11	54A	0						
HALLE	77.80	332.8	12	0	5						
ALBUQUERQUE	77.91	53.3	11	58	2						
CANBERRA	78.07	177.7	11	56	-1	12	14				
PRUHONICE	78.17	330.5	11	58	1					13 5	
JENA	78.41	332.7	12	0	1					12 28	
BRATISLAVA	78.70	328.0	12	0	0					12 14	PCP
ISTANBUL UN.	78.98	316.8								17 38	
KASPERSKE H.	79.23	330.6	12	3	0						
BENSBERG	79.80	335.1	12	6	0					12 31	
STUTTGART	81.03	332.8	12	13	0						
KEW	81.46	339.6	12	17	2						
JERUSALEM	82.38	306.7	12	21	1						
WICHITA MTS.	82.56	48.8	12	21	0					15 36	PP
FAYETTEVILLE	83.88	45.1	12	28	1						
FOLINIERE	83.97	338.6	12	28	0						
ROSELEND	84.60	332.9	12	31	0						
BREBEUF	84.92	26.9	12	33K	0						
LA PAZ	140.54	58.5	19	41	15						

MARCH 1 23.H 41.M 7.S EPICENTRE -13.91 172.33 DEPTH= 0.KM

A=-0.96238 B= 0.12961 C=-0.23881 D= 0.1335 E= 0.9911
G= 0.2367 H=-0.0319 K=-0.9711 HT= 5.9

SE= 1.88

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT VILA	5.42	224.9	1	21K	-3	2	20	-8					
SUVA	7.22	126.5	1	45	-5						3	10	
NOUMEA	10.04	213.0	2	30K	1	4	19	-4					
KOUMAC	10.14	228.2	2	28K	-2	4	15	-11					
RABAUL	22.10	294.0	4	57	-2								
BRISBANE	22.64	230.6	5	3	-1	9	9	1					
AUCKLAND	22.97	174.9	5	9	2	9	28	14					
KARAPIRO	24.10	173.8	5	19	1								
PORT MORESBY	25.06	277.6	5	26	-2						7	41	
TUAI	25.16	171.1	5	28	0								
CHATEAU	25.35	174.2	5	31	1								
COBB RIVER	27.07	179.3	5	50	4						11	41	
WELLINGTON	27.35	176.0	5	47	-2	10	23	-5			11	53	SS
RIVERVIEW	27.62	220.5	5	54K	3	10	30	-2			12	29	
KAIMATA	28.52	181.4	6	0	1	10	50	3					
CANBERRA	29.93	220.5	6	13A	1	11	13	4					
ROXBURGH	31.57	184.0	6	24	-3	11	37	2			13	25	SS
SAVANNAH	35.27	213.4	7	1	2								
MOORLANDS	35.78	212.5	7	4A	1								
FORT NELSON	36.04	211.8									15	11	SS
TARRALEAH	36.06	213.4	7	6	1								
ADELAIDE	36.83	229.3	7	11	-1								
HONOLULU	45.46	40.2	9	0	37								
KIPAPA	45.60	40.2	8	55	31								
HAWAII V.OB.	45.99	44.7	8	27	0								
MUNDARING	54.13	240.5	9	30	1								
PERTH	54.45	240.6	9	35	3	17	13	3					
MANILA	58.12	297.3	9	52	-6						11	54	PP
CAPE HALLETT	58.39	180.8				18	8	6					
TUKUBASAN	58.41	329.6	9	59K	-1	18	3	1			13	25	PPP
MATUSIRO	59.61	328.4	10	7K	-1	18	20	2			22	16	SS
LEMBANG	63.89	269.1	10	35	-2	19	16	4					
DJAKARTA	64.79	169.7				19	25	2			11	25	
TANGERANG	64.99	269.6	10	42	-2								
WILKES	66.19	202.9	10	45	-7	19	42	2			23	47	SS
Y.-SAKHLINSK	66.20	338.3	10	51	-1						19	42	
ZO-SE	66.44	313.2	10	57	4	19	50	7					
HONG KONG	67.40	301.5	11	1	2	20	0	5			22	41	SS
PETROPAVLOVK	67.69	351.1	10	59	-2								
VLADIVOSTOK	67.75	329.1	11	2A	0						15	24	SCP
CANTON	68.43	301.9				20	12	5					
NANKING	68.67	312.8	11	8	1	20	13	3					

CHANGCHUN	71.68	326.1	11	26K	0	20	49	4			11	44 PCP
MIRNY	73.09	204.3				21	5	4				
PEKING	74.80	318.6	11	44K	0	21	24	3				
MEDAN	75.05	277.6	11	45A	0							
MAGADAN	75.25	348.9	11	46	-1						14	35 PP
SIAN	76.92	310.5	11	57	1	21	51	7				
KUNMING	78.10	299.7	12	3	0	22	2	5				
PAOTOW	79.10	316.6	12	10	2	22	13	6				
CHENGTU	79.17	305.4	12	10K	2	22	12	4				
BERKELEY	79.99	46.9	12	13K	0	22	20	3				
CALISTOGA	80.11	46.1	12	13K	0							
LICK	80.20	47.7	12	15K	1							
PASADENA	81.45	51.8	12	20	-1	22	40	8			27	53 SS
LANCHOW	81.46	310.3	12	22K	1	22	37	5				
MINERAL	81.55	44.9	12	20K	-1							
RENO	82.44	46.3	12	27	1							
YAKUTSK	82.73	341.2	12	27	0						22	43 SCS
ALBERNI	83.70	35.9	12	32	0							
COLLEGE	84.12	16.0	12	32	-2	22	57	-2			14	17
VICTORIA	84.14	37.0	12	34	0							
ULAN-BATOR	84.55	322.1	12	36	0	23	0	-3				
BOULDER CITY	84.68	51.1	12	38	1							
EUREKA	85.14	47.5	12	39	0						25	38
TUCSON	86.53	55.8	12	47	1						16	12 PP
CHITTAGONG	86.68	293.9	12	48	1	23	23	-1	13	8	16	11 PP
PENTICTON	86.74	37.4	12	47K	0							
GLEN CANYON	87.47	51.1	12	51	0							
SHILLONG	87.54	296.9	12	50K	-1	23	24	-8				
IRKUTSK	87.99	325.2	12	55A	2						23	23 SKKS
LHASA	89.40	300.6	13	2	2	23	56	7			22	53 SKS
HUNGRY HORSE	89.74	39.8	13	1	-1							
CALCUTTA	89.80	293.2									25	56
BUTTE	89.84	42.3	13	3	1							
BANFF	89.88	36.8	13	1K	-1							
FLAMING GRGE	90.37	47.9	13	5	0							
ESEN BULAK	90.61	317.8	13	7	1							
BOZEMAN	90.73	43.0	13	7	1							
ALBUQUERQUE	90.82	54.3	13	7	0						16	40 PP
BOKARO	92.41	293.8									23	49
LARAMIE	93.23	48.4	13	20	2						16	59
MADRAS	95.10	282.1									24	10
WICHITA MTS.	97.04	56.1	13	34	-1	24	19	7			17	29 PP
DEHRA DUN	100.52	298.7									18	10
NEW DELHI	100.95	296.8									17	2
ROLLA	102.90	53.8				24	39	-2			18	18 PP
BOMBAY	103.23	286.4									16	12
LAHORE	103.87	299.4	18	17	251							
FLORISSANT	104.21	53.1									18	23 PP
C. GIRARDEAU	104.70	54.7									18	27 PP
FRUNSE	104.93	311.0	18	29	259						33	29 SS
KHOROG	106.83	305.3									18	43 PP
BLOOMINGTON	107.25	53.0				25	3	2			18	46 PP
TASHKENT	108.80	309.2									19	0 PP
QUETTA	110.03	297.3	18	41	8							
THULE	110.16	12.7	18	57	23							
LA PAZ	113.07	114.9	19	41	62							
SVERDLOVSK	113.38	326.2									29	8 PS
PALISADES	116.88	50.9				25	45	6				
ASHKABAD	117.27	305.6									20	3 PP
APATITY	120.10	343.0	18	58	5							
TEHERAN	123.03	303.7	19	6	7	25	31	-29			20	55 PPP
KAJAANI	124.23	342.1	19	5	4							
HERMANUS	125.56	207.4									38	5 SS
MOSCOW	125.68	330.3	19	6	2							
PULKOVO	126.39	337.2									31	5 PS
UMEA	126.49	345.0	19	5K	0						38	22 SS
TIFLIS	126.95	312.0	19	10	4						21	5 PP
NURMIJARVI	127.84	340.4	19	6	-2							
HELSINKI	128.00	340.0	19	8	0							
UPPSALA	130.49	343.5									43	46 SSS
SIMFEROPOL	133.02	319.7									21	46 PP
WARSAW	135.42	335.1									22	2 PP
LWOW	135.81	330.8	19	27	4						24	49
KSARA	135.91	304.5	19	26	3	26	36	3			22	7 PP
JERUSALEM	136.98	301.8	19	28	3						22	13 PP
ISTANBUL UN.	138.20	317.3	19	46	19						22	20 PP
DURHAM	138.95	354.6	19	43K	14							
COLLMBERG	139.14	340.2	19	30	1						19	55

PRUHONICE	139.71	337.8	19	32	2					40	53 SS
BUDAPEST	139.82	331.8	19	13	-17					23	13
JENA	139.91	341.1	19	34	3	26	18	-21	19 59	22	35 PP
BRATISLAVA	140.14	334.0								22	31 PP
VIENNA-H.	140.39	334.7	19	35	4						
LWIRO	140.44	248.9	19	36	5					22	42 PP
DE BILT	140.53	347.5	19	33	1					22	33
KASPERSKE H.	140.76	337.9	19	35	3					22	36 PP
BENSBERG	141.14	345.0	19	43	10						
KEW	142.07	352.5								41	11 SS
STUTTGART	142.53	341.5	19	37	2					46	36 SSS
DOURBES	142.54	347.0	19	33	-2					41	0 SS
LJUBLJANA	142.90	334.1	19	37	1					20	29
STRASBOURG	143.14	342.9	19	36	0					22	35
WELSCHBRUCH	143.69	344.2	19	36	-1						
PARIS	144.20	348.5	19	44	6						
FOLINIERE	144.73	351.8	19	38	-1						
BESANCON	144.85	343.8	19	38	-1						
GARCHY	145.54	347.0	19	48	8					19	53 PKP2
ROSELEND	146.09	341.9	19	42	1					20	7
FLORENCE X.	146.10	335.1	19	47A	6					20	57
CLERMONT-FD.	146.95	346.1	19	47	4						
ROME	147.08	331.8	19	48A	5					42	23 SS
LUANDA	149.32	223.7	19	53K	7					20	8 PKP2
BAGNERES	150.17	348.4	20	18	30						
BANGUI	152.40	252.4	20	1	10						
TOLEDO	153.93	353.7								20	17 PKP2
M.BOUR	170.97	85.9	20	14	4					25	24 PP

MARCH 2 13.H 3.M 10.S EPICENTRE 5.55 126.59 DEPTH= 96.KM

A=-0.59332 B= 0.79921 C= 0.09612 D= 0.8029 E= 0.5961
G=-0.0573 H= 0.0772 K=-0.9954 HT= 7.0

DEPTH OF FOCUS= 0.010R

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	
MANILA	10.56	329.5	2	31	1	4	33	6					
GUAM	19.54	65.0	4	21	-1								
HONG KONG	20.53	325.4	4	34	1	8	22	10			4	41	PP
LEMBANG	22.58	237.2	4	54	1	8	58	9					
DJAKARTA	22.91	239.7	4	56	0	9	6	11					
TANGERANG	23.08	240.0	4	58A	0	9	5	7					
PORT MORESBY	25.31	125.8	5	19K	0	9	39	3					
ZO-SE	25.92	349.3	5	24	-1	9	50	4					
RABAUL	27.32	110.3	5	34	-4								
NANKING	27.36	345.5	5	38	0	10	16	7					
KUNMING	30.02	312.9	6	1K	-1	10	53	1			7	1	PP
CHARTERS TS.	31.99	143.3	6	19K	0	11	23	0					
MATUSIRO	32.63	17.5	6	23A	-2	11	30	-2			7	36	PP
CHENGTU	32.78	322.3	6	24	-2								
SIAN	32.92	332.4	6	26	-1								
PEKING	35.58	346.2	6	50K	0	12	23	5			17	6	SCS
LANCHOW	36.86	328.5	7	1K	0								
CHITTAGONG	37.51	299.9	7	7	1	12	52	5	7	21	8	33	PP
VLADIVOSTOK	37.71	6.4	7	8K	0	12	53	3					
PAOTOW	37.91	339.3	7	10	0	13	1	7			8	46	PP
CHANGCHUN	38.14	358.5	7	13	2	13	5	8			8	43	PP
MUNDARING	38.60	194.2	7	14K	-1								
SHILLONG	38.72	304.7	7	15K	-1	13	8	2			8	42	PP
LHASA	41.21	309.8	7	38K	1	13	46	3					
BRISBANE	41.39	143.6	7	38	0	13	48	2					
ADELAIDE	41.90	165.0	7	42K	0	13	52	-1			9	22	PP
CHATRA	43.09	303.8	7	51A	-1								
BOKARO	43.22	299.1	7	52A	-1	14	14	2			9	39	
Y.-SAKHLINSK	43.59	16.0	7	56	0								
VISHAKHAPTNM	43.97	289.7	7	59	0	14	26	3					
KOUMAC	45.21	126.2	8	30	21								
UGLEGORSK	45.32	14.3	8	10K	0								
ULAN-BATOR	45.45	341.5	8	11	0	14	49	4					
RIVERVIEW	45.55	151.0	8	13A	1	14	47	1			18	5	SS
CANBERRA	45.80	154.2	8	14A	0	14	58	8			9	59	PP
MADRAS	46.34	282.6	8	24	6						10	15	
NOUMEA	47.83	126.8	8	40A	10								

ESEN BULAK	48.40	332.1	8	34A	0	15	37	11				
IRKUTSK	50.07	342.3	8	56A	9							
TARRALEAH	50.95	161.1	8	54K	0						9	16
MOORLANDS	51.31	160.5	8	56	-1						9	22
DEHRA DUN	51.82	304.5	9	1	1	16	28	14			12	15 PPP
NEW DELHI	52.01	302.1	9	0K	-2	16	14	-2			18	52 SCS
POONA	52.98	288.9	9	7K	-2	16	30	1			16	46 PPS
BOMBAY	53.99	289.2	9	32	16	16	45	2			11	37 PP
LAHORE	55.24	304.7	9	23	-3	16	51	-9				
MAGADAN	56.97	14.4	9	47	9							
WARSAK DAM	58.17	306.7	9	45	-1	17	43	5				
FRUNSE	58.92	317.4	9	51A	0							
SEMIPALATNSK	59.09	327.3	9	52	-1							
ANDIJAN	59.69	314.4	9	56	-1	17	53	-5				
KARACHI	60.10	295.4	9	57	-3							
QUETTA	61.07	301.4	10	5	-1	18	19	3	10	13	18	36 *SS
TASHKENT	62.08	314.2	10	13	0	18	33	5				
KARAPIRO	62.74	137.9	9	47	-30							
ROXBURGH	63.51	147.8	10	24	2	18	50	4				
WELLINGTON	64.08	141.4	10	24	-2							
AFIAMALU	64.13	108.3	10	48K	22							
TUAI	64.27	137.9	10	26	-1							
SVERDLOVSK	72.35	328.2	11	17	0	20	39	7				
WILKES	72.66	186.7				20	34	-1			11	31 PCP
HONOLULU	74.33	69.5	11	30	1						12	6
KIPAPA	74.41	69.4	11	31	2							
TEHERAN	74.77	305.4	11	31	0						11	58
HAWAII V.OB.	77.01	71.4	11	45	1							
TIFLIS	80.20	311.2	12	1	0	22	2	5				
TANANARIVE	81.48	250.0	12	12	4						13	5
COLLEGE	83.13	25.4	12	16	-1				12	37	12	54 *SP
SOTCHI	83.94	313.1	12	21	0	22	32	-3				
MOSCOW	84.87	325.4	12	27	2							
APATITY	86.12	337.4	12	31A	0	23	0	4			23	30
KSARA	87.54	303.6	12	39	1	23	23	13			24	23 PS
SIMFEROPOL	87.87	314.8				23	2	-11				
PULKOVO	88.40	329.8	12	44	2	23	20	2				
SODANKYLA	88.74	337.6	12	43	-1						16	14 PP
KAJAANI	88.92	334.3	12	47	2							
MOULD BAY	90.23	12.6	12	51	0							
TROMSOE	90.90	340.5	13	9	15							
KIRUNA	90.93	338.6	12	54	0							
HELSINKI	90.97	330.7	12	52	-3							
NURMIJARVI	91.05	331.0	12	55	0	23	24	-18			16	31 PP
ALERT	91.96	1.2	12	54	-5							
UMEA	92.19	334.8	13	0	0						13	27
LWOW	93.84	320.7	13	10	2							
UPPSALA	94.60	331.4	13	11A	0							
SOUTH POLE	95.52	180.0	13	12	-3							
SKALSTUGAN	95.59	335.8	13	17	1							
RESOLUTE	96.06	10.2	13	18	0							
SKALNATE PL.	96.39	320.7	13	22	3							
KARLSKRONA	96.89	328.3	13	6	-16							
THULE	97.70	3.5	13	25	0						17	36 PP
LWIRO	97.96	268.5									17	14 PP
BRATISLAVA	98.68	320.3	13	30	0						17	32 PP
VIENNA-H.	99.12	320.6	13	34	2							
BULAWAYO	99.37	250.6	13	35	2							
PRUHONICE	99.66	322.6	13	35	1							
COLLMBERG	100.09	324.2	13	37	1						17	43 PP
KASPERSKE H.	100.55	322.0	13	38	0						17	44 PP
HALLE	100.62	324.7	13	35	-4							
PENTICTON	100.96	37.6	13	40	0							
MUNSTER	102.87	326.3	13	8	-40							
STUTTGART	103.30	322.8	13	29	-21						18	34
BENSBERG	103.58	325.5	14	1	9							
ROSELEND	106.25	320.8	18	16	777							
WOODY	106.31	50.5	14	5	777							
EUREKA	107.11	45.9	13	54	777						18	21 PP
TOLEDO	115.94	319.5									19	23
WICHITA MTS.	121.56	43.3	18	45	2						20	14 PP
FAYETTEVILLE	123.65	39.5	18	47K	0						19	9
FLORISSANT	124.16	34.6	18	50	2							
ST. LOUIS 1	124.35	34.6	18	51	3							
SEVEN FALLS	125.34	14.5	18	51	1							
SHAWINIGAN	125.35	16.3	18	52A	2							
LONDON ONT.	125.48	24.8	19	0	10							
LITTLE ROCK	125.64	39.5	18	53	3							

C. GIRARDEAU	125.66	35.3	18	53	3						
MORGANTOWN	129.80	26.3	19	OA	3					22	26 PP
PALISADES	130.00	20.2	19	3	4	26	4	7			
HOPE	147.16	44.1	19	35	5						
BALBOA HTS.	150.21	61.2	19	38	3						
SAN JUAN	153.12	27.5	20	0	21						
CHINCHINA	155.48	65.2	19	46	4					30	35 SKKS
FUQUENE	156.95	62.0	20	8	24						
HUANCAYO	157.41	108.1	20	6	21						
LA PAZ	161.93	128.2	19	52	2						

MARCH 3 12.H 14.M 56.S EPICENTRE 7.58 126.71 DEPTH= 86.KM

A=-0.59268 B= 0.79471 C= 0.13101 D= 0.8016 E= 0.5978
G=-0.0783 H= 0.1050 K=-0.9914 HT= 6.8

DEPTH OF FOCUS= 0.008R

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
MANILA	8.96	322.4	2	10	2	3	58	10				
GUAM	18.65	70.2	4	12	-1	7	43	9				
HONG KONG	18.98	321.8	4	15	-2	7	38	-4	4	26		
CANTON	20.08	321.6	4	26A	-2	8	9	5			4	44 PP
LEMBANG	23.82	233.5	5	5	0	9	21	9				
ZO-SE	23.97	348.2	5	6A	-1	9	20	6				
DJAKARTA	24.09	236.0	4	40	-28	9	12	-4				
TANGERANG	24.25	236.2	5	12	3	9	24	5				
PORT MORESBY	26.44	129.3	5	29A	-1	9	55	0				
RABAUL	27.96	113.9	5	44	0							
MEDAN	28.18	263.4	5	45K	-1	10	49	25				
ABUYAMA	28.36	15.5	5	48A	0							
KUNMING	28.78	310.1	5	51A	0	10	41	8				
MATUSIRO	30.68	18.3	6	6A	-2	10	44	-19			7	11 PP
TUKUBASAN	31.02	21.3	6	8	-3							
SIAN	31.21	330.8	6	12A	-1							
CHENGTU	31.29	320.2	6	12	-1	11	15	2				
CHARTERS TS.	33.55	145.3	6	32	-1	11	48	0				
PEKING	33.66	345.3	6	33A	-1	11	54	4				
MIZUSAWA	33.99	20.3	6	37	0						7	10
LANCHOW	35.22	326.9	6	48A	1							
VLADIVOSTOK	35.69	6.5	6	54K	3	12	29	8				
TOCKLAI	35.82	306.1	6	57	5							
CHANGCHUN	36.13	358.3	6	54	-1	12	35	7				
CHITTAGONG	36.65	297.5	7	0A	1	12	42	6	7	24	8	27 PP
SHILLONG	37.71	302.5	7	8A	0	12	58	6			8	37 PP
LHASA	40.04	307.9	7	29A	1	13	34	7			9	6 PP
MUNDARING	40.58	193.8	7	30	-2						11	34
PERTH	40.66	194.3				13	36	0				
Y.-SAKHLINSK	41.62	16.5	7	41A	0							
CHATRA	42.10	301.9	7	46A	1						9	28 PP
BOKARO	42.38	297.2	7	48A	1						9	29 PP
BRISBANE	42.95	145.0	7	51	-1	14	10	0				
VISHAKHAPTNM	43.45	287.7	7	57K	1	14	24	7			9	52 PP
ULAN-BATOR	43.59	340.7	7	57A	0	14	24	5				
ADELAIDE	43.81	165.7	7	56A	-2	14	22	0	8	17	13	29 SCP
KOUMAC	46.32	127.8	8	27	9							
ESEN BULAK	46.69	331.2	8	22A	1	15	11	8				
RIVERVIEW	47.26	152.0	8	26A	0	15	15	4	8	39	18	37 SS
CANBERRA	47.56	155.2	8	27A	-1	15	18	2	8	40	8	46 SCP
HYDERABAD	48.01	286.6	8	35A	3	15	25	3			10	30 PP
PORT VILA	48.17	121.9	8	37	4							
IRKUTSK	48.19	341.7	8	32	-1							
NOUMEA	48.96	128.3	8	42	3							
DEHRA DUN	50.80	303.1	8	54	1	16	5	4			20	14
NEW DELHI	51.06	300.7	8	53A	-2	16	15	11			10	59 PP
PETROPAVLOVK	52.22	23.8	9	6A	2							
POONA	52.47	287.5	9	4A	-2						11	13 PP
TARRALEAH	52.81	161.7	9	8K	0				9	25		
MOORLANDS	53.17	161.1	9	10	-1							
BOMBAY	53.47	287.8	9	14	1	16	40	3			11	14 PP
LAHORE	54.21	303.5	9	18	0							
YAKUTSK	54.37	1.9	9	21	2	16	52	4				
MAGADAN	54.99	14.7	9	24	0							
WARSAK DAM	57.09	305.7	9	40	1	17	30	5				

SEMIPALATNSK	57.47	326.6	9	40A	-2							
FRUNSE	57.53	316.5	9	43A	1							
KARACHI	59.37	294.3	9	54	-1						12	7 PP
QUETTA	60.15	300.4	9	59	-1	17	6	-59	10	26	12	8 PP
TASHKENT	60.78	313.3	10	5A	0	18	17	4				
TIKSI	64.00	0.8	10	24	-2	18	57	3				
KARAPIRO	64.16	138.6	10	26	-1							
AFIAMALU	64.66	109.2	10	33	3							
ROXBURGH	65.15	148.3	10	33	-1							
WELLINGTON	65.59	142.0	10	29	-7							
TUAI	65.69	138.6	10	36	-1							
MACQUARIE I.	67.50	160.3	10	48	0							
SVERDLOVSK	70.71	327.8	11	7A	-1	20	16	2				
KIPAPA	73.59	69.9	11	27	2							
TEHERAN	73.71	304.9	11	26	0	20	58	10				
WILKES	74.67	186.7	10	52	-39	20	59	0				
HAWAII V.OB.	76.26	71.9	11	43	3							
MAKHACH-KALA	76.99	312.3	11	43	-1	21	24	0				
TIFLIS	78.97	311.0	11	56A	1	21	51	5				
COLLEGE	81.26	25.5	12	7	-1				12	35	15	20 PP
SOTCHI	82.66	313.0	12	14A	-1	22	24	0				
MOSCOW	83.28	325.3	12	19K	1							
APATITY	84.31	337.3	12	23A	0	22	44	4			23	6 PS
KSARA	86.53	303.5	12	34	0	23	18	16				
SIMFEROPOL	86.54	314.7	12	34A	0							
PULKOVO	86.73	329.8	12	35	0							
SODANKYLA	86.93	337.6	12	35	-1	23	15	10			30	0 PKKP
KAJAANI	87.16	334.2	12	38	1	23	18	10				
JERUSALEM	87.33	301.5	12	39	1							
SCOTT BASE	88.12	172.2	12	42	0							
MOULD BAY	88.24	12.7	12	43A	1							
TROMSOE	89.04	340.5	12	46	0							
KIRUNA	89.10	338.6	12	46K	0							
HELSINKI	89.28	330.7	12	47	0							
NURMIJARVI	89.35	331.1	12	46	-2	23	36	8			30	23 PKKP
KISHINEV	89.86	317.3	12	50A	0	23	34	1				
ALERT	89.95	1.2	12	51	1							
UMEA	90.42	334.8	12	52K	-1	23	33	-5				
ISTANBUL UN.	90.87	311.4	12	53A	-2						16	36 PP
LWOW	92.36	320.8	13	1	-1						16	58
UPPSALA	92.90	331.5	13	4K	0							
SKALSTUGAN	93.80	335.9	13	8K	0						13	36
RESOLUTE	94.06	10.2	13	9A	0							
SOFIA	94.63	314.0	13	14	2							
KARLSKRONA	95.24	328.4	13	14K	-1							
ATHENS	95.50	309.3	13	15A	-1							
THULE	95.68	3.5	13	16	-1				17	7		
ALBERNI	96.12	38.7	13	21	2							
BUDAPEST	96.21	319.5									17	14
GOTEBORG	96.44	330.6	13	20K	0							
VICTORIA	97.25	39.1	13	26	2							
SOUTH POLE	97.53	180.0	13	25	0							
PRUHONICE	98.13	322.8	13	28	0						16	46
LWIRO	98.14	268.8	13	26	-2						17	28
COLLMBERG	98.53	324.5	13	31	1				13	56	17	47 PP
KASPERSKE H.	99.04	322.3	13	32	0						17	40 PP
HALLE	99.05	324.9	13	33	1				13	47		
PENTICTON	99.28	37.4	13	33	0							
JENA	99.50	324.5	13	34	0						17	22
BROKEN HILL	99.80	256.6	13	36	1							
BULAWAYO	100.15	250.9	13	36	-1							
BANFF	100.88	34.6	13	3	-37							
CALISTOGA	101.13	48.3	13	43K	2							
BERKELEY	101.62	49.0	13	45A	1							
STUTTGART	101.77	323.1	13	44	0							
BENSBERG	101.99	325.8	13	45	0							
LICK	102.26	49.3	13	48K	2							
STRASBOURG	102.75	323.4									15	4
HUNGRY HORSE	103.04	36.7	13	50	0							
PRIEST	103.40	50.2	13	54K	3							
WELSCHBRUCH	103.66	323.7	13	50	-3						15	39
ROSELEND	104.77	321.2	13	58	1						17	10
WOODY	104.93	50.1	14	0	2							
EUREKA	105.61	45.6	14	4	777						18	31 PP
BOULDER CITY	107.85	48.5	17	30	777							
FLAMING GRGE	109.48	41.8	14	21	777						29	27 PKKP
RAPID CITY	111.67	36.4	18	27	3						29	28 PKKP
LARAMIE	111.75	39.9	18	33	9							
TUCSON	112.41	50.7	18	29	4						19	37 PP

TUCSON TELE.	112.46	50.5	18 29	4					29 26	PKKP
ALBUQUERQUE	114.42	46.2	18 32	3					29 8	PKKP
MANHATTEN	118.57	37.4	18 40	3						
WICHITA MTS.	120.01	42.5	18 43	3	25 38	10	19 11		20 8	PP
FAYETTEVILLE	122.01	38.7	18 44K	0			19 15			
ROLLA	122.19	35.7	18 46	2						
FLORISSANT	122.43	33.9	18 47	2						
SEVEN FALLS	123.36	14.3	18 47	0						
SHAWINIGAN	123.38	16.0	18 48	1						
LONDON ONT.	123.59	24.3	18 53	6						
C. GIRARDEAU	123.94	34.6	18 50	2						
LITTLE ROCK	124.00	38.7	18 49	1						
BREBEUF	124.10	17.2	18 51	3						
BLOOMINGTON	124.20	31.0	18 51	3						
HOPE	145.61	42.1	19 28	0						
BALBOA HTS.	149.09	58.4	19 37	3						
SAN JUAN	151.27	26.0	19 39	2			19 54			
ST. KITTS	153.54	20.6	19 52	12						
ANTIGUA	154.03	18.9	19 45	4					20 7	PKP2
ANTOFAGASTA	157.04	136.2	20 43	58					21 19	
HUANCAYO	157.83	103.3	19 51	5						
ST. VINCENT	157.91	21.1							20 20	
TRINIDAD	160.17	24.1	19 53	5					20 32	PKP2
LA PAZ	163.00	122.8	19 56	5					20 41	PKP2

MARCH 6 5.H 55.M 41.S EPICENTRE 13.54 93.27 DEPTH= 0.KM

A=-0.05547 B= 0.97100 C= 0.23257 D= 0.9984 E= 0.0570
G=-0.0133 H= 0.2322 K=-0.9726 HT= 6.0

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
PORT BLAIR	1.93	196.2	0 37	3	1 5	5		
CHITTAGONG	8.88	351.3	2 11	-2	3 49	-6		
CALCUTTA	10.08	333.2	2 14	-15	4 7	-17		
VISHAKHAPTNM	10.46	294.7	2 33K	-1	4 30	-4		4 46 SS
MEDAN	11.24	151.1	2 47	2	4 53	0		
SHILLONG	12.04	353.9	2 51A	-5	5 1	-11		3 0 PP
BOKARO	12.44	326.5	2 59	-2	5 16	-6		3 7 PP
MADRAS	12.75	269.1	3 4A	-1	5 31	2		3 14 PP
TOCKLAI	13.22	5.9	3 30	18				
CHATRA	14.41	337.6	3 26	-1	6 27	18		6 48 SS
KUNMING	14.57	36.4	3 33	4	6 28	15		
HYDERABAD	14.80	287.1	3 25K	-7	5 59	-19		3 36 PP
KODAIKANAL	15.81	259.7	3 46	1				9 10
LHASA	16.16	353.0	3 48	-2	6 55	5		
SEHORE	18.09	304.3	4 18	4	7 42	8		8 10 SS
POONA	19.31	287.4	4 29K	0	9 2	60		5 50 PP
CHENGTU	19.71	28.4	4 33	-1	8 18	7		
BOMBAY	20.34	287.9	4 44K	4	8 36	12		5 10 PP
NEW DELHI	21.15	317.6	4 49K	0				9 43 SSS
CANTON	21.27	60.6	4 57A	7	8 50	8		
HONG KONG	21.69	63.4	4 55	1	8 53	3		5 7 PP
DEHRA DUN	21.83	322.4	4 59	3	8 59	6		5 21 PP
DJAKARTA	23.77	144.7	5 35	20				
LANCHOW	24.35	21.1	5 21A	1				
LEMBANG	24.75	144.0	5 21	-3	9 37	-8		
SIAN	25.03	31.9	5 28	1	9 59	10		
MANILA	26.99	84.2	6 11	26	10 31	9		
KARACHI	27.15	298.3	5 48	1				
WARSAK DAM	28.35	319.6	6 0	2				
QUETTA	29.40	308.6	6 9	2	11 3	2		
NANKING	29.75	47.5	6 9	-1	11 12	6		
PAOTOW	30.68	25.5	6 17	-1	11 26	5		
KHOROG	30.73	324.8	6 19	0	11 23	1		
ZO-SE	31.04	51.1	6 25	3	11 39	12		
ESEN BULAK	32.85	3.8	6 40	3	11 48	-7		
PEKING	33.18	33.1	6 41	1	12 9	9		
FRUNSE	33.34	334.7	6 42K	0				7 51 PP
TASHKENT	34.69	327.4	6 53K	0	12 23	0		
ULAN-BATOR	36.11	15.6	7 7	2	12 45	0		
SEMIPALATNSK	38.27	346.5	7 24	0				
ASHKABAD	39.39	314.5	7 37	4				9 11 PP
IRKUTSK	39.64	10.6			13 32	-7		9 5 PP

CHANGCHUN	40.79	36.0	7	46	2	13	51	-5			9	24 PP
TEHERAN	43.59	308.0	8	10	3	14	40	3			17	8
VLADIVOSTOK	44.38	40.8	8	15	1						10	1 PP
MATUSIRO	46.19	52.0	8	27A	-1	15	7	-8			10	2 PCP
TUKUBASAN	47.55	53.1	8	44K	5	15	37	3				
SVERDLOVSK	49.87	337.2	8	56K	-1						16	13 PS
MUNDARING	50.31	154.5	8	53A	-7							
TIFLIS	50.44	313.4	9	0	-1						16	17 PS
Y.-SAKHLINSK	52.97	40.6	9	19	-1						17	1
YAKUTSK	54.97	20.0	9	33	-2	17	11	-5			19	17 SCS
TANANARIVE	55.40	235.4	9	41A	3						10	18
KSARA	55.58	301.8	9	46	6	17	34	9				
JERUSALEM	55.93	299.3	9	42	0							
PORT MORESBY	58.13	110.2	9	56A	-2	18	11	13				
SIMFEROPOL	58.81	314.5	10	4	2	18	7	0			13	39 PPP
AMDERMA	59.59	347.8	10	5	-3							
MOSCOW	59.85	327.3	10	9	-1							
ISTANBUL UN.	61.88	309.4	10	22	-1	18	41	-5	10	39	14	2 PPP
TIKSI	61.88	12.1	10	21A	-2	18	40	-7			12	46 PP
CHARTERS TS.	61.91	121.7	10	22	-2							
MAGADAN	62.22	29.1	10	25	-1							
PETROPAVLOVK	64.53	37.5									19	27 PS
ADELAIDE	64.68	139.6									11	13 PCP
PULKOVO	64.89	330.2	10	43	0	19	20	-4			19	34 PS
ATHENS	65.73	305.7	10	48A	-1						11	29
LWIRO	65.81	261.3	10	49	0						26	31
SOFIA	66.23	310.8	10	51	-1							
APATITY	66.27	338.7	10	51K	-1	19	38	-3				
LWOW	66.39	318.6	10	53	0							
KAJAANI	67.31	334.3	10	58	-1							
HELSINKI	67.59	329.8	11	0	0							
NURMIJARVI	67.81	330.2	11	1	-1				13	40		
SODANKYLA	68.67	337.6	11	6	-1							
KHEYS	68.91	354.2	11	8	-1						20	23 PS
KRAKOW	69.05	318.6	11	9	-1						11	37 PCP
BUDAPEST	69.51	315.8									11	29 PCP
BROKEN HILL	69.91	249.0	11	16A	1							
RACIBORZ	70.17	318.6	11	16	0						11	42 PCP
UMEA	70.47	333.2	11	17	-1	20	22	-9			28	39
BRISBANE	70.59	125.7	11	18	-1	20	35	3				
BRATISLAVA	70.83	316.5	11	29	9						11	47 PCP
KIRUNA	71.09	337.5	11	21	-1							
UPPSALA	71.18	328.9	11	21	-2						12	18
CANBERRA	71.70	134.6	11	24A	-2							
BULAWAYO	71.85	243.3	11	14A	-13							
TROMSOE	71.95	339.2	11	27	0							
KARLSKRONA	72.01	324.9	11	28	1							
MESSINA	72.17	306.0	11	29	1	21	24	33			21	37 PS
RIVERVIEW	72.45	132.3	11	29A	-1							
LJUBLJANA	72.60	314.3	11	31A	0						22	9
KASPERSKE H.	73.16	317.5	11	33	-1						14	25 PP
COLLMBERG	73.49	319.8	11	36A	0						14	24 PP
TARRALEAH	73.96	141.8	11	38A	-1							
SKALSTUGAN	73.97	332.6	11	38	-1						11	57
GÖTEBORG	74.02	326.5	11	39	0							
HALLE	74.14	320.0	11	11	-29						11	49
JENA	74.39	319.4	11	41	0	21	9	-7			14	36 PP
STUTTGART	76.01	317.3	11	51	0	21	30	-4			12	21
MUNSTER	76.80	320.7	11	56	1							
STRASBOURG	77.02	317.2	11	57	1							
BENSBERG	77.17	319.7	11	57	0							
WITTEVEEN	77.30	321.6	11	59	1							
WELSCHBRUCH	77.98	317.1	11	57	-5							
ROSELEND	78.12	314.4	12	2	0							
KIMBERLEY	78.35	236.5	12	4K	0							
BESANCON	78.37	316.0	12	3	-1							
DOURBES	78.90	319.0	12	5	-2							
GARCHY	80.33	316.3	12	14A	0							
PARIS	80.46	317.9	12	15	0							
CLERMONT-FD.	80.54	314.8	12	15	-1							
KEW	81.76	320.9	12	23	1	22	34	-1				
DURHAM	81.84	324.3	12	38	16	22	43	7				
FOLINIERE	82.40	318.2	12	26	1							
WINDHOEK	82.75	244.8	12	29K	2							
BAGNERES	83.14	312.5	12	55	26							
ALERT	83.47	356.9	12	30A	-1							
MOULD BAY	88.31	7.4	12	54	-1							
COLLEGE	89.45	22.0	12	59	-1						30	35 PKKP

THULE	89.54	355.7	12	58	-2	
ROXBURGH	90.02	136.9	13	2	-1	
GEBBIES PASS	91.73	134.5	13	11	0	
RESOLUTE	91.82	2.2	13	11	0	
KARAPIRO	92.23	128.4	13	13	0	
PENTICTON	111.01	22.4				17 18
HUNGRY HORSE	113.78	19.5				17 12
SEVEN FALLS	117.96	347.8	18	48	-1	
SHAWINIGAN	118.89	349.0	18	51	0	
BREBEUF	120.06	349.4	18	55	2	
EUREKA	120.63	26.1	18	55	1	
RAPID CITY	120.73	13.8	18	50	-4	
FLAMING GRGE	121.89	20.1	18	57	1	
LARAMIE	122.71	16.8	18	59	1	
CHINA LAKE	122.89	29.8	19	1	3	
LONDON ONT.	123.47	355.1	19	OK	1	
DUBUQUE	124.12	3.5	19	1	0	
GLEN CANYON	124.58	24.1	19	3	1	
MANHATTEN	126.74	9.5	19	7K	1	
BLOOMINGTON	127.55	359.8	19	9	2	
ST. LOUIS 1	128.00	3.5	19	9	1	
ALBUQUERQUE	128.27	20.7	19	10	1	22 29 PKS
ROLLA	128.61	5.2	19	10	1	
FAYETTEVILLE	130.14	7.9	19	13A	1	21 36 PP
WICHITA MTS.	130.71	12.9	19	14	1	21 38 PP
LITTLE ROCK	131.66	6.2	19	14	-1	
SAN JUAN	142.33	326.8	19	39	5	
LA PAZ	161.79	258.4	20	6	3	

MARCH 7 11.H 1.M 5.S EPICENTRE 19.11 145.13 DEPTH= 689.KM

A=-0.77577 B= 0.54065 C= 0.32539 D= 0.5718 E= 0.8204
G=-0.2670 H= 0.1860 K=-0.9456 HT= 4.9

DEPTH OF FOCUS= 0.104R

SE= 1.65

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
GUAM	5.63	183.8	1	38A	-5	2	57	-9			10	9 SCP
TORISIMA	12.14	339.8	2	41	1	4	46	-2				
HATIDYOZIMA	14.73	342.1	3	3	-1	5	29	-3				
OSIMA	16.41	343.0	3	20K	0	5	57	-3				
SIOMISAKI	16.55	331.5	3	20	-1	6	0	-2				
OMAESAKI	16.61	339.7	3	23	1	6	1	-2				
AJIRO	16.75	342.6	3	22A	-1	6	4	-2				
MISIMA	16.86	342.3	3	23A	-1	5	46	-21				
SHIZUOKA	16.89	340.7	3	24K	0	6	6	-2				
OWASE	16.89	333.7	3	24	0	6	5	-3				
YOKOHAMA	16.96	344.5	3	24A	-1	6	7	-2				
TYOSI	16.97	348.0	3	25K	0	6	10	1				
MUROTO	17.15	327.3	3	29A	2	6	13	1				
TOKYO C.M.O.	17.18	345.0	3	27K	0	6	11	-2				
HONGO	17.20	345.1				6	12	-1				
HUNATU	17.27	342.3	3	28	0	6	11	-3				
TU	17.31	335.5	3	29	1							
YAKUSIMA	17.41	313.2	3	29	0	6	15	-1				
SIMIDU	17.44	323.7	3	28	-1	6	12	-5				
KAMEYAMA	17.46	335.6	3	30A	1	6	5	-12				
WAKAYAMA	17.47	331.5	3	29	-1	6	15	-2				
KOHU	17.49	341.9	3	30	0	6	14	-4				
NAGOYA	17.55	337.3	3	30K	0	6	16	-3			13	42 SCS
NARA	17.57	333.8	3	30K	0							
IIDA	17.58	339.9	3	31	1	6	16	-3				
KAKIOKA	17.60	346.7	3	31K	0	6	12	-8				
TUKUBASAN	17.61	346.5	3	29	-2	6	13	-7			5	53 *SP
TOKUSIMA	17.62	329.9	3	32	1	6	18	-2				
OSAKA	17.67	333.1	3	41K	10	6	19	-2				
SUMOTO	17.68	331.1	3	31K	0	6	19	-2			8	38
MITO	17.69	347.5	3	32A	1	6	19	-2				
KUMAGAYA	17.72	344.6	3	32A	0	6	19	-2				
KOTI	17.72	326.5	3	32K	0	6	20	-2				
MIYAZAKI	17.75	318.6	3	35	3	6	23	1				
GIHU	17.83	337.2	3	33K	0	6	19	-4				
ABUYAMA	17.84	333.5	3	32K	-1							
KOBE	17.85	332.3	3	33	0	6	19	-5				

KYOTO	17.90	334.2	3	33K	0	6	13	-12				
HIKONE	17.91	335.8	3	33	-1	6	22	-3				
UTUNOMIYA	17.98	346.2	3	34	0	6	19	-7				
MAEBASI	18.03	344.0	3	32K	-3	6	20	-7				
HIMEJI	18.05	330.3	3	36	1	6	26	-1				
TAKAMATU	18.07	329.2	3	34K	-1	6	25	-2			13	44 SCS
KAGOSIMA	18.07	316.2	3	37A	2	6	19	-8				
OIWAKE	18.11	342.7	3	35	0	6	23	-5				
ONAHAMA	18.16	349.1	3	36A	0	6	25	-4				
MATUMOTO	18.20	341.2	3	36K	0	6	27	-2				
TSURUGA	18.32	335.9	4	0	23						6	27
TAKAYAMA	18.34	339.4									4	36
MATUYAMA	18.36	325.5	3	38	1	6	30	-2				
MATUSIRO	18.40	342.1	3	36K	-2	6	1	-32			13	44 SCS
SHIRAKAWA	18.45	347.5	3	39	1	6	31	-2				
NAGANO	18.52	342.2	3	39A	0	6	32	-3				
OOITA	18.54	322.0	3	40K	1	6	33	-2				
HUKUI	18.61	336.9	3	39	-1	6	33	-3				
ASOSAN	18.63	320.2	3	41	1	6	34	-2				
TOYOOKA	18.72	333.0	3	39K	-2	6	31	-7				
KUMAMOTO	18.80	319.4	3	41	-1	6	37	-2				
TOYAMA	18.86	339.9	3	42	0	6	37	-3				
KANAZAWA	18.89	338.5	3	43	1							
TAKADA	18.91	342.8	3	42	-1	6	37	-4			13	47 SCS
HIROSIMA	18.94	325.9	3	41K	-2	6	14	-27				
TOTTORI	18.99	331.6	3	43	0	6	39	-3				
HUKUSIMA	19.01	348.6	3	44A	0	6	41	-2				
UNZENDAKE	19.02	318.4	3	29	-15	7	5	22				
NAGASAKI	19.26	317.8	3	45	-1						8	46
SAGA	19.34	319.7	3	46	0	5	50	-58				
SENDAI	19.44	350.0	3	47	0	6	44	-5				
SIMONOSEKI	19.46	322.3	3	47	0							
MATSUE	19.46	329.2	3	48	0	6	47	-3				
NIIGATA	19.48	345.5	3	49	1	6	49	-1				
HUKUOKA	19.52	320.5	3	48K	0	6	48	-3				
YAMAGATA	19.52	348.7	3	48	0	6	50	-1				
ISINOMAKI	19.54	351.0	3	48A	0	6	48	-3				
WAZIMA	19.58	340.1	3	51	2	6	49	-3				
AIKAWA	19.77	343.8	3	51K	1	6	53	-2				
TOMIE	19.91	315.7	3	52K	1						6	15
SAIGO	19.95	331.0	3	53	1	6	46	-12				
MIZUSAWA	20.25	351.0	3	53	-2	6	57	-5				
SAKATA	20.25	348.0	3	51	-4	7	2	0				
MIYAKO	20.65	353.1	3	58A	0	7	4	-5				
MORIOKA	20.80	351.4	3	59K	-1	7	8	-3				
AKITA	20.99	349.1	4	2K	1	7	12	-2				
HATINOHE	21.57	352.5	4	6A	0	7	21	-3				
AOMORI	21.96	351.2	4	10	0	7	28	-2				
HWALIEN	22.38	286.6	4	14	0	7	1	-35				
ILAN	22.39	288.8	4	13	-1	7	3	-33				
HSINKONG	22.51	284.3	4	14	-1	7	39	1				
TAIPEI	22.64	289.3	4	17	1	7	5	-35				
TAITUNG	22.68	283.4	4	17	1	7	9	-32				
TAWU	22.88	282.3	4	18	0	7	11	-33				
YUSHAN	22.93	285.2	4	24	6	7	16	-29				
HAKODATE	22.93	351.6	4	18A	0	7	41	-4				
HENGCHUN	23.00	281.4	4	21	2	7	16	-30				
URAKAWA	23.06	355.5	4	20	1	7	47	0				
ALISHAN	23.07	285.2	4	21	1	7	14	-33				
HSINCHU	23.09	288.5	4	36	16							6 3
HIROO	23.15	356.6	4	20	0	7	41	-7				
MORI	23.24	351.4	4	17	-4	7	15	-35				
TAICHUNG	23.26	286.8	4	44	23	6	55	-55				
MURORAN	23.40	352.2	4	25	2	7	47	-5				
MANILA	23.42	262.8	4	26	3	7	26	-27				
TAINAN	23.55	283.8	4	25	1	7	22	-33				
TOMAKOMAI	23.64	353.5	4	26	1	7	54	-2				
OBIHIRO	23.79	356.5	4	27	1	7	54	-4				
KUSIRO	23.81	358.7	4	26A	0	7	56	-3				
SUTTSU	23.98	351.1	4	27	-1	7	58	-3				
SAPPORO	24.10	353.2	4	29K	0	7	49	-14			7	22
NEMURO	24.15	0.8	4	29A	0	8	0	-4				
RABAUL	24.18	162.6	4	27A	-2						9	19
ZO-SE	24.69	303.6	4	33K	-1	8	8	-4	6	16	11	18 *SS
RUMOE	24.94	354.0	4	37	1	8	15	-1				
VLADIVOSTOK	26.41	337.9	4	50	1	8	39	0			7	45
NANKING	26.95	303.8	4	52K	-1	8	43	-5	6	38	12	1 *SS
Y.-SAKHLINSK	27.91	356.5	5	1A	0						8	2 PCP

PORT MORESBY	28.40	175.8	5	5A	-1	9	5	-5				
HONG KONG	29.11	281.7	5	13A	1	9	7	-14	6	51	7	57 PCP
CHANGCHUN	29.73	330.3	5	17K	0	9	28	-2	6	55	12	37 *SS
CANTON	29.89	283.2	5	20K	2	9	32	-1			8	17 *SP
HONIARA	31.90	151.5	5	34	-1	9	57	-6				
PEKING	32.46	316.2	5	40	0	10	9	-3			13	21 *SS
DARWIN	34.31	205.3	5	55	0	10	33	-6				
PETROPAVLOVK	35.44	14.1	6	5A	1	10	55	-1				
SIAN	35.48	302.5	6	5K	0	10	54	-3			9	9 *SP
CHENGTU	38.83	295.4	6	32K	0	11	42	-3	8	21	9	36 *SP
CHARTERS TS.	38.97	178.3	6	33	0	11	43	-4				
KUNMING	39.60	286.5	6	38K	0	11	56	0	8	27	15	20 *SS
LANCHOW	39.97	303.6	6	40K	-1							
MAGADAN	40.60	4.4	6	45	-1						15	33 SCS
ULAN-BATOR	42.23	321.7	6	58K	0	12	32	-2				
PORT VILA	43.12	146.7	7	4	-1	12	44	-2				
KOUMAC	43.66	153.6	7	9K	-1	12	54	0				
YAKUTSK	44.20	349.6	7	13	-1	12	57	-4			8	39 PCP
LEMBANG	45.06	238.7	7	19	-1	13	10	-3				
DJAKARTA	45.33	240.1	7	23	1	13	15	-2				
TANGERANG	45.49	240.2	7	22K	-1	13	17	-2				
IRKUTSK	45.85	326.0	7	26K	0	13	24	0			8	44 PCP
NOUMEA	46.13	152.2	7	28K	0	13	28	0				
TOCKLAI	46.75	289.0	7	37	4							
BRISBANE	46.81	170.7	7	34	1	13	33	-4				
MEDAN	47.90	257.1	7	42A	1	13	54	2				
SUVA	49.40	136.6	8	0	7	14	16	4			18	19 SS
SHILLONG	49.41	287.6	7	52K	-1	14	5	-7	10	5	11	20 PPP
CHITTAGONG	49.75	283.5	7	55	0	14	15	-2	9	52	10	3 PP
LHASA	49.99	293.0	7	59K	2	14	21	1			11	7 *SP
PORT BLAIR	50.91	269.7	8	4	1	14	31	-1				
CALCUTTA	52.90	284.2	8	13	-4	14	58	0			9	58
RIVERVIEW	52.95	173.7	8	18A	0	15	0	1	10	24	9	15 PCP
HONOLULU	53.08	77.3	8	20K	1	15	3	2	10	29	8	58 PCP
KIPAPA	53.14	77.2	8	19K	0				10	29		
TIKSI	53.39	353.7	8	19K	-2	15	7	2			16	51 SCS
CHATRA	53.53	289.6	8	22K	0	14	56	-11			18	7 SCS
ADELAIDE	54.12	186.5	8	25K	-1	15	13	-1	10	32	17	5 PS
CANBERRA	54.25	176.1	8	27	0	15	16	0	10	25	9	20 PCP
BOKARO	55.08	286.1	8	32	-1	15	25	-1			19	31
MUNDARING	57.86	209.0	8	50K	-1	15	57	-5				
PERTH	58.02	209.4	8	53	1	16	5	1			20	7 SS
VISHAKHAPTNM	58.40	279.4	8	55A	0	16	7	-2				
SEMIPALATNSK	59.54	317.8	9	1A	-1	16	20	-3			9	39 PCP
SAVANNAH	60.55	178.2	9	9	0							
TARRALEAH	61.11	178.9	9	12K	-1						11	41 PP
ONERAHI	61.21	153.0	9	16	3	16	50	7				
MOORLANDS	61.27	178.3	9	13A	-1						12	13 PP
FORT NELSON	61.76	178.1	9	17	0	16	49	-1				
NEW DELHI	62.14	292.8	9	18K	-1	16	53	-2	11	25	12	35 PP
AUCKLAND	62.32	153.4				16	55	-2			18	12 SCS
MADRAS	62.42	275.0	9	21K	0	16	57	-1	11	28	20	50 *SS
HYDERABAD	62.98	280.2	9	22K	-3	17	1	-4	11	29	20	50 *SS
SEHORE	63.09	286.8	9	26	1	17	5	-1			12	50
COLLEGE	63.15	26.2	9	23K	-3	17	2	-5			18	20 SCS
KARAPIRO	63.53	153.4	9	28	0	17	15	4			38	14 PKPPKP
LAHORE	64.22	296.4	9	32	0	17	17	-2				
CHATEAU	64.61	154.2	9	34	-1	17	31	7			37	58 PKPPKP
TUAI	64.95	152.8	9	36	-1				11	48	9	55 PCP
COBB RIVER	65.14	157.3	9	38	0	17	33	3				
KODAIKANAL	65.72	272.8				17	4	-33			18	22
KHOROG	65.82	303.2	9	43	1	17	39	1				
KAIMATA	65.94	159.0	9	43	0	17	40	0			38	9 PKPPKP
WELLINGTON	66.07	155.9	9	42	-2	17	39	-2	11	55	38	3 PKPPKP
WARSAK DAM	66.22	299.4	9	45K	0	17	42	-1				
POONA	67.00	282.5	9	47	-2	17	48	-4			21	45 *SS
TASHKENT	67.16	307.6	9	51K	1	17	52	-2				
GEBBIES PASS	67.41	158.7	9	50	-2	17	55	-2			37	59 PKPPKP
BOMBAY	67.86	283.2	9	56	1	18	3	1	12	7	18	50 SCS
ROXBURGH	67.94	161.9	9	54	-1	18	3	0			38	1 PKPPKP
SITKA	68.52	35.3	9	58K	-1	18	10	1			22	7
AMDERMA	69.96	338.4	10	6K	-1	18	22	-4				
QUETTA	70.70	296.1	10	11K	0	18	33	-1	12	27	13	6 PP
KHEYS	70.80	350.0	10	11K	-1	18	31	-4	12	25	14	48 PPP
SVERDLOVSK	71.24	324.7	10	14K	0	18	39	-1			13	5 PP
KARACHI	71.75	290.6	10	17K	0	18	44	-1				
MOULD BAY	72.90	14.4	10	26K	2							
MACQUARIE I.	74.26	171.7	10	32	1				12	51	13	43 PP
ALBERNI	75.80	42.5	10	40K	0							

ASHKABAD	76.04	305.6				19	37	5		13	52 PP
VICTORIA	76.87	43.0	10	46K	0						
ALERT	77.76	3.6	10	52K	2						
PENTICTON	79.08	41.6	10	57K	0						
RESOLUTE	79.16	13.6	10	57K	-1						
UKIAH	79.44	52.3	11	1K	2						
CALISTOGA	80.05	52.6	11	3A	1						
MINERAL	80.29	50.7	11	4K	0						
APATITY	80.43	338.8	11	2K	-2	20	13	-4		14	22 PP
BERKELEY	80.52	53.3	11	7K	2	20	18	1	13 20		
BANFF	81.01	39.0	11	7K	0						
LICK	81.14	53.6	11	9K	1						
KEVO	81.37	341.9	11	8	-1						
RENO	81.85	51.1	11	12K	1						
TEHERAN	82.01	304.9	11	12	0	20	29	-3	13 31		
PRIEST	82.25	54.6	11	14K	1						
THULE	82.55	7.5	11	14A	-1	20	35	-2			
SODANKYLA	82.79	340.0	11	15K	-1	20	30	-10		29	32 PKKP
HUNGRY HORSE	82.89	41.3	11	17K	0	20	33	-8			
TROMSOE	83.72	343.5	11	19	-2						
MOSCOW	83.83	327.1	11	20K	-1				13 44	14	38 PP
KAJAANI	84.21	336.9	11	24K	1	20	50	-3		29	33 PKKP
KIRUNA	84.45	341.7	11	23K	-1	20	41	-14		21	57 SP
GORIS	84.59	309.8	11	25K	0						
BUTTE	84.67	43.1	11	26K	1	20	45	-12		14	48 PP
EUREKA	84.68	50.2	11	26	1						
PASADENA	84.82	55.8	11	26K	0	20	57	-2	13 47	15	11 PP
TIFLIS	84.90	312.3	11	26	0	20	47	-13			
PULKOVO	85.42	332.6	11	28	-1	21	0	-4	13 46	15	4 PP
BOZEMAN	85.78	43.1	11	31K	0	20	52	-16			
BOULDER CITY	86.76	53.1	11	37K	2						
UMEA	87.04	338.6	11	34K	-2	21	15	-4	13 49	15	12 PP
SALT LAKE C.	87.14	47.8	11	38K	1	21	3	-17	14 0	12	18
NURMIJARVI	87.39	334.7	11	36K	-2	21	16	-6	13 56	15	16 PP
HELSINKI	87.46	334.4	11	37K	-1	21	13	-10	13 57	29	23 PKKP
FLAMING GRGE	88.79	46.9	11	44K	-1	21	13	-22	14 9		
GLEN CANYON	88.81	51.2	11	45K	0	21	11	-24	14 9		
WILKES	89.06	193.3	11	48	2	21	38	1	14 4	22	47 SP
UPPSALA	90.55	336.4	11	50K	-3	21	42	-8		15	42 PP
SIMFEROPOL	90.66	318.5	11	52K	-1	21	49	-2	14 9	15	43 PP
TUCSON	91.24	55.3	12	3K	7	22	31	35	14 21	15	56 PP
RAPID CITY	91.50	42.1	11	57K	0	21	27	-31	14 18	29	13 PKKP
ALBUQUERQUE	93.43	51.3	12	7K	1						
IASI	93.46	322.7	12	5	-1	21	35	-40			
MIRNY	93.78	198.5	12	7K	-1					16	4 PP
KARLSKRONA	93.85	334.4	12	4	-4					15	59 PP
LWOW	93.92	326.2	12	7	-1	22	19	0	14 29	16	9 PP
WARSAW	93.99	329.3				22	16	-4		28	51 SS
GOTEBORG	94.17	336.9	12	6K	-3				14 35	13	50
BERGEN	94.37	341.3	12	14	4						
KSARA	94.54	308.0	12	10K	-1	22	30	6	14 31	16	3 PP
BUCHAREST	95.84	321.0	12	15	-2	22	35	47		16	21 PP
ISTANBUL UN.	95.87	316.9	12	15K	-2	21	47	-1		14	35
KRAKOW	95.89	328.0	12	17	0					16	19 PP
JERUSALEM	95.95	306.4	12	15K	-2				14 36		
SIDA	96.35	352.6	12	21K	2						
REYKJAVIK	96.42	354.3	12	20K	1						
RACIBORZ	96.73	328.8	12	20	-1					16	26 PP
SCOTT BASE	97.57	175.5	12	29	4						
BUDAPEST	97.98	326.4	12	28	2					24	25
MANHATTEN	98.25	43.7	12	27K	-1	22	3	3			
COLLMBERG	98.33	331.9	12	26K	-2				14 55	16	40 PP
SOFIA	98.48	320.7	12	29	0					16	42 PP
BRATISLAVA	98.52	327.8	12	27	-2						
PRUHONICE	98.55	330.3	12	27	-2	22	20	18		16	35 PP
HALLE	98.65	332.5	12	29	0					16	40 PP
VIENNA-H.	98.84	328.2	12	30K	0					16	52
BELGRADE	98.88	323.7								17	37
JENA	99.23	332.3	12	32	0				14 52	16	32 PP
WICHITA MTS.	99.23	48.4	12	31	-1	21	59	-6	14 57	16	46 PP
KASPERSKE H.	99.59	330.1	12	30	-4					15	41
WITTEVEEN	99.84	335.9	12	35K	0						
DUBUQUE	100.01	38.4	12	29	-7	21	56	-13			
MUNSTER	100.12	334.9	12	36	0					15	11
ZAGREB	100.65	326.5								16	53
ATHENS	100.96	316.6	12	37A	-3						
DE BILT	100.97	336.1								16	59 PP
BENSBERG	101.07	334.4	12	40K	0					17	0 PP

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FELDBERG	101.10	333.3	12 49	9			17 14	PP
DURHAM	101.12	341.1	12 43K	3			17 7	PP
LJUBLJANA	101.25	327.4	12 40K	-1			16 53	PP
FAYETTEVILLE	101.54	45.3	12 42K	0		12 51	16 37	PP
HEIDELBERG	101.60	332.6	12 43	0			17 3	PP
STUTTGART	101.82	331.9	12 44	0			17 7	PP
ROLLA	102.01	42.7	12 44	0	22 16 -2			
TUBINGEN	102.09	331.9	12 43	-2			17 7	PP
EBINGEN	102.40	331.7					17 10	PP
RAVENSBURG	102.40	331.1	12 45	-1			17 10	PP
FLORISSANT	102.44	41.3	12 46	0	22 21 1			
STRASBOURG	102.63	332.5	12 47	0			16 7	
ST. LOUIS 2	102.63	41.3	12 47	0	22 21 0			
DOURBES	102.78	335.2	12 43	-5			17 12	PP
TANANARIVE	102.88	254.3	12 49	1		15 20	17 7	PP
KEW	103.49	338.6	12 51A	0			17 14	PP
BASLE	103.50	331.9	12 48	-3			17 17	
LITTLE ROCK	103.52	45.5	12 51	0				
NEUCHATEL	104.19	331.9	12 53	-1			17 24	
BESANCON	104.42	332.6	12 55	0			17 9	
FLORENCE X.	104.50	327.4					17 27	
MAWSON	104.58	203.1					17 26	PP
PARIS	104.64	335.5	12 56	0			17 17	
LONDON ONT.	104.93	33.3	12 58K	1				
CHIAVARI	105.08	328.8	18 39	777			20 35	PPP
ROME	105.17	325.3					17 13	PP
ROSELEND	105.33	331.2	12 58	777			17 11	
GARCHY	105.63	334.2	13 1	777			17 5	
FOLINIERE	105.80	337.1	13 0	777				
MESSINA	105.92	320.8	16 21	777				
TACUBAYA	106.22	62.4			22 43 6		17 29	PP
SHAWINIGAN	106.23	26.2	13 4	777			17 9	PKP
MONACO	106.43	329.4					17 38	PP
SEVEN FALLS	106.56	24.7	13 4	777			17 8	PKP
BREBEUF	106.70	27.4	13 5K	777			17 45	PP
CLERMONT-FD.	106.81	333.2	17 14	777				
MORGANTOWN	108.00	35.1	16 28	777				
VERA CRUZ	108.87	61.1					21 19	*SPP
PALISADES	110.07	30.5	17 17	1	22 55 2			
BAGNERES	110.25	333.4	13 36	-220			16 22	
COLUMBIA	111.29	40.0	17 20	2			18 12	
HALIFAX	111.37	21.6	17 19A	1				
TORTOSA	111.92	331.7	17 17	-2				
MERIDA	113.23	56.2	13 37	-225			28 4	PS
ALICANTE	114.36	330.8	17 34	10			18 37	
TOLEDO	114.65	334.3	17 26	1			18 34	
SERRA PILAR	115.30	338.3	17 27A	1	22 15 -58		18 45	PP
LWIRO	115.58	276.8	17 29	3			18 53	PP
ALMERIA	116.49	331.3	17 30K	2	23 24 6		18 47	PP
GRANADA	116.72	332.3					18 56	PP
BROKEN HILL	119.45	263.9	17 35	1			14 8	P
BULAWAYO	120.53	257.5	17 37	1			14 9	P
PRETORIA	121.80	251.1	17 11	-28				
KIMBERLEY	125.11	247.9	17 28	-17				
BALBOA HTS.	127.87	61.7	17 35	-15			17 52	
HERMANUS	129.90	240.8					20 15	PP
GALERAZAMBA	130.33	56.6	17 41	-14			20 27	PP
WINDHOEK	131.50	256.4	17 44	-13				
SAN JUAN	131.74	41.3	17 41A	-17		20 22	29 42	PKKP
LUANDA	132.36	275.5	18 1K	2		20 26		
CHINCHINA	133.29	63.3	17 49K	-12			20 30	PP
BANDEIRA	133.83	267.8	18 3K	2		20 21		
ST. KITTS	134.60	38.8	17 50	-13			20 32	
ANTIGUA	135.28	38.0	17 52	-12			20 33	
LOME	136.50	301.7	17 59	-7			20 43	PP
FORT FRANCE	137.57	39.4	17 59	-9				
ST. VINCENT	138.71	41.0	18 1	-9			20 41	
BARBADOS	139.76	39.1	18 10	-2				
HUANCAYO	140.47	85.8	18 13	-1				
TRINIDAD	140.53	43.7	18 8	-7			21 53	
MBOUR	142.34	330.8	18 15A	-3			25 48	
ANTOFAGASTA	146.65	104.2	18 26	2				
LA PAZ	148.26	90.6	18 30	3			27 57	

MARCH 8 10.H 47.M 5.S EPICENTRE 46.05 152.95 DEPTH= 32.KM

A=-0.62030 B= 0.31669 C= 0.71759 D= 0.4547 E= 0.8906
G=-0.6391 H= 0.3263 K=-0.6965 HT= -3.9

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KURILSK	3.66	258.9	0	56	1	1	43	5					
SEVERO-KUR.	5.08	23.2	1	17	1	2	17	3					
Y.-SAKHLINSK	7.13	281.5	1	46	2	3	5	0					
PETROPAVLOVK	7.90	25.9	1	54	-1	3	16	-8			3	29	*SS
UGLEGORSK	7.96	296.3	1	58	2	3	27	1					
OKHA	9.91	322.9	2	24	1	4	28	14					
MIZUSAWA	11.12	235.7	2	39	0	4	27	-17					
MAGADAN	13.59	355.3	3	12	0						6	44	
TUKUBASAN	13.78	229.1	3	10	-5	5	34	-14					
MATUSIRO	14.58	234.5	3	23A	-2	6	6	-1					
VLADIVOSTOK	15.28	266.5	3	35	0								
PEKING	27.37	270.6	5	44	0	10	21	1					
TIKSI	28.09	344.1	5	48K	-3						6	36	PP
SIAN	35.24	266.3	6	54	1								
COLLEGE	36.77	37.8	7	7	1								
LANCHOW	37.83	272.6	7	16A	1	13	3	-1					
CHENGTU	40.69	265.4	7	40	1	13	47	0					
KUNMING	45.01	260.0	8	17	3	14	55	5					
MOULD BAY	45.30	19.7	8	16	0								
KHEYS	45.73	346.8	8	19	-1						10	6	PP
AMDERMA	48.13	332.2	8	37	-2								
RABAUL	50.03	181.0	8	58	5								
LHASA	50.32	273.6	8	58	3	16	8	3					
ALERT	50.47	5.7	8	55	-2								
RESOLUTE	51.54	18.3	9	4	-1								
SHILLONG	52.25	269.0	9	7A	-3								
SVERDLOVSK	54.27	317.4	9	25K	0								
CHITTAGONG	54.36	266.0	9	24	-2	17	0	0					
CHATRA	54.73	273.5	9	28A	0								
THULE	55.00	11.0	9	30	0						10	7	
PORT MORESBY	55.44	187.0	9	34A	1								
PENTICTON	55.73	52.3	9	35K	-1								
APATITY	57.95	336.8	9	49K	-2								
TASHKENT	58.01	298.0	9	51	-1								
KHOROG	58.84	293.2	9	59	1								
HUNGRY HORSE	59.33	50.8	10	1	0								
SODANKYLA	59.87	338.9	10	3	-2								
LAHORE	60.60	286.1	10	10	0								
WARSAK DAM	60.93	290.0	10	11	-1								
KIRUNA	60.97	341.3	10	11	-1								
KAJAANI	62.10	336.0	10	20K	0								
BOZEMAN	62.57	51.8	10	33	10								
EUREKA	63.62	59.7	10	30	0								
UMEA	64.31	338.8	10	34	0								
MOSCOW	64.96	325.6	10	37	-2								
PASADENA	65.65	65.5	10	43	0								
NURMIJARVI	65.79	334.8	10	42K	-2								
HELSINKI	65.97	334.4	10	43	-2								
CHARTERS TS.	66.10	186.9	10	45	-1								
QUETTA	66.36	289.5	10	47	0								
SKALSTUGAN	66.37	342.0	10	46	-2								
RAPID CITY	67.83	49.1	10	59	2								
GLEN CANYON	67.87	59.4	10	54	-3								
UPPSALA	68.32	337.5	10	59	-1								
LARAMIE	68.43	52.6	11	1	1								
POONA	69.42	275.6	11	6A	0								
TUCSON	71.51	62.7	11	21	2								
TUCSON TELE.	71.51	62.5	11	19	0								
GOTEBORG	71.65	339.1	11	19	-1								
TIFLIS	71.74	311.5	11	21A	0						21	10	PS
ALBUQUERQUE	72.30	58.0	11	25	1								
TEHERAN	72.32	303.2	11	26	2								
SIMFEROPOL	74.53	319.8	11	38	1								
LWOW	74.74	328.5	11	39	1								
MANHATTEN	74.78	49.0	11	37K	-1								
DUBUQUE	75.26	43.2	11	41	0								
KRAKOW	75.98	330.9	11	45	0								
RACIBORZ	76.53	331.9	11	49	1								
SKALNATE PL.	76.61	330.3	11	51	2								
WICHITA MTS.	76.98	53.3	11	51	0						12	54	

COLLMBERG	77.07	335.5	11	51A	0					12	3	PCP
PRUHONICE	77.78	334.0	11	55	0					12	18	
JENA	77.80	336.2	11	55	0					12	44	
ROLLA	78.18	47.0	11	58	0							
FLORISSANT	78.26	45.5	11	59	1							
ST. LOUIS 1	78.45	45.5	11	59	0							
VIENNA-H.	78.72	332.1	12	2	1							
KASPERSKE H.	78.82	334.2	12	1	0					13	1	
BENSBERG	78.95	338.8	12	2	0			12	14			
BLOOMINGTON	79.83	42.8	12	7	0							
BREREUF	80.01	31.2	12	7K	-1							
DOURBES	80.38	340.0	12	11	2	22	17	5				
STUTTGART	80.39	336.6	12	10	0							
LJUBLJANA	81.26	332.1	12	13	-1					12	43	
WELSCHBRUCH	81.51	338.2	12	14	-1							
BASLE	81.99	337.1	12	29	11							
PARIS	82.08	340.8	12	15	-3					14	49	PP
GARCHY	83.38	339.9	12	26	1							
ROSELEND	83.94	337.0	12	29	1							
BULAWAYO	127.94	280.4	19	5	2							

MARCH 8 21.H 38.M 30.S EPICENTRE -3.86 27.90 DEPTH= 0.KM

A= 0.88176 B= 0.46694 C=-0.06683 D= 0.4680 E=-0.8837
G=-0.0591 H=-0.0313 K=-0.9978 HT= 7.1

SE= 4.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
UVIRA	1.30	69.5	0	8K	-18								
LWIRO	1.83	29.3	0	29A	-4	0	48	-10					
ASTRIDA	2.21	55.6	0	25A	-14	0	41	-26					
RUMANGABO	2.89	30.2	0	40A	-9	1	13	-12					
BROKEN HILL	10.54	177.0	2	33	-3								
BANGUI	12.37	311.3	2	57	-4	5	28	8					
LUANDA	15.40	250.5	3	32A	-9	6	53	20			4	10	PP
BULAWAYO	16.20	177.6	3	49A	-2								
WINDHOEK	21.34	208.4	5	1	10								
PRETORIA	21.77	179.3	4	58	2								
CHANGALANE	22.68	170.0	4	58	-7				5	9			
TANANARIVE	24.35	129.5	5	18	-3	9	48	10					
LOME	28.43	290.3	6	13	14								
HERMANUS	31.46	193.8									14	45	
JERUSALEM	36.12	10.6									15	10	
KSARA	38.22	10.8									16	22	
MESSINA	43.38	345.8	8	13	7	14	41	6			9	59	PP
TEHERAN	45.12	27.2	8	17	-3	14	59	-1					
TARANTO	45.18	348.5	7	38	-43						15	30	
ROME	47.66	344.4	8	47K	7	15	47	11			10	39	PP
MBOUR	48.03	293.1	8	54	11						12	53	
SOTCHI	48.41	11.5				15	37	-10					
BELGRADE	48.92	353.0	8	51	1						10	50	PP
ALMERIA	49.41	327.7	9	2	8								
BOMBAY	49.65	61.3	8	50	-6	15	55	-9			10	46	PP
FLORENCE X.	49.74	344.2	8	50	-6								
GRANADA	50.26	327.1									9	2	PP
QUETTA	50.39	45.1	8	55	-6	16	12	-2					
POONA	50.42	62.2	8	54A	-8								
LJUBLJANA	51.09	348.0	9	6	-1						10	24	
BUDAPEST	51.71	352.3	9	12	1	16	27	-6			10	8	PCP
UZHGOROD	52.50	355.3	9	16	-1								
TOLEDO	52.50	329.1	9	19	2						11	37	PP
ROSELEND	52.84	341.4	9	20	0						13	47	
VIENNA-H.	52.86	350.3	9	19	-1								
BAGNERES	53.02	334.7	9	24	3								
SKALNATE PL.	53.24	353.7	9	19	-4								
CLERMONT-FD.	54.10	338.8	9	36	7								
KRAKOW	54.13	353.7	9	28	-1								
KASPERSKE H.	54.22	348.4	9	28	-2						11	32	PP
RACIBORZ	54.37	352.3	9	31	0								
BESANCON	54.43	341.8	9	32	0								
MADRAS	54.54	71.2	9	24	-8						12	39	
PRUHONICE	54.85	349.5	9	33	-2						11	41	
STUTTGART	54.87	345.0	9	35	0						10	15	
STRASBOURG	55.10	343.8	9	36	0								
WELSCHBRUCH	55.36	342.7	9	35	-3						14	0	

GARCHY	55.42	339.7	9	40	1						
WARSAK DAM	55.76	43.9	9	34	-7						
SAMARKAND	56.26	35.8	9	39	-6	17	19	-15			
JENA	56.34	347.7	9	43	-2	17	34	-1	12	54	PPP
COLLMBERG	56.41	348.8	9	45K	-1				10	40	PCP
LAHORE	56.47	47.9	9	39	-7						
HALLE	56.80	348.2	9	47	-2				10	56	PCP
PARIS	56.93	340.2	9	50	0						
NEW DELHI	57.28	52.4	9	45K	-7	17	39	-9			
DOURBES	57.38	342.4	9	53	0						
BENSBERG	57.42	344.6	9	56K	3						
FOLINIERE	57.95	338.2	9	56	-1						
TASHKENT	58.67	35.7	9	49	-13	18	6	0			
DEHRA DUN	58.71	51.0	10	16	14				18	7	
GOTEBORG	62.69	350.5	10	28	-1						
HELSINKI	63.88	358.4	10	34	-3						
UPPSALA	64.03	354.3	10	40	2						
NURMIJARVI	64.23	358.2	10	36K	-3						
CHATRA	64.81	58.1	10	35	-8						
UMEA	67.74	356.3	11	0K	-2				11	55	
KAJAANI	67.76	359.9	11	0	-2						
SKALSTUGAN	68.28	352.5	11	4	-1						
SHILLONG	68.48	60.7	10	59K	-7						
LHASA	68.92	56.3	11	3	-6	20	3	-10			
SODANKYLA	71.07	359.5	11	20	-2						
MEDAN	71.11	84.9	11	16	-7						
APATITY	71.35	2.2	11	22	-2	20	47	5	21	25	PS
KIRUNA	71.72	357.0	11	24	-2				12	4	
ESEN BULAK	78.08	41.1	11	58	-5				21	57	
TANGERANG	78.40	95.5	12	8	4						
CHENGTU	80.06	58.1	12	8	-5	22	7	-11			
LANCHOW	80.94	52.7	12	14	-4						
SIAN	84.74	55.2	12	34	-4	22	59	-6			
ULAN-BATOR	85.49	41.5	12	38	-3	23	13	1			
SOUTH POLE	86.17	180.0	12	47	2						
PAOTOW	86.51	49.1	12	44A	-2	23	18	-4			
CANTON	87.30	66.8	12	48A	-2	23	26	-4			
PEKING	91.13	50.1	13	5	-3	24	2	-3			
BYRD STATION	94.64	185.4	14	28	64						
COLLEGE	119.03	357.9							20	7	
WICHITA MTS.	121.78	308.8	18	59	2				20	42	PP
FLAMING GRGE	126.81	320.1	19	9	3						
PENTICTON	126.97	333.9	19	10	3						
EUREKA	131.76	322.3	19	21	5						

MARCH 9 6.H 57.M 16.S EPICENTRE -18.87-178.06 DEPTH= 508.KM

A=-0.94638 B=-0.03209 C=-0.32146 D=-0.0339 E= 0.9994
G= 0.3213 H= 0.0109 K=-0.9469 HT= 4.9

DEPTH OF FOCUS= 0.075R

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	
SUVA	3.41	281.6	1	13	-2	2	12	-3					
AFIAMALU	7.78	51.6	2	6A	11	3	10	-17					
PORT VILA	12.99	273.3	2	50K	1	5	21	15					
NOUMEA	14.90	254.1	3	9	0	5	54	12					
KOUMAC	16.72	261.3	3	28K	1	6	25	10					
ONERAHI	18.12	200.2	3	44	3								
KARAPIRO	19.80	195.1	3	58A	1	7	22	14			10	44	SCP
TUAI	20.29	190.8	4	0	-2	7	14	-2			10	46	SCP
CHATEAU	21.01	194.0	4	7	-1	7	36	8			10	47	SCP
WELLINGTON	23.16	193.8	4	25	-3	8	0	-3			10	54	SCP
COBB RIVER	23.50	197.7	4	29	-2	8	11	2					
GEBBIES PASS	25.96	195.5	4	51	-2						11	9	SCP
BRISBANE	28.07	247.0	5	11	0	9	22	1					
ROXBURGH	28.53	198.8	5	15	0						11	10	SCP
RIVERVIEW	31.21	235.3	5	39	0	10	14	5			15	21	SCS
CANBERRA	33.40	233.9	5	58A	1	10	46	3	7	21	7	34	PP
CHARTERS TS.	33.62	261.9	5	59	0	10	47	1					
PORT MORESBY	34.97	280.7	6	10K	0	11	9	2			15	41	SCS
ADELAIDE	41.40	238.3	7	4	1								
HONOLULU	44.45	27.0	7	25	-2								

KIPAPA	44.59	27.1	7	26	-2						
GUAM	48.74	308.5	7	58	-1						
DARWIN	49.51	269.7	8	6	1						
SCOTT BASE	59.49	183.7	9	17	2						
MUNDARING	59.99	243.5	9	19A	0				9	45	
BYRD STATION	66.25	170.6	10	0	1					11	55
MATUSIRO	68.87	323.4	10	15	0	18	38	0		21	50
SOUTH POLE	71.25	180.0	10	30	1						
DJAKARTA	73.96	268.9								18	14
TANGERANG	74.15	268.8	10	45	0						
ZO-SE	76.61	309.7				20	9	5			
PRIEST	77.04	44.4	11	1K	0						
LICK	77.10	42.9	11	2K	0						
CALISTOGA	77.27	41.4	11	2K	-1						
PASADENA	77.62	47.3	11	3K	-1				12	48	14 2 *SP
NANKING	78.86	309.4	11	12	1	20	34	7			
CANTON	78.88	299.1				20	34	7			
MINERAL	78.90	40.5	11	10K	-1						
RENO	79.54	42.0	11	15K	0						
CHANGCHUN	81.08	322.3				19	57	-53			
TUCSON	81.96	52.1	11	28	1						
EUREKA	81.98	43.7	11	27	0						
TUCSON TELE.	82.08	52.1	11	29	1						
ALBERNI	82.63	31.9	11	31	1						
GLEN CANYON	83.67	47.6	11	36	0						
PEKING	84.70	315.3	11	41K	0	21	19	-6			
PENTICTON	85.34	34.0	11	43K	-1						
COLLEGE	86.64	12.4	11	48	-2				13	35	
FLAMING GRGE	87.06	45.0	11	52	0				13	37	
BUTTE	87.52	39.4	11	54	0						
HUNGRY HORSE	87.87	36.9	11	55	-1					15	26 PP
BOZEMAN	88.27	40.2	11	58	0				13	43	
PAOTOW	89.10	313.6	12	3	1	21	49	-17			
CHENGTU	89.57	302.6				22	20	10			
LARAMIE	89.81	45.9	12	4	-1					15	43
LANCHOW	91.73	307.5	12	16	2						
WICHITA MTS.	92.27	54.1	12	16	0	22	49	16	14	11	16 0 PP
LHASA	99.85	297.9				22	45	5			
MOULD BAY	101.21	12.0	12	55	-2						
RESOLUTE	106.25	16.0	17	26	777						
QUETTA	120.48	294.4	17	56	3						
KEVO	126.86	349.4	18	6	0						
SODANKYLA	129.00	348.0	18	10	0					20	49 SKP
KIRUNA	129.66	351.0	18	11	0					20	51 SKP
KAJAANI	131.57	345.2	18	16	1					20	59 SKP
UMEA	133.39	349.0	18	15	-3					21	4 SKP
SKALSTUGAN	134.77	353.5	18	21	0					21	7 SKP
NURMIJARVI	135.36	344.2	18	12	-10					21	10 SKP
HELSINKI	135.57	343.8	18	24	2					21	12 SKP
WINDHOEK	136.23	200.5								21	9
UPPSALA	137.54	348.3								21	16 SKP
DURHAM	144.06	3.5	18	38K	0						
KRAKOW	145.73	339.3	18	42	2						
LWIRO	146.26	234.4	18	48A	7						
COLLMBERG	146.48	347.4	18	43A	1					22	16 PP
HALLE	146.49	348.7	18	44	2					28	11 SKKS
MUNSTER	146.67	353.6	18	47	5						
JENA	147.11	348.7	18	47	5					21	34
PRUHONICE	147.36	344.9	18	47	4						
KEW	147.42	2.6	18	48	5						
BENSBERG	147.71	353.8	18	49	6					19	12
BRATISLAVA	148.28	340.6	18	51K	7					19	4 PKP2
KASPERSKE H.	148.39	345.4	18	46	2					21	37 *SPKP
VIENNA-H.	148.44	341.4	18	51K	7						
DOURBES	148.77	356.7	18	51	6						
STUTTGART	149.59	350.4	18	49	3						
STRASBOURG	149.99	352.3								18	54 PKP2
PARIS	150.13	359.3	18	56	9					19	2 PKP2
WELSCHBRUCH	150.32	354.1								18	55 PKP2
LJUBLJANA	150.97	341.8	18	57	9					21	40
BESANCON	151.50	354.2								18	58 PKP2
TRIESTE	151.55	342.5	18	58	9						
GARCHY	151.65	358.4	18	58K	9					19	8 PKP2
ROSELEND	152.97	352.8								19	2 PKP2

MARCH 9 22.H 7.M 40.S EPICENTRE -5.91 146.66 DEPTH= 100.KM

A=-0.83104 B= 0.54672 C=-0.10231 D= 0.5496 E= 0.8354
G= 0.0855 H=-0.0562 K=-0.9948 HT= 7.0

DEPTH OF FOCUS= 0.010R

SE= 1.75

	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	
PORT MORESBY	3.50	172.1	0	49	-4	1	21	-13					
RABAUL	5.75	73.0	2	18	54	2	24	-5					
HONIARA	13.63	105.7	3	8	-2	5	43	4					
CHARTERS TS.	14.10	181.5	3	16	0	5	57	7					
DARWIN	16.89	246.5	3	51	0	7	26	32					
GUAM	19.34	354.4	4	19	-1	7	48	0					
BRISBANE	22.14	165.4	4	50	2	8	46	6					
KOUMAC	22.46	132.1	4	51A	0								
PORT VILA	24.20	120.9	5	9A	1								
NOUMEA	25.12	132.4	4	51A	-26								
RIVERVIEW	28.09	172.0	5	49A	5	10	28	8			12	2	SSS
CANBERRA	29.34	176.1	5	54	-1	10	47	7	6	2	9	0	PCP
ADELAIDE	29.83	193.2	6	1	1	10	47	-1					
FORT NELSON	36.87	179.2									13	45	
MUNDARING	38.49	223.8	7	13K	-1	13	8	7					
PERTH	38.74	224.1				13	15	10					
DJAKARTA	39.60	267.5	7	22	-1	13	22	4					
TANGERANG	39.80	267.5	7	22	-2	13	22	1					
KARAPIRO	41.29	144.6	7	39	2								
AFIAMALU	41.65	104.2	7	44	4								
ABUYAMA	41.89	346.3	7	41	-1								
COBB RIVER	42.06	150.3	7	46	3								
CHATEAU	42.16	146.0	7	45	1								
HONG KONG	42.40	312.5	7	45	-1	14	3	4					
TUAI	42.81	144.3	7	51	2								
MATUSIRO	42.96	350.0	7	49	-1	14	5	-3					
WELLINGTON	43.24	148.8	7	54	1								
CANTON	43.49	312.7	7	56	1	14	22	7					
GEBBIES PASS	44.03	152.8	8	0	1								
ROXBURGH	44.07	157.1	8	0	1								
ZO-SE	44.13	328.0	8	0	0	14	29	4			9	47	PCP
MIZUSAWA	45.11	353.9	8	9	1						8	33	
NANKING	46.17	326.6	8	17	1	14	59	5	8	31	8	35	*SP
MEDAN	48.83	279.9	8	35A	-2	15	38	7					
MACQUARIE I.	49.45	170.6	8	43	1								
VLADIVOSTOK	50.61	346.0	8	51A	1	16	1	5					
KUNMING	52.67	307.7	9	8	2	16	29	5					
Y.-SAKHLINSK	52.82	356.6	9	8	1	16	32	6					
CHANGCHUN	53.14	340.8	9	11	2								
SIAN	53.54	320.9	9	11	-1	16	37	1	9	24	9	30	*SP
PEKING	53.66	331.1	9	12	-1	16	36	-1	9	30			
CHENGTU	54.65	314.3	9	21	1	16	54	3					
LANCHOW	57.91	319.4	9	44A	0	17	44	10					
PETROPAVLOVK	59.58	8.4	9	52	-3	17	56	0					
SHILLONG	61.70	303.1	10	9A	-1								
LHASA	63.98	306.9	10	26	1	18	57	6					
ULAN-BATOR	63.98	331.4	10	24A	-1	18	56	5					
WILKES	65.30	195.2				19	13	6					
CAPE HALLETT	67.90	172.4	10	51	1								
IRKUTSK	68.21	333.5	10	52	1	19	54	12					
ESEN BULAK	68.60	325.1	10	54	0	19	58	11					
MADRAS	68.65	286.3	10	57	3						16	5	
YAKUTSK	68.99	351.5	10	57	1	20	0	8					
MIRNY	70.75	200.0	11	7	0								
SCOTT BASE	72.67	175.6	11	22	4								
DEHRA DUN	74.79	303.5	11	46	15						21	6	
NEW DELHI	75.03	301.5	11	32K	0								
POONA	75.72	290.7	11	37K	1								
BOMBAY	76.75	290.9	11	44	2	21	27	8			14	17	
LAHORE	78.20	303.8	11	49	-1								
TIKSI	78.27	354.3	11	48	-2								
FRUNSE	81.01	314.9	12	5	0								
WARSAK DAM	81.06	305.6	12	4	-1	22	11	6					
QUETTA	84.11	301.1	12	20	-1	22	46	10					
SOUTH POLE	84.13	180.0	12	21	0								
BYRD STATION	84.88	169.9	12	26	1								
COLLEGE	85.21	23.0	12	25	-1				12	43			
SVERDLOVSK	92.73	326.7	13	1	-1								
AMDERMA	93.76	339.7	13	4	-2								

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PASADENA	97.56	56.4	13	26	2						
EUREKA	99.41	51.1	13	34	2					17	0 PPP
HUNGRY HORSE	100.58	42.0	13	40	3						
FLAMING GRGE	104.39	49.4	13	56	2						
WICHITA MTS.	113.64	54.7	18	28	2	18	51			19	21 PP
BULAWAYO	113.86	245.1	18	31	4						
MANHATTEN	114.36	49.6	18	31	3						
BROKEN HILL	115.46	251.0	18	33	3						
ROLLA	118.23	50.0	18	38K	3						
LITTLE ROCK	118.67	53.5	18	32	-4						
FLORISSANT	119.13	48.6	18	39	2						
ST. LOUIS 1	119.29	48.8	18	40	3						
COLLMBERG	120.72	328.1	18	42	2					19	33
KASPERSKE H.	121.56	325.7	18	46	4					19	26
BLOOMINGTON	121.86	47.1	18	45	3						
LJUBLJANA	122.56	322.2	18	45	1					19	14
STUTTGART	124.13	327.2	18	49	2						
FLORENCE X.	125.71	321.2	18	40	-10						
BREBEUF	127.33	34.9	18	55A	2						
CHINCHINA	137.90	88.9	19	15	2					22	51 PKS
LOME	145.63	272.2	19	33	7						
SAN JUAN	145.72	65.9	19	30	3						
ST. KITTS	149.11	65.9	19	38	6						
ANTIGUA	149.98	65.8	19	39	6						
GRENADA	151.32	75.7	19	37	2						
ST. VINCENT	151.55	73.3	19	45	9						
TRINIDAD	151.85	78.5	19	47	11						

MARCH 11 15.H 23.M 42.S EPICENTRE 52.29 178.46 DEPTH= 110.KM

A=-0.61398 B= 0.01655 C= 0.78915 D= 0.0269 E= 0.9996
G=-0.7889 H= 0.0213 K=-0.6142 HT= -6.3

DEPTH OF FOCUS= 0.012R

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	
KLYUCHI	11.03	298.4	2	44	8								
PETROPAVLOVK	12.05	281.3	2	48A	-1	4	53	-9			3	22	*SP
MAGADAN	17.02	306.1	3	54	2						15	36	SCS
COLLEGE	21.29	40.8	4	32	-7	8	30	6			8	38	PCP
Y.-SAKHLINSK	23.56	271.4	5	2	1	9	10	6					
SITKA	26.73	61.3	5	33	2								
YAKUTSK	27.51	309.9	5	35K	-3				6	5	6	53	PP
TIKSI	28.99	330.1	5	52	1						12	24	SSS
TUKUBASAN	31.38	254.5	6	10A	-3						7	11	
VLADIVOSTOK	32.14	272.3	6	17	-2	11	18	-4	6	45	8	3	PPP
MATUSIRO	32.29	256.9	6	18A	-2	11	10	-14	6	46	7	2	*SP
MOULD BAY	33.41	22.6	6	31	1								
ABUYAMA	35.00	257.3	6	42	-2								
ALBERNI	35.21	71.8	6	46	1								
KIPAPA	35.78	140.5	6	52	2						7	24	
CHANGCHUN	35.79	278.0	6	49K	-1				7	15	9	0	PP
HONOLULU	35.86	140.7	6	53	2								
VICTORIA	36.38	72.2	6	56	1								
PENTICTON	38.20	69.0	7	10A	0								
HAWAII V.OB.	38.67	138.0	7	17	3								
BANFF	39.61	64.4	7	22	0								
RESOLUTE	39.62	24.6	7	23A	1								
UKIAH	41.68	84.5	7	42	3								
HUNGRY HORSE	41.87	67.4	7	40	-1						13	11	SCP
MINERAL	41.92	81.9	7	42A	1								
ALERT	42.02	9.9	7	44K	2								
CALISTOGA	42.38	84.6	7	46A	1								
KHEYS	43.33	348.1	7	52A	-1	14	11	0	8	26	9	40	PP
IRKUTSK	43.47	300.8	7	53K	-1	14	9	-4			17	42	SCS
RENO	43.51	81.6	7	54	0								
PEKING	43.54	279.3	7	54K	0	14	13	-1	8	20	15	1	*SS
LICK	43.77	85.4	7	57A	1								
BUTTE	43.98	69.5	7	57	-1						13	19	SCP
ULAN-BATOR	44.39	294.2	8	0K	-1	14	6	-21					
THULE	44.80	17.9	7	57	-8				8	30	13	15	SCP
BOZEMAN	45.05	69.0	8	6	-1						13	25	SCP
EUREKA	45.87	79.0	8	13	0						17	53	SCS

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ZO-SE	46.34	266.0	8 15K	-2	14 52	-3	8 44	15 41	*SS
PAOTOW	46.89	284.0	8 20K	-1	15 3	1	8 50	15 49	*SS
NANKING	47.14	268.9	8 21K	-2	15 3	-3	8 50	15 47	*SS
GUAM	47.19	227.4	8 18	-5					
SALT LAKE C.	47.53	74.9	8 27	1				13 35	SCP
PASADENA	47.99	86.2	8 28	-2	15 20	2		10 29	PP
BOULDER CITY	48.81	81.9	8 36	0				13 40	SCP
FLAMING GRGE	48.88	73.2	8 36	0				13 40	SCP
AMDERMA	49.94	336.1	8 45K	0	15 46	1			
GLEN CANYON	50.12	78.6	8 45	-1					
RAPID CITY	50.47	66.2	8 48	-1				13 47	SCP
ESEN BULAK	51.15	298.3	8 55K	1	16 5	3			
SIAN	51.69	278.5	8 58K	0			9 26	9 38	*SP
LANCHOW	53.54	283.7	9 10K	-2	15 46	-48	9 41	16 32	*SS
TUCSON	53.77	82.5	9 13	0			9 47	10 21	PCP
TUCSON TELE.	53.78	82.3	9 14	1			9 51		
ALBUQUERQUE	54.56	77.0	9 17	-2					
KEVO	56.49	348.5	9 34	1					
SEMIPALATNSK	56.61	310.7	9 33	-1	17 13	-2		18 3	*SS
CANTON	56.93	265.5	9 33K	-3	17 17	-2	10 1	18 7	*SS
HONG KONG	57.01	264.2	9 35	-2	16 58	-22			
CHENGTU	57.16	278.9	9 35K	-3	17 20	-2	10 4	18 10	*SS
MANHATTEN	57.41	66.7	9 38	-1	17 22	-4			
TROMSOE	57.47	351.6	9 41	2					
APATITY	57.63	344.9	9 40A	-1	17 23	-6	10 15	18 21	*SS
DUBUQUE	58.37	60.3	9 45	-1	17 44	6			
SODANKYLA	58.79	347.7	9 49	0			10 25	12 0	PP
KIRUNA	59.07	350.5	9 50K	-1			10 26		
WICHITA MTS.	59.37	71.8	9 52	-1			10 36	12 21	PP
SVERDLOVSK	59.89	325.8	9 56K	-1					
RABAUL	60.54	210.5						24 25	
FAYETTEVILLE	60.94	67.8	10 2K	-2			10 43		
ROLLA	60.94	64.8	10 2	-2	18 7	-4			
KAJAANI	61.75	345.9	10 8	-1					
KUNMING	61.93	275.4	10 8	-2	18 17	-7	10 38	10 51	*SP
LONDON ONT.	62.89	54.1	10 16	-1					
LITTLE ROCK	62.92	67.6	10 15	-2					
BLOOMINGTON	62.96	60.4	10 17	0	18 43	6			
UMEA	62.98	349.4	10 17K	0	18 31	-6	10 52		
SIDA	63.55	8.1	10 23	2					
SKALSTUGAN	63.96	353.2	10 23K	-1					
SHAWINIGAN	64.24	46.5	10 24	-2					
SEVEN FALLS	64.65	45.0	10 26K	-2					
BREBEUF	64.66	47.8	10 26	-2	18 54	-4	10 54	11 3	PCP
FRUNSE	64.76	307.8						12 50	PP
PULKOVO	65.37	342.9	10 33	0			11 8		
NURMIJARVI	65.60	346.1	10 34A	0			11 10	11 4	PCP
LHASA	65.64	287.3	10 35K	0	19 12	2	11 8	20 0	*SS
HELSINKI	65.88	345.8	10 47A	11			11 13	11 7	PCP
PORT MORESBY	67.06	213.8	10 38	-6	20 19	52	11 5		
UPPSALA	67.15	349.6	10 43K	-1	19 24	-4	11 20	20 14	*SS
BERGEN	67.53	356.3	10 52	6					
MOSCOW	67.58	337.3	10 48A	1	19 33	0		11 23	PCP
PALISADES	67.97	51.1	11 7	18	19 37	-1			
SHILLONG	68.18	283.8	10 49A	-1					
TASHKENT	68.46	310.1	10 51K	-1	19 48	4		20 25	PS
HALIFAX	69.70	42.3	10 59K	-1					
COLUMBIA	69.75	60.5	11 0	0			11 31		
GOTEBORG	69.81	352.3	11 1K	1			11 37		
CHARTRA	70.00	288.1	10 58K	-4	20 1	-1			
KHOROG	70.37	306.1	11 5	1	20 6	0			
CHITTAGONG	70.62	281.6	11 5	0	20 6	-3	11 48	13 48	PP
KARLSKRONA	70.99	350.0	11 5K	-3			11 42		
BOKARO	73.08	287.0	11 21	1	20 37	0			
WARSAK DAM	73.09	303.8	11 19	-1					
LAHORE	73.57	300.3	11 19	-4					
NEW DELHI	74.33	296.4	11 26K	-1	20 48	-3			
WITTEVEEN	75.03	354.9	11 31	0					
MUNSTER	75.83	354.2	11 38	2					
HALLE	75.96	351.4	11 37	1			12 13		
LWOW	75.97	343.2	11 38K	1					
COLLMBERG	76.05	350.7	11 37	0			12 13	14 36	PP
ASHKABAD	76.13	315.2						14 31	PP
JENA	76.56	351.5	11 40	0	21 12	-3	12 16	15 0	PP
RACIBORZ	76.64	347.1	11 43	3					
BENSBERG	76.86	354.4	11 44	2			12 19	11 54	PCP
PRUHONICE	77.19	349.4	11 44	1				15 3	
SKALNATE PL.	77.22	345.5	11 47	3				12 42	

CHARTERS TS.	77.35	210.9	11	42	-2							
DOURBES	77.85	356.0	11	48	1				12	24		
TIFLIS	78.13	326.4	11	49	1	21	36	4	12	26		
KASPERSKE H.	78.14	349.9	11	49	0						14	41 PP
SIMFEROPOL	78.39	335.0	11	49	-1	21	35	0			15	3 PP
QUETTA	78.48	304.7	11	50	0	21	32	-4			22	30 *SS
VIENNA-H.	78.68	347.9	11	52	0							
STUTTGART	78.89	352.7	11	53	0				12	29		
BUDAPEST	79.06	346.0	11	57	3						12	32 PP
STRASBOURG	79.19	353.7	11	56	2						12	31
PARIS	79.22	357.3	12	56	62				13	33		
WELSCHBRUCH	79.45	354.7	11	57	1						12	32
RAVENSBURG	79.85	352.4	11	59	1				12	36		
BESANCON	80.63	354.8							12	37		
GARCHY	80.73	356.8	12	4	1				12	36		
TEHERAN	80.93	318.9	12	5	1	22	5	3				
LJUBLJANA	81.07	348.8	12	6A	2							
ROSELEND	82.14	354.2	12	13	3						12	50
CLERMONT-FD.	82.23	356.7									12	49
BRISBANE	82.47	202.9	12	10	-2						23	16
SOFIA	82.97	341.8	12	53	39						13	34
ISTANBUL UN.	83.34	337.2	12	17	1	22	29	3			15	27 PP
POONA	84.13	292.6	12	19A	-1							
BOMBAY	84.41	293.6	12	25	4	22	39	2			22	34 SKS
BAGNERES	85.01	358.8	12	35	11						13	2
TARANTO	86.18	345.7									22	30
TOLEDO	88.18	1.9									13	17
KSARA	88.22	329.6	12	37	-3						16	10 PP
KARAPIRO	89.88	182.3	12	47	-1							
SAN JUAN	90.18	59.1	12	49	0				13	23		
TUAI	90.72	181.0	12	49	-3							
CANBERRA	90.97	203.7	12	53	0							
ADELAIDE	93.57	211.7	13	4	-1							
LWIRO	124.09	322.4	18	48A	2							
BROKEN HILL	135.32	316.4	19	9	3						22	27 PKS
BULAWAYO	140.27	312.4	19	11	-5						22	48 PKS
PRETORIA	145.29	308.3	19	27	2							
WINDHOEK	147.04	327.1	19	30	2							
KIMBERLEY	149.43	310.0	19	33	1							

MARCH 11 16.H 16.M 29.S EPICENTRE 19.60 144.84 DEPTH= 434.KM

A=-0.77081 B= 0.54287 C= 0.33339 D= 0.5758 E= 0.8176
G=-0.2726 H= 0.1920 K=-0.9428 HT= 4.8

DEPTH OF FOCUS= 0.063R

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	
GUAM	6.10	180.9	1	23	-13	1	58	-53					
TUKUBASAN	17.08	346.8	3	33	-1						6	33	
ABUYAMA	17.29	333.5	3	34A	-2								
MATUSIRO	17.86	342.3	3	41K	-1						4	9	
MIZUSAWA	19.73	351.4	4	3	3	7	50	36					
MANILA	23.22	261.5	4	28	-5	8	18	6					
ZO-SE	24.21	302.9	4	40	-2	8	41	13	5	52	6	32	*SP
RABAUL	24.72	162.3									5	37	
VLADIVOSTOK	25.86	337.9	4	58	1								
NANKING	26.46	303.2	5	2	0	9	25	21	6	10	6	57	*SP
HONG KONG	28.75	280.8	5	27	5	9	41	1			11	52	PCS
CHANGCHUN	29.18	330.2	5	22K	-4						6	48	PP
CANTON	29.52	282.4				9	55	3			12	13	*SS
PEKING	31.93	315.8	5	50K	0	10	31	1					
SIAN	35.00	302.1	6	20	4								
PAOTOW	36.33	312.8	6	27	0	11	42	5					
CHENGTU	38.39	294.9	6	43	-1	12	6	-1					
KUNMING	39.21	286.0	6	51	1	12	23	4					
CHARTERS TS.	39.46	177.9	6	49	-4	12	18	-5					
MAGADAN	40.14	4.7	7	0	2	12	39	6					
ULAN-BATOR	41.69	321.5	7	10	0								
TANGERANG	45.50	239.6									8	28	
ESEN BULAK	47.76	315.5	7	58K	0								
SHILLONG	49.01	287.2	8	6K	-1								
CHITTAGONG	49.38	283.0				14	43	0					
LHASA	49.55	292.6	8	13	1	14	51	5			17	19	*SS

TIKSI	52.87	353.7	8	36K	0	15	37	7	10	8	17	38 SCS
CHATRA	53.12	289.3	8	34K	-4							
ADELAIDE	54.57	186.2	8	45	-3							
CANBERRA	54.75	175.8	8	46K	-3							
SEMIPALATNSK	59.00	317.6	9	18	-1							
FRUNSE	62.58	308.8	9	42K	0							
COLLEGE	62.83	26.3	9	44	0				11	17		
LAHORE	63.76	296.2	9	49	-1							
KARAPIRO	64.09	153.3	9	49	-3							
KHOROG	65.33	303.0	10	0	0							
TUAI	65.51	152.7	9	56	-5							
WARSAK DAM	65.75	299.2	10	3	1							
TASHKENT	66.65	307.4	10	9K	1	18	29	5				
AMDERMA	69.41	338.4	10	25K	0							
QUETTA	70.25	295.9	10	31	1							
KHEYS	70.27	350.0	10	29	-1						11	1
SVERDLOVSK	70.69	324.6	10	31K	-1							
MOULD BAY	72.50	14.5	10	43	0							
RESOLUTE	78.75	13.5	11	17	-1							
APATITY	79.89	338.7	11	23K	-1							
KEVO	80.83	341.8	11	29	0							
TEHERAN	81.51	304.8	11	33	1							
SODANKYLA	82.25	339.9	11	36	0							
HUNGRY HORSE	82.70	41.3	11	39	1							
TROMSOE	83.19	343.4	11	43	3							
MOSCOW	83.28	327.0	11	41K	0	21	16	-8				
WOODY	83.71	54.5	11	43	0							
KIRUNA	83.90	341.6	11	44	0							
TIFLIS	84.38	312.2	11	47	1							
EUREKA	84.57	50.1	11	49	2					13	21	
UMEA	86.49	338.5	11	56A	-1							
NURMIJARVI	86.84	334.6	11	57	-1							
HELSINKI	86.91	334.3	11	58	-1							
SALT LAKE C.	87.02	47.7	12	1	2							
FLAMING GRGE	88.65	46.8	12	7	0							
SKALSTUGAN	89.26	340.8	12	9	-1							
UPPSALA	90.00	336.3	12	12A	-1							
COLLMBERG	97.78	331.8	12	48A	-1						16	49 PKP
JENA	98.67	332.2	17	1	248							
KASPERSKE H.	99.04	330.0									17	1 PP
STUTTGART	101.27	331.8									17	19 PP
BULAWAYO	120.38	257.7	18	1	0							
LA PAZ	148.52	89.8	18	56	4							

MARCH 11 19.H 19.M 13.S EPICENTRE 8.83 -126.30 DEPTH= 80.KM

A=-0.58516 B= 0.79646 C= 0.15244 D= 0.8059 E= 0.5921
G=-0.0903 H= 0.1228 K=-0.9883 HT= 6.7

DEPTH OF FOCUS= 0.007R

SE= 3.83

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
MANILA	7.74	319.1	1	52	0	3	32	13				
HONG KONG	17.76	320.3	4	1A	-2	7	5	-11				
GUAM	18.66	74.1	4	10	-4	7	16	-20				
CANTON	18.86	320.3	4	16A	0	7	43	3			4	41 PP
YAKUSIMA	21.87	9.8	4	48	1	8	48	9				
ZO-SE	22.67	348.5	4	53A	-2	9	0	7				
KAGOSIMA	22.97	9.3	4	58	0	9	29	30				
MIYAZAKI	23.47	11.0	5	2	-1	9	30	23				
TOMIE	23.79	5.2	4	54	-12	9	42	29				
NAGASAKI	24.02	7.4	5	6A	-2	9	29	12				
NANKING	24.15	344.2	5	8A	-2	9	23	4				
KUMAMOTO	24.22	9.1	5	8	-2	9	45	25				
LEMBANG	24.26	230.7	5	12	1	9	42	21				
ASOSAN	24.36	9.8	5	1	-11	10	6	44				
DJAKARTA	24.48	233.1	5	15	2	9	47	23				
SAGA	24.58	8.1	5	13K	-1						6	24
SIMIDU	24.62	13.6	5	6	-8	9	30	3				
TANGERANG	24.63	233.4	5	17	3	9	49	22				
OOITA	24.78	10.7	5	15	-1	9	46	17				
HUKUOKA	24.92	8.1	5	35A	18	9	51	19				
TORISIMA	25.20	29.4	5	31	11	9	49	12				
SIMONOSEKI	25.36	9.0	5	38	17							

MUROTO	25.37	15.5	4 49	-32	9 34	-5		
KOTI	25.49	14.1	5 21	-1	9 48	7		
MATUYAMA	25.60	12.5	5 23	0	10 0	17		
SIOMISAKI	26.01	18.3	5 26	-1	9 51	1		
HIROSIMA	26.04	11.6	5 25	-3	10 2	12		
TAKAMATU	26.35	14.6	5 28	-2	10 9	13		
SUMOTO	26.60	16.1	5 21K	-12	10 10	11		6 20 PP
OSAKA	27.06	16.9	5 51	14	11 0	53		
ABUYAMA	27.28	16.8	5 35A	-4				
KYOTO	27.46	16.9	5 44	3				11 31
TOTTORI	27.52	14.0	5 47	6				
KAMEYAMA	27.53	18.3	5 41	0				8 32
PORT MORESBY	27.54	130.6	5 34	-7				
KUNMING	27.68	308.7	5 42A	-1				6 45 PP
TOYOOKA	27.70	15.1	5 55	12	10 43	26		
HIKONE	27.85	17.6	5 43	-1	10 45	25		
OMAESAKI	27.89	21.4	5 53	9				
MEDAN	27.94	261.0	5 48	3	10 45	24		
NAGOYA	27.98	18.9	5 42	-3	10 32	10		
GIHU	28.13	18.3	5 52	5				
OSIMA	28.47	23.0						7 1
HUKUI	28.57	17.0	5 57	6				
IIDA	28.58	19.9	6 1	10				
AJIRO	28.61	22.3						6 10
MISIMA	28.62	22.0	6 5	14				
RABAUL	28.85	115.6	5 45	-8	10 43	7		
HUNATU	28.89	21.4	5 50	-3	10 35	-1		
KOHU	28.97	20.9	6 1	7	10 55	17		
YOKOHAMA	29.16	22.8						7 3
MATUMOTO	29.29	19.5	6 12	15				
TOKYO C.M.O.	29.41	22.7						6 35
TITIBU	29.43	21.4	6 5	7				
TOYAMA	29.46	18.0	6 22	24	10 48	3		
OIWAKE	29.56	20.3	6 3	4				6 54 PP
MATUSIRO	29.64	19.6	5 55	-5	10 47	-1		7 1 PP
KUMAGAYA	29.69	21.7	5 36	-25	11 30	41		
NAGANO	29.75	19.5	6 13	12	10 58	8		
SIAN	29.93	330.3	6 0A	-3				7 13 PP
TUKUBASAN	30.02	22.7	5 56A	-7				7 4 PPP
KAKIOKA	30.06	22.8	6 3	-1				10 34
CHENGTU	30.08	319.3	6 1A	-3				7 17 PP
UTUNOMIYA	30.23	22.0	6 22	17	10 56	-2		
SHIRAKAWA	30.86	22.0	6 16	5				
ONAHAMA	30.97	23.1	6 17	5				
HUKUSIMA	31.51	21.8	6 15	-2				
YAMAGATA	31.91	21.2	6 16	-4				
SENDAI	32.13	21.9	6 19	-3	11 23	-4		
PEKING	32.36	345.4	6 21A	-3	11 32	1		
ISINOMAKI	32.43	22.3	6 21	-4	11 31	-1		
MIZUSAWA	32.97	21.4	6 28	-1	11 44	3		
PORT BLAIR	33.16	277.8	6 35	4	11 56	13		
MIYAKO	33.74	22.0	6 43	7				
LANCHOW	33.96	326.3	6 35A	-3	11 59	3		
VLADIVOSTOK	34.51	7.2	6 40A	-2	12 3	-1		14 47 SSS
PAOTOW	34.78	338.0	6 43A	-2	12 12	4		9 12 PP
CHARTERS TS.	34.81	145.8	6 42	-3	12 9	0		
CHANGCHUN	34.88	358.7	6 43A	-3				8 15 PP
CHITTAGONG	35.73	296.2	6 54A	1	12 40	17	7 4	8 15 PP
URAKAWA	36.23	20.9	6 55	-2				
SAPPORO	36.57	18.6	7 0	0	12 6	-30		15 44 SS
SHILLONG	36.71	301.3	7 0A	-1	12 40	2		8 27 PP
OBIHIRO	37.05	20.8	7 3	-1				
KUSIRO	37.54	22.0	7 6	-2	12 25	-26		
HONIARA	38.10	117.6	7 9	-4	12 55	-4		
NEMURO	38.28	22.9	7 16	2	13 6	4		
CALCUTTA	38.85	295.0	7 18	-1	13 19	8		8 40 PP
LHASA	38.97	306.9	7 21A	1				8 58 PP
Y.-SAKHLINSK	40.55	17.3	7 30	-3	13 33	-3		
CHATRA	41.11	300.9	7 36A	-2	14 9	25		9 15 PP
BOKARO	41.46	296.1	7 41A	1	14 16	26		9 7 PCP
MUNDARING	41.70	192.9	7 42A	0	13 49	-4		
PERTH	41.76	193.4	8 44	61	13 59	5		17 17
ULAN-BATOR	42.28	340.6	7 49K	2	14 6	4		
VISHAKHAPTNM	42.69	286.5	7 52A	1	14 21	13		9 31 PP
BRISBANE	44.20	145.4	8 1	-2	14 29	-1		
ADELAIDE	45.11	165.6	8 9K	-1	14 44	1		
ESEN BULAK	45.41	330.9	8 10	-2	14 52	5		
MADRAS	45.43	279.5	8 13A	0	14 59	12		10 3 PP

IRKUTSK	46.89	341.6	8	23A	-1	15	7	-1			10	2	PCP
HYDERABAD	47.27	285.5	8	28A	1	15	24	11			10	20	PP
KODAIKANAL	48.15	275.8	8	39	5	15	45	19			19	28	SS
RIVERVIEW	48.54	152.2	8	40K	3	15	40	9	8	52	10	48	PP
CANBERRA	48.86	155.2	8	37	-2	15	38	2	8	44	10	35	PP
PORT VILA	49.18	122.5	8	6	-36								
SEHORE	49.18	292.9	8	44	2	16	11	31			9	4	
DEHRA DUN	49.79	302.4	8	47	0	15	59	10			10	53	PP
NOUMEA	50.05	128.8	8	47A	-2								
NEW DELHI	50.09	299.9	8	48A	-1	16	6	13			10	45	PP
PETROPAVLOVK	51.25	24.5	8	54	-4	16	11	2			10	55	PP
POONA	51.71	286.6	9	0A	-1	16	27	12			14	16	PCS
BOMBAY	52.71	287.0	9	11A	2	16	41	12			11	8	PP
YAKUTSK	53.15	2.0	9	9	-3	16	35	0			11	17	PP
LAHORE	53.19	302.9	9	9	-3						16	48	*SS
MAGADAN	53.90	15.2	9	15A	-2	16	47	2			20	41	SS
TARRALEAH	54.12	161.6	9	18	-1				9	27			
MOORLANDS	54.48	161.1	9	21	-1				9	32			
FORT NELSON	54.97	161.2	9	29	4								
WARSAK DAM	56.04	305.1	9	32	-1						17	30	*SS
SEMIPALATNSK	56.22	326.3	9	32	-2	17	20	4					
FRUNSE	56.36	316.1	9	33A	-2	17	27	9			11	47	PP
KHOROG	56.92	309.1	9	38	-1	17	30	5			13	1	PPP
SUVA	58.01	117.8				17	47	8			18	47	SCS
KARACHI	58.49	293.6	9	52	2	18	12	26					
QUETTA	59.17	299.8	9	55	0						18	18	*SS
TASHKENT	59.64	312.9	9	57A	-1	18	9	9			18	30	PS
TIKSI	62.77	0.9	10	16A	-3	18	43	3			12	37	PP
ONERAHI	63.36	137.4	10	32	9								
KARAPIRO	65.36	138.8	10	34	-2				10	49			
COBB RIVER	65.47	143.0	10	49	12								
KAIMATA	65.61	144.9	10	53	15								
CHATEAU	66.08	139.9	10	45	4				10	57			
ROXBURGH	66.42	148.4	10	47	4	19	27	2			24	17	SS
WELLINGTON	66.81	142.1	10	54	9	20	9	39			13	29	PP
TUAI	66.89	138.8	10	44	-2						11	16	
GEBBIES PASS	67.05	145.3	10	54	7								
ASHKABAD	67.26	307.4	10	53	5	19	43	8			13	21	PP
MACQUARIE I.	68.80	160.3	10	57	-1								
SVERDLOVSK	69.44	327.7	10	59A	-3	20	0	-1			13	24	PP
TEHERAN	72.67	304.6	11	20	-1	20	57	19					
AMDERMA	73.13	340.8	11	21A	-3	20	44	1					
HONOLULU	73.48	70.4	11	31	5	20	57	10			25	58	SS
KIPAPA	73.55	70.3	11	31	5								
WILKES	75.86	186.5	11	42	3	21	15	1			26	27	SS
HAWAII V.OB.	76.26	72.1	11	43	1	21	37	19					
GORIS	76.72	308.5	11	44A	0								
KHEYS	77.85	351.0	11	49A	-1	21	39	4			14	47	PP
TIFLIS	77.86	310.8	11	50A	0	21	43	8					
MIRNY	79.00	192.9	11	56	-1	21	49	1			14	58	PP
COLLEGE	80.32	25.6	12	2	-2	22	3	2			12	25	
MOSCOW	82.03	325.2	12	11A	-2	22	22	3			22	36	SCS
TANANARIVE	82.34	249.5	12	19K	5						12	40	
APATITY	83.01	337.3	12	17A	-1	22	35	6			15	40	PP
KEVO	84.99	339.8	12	28	0								
SIMFEROPOL	85.38	314.6	12	29A	-1	23	1	9			15	53	PP
PULKOVO	85.45	329.7	12	30	0	22	52	-1			15	57	PP
KSARA	85.51	303.4	12	31A	1	23	3	9			15	51	PP
SODANKYLA	85.63	337.5	12	31	0	23	19	24			23	5	SKS
KAJAANI	85.87	334.2	12	33	1	23	5	8					
JERUSALEM	86.33	301.4	12	28	-6						15	52	PP
MOULD BAY	87.12	12.6	12	38A	0								
TROMSOE	87.74	340.5	12	42	1								
KIRUNA	87.80	338.6	12	40	-1	23	25	10			16	12	PP
HELSINKI	88.00	330.6	12	41	-1								
NURMIJARVI	88.06	331.0	12	41	-2	23	45	27			23	25	SKS
MAWSON	88.36	200.1	13	0	16								
ALERT	88.72	1.1	12	45	-1								
UMEA	89.12	334.8	12	47K	-1	23	31	3			16	30	PP
SCOTT BASE	89.41	172.1	12	45	-4								
ISTANBUL UN.	89.74	311.4	12	50K	-1	23	40	7	13	8	23	26	SKS
BUCHAREST	91.10	315.1	12	59	2	23	50	5			23	36	SKS
LWOW	91.14	320.7	12	57K	0	23	49	3			16	39	PP
UPPSALA	91.61	331.4	12	59K	0	24	9	19			23	41	SKS
WARSAW	92.30	323.6	13	2	0	23	55	-1	13	19	16	55	PP
SKALSTUGAN	92.50	335.9	13	3K	0								
RESOLUTE	92.91	10.1	13	4	-1								
SOFIA	93.47	314.0	13	9	1						16	59	PP
KRAKOW	93.62	321.7	13	10	1	24	5	-2			17	2	PP

SKALNATE PL.	93.69	320.8	13	9	0						
KARLSKRONA	93.97	328.4	13	9	-1						
ATHENS	94.40	309.3	13	10K	-2						
THULE	94.47	3.4	13	4	-8				17	1	
RACIBORZ	94.66	322.1	13	15	2				17	5	PP
BELGRADE	94.88	316.6	13	3	-11				26	19	PS
BUDAPEST	95.00	319.4	13	16	1	23	59	17	16	40	PP
GOTEBORG	95.16	330.6	13	15	-1						
ALBERNI	95.41	38.5	13	15	-2						
BRATISLAVA	95.99	320.5	13	20	1				14	5	
VIENNA-H.	96.42	320.8	13	23	2						
VICTORIA	96.54	38.9	13	14	-8						
PRUHONICE	96.90	322.8	13	23	0				17	18	PP
COLLMBERG	97.29	324.5	13	25K	0	24	21	5	25	10	S
LWIRO	97.75	268.9	13	28A	1	24	16	20	17	31	PP
HALLE	97.80	324.9	13	29	1	24	21	24			
KASPERSKE H.	97.81	322.3	13	28	0				17	39	PP
JENA	98.25	324.5	13	30	0	24	11	11	25	17	S
LJUBLJANA	98.40	319.2	13	38	8				17	41	PP
PENTICTON	98.54	37.2	13	30	-1						
SOUTH POLE	98.77	180.0	13	36	4	24	13	12			
TRIESTE	99.05	319.0				24	12	9	25	8	S
BROKEN HILL	99.69	256.8	13	38	1						
MUNSTER	100.00	326.6	13	40	2						
BANFF	100.09	34.3	13	36	-2						
BULAWAYO	100.17	251.1	13	39	1						
MESSINA	100.49	311.5				24	32	22	17	50	PP
STUTTGART	100.53	323.2	13	39	-1	24	24	14	18	14	PP
CALISTOGA	100.60	48.0	13	46A	6						
BENSBERG	100.73	325.8	13	42	1				17	31	PP
RAVENSBURG	100.77	322.2	13	41	0						
BERKELEY	101.11	48.7	13	48K	5	24	20	7			
DE BILT	101.25	327.4	13	47	4	24	47	33	17	55	PP
ROME	101.34	315.9	13	47K	3	24	30	16	17	50	PP
FLORENCE X.	101.42	318.0	13	51	7	24	37	23	18	14	PP
STRASBOURG	101.51	323.5	13	47	3	24	23	8	17	41	PP
ABERDEEN	101.92	334.1				24	20	3	27	45	PPS
PAVIA	102.18	319.9							23	37	
HUNGRY HORSE	102.28	36.4	13	49	1						
WELSCHBRUCH	102.42	323.8	13	47	-1						
DOURBES	102.58	325.8	13	49	0				26	35	
DURHAM	103.15	332.0				25	51	88			
EDINBURGH	103.17	333.5	13	55	3	25	24	61	18	12	PP
BESANCON	103.20	322.8							17	49	PP
ROSELEND	103.55	321.2	14	16	23				18	8	PP
KIMBERLEY	104.26	242.6							18	14	
BUTTE	104.28	38.0	13	58	2						
WOODY	104.44	49.7	14	4	7						
KEW	104.47	328.8				24	56	27			
EUREKA	105.03	45.2	14	1	777				18	23	PP
BOZEMAN	105.38	37.8	14	13	777						
PASADENA	105.55	51.0							18	27	PP
CLERMONT-FD.	105.65	322.5							18	51	
BANGUI	106.73	277.3							18	34	
SALT LAKE C.	107.27	42.5	14	10	777						
BOULDER CITY	107.33	48.1	14	22	777				18	48	PP
FLAMING GRGE	108.82	41.4	14	18	777						
BAGNERES	108.88	321.3							19	43	
HERMANUS	109.01	236.7				25	18	30	18	58	PP
GLEN CANYON	109.23	45.9	14	15	777						
RAPID CITY	110.91	35.9	18	41	17				29	34	PKPPKP
TUCSON	111.93	50.1	18	32	6				19	10	PP
TOLEDO	113.27	320.3	18	28	0	25	27	21	19	9	PP
ALMERIA	113.92	316.8	18	40	10	25	0	-8	19	42	PP
BANDEIRA	114.35	257.6	18	43	12						
GRANADA	114.50	317.7				26	33	83	20	18	PP
MANHATTEN	117.82	36.7	18	38A	1						
DUBUQUE	118.76	30.5	19	13	34						
WICHITA MTS.	119.36	41.8	18	23	-17				20	3	PP
ROLLA	121.41	35.0	18	46	2						
FLORISSANT	121.62	33.2	18	46	1						
SEVEN FALLS	122.25	13.8	18	45	-1						
SHAWINIGAN	122.30	15.5	18	47	1						
LONDON ONT.	122.63	23.7	18	47	0						
BREBEUF	123.03	16.6	18	53	6				30	41	PS
LITTLE ROCK	123.28	38.0	18	51	3						
BLOOMINGTON	123.34	30.3	18	53	5						
HALIFAX	126.06	8.7	19	5	12						

PALISADES	127.03	19.1	19 2	7	19 16		
M.BOUR	136.89	302.0	20 23	69		22 59	PP
BALBOA HTS.	148.76	56.2	19 35	1			
SAN JUAN	150.32	24.4	19 43	6			
GALERAZAMBA	151.01	48.2				27 3	PPP
ST. KITTS	152.51	19.0	19 30	-10			
ANTIGUA	152.97	17.3	19 46	5		20 2	PKP2
CHINCHINA	154.20	58.7	19 46K	4		27 8	PPP
FORT FRANCE	155.46	17.6	19 47	3			
ST. VINCENT	156.89	19.1				20 17	
HUANCAYO	158.49	100.4	19 48	0			
TRINIDAD	159.19	21.8	19 52A	3		24 6	PP
LA PAZ	163.99	119.9	19 58	4		24 51	PP

MARCH 12 9.H 41.M 33.5 EPICENTRE 8.25 -82.85 DEPTH= 7.KM

A= 0.12313 B=-0.98209 C= 0.14259 D=-0.9922 E=-0.1244
G= 0.0177 H=-0.1415 K=-0.9898 HT= 6.7

SE= 2.04

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BALBOA HTS.	3.33	77.6	0 53	-1				
SANTIAGO MA.	7.58	313.8	1 53	-1	3 19	-2		
GALERAZAMBA	7.89	70.8			3 35	6		2 13 PPP
CHINCHINA	7.89	114.0	1 56K	-2	3 33	4	2 0	
SAN SALVADOR	8.24	311.4	2 2	-1	3 32	-5		
HOPE	11.36	30.9	2 46	0	4 56	2		
COMITAN	12.05	312.1	2 57	2				4 42
MERIDA	14.21	333.4	3 24	0	5 54	-9		5 15
SAN JUAN	19.13	56.6	4 25	-1	8 4	8		
TACUBAYA	19.34	306.6	4 30	1	8 26	25		11 46 SCP
GRENADA	21.13	78.0	4 47	-1				
TRINIDAD	21.29	81.9	4 47A	-2	8 39	-2		
HUANCAYO	21.51	159.6	4 50	-2	8 52	7		
ST. VINCENT	21.76	75.2	4 54	0				
FORT FRANCE	22.21	71.2	5 3	4	8 11	-47		
ANTIGUA	22.30	64.6	5 0	0				
BARBADOS	23.35	76.0	5 7	-3				
COLUMBIA	25.68	3.5	5 33	1	10 27	28		
LITTLE ROCK	27.81	343.1	5 49	-3				
LA PAZ	28.59	149.4	5 56	-3	11 13	27		
FAYETTEVILLE	29.58	341.2	6 6K	-2			6 31	
WICHITA MTS.	30.05	333.5	6 8	-4	11 13	4		12 56 PCS
ROLLA	30.63	345.9	6 15	-2				
LUBBOCK	30.71	327.8	6 17	-1				
ST. LOUIS 1	30.98	348.7	6 18	-2				
BLOOMINGTON	30.98	354.5	6 19	-1				9 18
FLORISSANT	31.16	348.6	6 20K	-2				
CLEVELAND	33.11	1.8	6 38K	-1				
MANHATTEN	33.19	340.3	6 38	-1				
PALISADES	33.58	12.3	6 43	0	12 12	8		
ANTOFAGASTA	34.00	159.3	6 45	-2				
ALBUQUERQUE	34.28	324.3	6 47	-2				
LONDON ONT.	34.68	2.2	6 51	-1				
DUBUQUE	34.81	349.8	6 51	-2				
TUCSON TELE.	35.25	316.7	6 59	2				8 22 PP
TUCSON	35.27	316.5	6 57	0				8 21 PP
BREBEUF	37.96	10.6	7 19K	-1				9 34 PCP
GLEN CANYON	38.70	322.0	7 26	0				
SHAWINIGAN	39.13	11.0	7 28	-2				
RAPID CITY	39.85	337.0	7 36	0				
HALIFAX	39.90	21.5	7 37K	1				
SEVEN FALLS	40.07	12.8	7 36K	-2				
BOULDER CITY	40.15	318.2	7 35	-3				
FLAMING GRGE	40.18	328.4	7 37	-2				
SALT LAKE C.	41.39	326.2	7 48	0				9 53 PCP
PASADENA	41.46	313.6	7 50	1	14 11	7		9 17 PP
EUREKA	42.95	321.6	8 1	0				
PRIEST	44.21	314.6	8 11K	-1				
BOZEMAN	44.49	331.8	8 13	-1				
BUTTE	45.47	331.0	8 21	-1				10 8 PP
LICK	45.49	315.6	8 23K	1				
BERKELEY	46.18	315.9	8 29A	2				
CALISTOGA	46.78	316.6	8 31K	-1				
MINERAL	47.01	319.2	8 32A	-2				

HUNGRY HORSE	47.85	332.2	8	39	-1				10	15 PP
BANFF	50.56	333.9	8	59	-2					
PENTICTON	51.20	329.8	9	3	-3					
VICTORIA	52.67	327.1	9	15	-2					
ALBERNI	53.86	327.2	9	25	-1					
M.BOUR	64.72	78.0	10	44	3	19	23	3		
RESOLUTE	66.75	356.5	10	50K	-4					
THULE	68.60	3.7	10	17	-49					
HAWAII V.OB.	70.77	287.7	11	19	0					
MOULD BAY	70.79	351.3	11	22	3					
COLLEGE	72.07	336.0	11	25	-2					
KIPAPA	73.27	289.9	11	35	1					
HONOLULU	73.35	289.7	11	35	1					
ALERT	74.72	2.7	11	39	-3					
MALAGA	75.87	54.3	11	46K	-3					
TOLEDO	76.18	51.0	11	49	-2	21	28	-6		
GRANADA	76.51	53.8	11	52K	-1	21	31	-6		
ALMERIA	77.42	54.1	11	59K	1					
KEW	78.95	39.2	12	8	2	22	2	-2		
BAGNERES	79.32	47.7	12	5	-3					
GARCHY	81.24	43.4	12	21	3				13	31
DOURBES	82.10	40.5	12	21	-2	22	30	-6		
BESANCON	83.22	43.3	12	31	3					
BENSBERG	83.67	39.5	12	33	2				13 4	14 3
SKALSTUGAN	84.96	26.6	12	36	-1					
STUTTGART	85.27	41.6	12	37	-2	23	4	-4		13 15
GOTEBORG	85.67	32.4	12	40	-1				13 6	
JENA	86.45	39.2	12	43	-2	23	15	-4		29 3 SS
HALLE	86.59	38.6	12	44	-1					23 40 SPP
COLLMBERG	87.27	38.7	12	47K	-2				13 16	12 51 PCP
FLORENCE X.	87.31	46.3	12	51	2					
KIRUNA	87.39	21.7	12	47	-2	23	15	-13	13 15	
PADOVA	87.49	44.6								23 33 PS
KASPERSKE H.	88.01	40.8	12	51	-1					13 53
UPPSALA	88.16	29.8	12	52	-1					
UMEA	88.38	25.6	12	52K	-2					
PRUHONICE	88.48	39.8	12	53	-1	23	39	0		
TRIESTE	88.75	44.2	12	59	3	23	46	5	13 30	24 53 SP
LJUBLJANA	89.21	43.7	12	57	-1				13 30	
SODANKYLA	89.79	21.4	12	52	-9					
VIENNA-H.	90.00	41.3	13	0	-2					
BRATISLAVA	90.49	41.3	13	2K	-2				13 33	
NURMIJARVI	91.34	28.2	13	10	2					
BUDAPEST	91.91	41.6								17 7
SKALNATE PL.	92.27	39.8	13	13	1					
HERMANUS	104.57	123.4								27 39
KIMBERLEY	109.36	117.5								19 5
LWIRO	111.75	89.1								19 13
MATUSIRO	121.10	321.8	18	53	-1					30 17 SP
BRISBANE	124.20	242.5								15 17
CANBERRA	125.59	232.3	19	2K	0					
PEKING	128.84	341.3	19	9	0					21 19 PP
CHARTERS TS.	131.12	250.6	19	13	0					22 38
WARSAK DAM	131.47	28.6	19	13	-1					22 38 PKS
QUETTA	132.02	35.9	19	14	-1					22 41 PKS
ZO-SE	134.60	330.6	19	19	-1					21 42 PP
NANKING	134.90	333.8	19	21	1					
LANCHOW	135.49	352.3	19	21	0					21 50 PP
SIAN	136.28	345.8	19	22	-1					22 55 PKS
LHASA	141.87	8.6	19	35	2					
CHATRA	143.81	15.2	19	33	-3					
POONA	144.84	40.7	19	36A	-2					
CANTON	145.05	333.4	19	40	2					23 12 PP
HONG KONG	145.35	331.5	19	40	1					
SHILLONG	145.99	8.5	19	40A	0					
KUNMING	146.39	350.8	19	42	2					
CHITTAGONG	149.13	9.6	19	47	2				20 15	20 28 *SPKP
LEMBANG	169.52	277.0	20	6	-2					

MARCH 12 11.H 40.M 11.S EPICENTRE 8.24 -82.96 DEPTH= 0.KM

A= 0.12125 B=-0.98236 C= 0.14236 D=-0.9925 E=-0.1225
G= 0.0174 H=-0.1413 K=-0.9898 HT= 6.7

SE= 3.85

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
BALBOA HTS.	3.44	77.7	0 54K	-2				
SANTIAGO MA.	7.51	314.5	1 53	-1	3 29	8		
CHINCHINA	7.98	113.5	1 5[illegible]	-6	3 25	-8	1 59	
GALERAZAMBA	8.00	71.0			3 37	4		
SAN SALVADOR	8.17	312.0	2 5	2	3 44	7		
HOPE	11.43	31.3	2 48	0	5 7	9		12 26
COMITAN	11.98	312.5	3 4	8	5 28	17		6 13
MERIDA	14.18	333.7	3 31	6	6 7	3		7 1
OAXACA	16.04	304.3	3 58	9	7 19	31		9 13
SAN JUAN	19.22	56.7	4 27A	-2	8 2	2		
TACUBAYA	19.26	306.8	4 27	-2	8 26	25		
GRENADA	21.24	78.0	4 47	-3				
TRINIDAD	21.40	81.9	4 47A	-5	8 39	-6		
ST. VINCENT	21.87	75.2	4 57	0				7 17
FORT FRANCE	22.32	71.2	4 38	-23	9 16	14		
ANTIGUA	22.41	64.7	5 4	2				
GUADALAJARA	23.23	304.3	5 21	11	9 29	10		
MANZANILLO	23.35	299.6	5 21	10	9 34	13		
BARBADOS	23.46	76.1	5 17	5				
HOUSTON	24.35	333.0	5 27	6				
COLUMBIA	25.70	3.7	5 32A	-2	10 9	8		
MAZATLAN	26.95	306.1						14 16
CHAPEL HILL	27.78	6.8	5 58	5				
LITTLE ROCK	27.79	343.3	5 49	-4				
LA PAZ	28.63	149.2	5 56	-5	10 48	-1		
FAYETTEVILLE	29.56	341.4	6 5K	-4			6 12	
CHIHUAHUA	29.76	315.9	6 15	4	11 39	32		
WICHITA MTS.	30.01	333.7	6 8	-5	11 24	13		9 21 PCP
ROLLA	30.62	346.0	6 14A	-4				
LUBBOCK	30.66	328.0	6 23	4				
ST. LOUIS 1	30.97	348.9	6 18	-4				
BLOOMINGTON	30.98	354.7	6 20	-2	11 32	6		
GEORGETOWN	30.98	9.0	6 20	-2				
WASHINGTON	30.98	9.0	6 27	5				10 59
FLORISSANT	31.15	348.8	6 20	-3	11 29	0		
LAWRENCE	32.53	342.0	7 2	27				
CLEVELAND	33.13	2.0	6 39A	-1	11 47	-13		6 46 PP
MANHATTEN	33.16	340.5	6 38	-3				
FORDHAM	33.47	12.5	6 49	6	12 29	24		
PALISADES	33.61	12.4	6 44A	-1	12 20	13	6 50	
CHICAGO JSA.	33.78	353.7	6 42	-4				
ANTOFAGASTA	34.03	159.2	6 44	-4				9 28
ALBUQUERQUE	34.22	324.4	6 45A	-5				14 25
LONDON ONT.	34.70	2.3	6 52K	-2				
DUBUQUE	34.80	350.0	7 1	6				
TUCSON TELE.	35.19	316.8	6 57	-1				
TUCSON	35.21	316.6	6 57A	-1	12 50	18		8 20 PP
BREBEUF	37.99	10.7	7 20A	-2	13 4	-11		7 54 PP
LARAMIE	38.56	332.3	7 26	-1				9 0
GLEN CANYON	38.64	322.1	7 26A	-1				
SHAWINIGAN	39.16	11.2	7 29	-3				
RAPID CITY	39.82	337.1	7 34A	-3				8 53 PP
HALIFAX	39.96	21.6	7 38	0				
BOULDER CITY	40.08	318.3	7 33A	-6				
SEVEN FALLS	40.11	12.9	7 39K	0				
FLAMING GRGE	40.14	328.5	7 37A	-3	13 39	-8		9 29 PCP
SALT LAKE C.	41.34	326.3	7 48	-2	14 12	7		9 53 PCP
PASADENA	41.39	313.7	7 52	2	14 21	15		9 20 PP
EUREKA	42.90	321.7	8 2A	0				
PRIEST	44.15	314.7	8 14K	2				
BOZEMAN	44.45	331.9	8 12A	-3	13 53	-57		8 31
LICK	45.42	315.6	8 23A	0				
BUTTE	45.43	331.1	8 20A	-3				10 6 PP
BERKELEY	46.11	315.9	8 28A	0	15 22	8		
CALISTOGA	46.71	316.7	8 33	0				
MINERAL	46.94	319.2	8 32	-3				
HUNGRY HORSE	47.81	332.3	8 39A	-3	15 36	-2		10 15 PP
BUENOS AIRES	48.50	152.8	8 49	2				
BANFF	50.53	334.0	9 0	-2				
PENTICTON	51.15	329.9	9 4K	-3				
VICTORIA	52.62	327.1	9 14	-4				
ALBERNI	53.81	327.2	9 27	0				
SITKA	63.28	331.0	10 40	7				
MBOUR	64.83	78.0	10 40	-3	19 27	3		
RESOLUTE	66.75	356.6	10 50	-6				
THULE	68.62	3.7	10 33A	-34				38 52 PKPPKP

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REYKJAVIK	70.24	24.1	11	24A	7						
HAWAII V.OB.	70.67	287.7	11	19	-1	21	13	39			
MOULD BAY	70.78	351.3	11	16	-5						
COLLEGE	72.04	336.0	11	25	-3	20	57	7			
LISBON	72.27	52.1	11	30	0	21	0	8			
SERRA PILAR	72.85	49.6	11	32K	-1				11	39	14 16 PP
COIMBRA	72.92	50.6	11	28	-5	21	8	8	11	39	11 45 PCP
KIPAPA	73.17	289.9	11	35K	0						
HONOLULU	73.25	289.7	11	38K	3	21	18	15			25 55 SS
ALERT	74.74	2.7	11	40	-4						
MALAGA	75.97	54.3	11	48A	-3	21	39	5			14 49 PP
TOLEDO	76.27	51.0	11	50	-3	21	45	8	12	6	14 57 PP
GRANADA	76.61	53.8	11	59	4	21	49	8			13 53 PP
EDINBURGH	77.50	34.6				21	36	-14			14 51 PP
ALMERIA	77.52	54.1	12	2	2	21	57	6			14 44 PP
JERSEY	77.85	41.5									20 21
ABERDEEN	78.17	33.3				22	7	9			15 7 PP
DURHAM	78.35	35.8	12	7K	3	22	5	5	12	32	15 38 PP
KEW	79.03	39.2	12	13A	5	22	10	3			27 28 SS
ALICANTE	79.06	52.6	12	9	1	22	12	5			15 12 PP
BAGNERES	79.41	47.7	12	6	-4						
PARIS	80.87	41.9	12	21	3	23	28	62			25 9
GARCHY	81.32	43.4	12	18	-2	22	37	6			12 52
CLERMONT-FD.	81.43	44.9	12	19	-2						15 35
BERGEN	82.04	30.1	12	21	-3						21 29 PS
DOURBES	82.18	40.5	12	28	3	22	37	-3			
DE BILT	82.42	38.5	12	31A	5	22	45	3			
WITTEVEEN	83.28	37.7	12	35A	5						
BESANCON	83.30	43.3	12	34	4						13 12
LOME	83.41	84.8	12	36	5						
BENSBERG	83.75	39.5	12	35K	2	22	59	4	12	56	15 48 PP
ROSELEND	83.89	44.8	12	34	1						
MUNSTER	83.94	38.5	12	48	14						
NEUCHATEL	83.98	43.5	12	40	6	23	3	5			
BASLE	84.36	42.9	11	59	-37						12 40
STRASBOURG	84.37	41.9	12	37	1	23	7	5			16 7 PP
FELDBERG	84.64	40.2	12	42	5						
MONACO	84.66	46.7	12	43	6						13 10
KARLSRUHE	84.75	41.4	12	38	0						
SKALSTUGAN	85.02	26.6	12	41	2						
EBINGEN	85.21	42.2	12	41	1						
TUBINGEN	85.24	41.8	12	44	4						
STUTTGART	85.35	41.6	12	37	-4	23	12	1			16 6 PP
RAVENSBURG	85.70	42.5	12	46	4						
PAVIA	85.72	45.1									13 21
GOTEBORG	85.74	32.4	12	40	-3						
CHIAVARI	85.94	46.0	12	49	5						21 52
JENA	86.53	39.2	12	45	-2	23	13	-10			24 34 PS
HALLE	86.67	38.6	12	50	3	23	16	-8			
CHEB	87.16	40.0	13	0	10	23	45	16			
COLLMBERG	87.35	38.7	12	49	-2	23	36	6			16 22 PP
FLORENCE X.	87.39	46.3	12	56A	5	23	35	4	13	27	16 15 PP
KIRUNA	87.44	21.7	12	48K	-3	23	21	-10			24 45 PPS
PADOVA	87.58	44.6	12	55	3	23	29	-4			25 49 PPS
KARLSKRONA	87.96	33.6	12	54	1						
KASPERSKE H.	88.09	40.8	12	51	-3						14 3
UPPSALA	88.22	29.8	12	52	-3	23	41	2			23 20 SKS
UMEA	88.44	25.6	12	53K	-3	23	20	-21			23 10 SKS
PRAGUE	88.47	39.7	12	53	-3	23	39	-2			16 11 PP
PRUHONICE	88.56	39.8	12	55	-1	23	49	7			
ROME	88.59	48.0	13	1A	4	23	53	11	13	29	16 33 PP
TRIESTE	88.84	44.2	13	2A	4	23	54	10			16 32 PP
KEVO	89.10	19.1	13	3	4						
KHEYS	89.19	5.9	12	55	-4	23	11	-36			16 37 PP
LJUBLJANA	89.29	43.7	12	58K	-2	23	47	-1			16 30 PP
SODANKYLA	89.84	21.4	13	2	0	23	56	2			16 40 PP
VIENNA-H.	90.08	41.3	13	6	2	24	1	5			
BYRD STATION	90.08	186.0	13	0	-4						
ZAGREB	90.34	43.7	13	11	6	23	29	-29			
BRATISLAVA	90.57	41.2	13	3	-3						16 34 PP
RACIBORZ	90.84	39.2	13	10	3						
HURBANOVO	91.36	41.4	13	8	-1						13 40
NURMIJARVI	91.41	28.1	13	10	0	23	47	-21			16 53 PP
KAJAANI	91.47	24.3	13	11	1	24	13	5			16 53 PP
MESSINA	91.59	51.2				23	42	-27	13	17	16 35 PP
HELSINKI	91.67	28.4	13	12	1						16 50 PP
KRAKOW	91.92	39.0	13	18	6						16 58 PP
BUDAPEST	91.99	41.6	13	17	5	24	4	-9			16 46 PP
WARSAW	92.00	36.7	13	17	5	24	17	4			16 59 PP

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APATITY	92.15	20.1	13	16A	3	24	2	-12		16	59 PP
SKALNATE PL.	92.35	39.7	13	17	3					16	57 PP
BELGRADE	93.64	43.9	13	19K	-1	24	28	1		17	7 PP
PULKOVO	94.31	27.8	13	27	4	23	56	-37		17	10 PP
LWOW	94.53	38.4	13	29K	5	24	3	-32		17	16 PP
SOFIA	96.23	45.4	13	35	3					17	34 PP
TIKSI	97.56	350.3	13	34	-4					24	18 SKKS
BUCHAREST	97.61	43.1	13	43	5	24	16	1	15 14	17	36 PP
SOUTH POLE	98.18	180.0	13	41	0						
AMDERMA	98.47	11.7	13	42	0						
MOSCOW	99.65	29.6	13	50	3	24	26	0		18	0 PP
MAGADAN	100.11	335.3	13	56	7					24	44 SKKS
ISTANBUL UN.	100.77	45.6	13	58K	6	24	33	2		18	5 PP
BANGUI	100.80	83.9	13	58	6					27	3
SIMFEROPOL	102.70	40.4	14	11	10	24	45	5		18	21 PP
TUAI	102.80	232.1								18	21 PP
CHATEAU	104.06	231.7								18	25 PP
KARAPIRO	104.07	233.0								18	26 PP
HERMANUS	104.65	123.4				24	56	7		18	31 PP
YAKUTSK	105.51	344.7	14	19	777					18	37 PP
BANDEIRA	108.10	103.9	13	43	777				13 51	17	34 PP
ROXBURGH	108.24	224.9								28	31 PS
KSARA	108.58	50.3	14	33	777	25	15	8		19	4 PP
SVERDLOVSK	108.60	20.1	14	36	777					19	0 PP
JERUSALEM	108.88	52.5	14	34	777					19	7 PP
KIMBERLEY	109.45	117.5	18	31	777						
TIFLIS	111.06	39.4	14	48	-228					19	19 PP
Y.-SAKHLINSK	111.67	328.2								19	25 PP
LWIRO	111.86	89.1	18	37	0					19	25 PP
BROKEN HILL	112.69	102.2	18	43	4						
BULAWAYO	113.00	108.3	18	37	-3						
TEHERAN	118.70	41.5	18	59	8				22 44	20	10 PP
SEMIPALATNSK	119.81	12.3	18	59	6	25	54	4			
VLADIVOSTOK	119.85	331.1								20	27 PP
TUKUBASAN	120.07	320.4	18	56A	3					20	25 PP
MATUSIRO	121.04	321.8	19	OK	5	25	43	-11		23	10 PPP
WILKES	121.25	186.3	15	35	-201					20	29 PP
ASHKABAD	121.58	35.5				26	3	7			
MIRNY	121.71	178.1								20	37 PP
CHANGCHUN	122.18	336.1	19	2A	5					20	32 PP
ULAN-BATOR	123.41	352.1	19	7	7					27	44 SKKS
BRISBANE	124.09	242.6								20	38 PP
RIVERVIEW	124.18	234.6								20	49 PP
MOORLANDS	124.41	223.5	19	5A	3						
TASHKENT	124.48	25.2	19	8	6					20	52 PP
TARRALEAH	124.97	223.4	19	7	4						
RABAUL	125.08	270.6	19	8	5						
FRUNSE	125.22	20.1	19	8	5	25	59	-8		21	1 PP
CANBERRA	125.50	232.3	19	6	2				19 14	21	0 PP
ESEN BULAK	125.60	0.7	19	10	6						
GUAM	127.96	294.1	19	13	4						
KHOROG	128.64	26.0	19	17	7					21	28 PP
PEKING	128.82	341.2	19	10	0					21	24 PP
PAOTOW	129.97	347.1	19	18	6					21	30 PP
PORT MORESBY	130.50	264.7	19	17	4					22	49
TANANARIVE	130.89	107.8	19	23	9						
CHARTERS TS.	131.01	250.6	19	4	-10					24	43
WARSAK DAM	131.53	28.5	19	14	-1					22	49 PKS
QUETTA	132.10	35.8	19	11	-5				19 23	22	47 PKS
ADELAIDE	133.50	228.8	19	22	3					21	49 PP
ZO-SE	134.56	330.5	19	23	2					22	1 PP
LAHORE	134.86	27.7	19	25	3						
NANKING	134.87	333.7	19	22	0					22	3 PP
KARACHI	136.01	40.8	19	31	7					19	52 PKS
SIAN	136.27	345.7	19	25	1					22	7 PP
DEHRA DUN	137.55	24.6	19	37	10					23	8
NEW DELHI	138.69	26.9	19	23K	-6					23	9
HWALIEN	139.98	323.7	19	41	10					22	32
CHENGTU	140.75	350.5	19	32	0					22	28 PP
LHASA	141.90	8.5	19	36	2					23	15 PKS
CHATRA	143.85	15.0	19	41	3					23	15
BOMBAY	143.98	41.3	19	39	1					23	21 PP
POONA	144.92	40.5	19	36K	-4						
CANTON	145.01	333.2	19	40	0					23	6 PP
TOCKLAI	145.15	3.5	19	49	9						
HONG KONG	145.31	331.4	19	41	1					23	7 PP
SHILLONG	146.02	8.4	19	39	-2					21	55 PP
BOKARO	146.29	18.8	19	51	9						
KUNMING	146.38	350.6	19	42	0						

MANILA	147.04	313.6	19	48	5					34	4
CALCUTTA	148.26	15.4	19	38	-7					26	55
HYDERABAD	148.57	35.7	19	54	8					26	28
CHITTAGONG	149.16	9.5	19	52	5	27	0	7	20 10	23	59 PP
MUNDARING	150.41	214.4	19	45A	-4						
PERTH	150.64	214.0	19	54	5						
VISHAKHAPTNM	150.86	27.7	20	1	12					23	18
MADRAS	153.06	38.6	20	5	13					23	25
KODAIKANAL	153.24	47.1								36	3
LEMBANG	169.41	276.9	20	13	4					25	3 PP
DJAKARTA	170.07	281.2	20	29	19					26	1
TANGERANG	170.26	281.6	20	12	2					22	12

MARCH 15 1.H 51.M 18.S EPICENTRE 45.87 151.63 DEPTH= 16.KM

A=-0.61482 B= 0.33206 C= 0.71536 D= 0.4752 E= 0.8799
G=-0.6294 H= 0.3400 K=-0.6988 HT= -3.9
SE= 2.95

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	2.71	257.8	0	45	1	1	18	1				
Y.-SAKHLINSK	6.26	283.8	1	37	3	2	51	5				
UGLEGORSK	7.23	299.8	1	52A	4						4	5
PETROPAVLOVK	8.49	30.0	2	0	-5						3	42
MIZUSAWA	10.26	232.7	2	39	10	4	12	-13				
TUKUBASAN	12.97	226.1	3	1	-5	5	15	-16				
MAGADAN	13.72	358.2	3	19	3							
MATUSIRO	13.72	232.0	3	13K	-3	5	46	-3				
VLADIVOSTOK	14.34	266.0	3	25	1						6	27
CHANGCHUN	18.75	273.2	4	20	0							
PEKING	26.45	270.0	5	39	1	10	13	4				
TIKSI	28.02	344.9	5	51	-1	10	29	-5				
SIAN	34.30	265.5	6	48A	1							
LANCHOW	36.92	271.9	7	11A	1							
COLLEGE	37.48	37.7	7	18	4				7	29		
CHENGTU	39.75	264.5	7	34	1	13	35	-1				
KUNMING	44.07	259.1	8	10A	1	14	41	1				
MOULD BAY	45.79	19.5	8	24	2							
AMDERMA	47.86	332.0	8	38	-1							
LHASA	49.40	272.9	8	53A	2							
ALERT	50.74	5.5	9	2	1							
SHILLONG	51.32	268.1	9	4K	-1							
RESOLUTE	52.00	18.0	9	11	1							
CHITTAGONG	53.42	265.1	9	21	0						9	32
ALBERNI	53.71	53.9	9	24	1							
SVERDLOVSK	53.78	317.1	9	22	-2							
PENTICTON	56.57	51.6	9	46A	2							
KHOROG	58.06	292.6	9	58	4							
NEW DELHI	59.64	280.9	10	5A	0							
SODANKYLA	59.70	338.5	10	4	-2							
TROMSOE	59.72	342.7	10	6	0							
LAHORE	59.76	285.4	10	7	1							
WARSAK DAM	60.12	289.3	10	9	0							
HUNGRY HORSE	60.16	50.1	10	11	2							
KIRUNA	60.85	340.9	10	10	-4							
KAJAANI	61.89	335.6	10	21	0							
UMEA	64.14	338.3	10	35A	-1							
EUREKA	64.51	58.9	10	39	1						10	49
WOODY	65.14	63.8	10	39	-3				10	49		
QUETTA	65.55	288.7	10	45	0							
NURMIJARVI	65.56	334.3	10	45K	0						11	14 PCP
HELSINKI	65.73	333.9	10	45	-1							
SKALSTUGAN	66.26	341.4	10	49	0							
FLAMING GRGE	67.41	54.2	11	4	7							
BOULDER CITY	67.46	61.2	11	5	8							
UPPSALA	68.13	337.0	11	0	-1							
POONA	68.51	274.7	11	3A	0							
GLEN CANYON	68.76	58.6	10	18	-47							
TIFLIS	71.16	310.8	11	21	1							
GOTEBORG	71.48	338.5	11	21	-1							
TEHERAN	71.64	302.5	11	24	2							
ALBUQUERQUE	73.17	57.1	11	33	1							
MANHATTEN	75.60	48.2	11	50	4							
COLLMBERG	76.84	334.8	11	53A	0						12	2 PCP

HALLE	76.98	335.5	11	47	-6							
PRUHONICE	77.53	333.2	11	57	1							
JENA	77.59	335.4	11	58	1							
MUNSTER	77.74	338.2	11	58	0							
WICHITA MTS.	77.83	52.5	11	55	-3					13	11	
BRATISLAVA	78.26	330.8	12	1	1					12	10	PCP
VIENNA-H.	78.44	331.3	12	2	1							
KASPERSKE H.	78.58	333.4	12	2	0							
BENSBERG	78.78	338.0	12	4K	1							
ROLLA	78.98	46.2	12	6	2							
FELDBERG	79.11	336.9	12	18	13							
FAYETTEVILLE	79.18	48.8	12	8	3							
KEW	80.07	342.6	12	11	1							
STUTTGART	80.19	335.8	12	12	1					13	18	
DOURBES	80.23	339.2	12	11	0							
BLOOMINGTON	80.59	42.0	11	56	-17							
BREBEUF	80.65	30.4	12	14	1							
STRASBOURG	80.79	336.6	12	15	1							
KSARA	81.74	310.7	12	30	11							
PARIS	81.94	340.0	12	23	3							
GARCHY	83.22	339.0	11	29	-58							
JERUSALEM	83.67	309.9	12	31A	2							
ROSELEND	83.74	336.1	12	30	1							

MARCH 15 13.H 7.M 9.S EPICENTRE -20.77-178.67 DEPTH= 598.KM

A=-0.93553 B=-0.02168 C=-0.35258 D=-0.0232 E= 0.9997
G= 0.3525 H= 0.0082 K=-0.9358 HT= 4.5

DEPTH OF FOCUS= 0.089R

SE= 1.75

	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
SUVA	3.78	313.2	1	24	0							
AFIAMALU	9.48	45.0	2	12K	-2	3	58	-3				
KARAPIRO	17.82	195.1	3	35	1						5	0
TUAI	18.32	190.4				6	37	1				
HONIARA	23.48	295.5	4	33	7							
CANBERRA	31.84	236.0	5	38A	0							
CHARTERS TS.	32.83	264.9	5	46K	-1						8	12
PORT MORESBY	34.80	283.8	6	2K	-1							
ADELAIDE	39.93	240.0	6	44	-1							
DARWIN	48.95	271.5	7	54	0							
GUAM	49.50	310.3	7	57	-1							
BYRD STATION	64.48	170.4	9	40	0							
SOUTH POLE	69.35	180.0	10	10	0							
MATUSIRO	70.06	324.2	10	12K	-2							
LEMBANG	72.40	269.3	10	27K	-1							
HONG KONG	78.26	299.3	11	0	0							
PRIEST	78.80	44.4	11	3A	0							
BERKELEY	78.80	42.2	11	3A	0							
LICK	78.88	43.0	11	4K	1							
CALISTOGA	79.07	41.4	11	4K	0							
PASADENA	79.33	47.3	11	10	5							
MINERAL	80.71	40.5	11	12K	-1							
RENO	81.34	42.0	11	16	0							
TUCSON	83.58	52.2	11	28	1							
TUCSON TELE.	83.70	52.1	11	29	1							
EUREKA	83.75	43.8	11	28	0				13	48		
GLEN CANYON	85.37	47.7	11	36	0							
PENTICTON	87.23	34.2	11	44K	-1							
ALBUQUERQUE	88.06	51.5	11	48	0							
COLLEGE	88.61	12.7	11	49	-2				14	3		
HUNGRY HORSE	89.73	37.1	11	54	-2							
WICHITA MTS.	93.85	54.4	12	14	-1							
HERMANUS	122.53	197.5									25	7
KIRUNA	131.44	350.5	18	3	-2							
KAJAANI	133.25	344.4	18	7	-2						20	42 SKP
UMEA	135.13	348.2	18	11	-1						20	47 SKP
SKALSTUGAN	136.58	352.9	18	20	5							
NURMIJARVI	137.02	343.3	18	9	-6				20	32	20	53 SKP
HELSINKI	137.22	342.8									20	54 SKP
UPPSALA	139.27	347.5	18	11	-9							
GOTEBORG	142.30	350.7	18	20	-6							

KARLSKRONA	143.10	346.7	18 23	-4		
LWIRO	144.67	232.9	18 32K	2		
KSARA	146.82	300.4	18 37	4		
WITTEVEEN	147.75	353.9	18 38	4		
RACIBORZ	147.84	339.4	18 37	3	18 43	PKP2
COLLMBERG	148.19	346.1	18 34K	-1	21 21	
MUNSTER	148.48	352.5	18 39	4		
JENA	148.84	347.4	18 40	4		
PRUHONICE	149.02	343.3	18 41	5		
BRATISLAVA	149.86	338.8	18 43	6		
KASPERSKE H.	150.06	343.8	18 43	6		
DOURBES	150.62	355.7	18 44	6		
STUTTGART	151.35	349.0	18 40	1		
STRASBOURG	151.78	350.9	18 59	19		
ROSELEND	154.77	351.3	18 54	10		

MARCH 16 9.H 42.M 23.S EPICENTRE 26.79 127.41 DEPTH= 134.KM
A=-0.54301 B= 0.71004 C= 0.44831 D= 0.7943 E= 0.6075
G=-0.2723 H= 0.3561 K=-0.8939 HT= 2.8

DEPTH OF FOCUS= 0.016R

SE= 1.89

	DELTA DEG.	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	5.48	249.7	1	20	-1								
TAIPEI	5.58	253.0	1	20	-2	2	27	1					
HWALIEN	5.94	243.0	1	40	13	3	31	57					
ZO-SE	6.94	309.7	1	39	-2	3	9	10					
NANKING	9.17	307.0	2	9	-1	4	4	12					
HONG KONG	12.85	252.5				5	26	7					
MATUSIRO	13.37	40.7	3	8	2						9	47	
PEKING	16.18	327.5	3	42	1	6	52	16			3	55	*SP
CHANGCHUN	17.09	354.8	3	51	-1	7	8	12			4	7	*SP
SIAN	17.56	299.5	3	57	-1						4	14	*SP
PAOTOW	19.91	318.1	4	23	0						4	39	*SP
CHENGTU	20.87	286.1	4	36	3						4	54	*SP
LANCHOW	22.09	300.5	4	44	-1	8	47	12					
KUNMING	22.24	271.2	4	48	2	8	55	18			5	5	*SP
SHILLONG	31.85	275.9	6	13	-1								
LHASA	32.09	283.7	6	17	0								
NEW DELHI	44.23	284.4	7	56K	-2								
WARSAK DAM	48.22	292.8	8	30	1								
POONA	49.80	272.2	8	40A	-1								
CHARTERS TS.	50.06	156.7	8	52	9								
QUETTA	52.71	288.7	9	3	0								
COLLEGE	63.89	28.3	10	20	-1								
TEHERAN	64.12	298.7	10	22	0								
CANBERRA	65.06	160.6	10	25	-3								
APATITY	67.04	335.4	10	39A	-2								
KEVO	68.64	338.4	10	50	-1								
MOULD BAY	69.47	13.6	10	54A	-2								
SODANKYLA	69.59	336.1	10	56K	-1								
KAJAANI	70.34	332.6	11	1K	0								
KIRUNA	71.60	337.5	11	8	-1								
HELSINKI	73.02	329.3	11	17	0								
NURMIJARVI	73.02	329.7	11	18K	1								
UMEA	73.46	333.8	11	19	-1								
RESOLUTE	75.14	10.7	11	28A	-1								
UPPSALA	76.45	330.8	11	36	-1								
SKALSTUGAN	76.64	335.4	11	38	0								
PRUHONICE	83.21	323.2	12	14	1								
COLLMBERG	83.28	324.9	12	14	1								
PENTICTON	83.64	37.3	12	15K	0								
HALLE	83.70	325.4	12	16	1								
KASPERSKE H.	84.21	322.8	12	20	2								
JENA	84.22	325.1	12	19	1								
STUTTGART	86.71	324.2	12	31	1								
HUNGRY HORSE	87.20	35.9	12	33	1								
EUREKA	91.50	43.8	12	53	0								
WOODY	91.86	48.2	12	53	-1								
FLAMING GRGE	94.49	39.5	13	7	1								

MARCH 16 19.H 42.M 41.S EPICENTRE -10.79 165.56 DEPTH= 32.KM

A=-0.95149 B= 0.24508 C=-0.18604 D= 0.2494 E= 0.9684
G= 0.1802 H=-0.0464 K=-0.9825 HT= 6.4

SE= 1.17

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
HONIARA	5.68	283.3	1	25	1	2	31	2					
PORT VILA	7.40	159.1	1	47	-1	3	8	-4					
NOUMEA	11.47	175.8	2	44A	-1	4	47	-6					
SUVA	14.45	121.9	3	37	13								
RABAUL	14.79	295.3	4	29	60						5	3	
PORT MORESBY	18.17	272.7	4	13K	2	7	39	9					
BRISBANE	20.42	214.3	4	36	-1	8	11	-8					
CHARTERS TS.	20.75	241.2	4	39	-1	8	33	8					
AFIAMALU	22.35	100.3	4	54A	-2								
ONERAHI	26.12	163.6	5	34	1								
RIVERVIEW	26.46	207.7	5	36K	0						5	48	*SP
KARAPIRO	28.47	163.3	5	53	-1				6	4	12	45	SCP
CANBERRA	28.69	209.0	5	56K	0	10	43	2			6	50	PP
CHATEAU	29.66	164.2	6	5	0	11	9	12	6	15			
TUAI	29.75	161.6	6	4K	-2				6	14			
COBB RIVER	30.82	169.4				11	19	4	6	28			
WELLINGTON	31.43	166.6	6	20	0	11	23	-2					
KAIMATA	32.02	171.8	6	30	4	11	38	4	6	42	16	51	
MELBOURNE	32.65	211.1	6	31	0	12	28	44					
GEBBIES PASS	33.36	170.6	6	38	1	11	55	0					
DARWIN	34.04	263.9	6	42	-1								
ADELAIDE	34.29	221.1	6	45K	0	12	10	1	6	57	17	13	SCS
ROXBURGH	34.72	175.3	6	51	2	12	35	19	6	59			
MOORLANDS	35.38	203.8	6	55K	0						7	4	PP
FORT NELSON	35.73	203.1	7	15	17	13	40	68					
KIPAPA	48.00	48.1	8	39	1								
MUNDARING	50.05	237.3	8	53K	-1								
MANILA	50.82	299.0	8	58	-1	16	33	21					
MATUSIRO	53.66	332.7	9	20	-1	16	52	1					
LEMBANG	57.32	268.8	9	46K	-1								
TANGERANG	58.39	269.4	9	52A	-3								
ZO-SE	59.55	315.9	10	1	-2	18	6	-2					
HONG KONG	60.15	303.5	10	7	0	18	22	6					
CANTON	61.20	303.8	10	15	1	18	32	2			18	54	*SS
NANKING	61.77	315.4	10	18K	0	18	41	4			18	58	*SS
CHANGCHUN	65.52	329.1	10	42K	0	19	23	0	10	51	10	56	*SP
WILKES	66.58	201.1				19	11	-25					
SCOTT BASE	67.05	179.7	10	52	0								
MEDAN	68.06	278.3	10	58A	0	19	50	-4					
PEKING	68.17	321.1	10	59	0	19	55	0,	11	8	20	11	*SS
SIAN	69.92	312.6	11	10K	0	20	19	3					
KUNMING	70.83	301.4	11	16K	1	20	32	5			20	51	*SS
CHENGTU	72.00	307.2	11	22	0	20	41	1			20	59	*SS
PAOTOW	72.36	318.8	11	25	1	20	50	6			21	9	*SS
LANCHOW	74.44	312.2	11	38K	1	21	12	4	11	47	11	52	*SP
BYRD STATION	76.83	170.0	11	49	-1								
SOUTH POLE	79.28	180.0	12	3	-1								
SHILLONG	80.25	298.4	12	9K	0								
LHASA	82.14	302.1	12	20K	1	22	33	3			22	53	*SS
UKIAH	82.59	48.0	12	23	2								
BERKELEY	82.87	49.4	12	23A	0								
COLLEGE	83.11	18.2	12	22	-2						15	32	PP
LICK	83.16	50.1	12	25A	1								
MINERAL	84.17	47.2	12	28A	-1								
CHATRA	84.65	298.5	12	32K	0								
PASADENA	84.87	54.0	12	32A	-1						17	13	
ALBERNI	85.21	38.0	12	33	-1								
VICTORIA	85.79	39.1	12	37	0								
MADRAS	87.96	283.6	13	2	14						23	14	
BOULDER CITY	88.00	53.0	12	49	1								
EUREKA	88.04	49.4	12	48	0						16	14	PP
PENTICTON	88.42	39.2	12	49A	-1								
TUCSON	90.35	57.4	13	0	1								
TUCSON TELE.	90.47	57.3	13	0	0								
GLEN CANYON	90.77	52.6	13	1	0								
SALT LAKE C.	91.42	48.9	13	3	-1								
BANFF	91.46	38.2	13	3	-1								
HUNGRY HORSE	91.69	41.2	13	6	1								
BOZEMAN	93.06	44.2	13	13	1								
FLAMING GRGE	93.28	49.1	13	12	-1								

NEW DELHI	93.65	298.2	13	13A	-1						
ALBUQUERQUE	94.46	55.4	13	18	0						
BOMBAY	95.99	288.0	17	16	231					23	58
LARAMIE	96.18	49.3	13	30	4						
MOULD BAY	96.90	13.5	13	28	-1						
WICHITA MTS.	100.84	56.5	13	42	-5	24	28	6		17	46 PP
RESOLUTE	102.87	15.6	13	54	-2						
FAYETTEVILLE	104.52	55.4								18	11
KIRUNA	118.56	345.7	18	50	5						
BREBEUF	119.10	43.7	18	45	-1						
KAJAANI	119.16	340.3	18	48	2						
SHAWINIGAN	119.39	42.4	18	46	0						
LA PAZ	120.38	116.4	18	51	3						
SEVEN FALLS	120.49	41.3	18	48	0						
UMEA	121.68	342.7	18	51	0						
NURMIJARVI	122.61	338.3	18	53	1					20	37
HELSINKI	122.73	337.8	18	51	-2						
SKALSTUGAN	123.99	346.0	19	6	11						
KIMBERLEY	125.40	222.9	19	0	2						
UPPSALA	125.50	340.8	19	8	10						
BULAWAYO	127.66	234.1	19	3	1						
SAN JUAN	129.56	75.1	19	6	0						
BROKEN HILL	130.62	240.3	19	7	-1						
COLLMBERG	133.81	336.4	19	14	0					21	48 PP
PRUHONICE	134.18	334.1	19	15	1					21	59 PP
JENA	134.65	337.0	19	15	0					21	55
LWIRO	135.07	255.8	19	31	15					22	6 PP
KASPERSKE H.	135.24	334.0	19	17	1					21	56
LJUBLJANA	137.07	330.3	19	33	13					20	2
STUTTGART	137.28	336.9	19	29	9						
GARCHY	140.74	341.1	19	28	1						
ROSELEND	140.84	336.5	19	41	14						
BANDEIRA	142.47	227.7	19	43	14				19 52	22	48 PP
BANGUI	146.63	261.5	19	40	3				20 1		
SERRA PILAR	149.35	351.3	19	45A	4					19	57 PKP2
TOLEDO	149.60	344.1								19	48 PKP2

MARCH 17 20.H 47.M 38.S EPICENTRE 10.69 -43.29 DEPTH= 75.KM

A= 0.71538 B=-0.67398 C= 0.18433 D=-0.6857 E=-0.7279
G= 0.1342 H=-0.1264 K=-0.9829 HT= 6.4

DEPTH OF FOCUS= 0.007R

SE= 3.35

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
BARBADOS	16.14	280.2	3	47	4							
ST. VINCENT	17.76	279.8	4	4	0	7	9	-7				
TRINIDAD	17.80	271.5	4	3A	-1	7	18	1				
FORT FRANCE	17.87	284.8	4	4	-1	7	18	-1				
GRENADA	18.13	276.1	4	5	-3							
ST. CLAUDE	18.67	288.5	4	19	5	7	54	18				
ANTIGUA	19.10	291.7	4	16	-3							
ST. KITTS	19.97	291.5	4	25	-4						5	40
SAN JUAN	23.36	291.7	5	4	2	9	18	12				
M.BOUR	25.95	79.1	5	23	-4	9	59	9				
FUQUENE	30.56	262.6	6	8	-1							
ANGRA DO HO.	31.33	24.6				11	35	19			7	23
GALERAZAMBA	31.41	273.2	6	20	4	11	36	19				
CHINCHINA	32.51	262.5	6	22A	-4	11	49	15			7	42 PPP
BALBOA HTS.	35.76	270.5	6	52A	-2	12	58	34				
LA PAZ	36.52	222.6	6	56	-4						8	25 PP
HALIFAX	38.06	336.3	7	13	0							
HUANCAYO	39.03	235.5	7	19	-2	12	55	-19				
FORDHAM	40.36	323.4	7	36	4						13	49
PALISADES	40.48	323.6	7	36K	3	13	40	4				
CHAPEL HILL	40.97	313.7	7	42	5							
WASHINGTON	41.17	318.8	7	39	1	13	12	-34	9	16		
LISBON	41.31	41.7	7	43A	3	13	59	11			9	19 PP
COLUMBIA	41.55	310.0	7	40	-2	13	54	2				
COIMBRA	42.59	40.3	7	53A	3	14	15	8			9	32 PP
PENNSYLVANIA	42.75	320.6	7	52K	1							
SERRA PILAR	43.01	39.1	7	54K	0	14	22	9			9	37 PP
SEVEN FALLS	43.13	332.5	7	51	-4							
ANTOFAGASTA	43.27	217.6	7	58	2							

BREBEUF	43.31	328.8	7	52	-4	14	14	-3			9	41 PP
MORGANTOWN	43.45	317.9	8	OK	3	14	23	4				
MALAGA	43.58	47.0	7	58A	0	14	26	5			9	46 PP
SHAWINIGAN	43.62	330.5	7	55	-4							
GRANADA	44.36	46.9	8	8	4	14	44	11			10	8 PP
SAN SALVADOR	44.92	278.7	8	17	8							
ALMERIA	45.04	47.8	8	12A	2	14	52	10			9	54 PP
TOLEDO	45.29	43.2	8	12K	0	14	52	6			9	57 PP
CLEVELAND	45.44	319.3	8	15K	2	14	59	11				
MERIDA	45.58	288.8	8	22	8	15	10	20			18	16 SS
LONDON ONT.	46.05	321.3	8	17	-1							
ALICANTE	47.09	46.8	8	28	2	15	21	9			10	19 PP
LA PLATA	47.42	196.4	8	32	3							
BLOOMINGTON	47.72	314.0	8	34	3	15	40	20				
COMITAN	47.73	282.2	8	26	-5	15	18	-3			10	16 PP
CHICAGO JSA.	49.66	316.8	8	45	-1							
ST. LOUIS 1	50.19	311.9	8	50	0	16	6	11				
FLORISSANT	50.35	312.0	8	50	-1	15	32	-25				
ROLLA	51.18	310.4	8	53	-5	16	21	12				
JERSEY	51.36	33.6	9	4	5							
VERA CRUZ	51.58	286.0	9	10	9	16	38	24			19	58 SS
DUBUQUE	51.96	316.3	8	58K	-5	16	42	23				
HOUSTON	51.97	299.4	9	7	3							
FOLINIERE	52.03	34.8	9	2	-2							
OAXACA	52.17	283.2	9	2	-3	16	40	18				
FAYETTEVILLE	52.39	307.5	9	5A	-2						10	52 PCP
CLERMONT-FD.	52.70	39.6	9	9	0	16	38	9				
GARCHY	53.36	37.9	9	16	2	16	56	18			9	38
KEW	53.58	32.0	9	16	0	16	48	7			11	16 PP
PARIS	53.74	36.0	9	15	-2	16	50	7				
LAWRENCE	54.01	310.6	9	40	21							
TACUBAYA	54.49	286.2	9	21A	-1	17	7	14			11	49
MONACO	54.69	43.4	9	24	0	17	14	18				
EDINBURGH	54.87	26.3	9	22	-3	16	57	-2			11	25 PP
DURHAM	54.87	28.1	9	47K	22	17	28	29			11	52 PP
ROSELEND	54.90	41.0	9	26	1							
MANHATTEN	55.07	310.6	9	22	-4	17	21	20				
BESANCON	55.12	39.0	9	26	-1						10	40
REYKJAVIK	55.45	11.2	9	33K	4							
WICHITA MTS.	55.57	304.8	9	24	-6	17	12	4			11	38 PP
DOURBES	55.57	35.4	9	28	-2	17	12	4				
NEUCHATEL	55.62	39.6	9	28	-2							
WELSCHBRUCH	55.84	37.9	9	35	3						10	58
SIDA	55.94	13.2	9	36	3							
ABERDEEN	56.12	25.6	9	37	3	17	19	4			21	4 SS
BASLE	56.23	39.2	9	34A	-1	17	32	15				
PAVIA	56.37	42.3	9	36	0	17	34	16				
STRASBOURG	56.77	38.1	9	36A	-3	17	32	8			11	52 PP
DE BILT	56.84	33.5	9	44A	5	17	36	11			17	39 PS
CHUR	57.20	40.6	9	40	-2	17	25	-5				
FLORENCE X.	57.31	44.5	9	41	-1	17	45	14			11	56 PP
KARLSRUHE	57.33	37.9	9	43	1	17	46	15				
EBINGEN	57.35	39.0	9	39	-4							
BENSBERG	57.42	35.4	9	44A	1	17	47	15	9	52	11	37 PP
TUBINGEN	57.54	38.6	9	44	0	17	42	8				
BOLOGNA	57.59	43.7	9	48	4	17	46	11			18	18 PS
RAVENSBURG	57.60	39.6	9	44	0	17	40	5				
ROME	57.63	47.0	9	40	-5	17	44	9			11	56 PP
HEIDELBERG	57.67	37.5	9	39	-6	17	46	10			10	5
STUTTGART	57.76	38.4	9	40	-6	17	33	-4			13	1 PP
FELDBERG	57.85	36.6	9	36	-10							
WITTEVEEN	57.98	33.2	9	49	2							
LUBBOCK	58.03	302.9	9	48	1							
MUNSTER	58.12	34.4	9	50	2							
PADOVA	58.24	42.8	9	52A	3	18	1	18			11	55 PP
GUADALAJARA	58.37	287.7	9	25	-25						11	43
MESSINA	59.06	51.8	9	52	-3	18	5	11	10	2	12	10 PP
REGGIO CALA.	59.12	52.0	9	56	1							
MANZANILLO	59.34	285.8									23	14
LUANDA	59.50	106.9	9	59A	1	18	8	9			12	20 PP
TRIESTE	59.57	43.0	9	58	0	18	10	10			12	9 PP
JENA	59.96	36.7	9	59	-2	18	10	5			12	1 PP
LJUBLJANA	60.20	42.8	9	57	-5	18	6	-3			12	5 PP
KASPERSKE H.	60.54	39.2	10	1	-4	18	18	5			13	49 PPP
TARANTO	60.80	49.6	10	3	-3	18	28	12				
COLLMBERG	60.93	36.7	10	5	-2	18	30	12			12	29 PP
CHIHUAHUA	61.12	296.8	10	19	10	18	52	32			25	28 SSS
RAPID CITY	61.12	314.6	10	10	1							

ZAGREB	61.12	43.4	10	8	-1	18	28	8			
BERGEN	61.14	25.2	10	12	3					18	25 PS
SCORESBY SD.	61.23	8.0	10	12	3	18	37	15			
PRAGUE	61.37	38.4	10	15K	5					12	35 PP
PRUHONICE	61.41	38.5	10	9	-2	18	32	8			
BANDEIRA	61.58	113.4	10	8A	-3	18	43	26	10 14	12	22 PP
BANGUI	61.62	90.8	10	12	0	18	36	9			
ALBUQUERQUE	61.99	303.9	10	10A	-4	18	38	7			
VIENNA-H.	62.04	40.8	10	8	-7	18	24	-8		12	27 PP
COPENHAGEN	62.27	31.9	10	19A	3	18	46	11			
BRATISLAVA	62.48	41.0	10	15	-3	18	51	14		12	35 PP
TITOGRAD	62.66	47.7	10	19	0	18	49	9		12	38 PP
HURBANOVO	63.12	41.6	9	56	-26					12	59 PP
KALOCSA	63.32	43.2	10	26	3	19	5	17		19	23 PPS
BUDAPEST	63.56	42.1	10	23	-2	18	57	6		11	44
RACIBORZ	63.69	39.2	10	27	1	19	11	18		12	57 PP
KECSKEMET	63.89	42.9	10	30	3	18	46	-9			
BELGRADE	63.96	45.3	10	28K	1	19	13	17		12	50 PP
SZEGED	64.03	43.7	10	15	-13					18	48 PS
KARLSKRONA	64.09	32.2	10	27	-1						
SKOPJE	64.17	48.5	10	32	3	19	4	5			
TIMISOARA	64.68	44.4								17	23
SKALNATE PL.	64.76	40.5	10	33	0					13	0 PP
KRAKOW	64.76	39.5	10	35	2	19	8	2		12	50 PP
FLAMING GRGE	65.04	310.2	10	30	-4						
TUCSON TELE.	65.32	300.7	10	33A	-3	19	25	12			
TUCSON	65.41	300.6	10	33A	-4	19	12	-2			
SKALSTUGAN	65.58	23.9	10	35	-3					12	1
SOFIA	65.67	48.0	10	38	0	19	36	19		13	12 PP
WARSAW	65.96	37.4	10	41	1	19	23	3		13	8 PP
GLEN CANYON	66.33	305.7	10	40	-3						
UPPSALA	66.41	28.8	10	37A	-6	19	30	4			
SALT LAKE C.	66.87	309.8	10	48K	2	19	36	5			
BOZEMAN	66.90	315.1	10	50K	4						
THULE	67.07	353.8	10	47K	0					13	3 PP
LWOW	67.30	40.4	10	54	5	19	50	13		13	18 PP
WINDHOEK	67.76	119.7	10	52	0						
BUCHAREST	67.89	46.4	10	19	-33	19	22	-22			
BUTTE	68.00	315.3	10	55K	2	19	39	-6			
BACAU	68.70	44.2	11	6	8	20	8	15			
BOULDER CITY	68.88	304.4	11	1K	2					39	16 PKPPKP
UMEA	68.93	25.2	10	58	-1	20	3	7		13	38 PP
IASI	69.23	43.5	11	2	1						
HUNGRY HORSE	69.29	317.7	10	57	-4	20	10	10			
ISTANBUL UN.	69.71	50.2	11	5A	1	20	14	9		13	35 PP
EUREKA	69.93	308.1	11	3A	-2						
NURMIJARVI	69.96	29.2	11	0	-5	20	12	4		13	44 PP
HELSINKI	70.02	29.6	11	3	-3					39	18 PKPPKP
RESOLUTE	70.12	347.2	11	2	-4						
KIRUNA	70.39	21.2	11	7A	-1	20	21	8		13	43 PP
TROMSOE	70.55	19.2	11	12	3						
PASADENA	71.60	302.5	11	16	1	20	40	13		25	28 SS
KAJAANI	72.17	25.9	11	14	-4	20	46	12		14	0 PP
ALERT	72.24	357.4	11	20	1						
SODANKYLA	72.51	22.4	11	17	-3					14	8 PP
PULKOVO	72.58	30.6	11	24	3	20	46	8		14	2 PP
LWIRO	72.86	95.7	11	20K	-2	20	54	13		15	56
RENO	72.90	308.1	11	24	1						
PENTICTON	73.06	318.3	11	20	-4						
KEVO	73.26	20.0	11	24	-1						
PRIEST	73.61	304.6	11	31K	4						
SIMFEROPOL	73.63	46.2	11	28K	1	20	58	8		14	15 PP
HERMANUS	74.27	130.4	11	31	0	21	8	11		21	38 SKS
MINERAL	74.27	309.0	11	32A	1						
LICK	74.36	305.8	11	36K	5						
JERUSALEM	74.73	59.9	11	34	1						
BERKELEY	74.84	306.4	11	37A	3	21	23	20			
CALISTOGA	75.07	307.2	11	39K	4						
APATITY	75.11	22.8	11	34K	-2	21	5	-2		14	22 PP
KSARA	75.18	57.8	11	37K	1	21	11	4		14	27 PP
BROKEN HILL	75.39	108.0	11	35	-2						
VICTORIA	75.54	317.4	11	38	0						
UKIAH	75.55	307.7	11	43	5						
MOSCOW	76.13	35.1	11	42K	1					11	49 PCP
MOULD BAY	76.36	346.2	11	39	-4						
ALBERNI	76.46	318.2	11	43	0						
BULAWAYO	77.07	113.6	11	44	-3						
PRETORIA	78.35	119.2	11	54	0						

KHEYS	81.37	9.4	12	14	4	22	23	10			23	11	PS
TIFLIS	81.56	49.1	12	12K	1	22	24	9			12	19	PCP
CHANGALANE	81.95	118.6	12	17	4	22	46	27					
COLLEGE	86.46	335.5	12	33K	-3	23	10	6			32	22	
TEHERAN	87.60	54.2	12	39	-2	22	43	-32			15	56	PP
SVERDLOVSK	88.63	32.3	12	48	2						16	14	PP
ASHKABAD	92.52	50.8									16	58	PP
TANANARIVE	94.19	108.4	13	21	9	23	56	-17			24	58	SKKS
TIKSI	97.70	2.5	13	29	1						24	53	
TASHKENT	99.38	44.8	13	41A	6						17	39	PP
SOUTH POLE	100.62	180.0	13	45	4								
QUETTA	101.67	56.1	13	50	5	24	29	12	18	3	17	24	
SEMIPALATNSK	101.88	33.0	13	54	8						18	2	PP
FRUNSE	102.34	41.7	13	52A	4						18	7	PP
WARSAK DAM	103.91	51.0	14	1	6						18	21	
LAHORE	107.04	52.3									17	39	
YAKUTSK	107.31	3.4	14	22	777						18	28	
HONOLULU	108.54	296.8									18	48	PP
DEHRA DUN	110.46	52.0	18	32	9						19	25	PP
BOMBAY	110.50	65.2	18	9	-14	25	12	16			18	40	PP
NEW DELHI	110.54	54.0	18	10	-14	24	44	-12			18	52	PP
IRKUTSK	111.38	20.7									19	13	PP
POONA	111.54	65.2	18	12A	-13						19	13	PP
ESEN BULAK	112.61	29.1									18	48	PP
ULAN-BATOR	115.93	21.8									19	17	
HYDERABAD	116.03	64.6				26	47	90			19	45	PP
MIRNY	116.95	161.9									36	4	SS
MADRAS	119.16	68.6	18	37	-3	25	26	-2			20	3	PP
CHATRA	119.16	51.1	18	47	7	25	44	16			20	15	PP
BOKARO	119.57	54.8									19	51	PP
VISHAKHAPTNM	120.18	62.3									30	12	SKSP
LHASA	120.48	46.3									20	18	PP
WILKES	121.64	167.9				25	49	12			20	24	PP
CALCUTTA	122.27	54.8									19	57	PP
Y.-SAKHLINSK	122.30	355.1				25	45	6			20	7	
SHILLONG	123.39	49.7	18	55	6	25	51	9			20	35	PP
LANCHOW	124.12	32.1	18	55	5						20	37	PP
CHANGCHUN	124.76	10.0	19	0	9						20	47	PP
CHITTAGONG	125.09	53.0	19	2	10				20	48	22	36	PKS
PEKING	126.06	19.4	19	1	7						20	53	PP
VLADIVOSTOK	126.27	4.4	19	9	15						20	54	PP
SIAN	128.10	29.4									21	6	PP
CHENGTU	128.26	36.4	19	5	7						21	8	PP
AFIAMALU	129.64	260.8	19	9	8								
KUNMING	131.39	42.5	19	11	7						21	31	PP
MATUSIRO	133.00	358.3	19	15K	8						21	35	PP
TUKUBASAN	133.23	356.2	19	16K	9						21	37	PP
NANKING	134.16	21.4	19	18	9						21	47	PP
TUAI	134.39	225.2	19	26	17								
WELLINGTON	134.78	220.9	19	18	8						21	51	PP
CHATEAU	135.31	223.9	19	21	10								
ROXBURGH	135.52	212.8	19	31	19						36	53	SKKS
ZO-SE	135.86	19.3	19	18	6						21	55	PP
KARAPIRO	135.91	225.5	19	31	19								
SUVA	138.99	254.7									23	4	PKS
CANTON	139.37	34.1									22	7	PP
MEDAN	139.58	71.5	19	30	11								
HONG KONG	140.46	33.9	19	22	1						22	27	PP
FORT NELSON	146.57	194.3	19	44	13						19	52	PKP2
MOORLANDS	147.07	194.3	19	42	10						19	52	PKP2
NOUMEA	149.30	244.2	19	46A	10								
TANGERANG	149.92	83.9	19	47A	10								
DJAKARTA	150.12	83.8	19	42	5								
LEMBANG	151.01	84.8	19	43A	5								
PERTH	151.37	140.8	19	54	15						43	39	SS
MUNDARING	151.59	141.3	19	46	7								
CANBERRA	153.05	202.6	19	47	6				19	59	43	16	SS
RIVERVIEW	153.44	207.7	19	49K	7						36	46	PPS
ADELAIDE	155.76	184.0	19	47	2						20	14	PKP2
BRISBANE	157.53	220.1	19	55	8	26	59	15					
RABAUL	163.37	291.7	19	58	5								
CHARTERS TS.	166.89	223.4	20	6	9	26	58	7					

MARCH 18 3.H 6.M 29.S EPICENTRE -16.53 167.80 DEPTH= 94.KM

A=-0.93753 B= 0.20272 C=-0.28275 D= 0.2113 E= 0.9774
G= 0.2764 H=-0.0598 K=-0.9592 HT= 5.5

DEPTH OF FOCUS= 0.010R

SE= 3.32

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
PORT VILA	1.29	157.4	0 10A	-14				
KOUMAC	5.22	219.2	1 11A	-6	2 16	0		
NOUMEA	5.88	192.3	1 18A	-8	2 30	-2		
SUVA	10.28	100.6	2 37	11	4 17	-3		
HONIARA	10.40	311.7	2 23	-4	4 35	12		
BRISBANE	17.61	229.6	4 1	1	7 24	13		
RABAUL	19.64	306.9	4 19	-4				9 31
AFIAMALU	19.88	85.2	4 21A	-5	8 6	7		
ONERAHI	20.04	164.2	4 27	0	8 26	24		
CHARTERS TS.	20.75	256.9	4 38	3	8 34	18		
PORT MORESBY	21.32	286.9	5 42K	62	8 47	21		
KARAPIRO	22.38	163.8	4 48	-3				7 47 PCP
RIVERVIEW	22.83	217.9	4 57A	2	9 13	20	5 4	9 44 SS
CHATEAU	23.58	164.8	5 1	-1				
TUAI	23.65	161.6	5 1	-2				
COBB RIVER	24.83	171.1	5 26	12				
CANBERRA	25.14	218.3	5 18A	1	9 46	13		
WELLINGTON	25.39	167.7	5 18	-2				12 39 SCP
KAIMATA	26.09	173.9	5 44	18				
ROXBURGH	28.89	177.8	5 57	5				
MELBOURNE	29.22	219.0	5 55	0				12 56
MOORLANDS	31.27	210.1	6 13A	0				
TARRALEAH	31.52	211.1	6 15	0				
FORT NELSON	31.57	209.3			11 26	10		13 17 SS
ADELAIDE	31.81	229.2	6 18	1	11 37	17		
MUNDARING	49.04	241.9	8 40	1				
HONOLULU	50.32	42.8			16 7	14		
MANILA	55.58	301.3	9 27	-1				12 27 PP
LEMBANG	59.53	271.7	9 58	3	18 12	16		
MATUSIRO	59.73	332.6	9 55A	-2	18 1	3		22 11 SS
TANGERANG	60.65	272.2	10 8	5	18 20	10		
SCOTT BASE	61.35	180.3	10 6	-2				
WILKES	62.10	202.6			18 27	-2		22 31 SS
HONG KONG	65.16	304.7			19 23	16		
ZO-SE	65.18	316.6	10 35	2	19 13	6		19 44 PS
NANKING	67.37	316.0	10 51	4	19 44	11		20 14 PS
VLADIVOSTOK	67.89	332.4	10 48	-2			11 33	
MIRNY	68.91	204.5	10 57	1				
BYRD STATION	70.84	169.8	11 7	-1				12 15
CHANGCHUN	71.53	329.0	11 12	0	20 32	10		
PEKING	73.98	321.2	11 27	0	21 3	13		
SIAN	75.39	312.9	11 35	0				
KUNMING	75.68	302.0	11 39	3	21 24	15		
CHENGTU	77.20	307.6	11 46	1	21 37	12		
PAOTOW	78.09	318.8	11 51	1	21 47	12		
LANCHOW	79.89	312.3	12 1	1				
CHITTAGONG	83.79	295.4	12 22	2	22 47	14		12 27 PCP
SHILLONG	84.88	298.4	12 30	5	22 53	9		
BERKELEY	84.98	48.3	12 26A	0	22 52	7		
PRIEST	85.42	50.4	12 29A	1				
KABANSK	86.36	327.2	12 34	2				
MINERAL	86.50	46.2	12 33A	0				
PASADENA	86.51	53.0	12 32	-1	23 13	13		
CALCUTTA	86.85	294.5						23 35
LHASA	87.01	301.9	12 38	2	23 4	-1		
RENO	87.41	47.5	12 38A	0				
COLLEGE	87.88	17.4	12 39	-1				
CHATRA	89.28	298.2						18 3
BOKARO	89.50	294.9			23 17	-11		
BOULDER CITY	89.73	52.3	12 44	-5				
EUREKA	90.14	48.7	12 51	1				
MADRAS	91.40	283.1						23 40
PENTICTON	91.49	38.7	12 57	0				
TUCSON	91.62	56.9	12 57	0				
TUCSON TELE.	91.73	56.9	12 58	0				13 43
GLEN CANYON	92.52	52.3	13 1	0				
FLAMING GRGE	95.37	49.0	14 14	60				
ALBUQUERQUE	95.90	55.4	13 17	0				
BOMBAY	99.78	286.8						19 52

WICHITA MTS.	102.13	57.2				23	58	-16	27	18 PS
TASHKENT	107.04	308.8				25	33	56	18	35 PP
QUETTA	107.32	297.0							17	21
ASHKABAD	115.19	304.5							34	37 SS
SHAWINIGAN	122.00	45.1	18	46	3					
KAJAANI	125.26	339.8	18	58	9					
TIFLIS	125.35	309.7	18	57	7					
UMEA	127.77	342.5	18	51	-3				33	17
SAN JUAN	128.69	79.5	19	7	11					
NURMIJARVI	128.71	337.6	19	0	4					
BROKEN HILL	129.40	234.8	19	3	6					
SIMFEROPOL	132.03	316.3							22	29 PKS
KSARA	133.64	301.1	19	6	1	26	18	13	21	45 PP
ISTANBUL UN.	136.97	313.1	19	17	5				23	31 PPP
SKALNATE PL.	138.12	328.2	18	59	-15					
BUDAPEST	139.83	327.0							22	21
COLLMBERG	139.90	335.5	19	22	5				22	57 PKS
PRUHONICE	140.26	333.0	19	22	4				22	54
BRATISLAVA	140.35	329.1	19	23	5				22	16 PP
KASPERSKE H.	141.31	332.8	19	22	2				22	25 PP
LJUBLJANA	143.09	328.6	19	25	2					
STUTTGART	143.37	336.0	19	28	5				21	41
TRIESTE	143.76	328.7	19	28	4					
STRASBOURG	144.10	337.2	19	38	14					
PADOVA	144.85	330.1	19	31	5					
PARIS	145.64	342.7	19	31	4				19	59
NEUCHATEL	145.72	336.5	19	32	5					
BESANCON	145.88	337.7	19	33	6					
FLORENCE X.	146.34	328.7	19	36	8				22	56 PKS
FOLINIERE	146.45	345.9	19	28	0					
GARCHY	146.84	340.9	19	36	7					
ROSELEND	146.93	335.5	19	36	7					
ROME	147.01	325.1	19	39	10				22	31 PKS
CLERMONT-FD.	148.15	339.5	19	47	16				21	32
MALAGA	158.73	342.5							28	1 PPP

MARCH 18 5.H 28.M 28.S EPICENTRE 40.55 142.49 DEPTH= 79.KM
A=-0.60438 B= 0.46401 C= 0.64763 D= 0.6090 E= 0.7932
G=-0.5137 H= 0.3944 K=-0.7620 HT= -1.9

DEPTH OF FOCUS= 0.007R

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
HATINOHE	0.73	268.4	0	12K	-6	0	22	-9				
MIYAKO	0.99	203.8	0	8	-12	0	17	-18				
MORIOKA	1.32	230.2	0	17K	-7	0	32	-10				
AOMORI	1.32	282.1	0	22	-2	0	38	-4				
URAKAWA	1.61	7.8	0	30	2	0	59	10				
MIZUSAWA	1.76	216.7	0	21	-9	0	42	-10				
HAKODATE	1.81	314.5	0	30K	-1	0	56	3				
HIROO	1.84	19.7	0	30	-1	1	3	9				
AKITA	2.01	246.3	0	29K	-4	0	56	-2				
MURORAN	2.10	327.8	0	35	1	1	3	3				
MORI	2.11	317.6	0	37	2	1	3	3				
TOMAKOMAI	2.18	342.2	0	38	2	1	8	6				
ISINOMAKI	2.30	203.4	0	28	-9	0	53	-12				
OBIHIRO	2.42	12.5	0	39	0	1	14	6				
SENDAI	2.59	208.8	0	34	-7	1	1	-11				
SAKATA	2.63	232.0	0	39	-3	1	10	-3				
SAPPORO	2.65	341.7	0	43	1	1	18	4				
SUTTSU	2.81	323.8	0	57	13				2	20		
KUSIRO	2.82	29.9	0	40A	-4	1	15	-3				
YAMAGATA	2.83	216.4	0	37	-8	1	9	-9				
HUKUSIMA	3.21	209.9	0	42	-8	1	21	-6				
RUMOE	3.45	349.6	0	59	6							
NEMURO	3.61	38.8	0	50	-5	1	32	-5				
NIIGATA	3.75	226.5	1	21	24				1	46		
ONAHAMA	3.81	199.5	0	58	0	1	33	-9				
SHIRAKAWA	3.86	208.0	0	52	-7	1	38	-5				
AIKAWA	4.15	233.8	1	0	-3	1	36	-15				
MITO	4.46	201.4	0	58K	-9	1	59	1				
UTUNOMIYA	4.49	208.0	1	0	-8	1	59	0				
KAKIOKA	4.68	203.5	1	0	-10	1	49	-15				

TUKUBASAN	4.72	204.2	1	OK	-11					1	46
TAKADA	4.78	225.1								1	30
MAEBASI	4.94	213.9	1	7	-7	2	1	-9			
TYOSI	5.00	195.5	1	0	-15	1	57	-15			
KUMAGAYA	5.03	210.0	1	0	-15	2	6	-7			
NAGANO	5.13	222.2	1	13	-3	2	13	-2			
MATUSIRO	5.22	221.3	1	11A	-7	2	8	-9			
OIWAKE	5.23	217.5	1	12	-6	2	20	3			
HONGO	5.29	204.7								2	21
TITIBU	5.29	211.5	1	14	-5						
TOKYO C.M.O.	5.32	204.8	1	12	-7	2	16	-4			
MATUMOTO	5.57	221.0	1	17	-6						
YOKOHAMA	5.58	204.5	1	19	-4	2	31	5			
TOYAMA	5.65	228.8	2	20	56	2	51	23			
KOHU	5.77	213.6	1	20	-5	2	26	-5			
HUNATU	5.84	211.3	1	19	-7	2	28	-5			
TAKAYAMA	6.02	224.8	1	21	-8						
MISIMA	6.10	208.4	1	30	0	2	37	-2			
AJIRO	6.11	207.1	1	20	-10	2	25	-14			
IIDA	6.22	217.6	1	24	-8	2	50	8			
OSIMA	6.28	204.1								1	58
SHIZUOKA	6.44	211.4	1	31	-4	2	43	-5			
Y.-SAKHLINSK	6.47	1.4	1	34	-1	2	52	4			
OMAESAKI	6.84	211.0	1	53	13						
GIHU	6.84	223.1	1	36	-4						
NAGOYA	6.92	220.8	1	37	-4	2	56	-3			
TSURUGA	7.04	228.0	1	37	-6						
HIKONE	7.22	225.0	1	41	-4	3	13	6			
KAMEYAMA	7.42	221.8	1	49	1	3	15	3			
HATIDYOZIMA	7.75	197.0								3	5
ABUYAMA	7.89	226.2	1	49	-6						
OSAKA	8.07	225.3								2	28
VLADIVOSTOK	8.31	291.4	1	58	-2	3	38	5			
SIOMISAKI	8.89	219.2				4	11	23		3	43
MUROTO	9.86	225.0								3	38
KOTI	10.00	228.5				4	18	3		2	59
CHANGCHUN	13.15	290.1	3	7	2	5	38	8			
ZO-SE	19.64	248.0	4	22	-3	8	10	13			
PEKING	20.06	277.1	4	26	-4	8	5	-1			
NANKING	20.85	253.5	4	34	-4	8	21	0			
YAKUTSK	22.85	344.4	4	57A	0	9	3	6			
PAOTOW	24.58	280.7	5	13	-1	9	30	3			
ULAN-BATOR	26.36	298.2	5	30A	-1	10	3	7			
SIAN	27.29	267.5	5	38	-1						
IRKUTSK	28.47	307.2	5	48	-2						
LANCHOW	30.50	274.1	6	6	-2	11	4	2			
TIKSI	31.90	351.9	6	19A	-1						
ESEN BULAK	33.67	295.7	6	37	1						
KUNMING	36.44	257.4	6	57A	-2	12	36	1			
LHASA	42.94	272.0	7	53	0	14	17	5			
SEMIPALATNSK	43.55	304.7	6	58	-60	14	25	4			
RABAUL	45.41	166.4	8	8	-5						
COLLEGE	45.69	34.0	8	16	1						
CHITTAGONG	46.21	262.7	8	19	0					8	32 PP
CHATRA	47.30	271.0	8	28A	0						
ALMATA	47.72	296.0	8	31	0						
KHEYS	49.38	347.6	8	44	0						
FRUNSE	49.47	296.3	8	45	0						
AMDERMA	49.49	333.2	8	45A	0						
MOULD BAY	52.93	17.3	9	13A	2						
TASHKENT	53.71	296.5	9	16	-1						
NEW DELHI	53.96	278.9	9	16A	-2						
LAHORE	54.60	283.6	9	22A	-1						
WARSAK DAM	55.44	287.6	9	29A	0						
SAMARKAND	56.02	295.7	9	33	0						
ALERT	56.57	3.8	9	37A	0						
LEMBANG	57.02	222.6	9	37K	-3						
RESOLUTE	58.99	15.1	9	54A	0						
APATITY	59.84	335.2	10	0A	0						
QUETTA	60.74	286.0	10	5	-1						
THULE	61.67	7.9	10	15	3					27	41 PKKP
SODANKYLA	62.06	336.8	10	14	-1						
POONA	62.10	271.1	10	13A	-2						
KIRUNA	63.53	338.9	10	25	0						
KAJAANI	63.81	333.6	10	28A	1						
MOSCOW	64.94	322.9	10	34	0						
PENTICTON	65.09	45.6	10	34A	-1						
UMEA	66.42	335.8	10	43	0						
NURMIJARVI	67.24	331.7	10	49A	1					13	18 PP

HELSINKI	67.36	331.3	10 49	0			
TEHERAN	68.61	299.1	10 57	0			
HUNGRY HORSE	68.66	44.1	10 57	0		11 45	
SKALSTUGAN	68.95	338.5	10 59	0			
TIFLIS	69.32	307.5	11 2	1			
UPPSALA	70.17	333.9	11 6	-1			
BOZEMAN	71.92	45.0	11 18	1			
EUREKA	73.02	52.5	11 22	-1	11 37		
PASADENA	74.97	57.9	11 34	-1			
BOULDER CITY	75.93	54.7	11 41	1			
FLAMING GRGE	75.93	47.9	11 40	0			
RAPID CITY	77.12	42.4	11 48	1			
GLEN CANYON	77.27	52.1	11 47	-1			
RACIBORZ	77.36	326.9	11 51	3		12 3	PCP
LARAMIE	77.79	45.6	11 51	0			
COLLMBERG	78.47	330.4	11 55A	1		14 46	PP
HALLE	78.70	331.0	11 55	-1			
PRUHONICE	78.92	328.7	11 58	1		12 58	
BRATISLAVA	79.30	326.3	12 0	1		14 50	PP
JENA	79.30	330.9	11 59	0		12 59	
KASPERSKE H.	79.98	328.7	12 3	0		15 4	PP
BENSBERG	80.85	333.2	12 8	1			
TUCSON	80.88	55.3	12 8	1			
TUCSON TELE.	80.89	55.2	12 7	0			
ALBUQUERQUE	81.69	50.8	12 13	1			
STUTTGART	81.92	330.9	12 14	1			
LJUBLJANA	82.05	326.3	12 13A	0			
DOURBES	82.45	334.2	12 16	1			
MANHATTEN	84.07	42.1	12 24	0			
PARIS	84.26	334.7	12 27	2			
BESANCON	84.40	331.9	12 22	-3			
FOLINIERE	85.23	336.4	12 31	2			
GARCHY	85.39	333.6	12 31	1			
ROSELEND	85.49	330.7	12 32	1			
WICHITA MTS.	86.35	46.3	12 35	0		13 7	
ROLLA	87.41	40.1	12 40A	0			
FLORISSANT	87.44	38.6	12 41K	1			
ST. LOUIS 1	87.64	38.6	12 41	0			
FAYETTEVILLE	87.66	42.6	12 42A	1			
BREBEUF	88.43	24.5	12 46K	1			
BLOOMINGTON	88.91	35.9	13 9	22			
C. GIRARDEAU	89.02	38.9	12 48A	0			
LA PAZ	144.28	56.8	19 30	3			

MARCH 18 15.H 30.M 30.S EPICENTRE 40.70 19.65 DEPTH= 13.KM

A= 0.71606 B= 0.25572 C= 0.64951 D= 0.3363 E=-0.9417
G= 0.6117 H= 0.2184 K=-0.7604 HT= -1.9

SE= 2.85

	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	
TITOGRAD	1.76	350.5									0	33	PG
TARANTO	1.84	263.8									0	35	PG
SKOPJE	1.85	46.0	0	36	4	1	2	6			0	45	PG
SOFIA	3.40	52.8	0	58	4	1	37	2			1	4	P*
MESSINA	4.04	233.2	1	1	-2	1	44	-7			1	15	PG
REGGIO CALA.	4.04	231.4	1	4	1	1	53	2					
BELGRADE	4.16	7.8	1	6A	1						1	12	P*
ATHENS	4.17	129.5	1	7A	2	1	56	2			2	18	SG
TIMISOARA	5.18	12.2	1	25	6						1	36	P*
ROME	5.53	284.9	1	24K	0	2	31	2			1	34	PP
SZEGED	5.56	3.4	1	28	3	1	57	-33			2	36	SG
ZAGREB	5.78	333.6	1	30	2						1	47	P*
KALOCSA	5.85	355.4				2	44	7			1	45	P*
CAMPULUNG	6.04	39.0	1	35	4						3	31	
BUCHAREST	6.04	49.9	1	34A	2	3	13	31			2	48	
KECSKEMET	6.22	0.3	1	42	8	3	0	14			1	58	P*
LJUBLJANA	6.53	326.8	1	38K	0	2	53	-1			2	7	PG
TRIESTE	6.57	320.9	1	39K	0	2	49	-6			1	52	P*
BUDAPEST	6.80	356.4	1	43	1	3	3	3			1	57	P*
FLORENCE X.	6.95	299.1	1	40	-4	3	8	4					
ISTANBUL UN.	7.09	84.2	1	48A	2	3	9	1			1	56	PP
BOLOGNA	7.22	304.5	1	49	1						4	22	
HURBANOVO	7.25	352.2				3	15	3			2	9	P*

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PADOVA	7.39	312.2	1	50K	-1	3	10	-5	2	5	P*
FOCSANI	7.44	45.3	2	3	12				3	45	
BRATISLAVA	7.69	347.1	1	54	-1	3	41	18	2	27	PG
BACAU	7.88	39.4	2	2	5				3	52	
VIENNA-H.	7.91	343.8	1	58	0	3	31	3	2	20	P*
UZHGOROD	8.15	12.5	2	2	1						
CHIAVARI	8.45	298.8	2	6	1	3	4	-38			
CUGLIERI	8.47	270.1	2	5	-1				5	0	
SKALNATE PL.	8.49	2.7	2	8	2				2	18	PG
IASI	8.65	38.6	2	10	2				3	39	
PAVIA	8.90	303.7	2	10	-1	3	48	-5	3	23	
KISHINEV	9.16	43.3	2	16A	1	4	10	11	5	2	
KRAKOW	9.36	1.1	1	59	-19	4	14	10	2	31	PP
RACIBORZ	9.44	354.3	2	20	1	4	5	-1	2	26	PP
KASPERSKE H.	9.47	335.0	2	17	-2				3	13	PG
CHUR	9.56	313.4	1	59	-22	4	3	-6			
MONACO	9.56	292.5	2	19	-2	4	2	-7			
LWOW	9.63	17.2	2	25	3	4	13	2	4	34	
PRUHONICE	9.95	340.6	2	25	-1	4	16	-3			
PRAGUE	10.07	340.4	2	26	-2	4	15	-7	5	17	SG
RAVENSBURG	10.09	317.9	2	26	-2				5	54	
EBINGEN	10.68	318.0	2	32	-4				5	55	
ROSELEND	10.73	302.0	2	34	-3						
TUBINGEN	10.87	319.6	2	36	-3				6	36	
STUTTGART	10.93	321.1	2	37	-2				6	8	
BASLE	11.04	312.2	2	39	-2	4	41	-4	5	57	
NEUCHATEL	11.12	308.7	2	39	-3	4	58	10			
SIMFEROPOL	11.44	63.4	2	47A	1						
KARLSRUHE	11.51	320.0	2	47	0				5	29	SG
STRASBOURG	11.56	317.0	2	46A	-2	4	45	-13	5	32	
COLLMBERG	11.56	338.7	2	50	2	4	57	-1	6	25	SG
WARSAW	11.58	4.2	2	50	2	5	2	3	3	2	PP
HEIDELBERG	11.63	322.1	2	45	-4	4	52	-8	6	21	
JENA	11.67	333.9	2	46	-4	5	1	0	3	54	PG
BESANCON	11.82	308.2	2	48	-4	4	56	-9			
HALLE	12.05	336.3	2	56	1	5	6	-4			
WELSCHBRUCH	12.22	313.6	2	46	-11						
FELDBERG	12.34	324.3	2	37	-21				3	48	
CLERMONT-FD.	13.07	298.3	3	17	9						
BENSBERG	13.44	324.0	3	12A	-1	5	31	-13			
MUNSTER	13.99	327.7	3	24	4				5	25	
DOURBES	14.13	316.7	3	22	0	5	49	-11			
KSARA	14.62	112.8	3	28K	-1	5	58	-14	3	37	PP
PARIS	14.62	309.4	3	31	2				4	25	
WITTEVEEN	15.01	328.2	3	39	5						
DE BILT	15.12	323.8	3	48	13	6	34	10	6	40	PS
JERUSALEM	15.38	120.5	3	36	-2						
KARLSKRONA	15.70	351.6	3	37	-6	6	44	7			
ALICANTE	15.71	268.0	3	46	3	6	50	13	3	54	PP
FOLINIERE	16.39	306.2	3	48	-4						
KEW	17.49	314.7	4	9	4	7	27	9			
JERSEY	17.54	306.2	4	3	-3						
ALMERIA	17.66	264.6	4	9A	1	7	20	-2	4	21	PP
TOLEDO	18.09	275.2	4	14A	1	7	39	7	4	27	PP
GRANADA	18.41	266.5	3	52	-25	7	52	13	4	40	PP
TIFLIS	18.93	78.6	4	25A	2				8	30	SS
MOSCOW	19.14	32.2	4	24	-2	7	57	1	8	42	PCP
MALAGA	19.17	265.8	4	24K	-2	7	54	-2	4	50	PPP
UPPSALA	19.22	356.9	4	24A	-2	7	50	-7	8	12	SS
HELSINKI	19.78	7.9	4	31	-2	8	8	-2			
DURHAM	19.94	322.0	5	6K	31	8	41	28	9	16	SS
NURMIJARVI	20.08	7.2	4	35	-1	8	16	0	8	46	SS
PULKOVO	20.23	15.7	4	36A	-2	8	19	0	5	9	PPP
GORIS	20.42	84.6	4	40A	0						
SERRA PILAR	21.32	280.5	4	48A	-1	8	37	-4	5	13	PP
COIMBRA	21.35	277.9	4	52K	3	8	39	-2	8	50	PCP
EDINBURGH	21.36	323.1				8	39	-2	12	34	PCS
BERGEN	21.64	340.5	4	52	0				14	5	
LISBON	22.21	274.3	5	5	7	8	59	2	5	27	PP
UMEA	23.16	0.7	5	6A	-1	9	19	5	10	35	
SKALSTUGAN	23.33	351.7	5	8	-1	9	4	-13	13	12	
TEHERAN	25.34	91.0	5	30A	2	8	58	-54			
SODANKYLA	27.00	5.9	5	43A	-1	10	17	-2			
KIRUNA	27.19	0.6	5	45A	0	10	20	-2	11	26	SS
APATITY	27.95	11.3	5	52A	0	10	34	0	6	54	PPP
TROMSOE	29.00	359.5	6	1	-1						
KEVO	29.38	5.2	6	5	0						
ASHKABAD	29.90	82.5	6	10	0	11	5	-1	7	25	PPP

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.

SVERDLOVSK	30.89	44.6	6	19	0	11	22	1			7	27	PP
SIDA	31.88	329.0	6	27	0								
REYKJAVIK	33.56	328.2	6	44K	2								
BANGUI	36.17	181.7	7	4	0						12	36	
SCORESBY SD.	36.60	338.0	7	10	2	12	55	5					
TASHKENT	37.04	72.3	7	12A	0						8	36	PP
QUETTA	39.52	90.1	7	32A	0	13	39	5			16	40	SS
KHOROG	39.92	77.2	7	38	2						9	17	PP
FRUNSE	40.44	68.2	7	40A	0	13	45	-3					
M.BOUR	41.27	241.2	7	49	2	14	3	3					
WARSAK DAM	41.30	82.1	7	46	-1								
KHEYS	42.40	8.7	7	56K	0	14	16	-1			10	17	PPP
SEMIPALATNSK	42.44	55.7	7	57A	1								
NORD	42.90	352.6	7	52A	-8								
LWIRO	43.55	166.7	8	6	1	14	36	2			18	9	
LAHORE	44.48	83.8	8	12	-1								
DEHRA DUN	47.87	83.2	8	39	-1	15	33	-3			10	34	PP
NEW DELHI	48.09	85.7	8	40A	-1	15	34	-5			10	30	PP
ALERT	48.88	350.0	8	46A	-2								
BOMBAY	50.16	99.3	8	54	-3	16	8	0			10	56	PP
POONA	51.16	98.9	9	4A	-1	16	37	16					
ESEN BULAK	53.79	56.6	9	25A	0	16	58	1					
BROKEN HILL	55.47	169.6	9	38	1								
BANDEIRA	55.63	187.4	9	37K	-1				9	46			
IRKUTSK	56.23	47.4	9	41	-1	17	26	-4			13	2	PPP
CHATRA	56.54	81.8	8	43A	-62						17	32	
BOKARO	57.15	85.6	9	47	-2	17	47	5					
RESOLUTE	57.17	343.3	9	49A	0								
TIKSI	57.54	20.8	9	52	0	17	49	2			12	9	PP
LHASA	57.94	76.8	9	55A	1	17	53	0			10	3	*SP
HALIFAX	58.77	304.0	9	59	-1								
VISHAKHAPTNM	58.79	93.0	9	58	-2						12	13	PP
MADRAS	59.35	99.5	10	1	-3	18	7	-4			18	30	PPS
ULAN-BATOR	59.66	51.1	10	7A	1	18	18	3					
HOWRAH	59.78	85.3	10	6	-1	18	34	17					
CALCUTTA	59.83	85.2	10	12	4	18	17	0					
MOULD BAY	60.45	349.6	10	11A	-1								
SHILLONG	60.76	80.3	10	11A	-3	18	22	-7					
SEVEN FALLS	61.96	309.3	10	22A	0								
CHITTAGONG	62.53	83.3	10	25A	-1	18	51	-1			12	44	PP
WINDHOEK	62.98	182.6	10	28	-1								
YAKUTSK	63.28	29.7	10	29A	-2	19	0	-1			10	54	PCP
LANCHOW	63.70	64.1	10	33A	-1	19	8	2			10	41	*SP
BREBEUF	64.46	308.9	10	39	0	19	18	2			23	37	SS
TANANARIVE	64.74	150.7	10	34	-6						11	3	
CHENGTU	66.80	68.9	10	53A	-1	19	44	0					
PALISADES	67.12	304.9				19	57	9					
SIAN	68.17	63.2	11	2A	0								
KUNMING	69.07	74.5	11	7A	-1	20	11	0					
KIMBERLEY	69.26	175.2	11	9	0								
PEKING	69.52	54.5	11	11A	0	20	17	0			11	20	*SP
LONDON ONT.	70.31	310.1	11	15	0								
CLEVELAND	71.47	309.0	11	23A	1								
MAGADAN	72.29	23.7	11	28	1	20	53	4					
CHANGCHUN	72.56	46.9	11	28A	-1	20	50	-2			11	36	*SP
ST. KITTS	73.22	278.6	11	44	11								
CHAPEL HILL	73.38	303.1	11	45	11								
COLLEGE	74.27	354.5	11	39	-1								
CHICAGO JSA.	74.73	312.4	11	42	0								
HERMANUS	74.75	180.4									21	24	
SAN JUAN	75.12	281.5	11	45	1				11	53			
GRENADA	75.75	273.7	11	49	2								
COLUMBIA	75.85	302.7	11	49	1								
BLOOMINGTON	75.86	309.7	11	50	2	21	32	3					
NANKING	76.07	59.7	11	50A	1	21	33	2					
TRINIDAD	76.38	272.4	11	53	2								
VLADIVOSTOK	76.61	44.2	11	52	0	21	37	0					
CANTON	77.98	70.0	12	1A	1	21	53	1					
ZO-SE	78.26	59.1	12	1A	0	21	52	-3			12	8	*SP
FLORISSANT	78.35	311.4	12	3K	1								
ST. LOUIS 1	78.38	311.2	12	2	0	21	57	1					
C. GIRARDEAU	78.88	309.9	12	5	0	22	4	3					
Y.-SAKHLINSK	79.06	35.7	12	7	1	22	7	4			12	15	PCP
HONG KONG	79.07	70.1	12	6	0	22	6	3					
ROLLA	79.84	311.6				21	33	-39					
PETROPAVLOVK	80.16	23.7	12	11	-1								
BANFF	80.50	333.3	12	14A	1								
RAPID CITY	81.20	322.2	12	19	2						12	50	
MANHATTEN	81.51	315.2	12	22	3								

LITTLE ROCK	82.28	309.6	12	23	0					
HUNGRY HORSE	82.32	330.9	12	23	0					
FAYETTEVILLE	82.42	311.6	12	23A	0					
BOZEMAN	83.37	327.6	12	31	3				13	1
PENTICTON	83.45	334.5	12	30	1					
LARAMIE	84.45	321.8	12	35	1					
MATUSIRO	84.70	45.3	12	36A	1	22	56	-5	28	58 SS
ALBERNI	85.10	337.5	12	38	1					
VICTORIA	85.35	336.4	12	40A	2					
WICHITA MTS.	85.88	313.3	12	43	2	23	15	3	16	5 PP
FLAMING GRGE	86.50	323.9	12	44	0					
SALT LAKE C.	87.72	325.3	12	52	2					
FUQUENE	89.03	276.3	13	2	6					
EUREKA	90.53	327.2	13	5	2				16	49 PP
CHINCHINA	90.79	277.2	13	5	1	24	1	3	23	34 SKS
TANGERANG	91.69	96.6	13	10	1					
MINERAL	91.97	331.4	13	10A	0					
RENO	92.01	329.8	13	10	0					
LEMBANG	92.86	96.5	13	13K	-1					
BOULDER CITY	92.99	324.6	13	17	2					
TUCSON TELE.	94.08	319.7	13	21	2				17	5 PP
TUCSON	94.21	319.7	13	22	2				17	6 PP
LICK	94.62	330.0	13	25K	3					
PASADENA	95.99	326.0	13	37	9	24	54	51	14	13
LA PAZ	98.92	256.0	17	50	249					
RABAUL	124.04	62.5							20	50
CHARTERS TS.	130.39	82.1	19	13	2					
ADELAIDE	132.37	103.7	19	20	6					
BRISBANE	139.41	85.9	19	28	1					
CANBERRA	140.18	99.1	19	26K	-3					
SCOTT BASE	140.35	169.6	19	33	4					
RIVERVIEW	141.20	95.8							34	48 PPS
NOUMEA	146.54	66.9	19	44A	4					
AFIAMALU	151.50	23.8	19	57K	9					
ROXBURGH	157.41	112.3	20	30	34					
KARAPIRO	161.15	89.4	20	45	45					
CHATEAU	161.46	93.2	20	46	46					
TUAI	162.60	91.1	20	49	48					

MARCH 18 20.H 18.M 51.S EPICENTRE 23.88 114.62 DEPTH= 0.KM

A=-0.38140 B= 0.83220 C= 0.40248 D= 0.9091 E= 0.4166
G=-0.1677 H= 0.3659 K=-0.9154 HT= 3.7

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	
CANTON	1.41	236.6									0	26	PG
HONG KONG	1.62	195.0	0	28A	-2								
NANKING	8.94	23.3	2	12	-2	3	52	-4					
ZO-SE	9.25	37.5	2	15	-3	3	57	-7					
KUNMING	10.89	279.0	2	38K	-2								
MANILA	11.00	145.2	2	44	2	4	56	9					
SIAN	11.47	335.6	2	47	-1								
CHENGTU	11.60	307.9	2	47K	-3	4	54	-8					
LANCHOW	15.30	324.9	3	38K	-1	6	28	-2					
PEKING	16.16	4.3	3	52	2	6	50	0					
SHILLONG	20.73	279.4	4	43K	-2	8	31	-1			5	3	PP
CHITTAGONG	21.02	270.4	4	48K	0	8	38	0			5	11	PP
CHANGCHUN	21.76	21.2	5	1	6	8	57	5					
LHASA	21.81	290.4	4	57K	1	8	58	5					
MATUSIRO	23.90	52.7	5	18K	2	9	33	3			5	39	PP
VLADIVOSTOK	23.91	32.4	5	16A	0	9	34	3			12	34	PCS
PORT BLAIR	24.09	243.5	5	26	8	9	51	17			6	10	PP
CALCUTTA	24.16	272.1	5	22	3	9	41	6					
HOWRAH	24.20	272.2	5	21	2	9	43	7					
ULAN-BATOR	24.77	347.5	5	24	-1	9	55	10					
CHATRA	24.96	282.6	5	27K	0	10	2	13			6	12	PP
MEDAN	25.38	219.8	5	30	-1	9	57	2					
BOKARO	26.34	275.8	5	38K	-2	10	16	5			6	37	PPP
ESEN BULAK	26.90	331.2	5	45	0	10	31	10					
IRKUTSK	29.43	347.1	6	11A	3	11	3	2			13	9	SSS
VISHAKHAPTNM	29.87	264.1	6	12K	0	11	39	31					
DJAKARTA	30.82	195.3	6	19	-1	11	25	2					
TANGERANG	30.86	195.6	6	21	1								
LEMBANG	31.27	193.5	6	24K	0								

Y.-SAKHLINSK	32.22	37.2	6	33	1				13	39 SS
DEHRA DUN	33.08	289.3	6	40	0	11	58	-1	14	16 SSS
NEW DELHI	33.80	286.1	6	43	-3	12	7	-3	14	26 SS
MADRAS	34.33	257.8	6	49	-2	12	23	5	8	8 PP
HYDERABAD	34.38	266.2							12	17
LAHORE	36.32	291.2	7	5	-3					
SEMIPALATNSK	37.55	323.6	7	18	0	13	9	1	8	52 PP
FRUNSE	37.96	309.7	7	22K	1				13	23 PCS
POONA	38.29	270.0	7	23K	-1	13	18	-1	8	55 PP
WARSAK DAM	38.78	295.1	7	39	11					
KHOROG	39.13	300.6	7	32	1	13	38	6		
BOMBAY	39.14	271.0				13	25	-7	9	9 PPP
DARWIN	39.36	154.5	7	32	-1					
YAKUTSK	39.49	11.1	7	33A	-1				9	12 PP
TASHKENT	41.46	306.0	7	51K	1	14	10	4	9	38 PP
QUETTA	42.69	289.2	8	0	0				9	43 PP
MAGADAN	43.72	25.8	8	11	2	14	45	5		
RABAUL	46.01	122.3	8	27	0				15	19
TIKSI	48.47	6.0	8	44A	-2	15	44	-3	10	42 PP
ASHKABAD	49.59	300.3	8	55	0				16	13 PS
SVERDLOVSK	50.80	325.0	9	5	1	16	22	2		
CHARTERS TS.	53.48	142.2	9	23	-1					
TEHERAN	55.29	297.9	9	55	17	17	26	5		
AMDERMA	55.30	340.3	9	37A	-1					
TIFLIS	59.79	305.6	10	11	2				13	57 PPP
KHEYS	61.33	351.0	10	19A	-1				12	47 PP
ADELAIDE	62.83	157.9	10	29A	-1					
BRISBANE	62.88	141.9	10	30	0					
MOSCOW	63.36	321.9	10	33	0	18	59	-6		
APATITY	64.82	335.2	10	42A	-1					
PULKOVO	66.85	326.8	10	57	1	19	54	6	27	9 SSS
SIMFEROPOL	67.00	310.5	10	58	1	19	55	5	13	28 PP
RIVERVIEW	67.09	147.5				20	0	9		
CANBERRA	67.28	150.0	10	58	-1				12	29
SODANKYLA	67.45	335.2	10	59	-1					
KAJAANI	67.47	331.6	10	59	-1					
KSARA	68.18	298.4	11	6	2					
JERUSALEM	69.25	296.5	11	11K	0					
HELSINKI	69.43	327.7	11	12	0					
NURMIJARVI	69.51	328.1	11	12A	-1				14	57
KIRUNA	69.70	336.2	11	13	-1					
UMEA	70.75	332.1	11	19	-1					
COLLEGE	71.79	26.5	11	27	1					
LWOW	72.51	317.2	11	31	0					
UPPSALA	73.07	328.4	11	33	-1					
ALERT	73.83	359.6	11	38	0					
SKALSTUGAN	74.19	333.0	11	39	-2					
MOULD BAY	74.83	11.6	11	43	-1					
SKALNATE PL.	75.05	317.4	11	46	0				14	3
SOFIA	75.12	310.3	11	48	2					
KARLSKRONA	75.33	325.2	11	42	-5					
RACIBORZ	76.00	318.7	11	52	1					
COLLMBERG	78.61	321.1	12	5	0				15	2 PP
HALLE	79.13	321.6	12	9	1					
KASPERSKE H.	79.15	319.0	12	8	0				14	54 PP
JENA	79.58	321.2	12	11	0				15	21 PP
RESOLUTE	79.85	7.6	12	12	0					
WITTEVEEN	81.45	324.3	12	21	0					
STUTTGART	81.86	319.9	12	23	0					
BENSBERG	82.06	322.5	12	25	1					
DOURBES	83.91	322.5	12	34	1					
CHATEAU	84.70	137.0	12	37	0					
ROSELEND	84.90	318.0	12	39	1					
TUAI	85.48	135.9	12	40	-1					
PARIS	85.76	322.1	12	45	2				15	19
KEW	85.84	325.3	12	42	-1					
LWIRO	87.08	266.3	12	50A	1				30	44
PENTICTON	92.62	32.1	13	16	1					
HUNGRY HORSE	95.95	30.2	13	30	0					
EUREKA	101.24	37.6	18	6	252					
WICHITA MTS.	113.75	29.5							29	19 PS
TRINIDAD	145.47	353.1	19	42	2					

MARCH 19 5.H 54.M 41.S EPICENTRE 0.10 123.58 DEPTH= 190.KM

A=-0.55307 B= 0.83313 C= 0.00171 D= 0.8331 E= 0.5531
G=-0.0009 H= 0.0014 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.025R

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
MANILA	14.69	350.4	3 27	7	6 59	61		
LEMBANG	17.34	246.3	3 49A	-3	6 59	2		
DJAKARTA	17.84	249.2	3 55	-3				
TANGERANG	18.03	249.5	3 57	-3	7 18	7		
HONG KONG	23.89	338.1	4 59A	1	9 17	20	5 15	5 34 PP
GUAM	24.81	56.8	5 6	0				
CANTON	24.93	337.1	5 8A	0			5 35	6 20 PPP
MEDAN	25.12	278.2	5 10	1	9 40	22		
PORT MORESBY	25.29	112.5	5 10A	-1	9 24	3		
RABAUL	28.88	98.8	5 43A	0				6 13
CHARTERS TS.	29.93	133.4	5 52K	-1	10 39	4		
ZO-SE	30.92	356.0	6 0A	-1	10 53	3	6 27	7 11 PP
KUNMING	32.01	322.5	6 12A	1	11 16	9	6 39	12 9 *SS
NANKING	32.11	352.3	6 12A	0	11 17	8	6 40	8 1 PP
MUNDARING	32.65	191.7	6 14	-2				
PORT BLAIR	32.73	291.7	6 22	5				8 8
UNZENDAKE	33.06	10.3	6 21	1				
KUMAMOTO	33.23	11.0	6 21	0				
SAGA	33.58	10.2	6 25	1				
OOITA	33.81	12.2	6 31	5				
TORISIMA	34.14	26.3	6 28	-1				
KOTI	34.56	14.7	6 33A	0				7 46
MATUYAMA	34.66	13.5	6 34	0				
SIOMISAKI	35.10	17.9	6 37	0				
TOKUSIMA	35.33	15.9	6 40	1				
TAKAMATU	35.43	15.0	6 40	0				
CHENGTU	35.63	330.3	6 42A	0	12 8	5	7 11	8 8 PP
SUMOTO	35.68	16.2	6 43	1				
KOBE	36.07	16.3						10 46
OSAKA	36.15	16.8	6 45A	-1				9 0
HATIDYOZIMA	36.20	23.4	6 46	-1				
NARA	36.26	17.2	6 48	1				
KYOTO	36.55	16.9	6 49	0	12 20	3		
TOTTORI	36.59	14.6	6 47	-3				
KAMEYAMA	36.61	17.9	6 50A	0	12 21	3		
SIAN	36.65	339.4	6 50A	0			7 18	8 18 PP
TOYOOKA	36.77	15.4	7 50	59				
HIKONE	36.93	17.4	6 52	-1	12 25	2		
OMAESAKI	36.96	20.3	6 54	1				
NAGOYA	37.06	18.4	6 53A	-1				
GIHU	37.21	18.0	6 55	0				
TSURUGA	37.24	16.9	6 55	0				
SHIZUOKA	37.35	20.3	6 55	-1				
HONIARA	37.42	105.7	6 55A	-2	12 32	2		
ADELAIDE	37.65	159.4	6 58K	-1	12 35	1		8 25 PP
HUKUI	37.65	16.9	6 59	0				
IIDA	37.66	19.2	6 57	-2				
AJIRO	37.67	21.1	6 57	-2				
MISIMA	37.68	20.8	6 58	-1				
HUNATU	37.96	20.3	7 1	0				8 30
CHITTAGONG	38.02	307.7	7 3A	1	12 48	9	7 15	8 39 PP
KOHU	38.04	20.0	7 2	0				
YOKOHAMA	38.21	21.4	7 14	11				
TOCKLAI	38.34	316.0	7 11	7				
MATUMOTO	38.37	18.9	7 3	-2				
TOKYO C.M.O.	38.47	21.4	7 8	3				
TITIBU	38.50	20.4	7 6	0				
TOYAMA	38.55	17.7	7 3	-3				
OIWAKE	38.64	19.5	7 6	-1	12 51	2		
MATUSIRO	38.72	19.0	7 6A	-2	12 46	-4		8 31 PP
KUMAGAYA	38.76	20.6	7 4	-4				8 12
NAGANO	38.83	18.9	7 8A	0				
MAEBASI	38.88	20.1	7 9	0				
TUKUBASAN	39.08	21.4	7 7A	-4	12 53	-2		9 18
KAKIOKA	39.12	21.5	7 8	-3				
BRISBANE	39.16	136.6	7 12	1			7 44	
TAKADA	39.24	18.7	7 11	-1				
UTUNOMIYA	39.29	20.9	7 12	0	12 54	-4		
MITO	39.36	21.7	7 10	-3				

SHILLONG	39.73	312.0	7	18A	2	13	5	0			8	44 PP
SHIRAKAWA	39.93	20.9	7	17	0	13	9	1				
ONAHAMA	40.02	21.8	7	1	-17							
LANCHOW	40.21	334.9	7	21A	1				7	51	9	2 PP
PEKING	40.31	351.2	7	19A	-2	13	11	-3	7	50	9	33 PPP
HUKUSIMA	40.58	20.7	7	23	0							
CALCUTTA	40.88	305.5	8	24	59						15	17
HOWRAH	40.93	305.5	7	37	11							
YAMAGATA	40.98	20.3	7	26A	0							
SENDAI	41.19	20.8	7	28	0							
ISINOMAKI	41.49	21.2	7	30A	0	13	36	5				
MIZUSAWA	42.04	20.5	7	36	1						8	8
PAOTOW	42.13	344.6	7	35A	-1	13	49	9	8	4	8	19 *SP
AKITA	42.22	19.0	7	39	3							
CANBERRA	42.47	148.7	7	38K	0	13	50	5	8	11	9	19 PP
RIVERVIEW	42.53	145.2	7	40K	1	13	55	9	8	13	9	19 PCP
MORIOKA	42.56	20.2	7	39	0							
MELBOURNE	42.59	154.7	7	39	0	13	53	6				
LHASA	42.71	316.3	7	42A	2	13	56	7			14	52 *SS
MIYAKO	42.80	21.0	7	41	0							
VISHAKHAPTNM	43.31	296.1	7	47K	2	14	4	7			9	32 PP
AOMORI	43.44	19.1	7	46	0							
VLADIVOSTOK	43.47	8.9	7	46A	0	14	4	4			9	31 PP
CHANGCHUN	43.57	1.8	7	46A	-1						9	28 PP
BOKARO	43.57	305.5	7	47A	0						12	6
CHATRA	43.95	310.2	7	52K	2						9	34
HAKODATE	44.33	18.4	7	53	0							
MORI	44.53	18.1	7	56	1							
KOUMAC	44.78	119.8	7	58K	1						9	39
MURORAN	44.86	18.3	7	57	0							
MADRAS	44.88	288.4	7	57A	-1	14	27	7			9	48 PCP
URAKAWA	45.30	20.1	8	2A	1							
HIROO	45.60	20.5	8	4	1							
SAPPORO	45.65	18.2	8	3	-1						9	41
OBIHIRO	46.12	20.0	8	9	2							
KUSIRO	46.60	21.0	8	11A	0						10	0
TARRALEAH	46.97	156.8	8	15K	1						9	45 PCP
NOUMEA	47.31	121.0	8	16K	-1							
NEMURO	47.33	21.8	8	15	-2							
MOORLANDS	47.38	156.2	8	18	1							
PORT VILA	47.43	114.4	8	17	-1							
HYDERABAD	47.62	293.7	8	17K	-2	15	1	2			10	17 PP
FORT NELSON	47.86	156.5	8	21	0	15	7	5				
Y.-SAKHLINSK	49.64	17.1	8	34A	0							
ULAN-BATOR	49.79	345.4	8	35A	-1	15	28	-1				
ESEN BULAK	51.97	336.2	8	53A	1	16	4	5				
POONA	52.13	293.5	8	52A	-1	16	6	5			11	44 PPP
NEW DELHI	52.59	306.7	8	55A	-2	16	10	3			17	1
BOMBAY	53.17	293.6	8	59	-2	16	20	5			10	54 PP
IRKUTSK	54.44	345.6	9	10A	0				9	45		
LAHORE	56.07	308.8	9	21	-1	16	56	2				
ONERAHI	59.13	132.8	9	48	5							
WARSAK DAM	59.20	310.3	9	44A	0	17	39	5				
KARACHI	59.89	298.8	9	47A	-1							
PETROPAVLOVK	60.28	23.6	9	51A	0						10	36 PCP
KAIMATA	60.33	140.9	9	55	4	17	56	7				
COBB RIVER	60.44	138.9	9	52	0						19	29 SCS
KHOROG	60.64	314.0	9	53	0	17	59	6				
ROXBURGH	60.67	144.7	9	54	0	17	57	4			14	26 SCP
KARAPIRO	60.91	134.5	9	56	1						10	30 PCP
FRUNSE	61.04	320.6	9	56A	0							
CHATEAU	61.46	135.8	9	59	0						14	30 SCP
QUETTA	61.50	304.6	9	58A	-1	18	7	3				
MACQUARIE I.	61.69	157.4	10	1	1				10	29	10	35 PCP
WELLINGTON	61.89	138.2	10	0	-2	18	7	-2			19	39 SCS
YAKUTSK	61.94	3.3	10	2A	0	18	10	1	10	43	19	33 *SS
SEMIPALATNSK	62.17	330.2	10	2A	-2				10	41	12	21 PP
TUAI	62.42	134.8	10	5	0	18	26	11			10	32 PCP
MAGADAN	62.97	15.2	10	9A	0							
TASHKENT	63.85	317.0	10	15A	0	18	42	9			19	37 SCS
AFIAMALU	65.45	105.3	10	29A	4							
WILKES	66.95	185.7									11	7
MIRNY	69.94	192.5	10	53	0	19	51	5			24	1 SS
ASHKABAD	70.59	310.4	10	57	0				11	34	13	33 PP
TIKSI	71.50	1.8	11	2A	0						11	23 PCP
SVERDLOVSK	75.44	329.6	11	25A	0						14	10 PP
TEHERAN	75.53	306.9	11	25	-1	21	41	52				
TANANARIVE	76.82	250.6	11	35A	2				12	20	11	43 PCP

CAPE HALLETT	77.98	166.9	11 37	-2						
HONOLULU	79.08	68.4	11 47	2						
KIPAPA	79.17	68.3	11 47	2						
SCOTT BASE	81.21	171.6	11 52	-4						
TIFLIS	81.56	312.1	11 59A	1			12 37		15 6	
HAWAII V.OB.	81.62	70.5	12 1	3						
MOSCOW	87.63	325.6	12 28	0	22 57	5	13 5		15 51	PP
KSARA	88.03	303.7	12 31A	1			13 11		13 22	PP
JERUSALEM	88.55	301.6	12 33A	0					16 3	PP
COLLEGE	89.31	25.3	12 36	0					16 6	PP
SIMFEROPOL	89.55	314.8	12 37A	0					16 16	PP
APATITY	89.97	337.4	12 38A	-1	23 19	6			18 21	PPP
SOUTH POLE	90.10	180.0	12 41	1					14 24	
PULKOVO	91.56	329.6	12 47	0	23 30	3	13 24		16 32	PP
KEVO	92.19	339.8	12 49	-1						
KAJAANI	92.49	334.0	12 49A	-2					16 37	
SODANKYLA	92.59	337.4	12 51A	0					30 4	PKKP
HELSINKI	94.21	330.3	12 59A	0						
NURMIJARVI	94.31	330.6	12 58A	-1					16 52	PP
BYRD STATION	94.62	171.0	13 3	2					13 38	
LWIRO	94.78	267.8	12 32A	-29						
KIRUNA	94.86	338.2	13 0A	-2						
BROKEN HILL	94.97	255.6	13 3A	1						
UMEA	95.79	334.3	13 5A	-1						
LWOW	96.09	320.0	13 7	0					17 8	
MOULD BAY	96.17	12.4	13 8	0						
ALERT	97.43	0.8	13 13	0						
ATHENS	97.72	308.2	13 14K	-1						
KIMBERLEY	97.77	241.1	13 16	1						
UPPSALA	97.89	330.7	13 14A	-1					17 18	PP
SKALNATE PL.	98.63	319.8	13 19	0					17 27	PP
SKALSTUGAN	99.26	335.0	13 20A	-2						
RACIBORZ	99.76	320.9	13 24	0						
KARLSKRONA	99.87	327.3	13 25A	0					17 36	PP
BRATISLAVA	100.87	319.2	13 27	-2					17 43	PP
VIENNA-H.	101.33	319.4	13 32	1					17 48	PP
COPENHAGEN	101.70	327.3	13 32	-1						
RESOLUTE	101.92	9.7	13 34	0					17 37	
PRUHONICE	102.07	321.4	13 35	1					17 56	
COLLMBERG	102.67	323.0	13 37A	0					17 56	PP
KASPERSKE H.	102.91	320.7	13 37	-1					17 58	PP
LJUBLJANA	103.07	317.5	13 39A	0					18 0	PP
HALLE	103.24	323.3	13 40	1					18 0	PP
JENA	103.63	322.9	13 41	0	24 56	55			17 58	PP
ALBERNI	103.88	38.9	13 44	2						
VICTORIA	104.98	39.3	13 48	1					18 3	
MUNSTER	105.63	324.7							18 0	
STUTTGART	105.72	321.2	13 51	777					18 18	PP
SCORESBY SD.	105.99	348.6	13 53	777						
BENSBERG	106.26	323.8							18 5	PP
STRASBOURG	106.73	321.4							18 26	
PENTICTON	107.08	37.7	13 57A	777						
DOURBES	108.10	323.7							17 55	
BESANCON	108.32	320.5							18 37	
ROSELEND	108.45	318.8	14 3	777					18 9	
BANFF	108.77	34.8	14 5	777					18 9	
CLERMONT-FD.	110.71	319.8							18 17	
HUNGRY HORSE	110.86	37.1	18 13	2			18 51		14 15	P
FOLINIERE	111.67	323.9	18 15	3						
BUTTE	112.77	38.9	18 16	4					29 14	PKKP
EUREKA	113.03	46.5	18 18	3					18 59	PP
PASADENA	113.05	52.6	18 18	3					14 36	P
BOZEMAN	113.87	38.7	18 20	4					29 9	PKKP
BOULDER CITY	115.08	49.7	18 18	-1						
SALT LAKE C.	115.46	43.8	18 23	3						
FLAMING GRGE	117.08	42.8	18 26	3					14 43	P
GLEN CANYON	117.16	47.6	18 27	4					28 51	PKKP
TUCSON	119.49	52.3	18 31	4					19 52	PP
RAPID CITY	119.50	37.1	18 30	3					28 44	PKKP
TUCSON TELE.	119.54	52.2	18 32	5					19 53	PP
ALBUQUERQUE	121.78	47.8	18 36	4					19 13	PP
MANHATTEN	126.35	38.5	18 54	13						
WICHITA MTS.	127.56	44.2	18 46A	3	25 43	13			20 41	PP
FAYETTEVILLE	129.74	40.2	18 41A	-6			18 50		20 13	
ROLLA	130.03	36.8	18 51	3						
FLORISSANT	130.33	34.9	18 50A	2						
ST. LOUIS 1	130.51	35.0	18 51	2						
SEVEN FALLS	131.31	13.1	18 39A	-11					22 4	

SHAWINIGAN	131.38	15.0	18 40	-10				
LONDON ONT.	131.65	24.3	18 36	-15			22 7	PKS
LITTLE ROCK	131.73	40.3	18 40	-11				
C. GIRARDEAU	131.82	35.8	18 40	-11				
BREBEUF	132.12	16.3	18 38K	-14			19 50	PP
BLOOMINGTON	132.18	31.7	18 57	5				
CLEVELAND	132.79	25.8	18 57K	4				
TACUBAYA	133.81	62.7					19 4	PP
PENNSYLVANIA	134.87	23.1	18 49	-8				
MORGANTOWN	134.99	25.8	18 44K	-13			21 21	PP
HALIFAX	135.02	7.3	18 50	-7				
PALISADES	136.11	19.1	18 48	-11			19 1	PKP2
M.BOUR	138.40	291.9	19 7	4				
ANTOFAGASTA	152.89	150.9	19 33	6			19 40	PP
HOPE	153.11	47.0	19 40	13				
BALBOA HTS.	155.26	68.1	19 31	1				
HUANCAYO	157.79	123.0	19 41	7				
SAN JUAN	159.31	26.9	19 38	2	20 16		23 55	PP
LA PAZ	160.03	145.3	19 42	6			24 33	PP
CHINCHINA	160.18	75.0	19 39A	3			20 16	PKP2
ST. KITTS	161.59	19.4	19 42	4			20 27	PKP2
FUQUENE	161.85	72.0	19 41	3				
ANTIGUA	162.06	17.0	19 42	4			20 29	PKP2

MARCH 21 22.H 57.M 52.S EPICENTRE -6.05 112.97 DEPTH= 600.KM

A=-0.38810 B= 0.91565 C=-0.10466 D= 0.9207 E= 0.3902
G= 0.0408 H=-0.0964 K=-0.9945 HT= 7.0

DEPTH OF FOCUS= 0.090R

SE= 1.63

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S	
DJAKARTA	6.11	268.4	1 40	-3	3 0	-4			
MEDAN	17.18	303.5	3 30	1	6 18	1			
MANILA	22.10	21.3	4 10	-4	6 48	-50			
PERTH	25.91	174.4	4 49	1	8 38	0		12 48	
MUNDARING	25.97	173.7	4 47A	-1				17 15	
PORT BLAIR	26.75	311.1	4 54K	-1	8 45	-6		14 32	
HONG KONG	28.20	2.4	5 10	2	8 58	-16	6 39	6 45	PP
HENGCHUN	28.90	15.1	5 17	3					
CANTON	28.96	0.7	5 15	1	9 25	0	6 48	12 10	*SS
TAWU	29.27	15.1	5 19	2					
TAITUNG	29.72	15.4	5 17	-4				7 6	
HWALIEN	31.01	15.5	5 34	2	9 54	-3			
ILAN	31.80	15.3	5 36	-2	9 15	-54			
TAIPEI	31.99	14.7	5 43	3	10 7	-5			
KUNMING	32.54	342.6	5 47K	2	10 24	4	7 27	7 21	PP
PORT MORESBY	34.02	97.8	5 58K	1	10 39	-4			
CHITTAGONG	35.01	324.4	6 7K	2	10 57	-1	7 47	15 15	SCS
CHARTERS TS.	35.21	116.5	6 9	2	11 0	0			
GUAM	37.03	58.3	6 22	0	11 21	-6	8 26		
TOCKLAI	37.07	332.4	6 27	5	11 28	0			
CALCUTTA	37.23	320.5	6 26	3	11 30	0			
ADELAIDE	37.31	143.9	6 24A	0	11 29	-3			
CHENGTU	37.49	347.3	6 26K	0	11 33	-1	8 9	9 17	*SP
SHILLONG	37.53	327.7	6 25K	-1	11 23	-12	8 11	8 5	PP
VISHAKHAPTNM	37.63	309.4	6 27K	0	11 34	-2			
ZO-SE	37.76	11.5	6 29K	1	11 38	0	8 10	9 17	*SP
NANKING	38.30	8.0	6 34K	2	11 48	2	8 20	8 31	PCP
RABAUL	39.08	89.2	6 38	0					
BOKARO	39.81	319.2	6 45K	1	12 6	-2		9 29	PP
SIAN	40.26	354.8	6 49K	1	12 14	0	8 32	9 39	*SP
CHATRA	41.14	323.8	6 55	0	12 27	0		8 10	PP
LHASA	41.27	330.5	6 57K	1	12 29	0	8 41	8 43	PCP
HYDERABAD	41.31	305.0						12 16	
LANCHOW	42.74	349.1	7 9K	2	12 51	1	8 56	8 46	PCP
MELBOURNE	42.97	142.0	7 10	1	12 53	0			
BRISBANE	43.35	124.0	7 16A	4	13 3	5			
CANBERRA	44.12	136.3	7 18A	0	13 8	-1	9 14	8 50	PCP
RIVERVIEW	44.87	133.2	7 24A	0	13 21	2	9 17	11 48	SCP
SEHORE	45.53	310.9	7 31	2	13 28	-1		12 50	
POONA	45.65	303.2	7 29K	-1	13 25	-5		9 1	PP
PEKING	45.94	3.4	7 32K	0	13 32	-2	9 21	8 57	PCP
ABUYAMA	45.94	26.1	7 31K	-1					

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PAOTOW	46.48	356.9	7	37K	1	13	41	-1	9	26	8	59 PCP
HONIARA	46.65	97.2	7	37	0						11	55
BOMBAY	46.69	303.0	7	37	-1	13	42	-3	9	27	9	36 PP
FORT NELSON	47.63	145.9				13	56	-2				
MATUSIRO	48.51	27.3	7	50K	-2	14	5	-5	9	36	16	53 SCS
NEW DELHI	48.71	316.8	7	52K	-1	14	12	0			9	42 PP
TUKUBASAN	49.14	29.2	7	53K	-3	14	5	-13			9	8
DEHRA DUN	49.27	319.2	7	56	-1	14	15	-5			16	40 SS
CHANGCHUN	50.88	11.5	8	8K	-1	14	38	-4	10	0	9	15 PCP
VLADIVOSTOK	51.86	17.6	8	16A	0	14	53	-2	10	10	9	18 PCP
LAHORE	52.50	317.8	8	16	-4	14	53	-10				
ULAN-BATOR	54.00	355.0	8	31K	0	15	15	-8				
KARACHI	54.21	306.4	8	31K	-1							
ESEN BULAK	54.29	345.8	8	33K	0							
WARSAK DAM	55.85	318.4	8	41	-3	15	42	-5				
QUETTA	56.93	312.0	8	50K	-1	15	55	-6			19	22 *SS
KHOROG	58.02	321.6	8	58	-1	16	12	-2			12	56 PPP
IRKUTSK	58.56	353.8	9	2K	0	16	21	0	10	58		
Y.-SAKHLINSK	59.04	23.3	9	5K	0	16	24	-3	11	2		
FRUNSE	59.81	328.1	9	10A	-1	16	38	1			9	50 PCP
WILKES	60.21	181.1	9	12A	-1	16	38	-4			20	1 SS
DUZHANBE	60.40	321.1	9	13	-1							
MACQUARIE I.	60.78	151.3	9	17	0							
TASHKENT	61.78	323.8	9	23K	0	16	59	-2			18	14
MIRNY	61.97	188.9	9	24	-1						18	14
ROXBURGH	62.48	138.7	9	26	-2	17	8	-2				
KAIMATA	62.92	135.0				17	13	-2				
SEMIPALATNSK	62.93	337.1	9	30K	-1	17	12	-3	11	31		
COBB RIVER	63.44	133.1	9	34	0	17	23	2				
KARAPIRO	64.76	129.1	9	43	1				11	46		
TANANARIVE	64.83	252.0	9	45	2				11	46	13	17 SP
WELLINGTON	64.98	132.9	9	43	-1	17	36	-4				
CHATEAU	65.05	130.5	9	44	0						11	52
TUAI	66.19	129.7	9	50	-1	17	53	-1	11	55		
ASHKABAD	66.98	315.5				18	2	-1			14	43 PPP
MAWSON	70.05	198.2	10	14	0				12	21	15	22 PP
PETROPAVLOVK	70.34	27.3	10	16	0	18	41	-1	12	20	13	13 PP
TEHERAN	71.08	310.9	10	20K	0	18	49	-1				
MAGADAN	71.94	19.2	10	23A	-2	18	59	0			22	37 *SS
SVERDLOVSK	75.72	333.3	10	47	1	19	37	-4	12	53	13	56 PP
GORIS	76.18	313.0	10	51K	2							
SCOTT BASE	76.89	169.9	10	52	-1						13	4
TIFLIS	78.03	314.7	11	1K	2	20	5	0	13	8	20	26 SCS
TIKSI	78.23	5.1				20	0	-7			13	10 PP
BULAWAYO	82.67	250.5	11	23A	0						13	31
KSARA	82.70	305.1	11	24K	1	20	51	-1	13	31	21	46 SP
JERUSALEM	82.83	303.0	11	24K	0						13	32 PP
BROKEN HILL	83.21	256.2	11	26K	1						13	33
AMDERMA	83.21	344.1	11	24K	-1						20	47
LWIRO	83.97	268.4	11	31K	2	21	6	2	13	40	11	35 PCP
SOUTH POLE	83.99	180.0	11	29	0						11	56
KIMBERLEY	85.55	241.7	11	38	1							
SIMFEROPOL	86.39	315.7	11	41K	0	21	23	-3	13	51	15	14 PP
MOSCOW	86.79	326.8	11	43K	0	21	29	-1	13	53	15	15 PP
ISTANBUL UN.	89.40	311.2	11	55A	0				14	4	15	8 PP
HERMANUS	89.70	235.6				22	1	5			21	32 SKS
BYRD STATION	90.15	172.0	11	59	1							
KHEYS	90.54	352.3				22	3	-1			15	49 PP
IASI	91.27	317.2	12	3	-1	21	37	-33				
PULKOVO	91.48	329.9	12	4K	-1	22	7	-5			15	58 PP
APATITY	91.56	337.8	12	3K	-2	21	38	-34	14	15	15	54 PP
BUCHAREST	91.95	314.3									25	51
KAJAANI	93.32	334.0	12	11	-2				14	23		
LWOW	93.89	319.5	12	15A	0	22	28	-4			21	53 SKS
SODANKYLA	94.12	337.2	12	16	0				14	31	16	15 PP
HELSINKI	94.20	329.9	12	18	1				14	30		
KEVO	94.23	339.6	12	16	-1							
NURMIJARVI	94.38	330.3	12	18	0	22	32	-4	14	30	16	9 PP
WARSAW	95.93	321.8				22	44	40			25	39 PS
KIRUNA	96.52	337.6	12	26	-1						18	25 *PPP
KRAKOW	96.55	319.6	12	28	1	22	52	45			16	29 PP
UMEA	96.59	333.5	12	35	7	22	14	7	14	48	16	43 PP
RACIBORZ	97.66	319.6	12	33	1				14	43	16	38 PP
UPPSALA	97.88	329.5	12	33	0				14	45	16	46 PP
BRATISLAVA	98.39	317.7	12	34K	-2				14	48	16	45 PP
VIENNA-H.	98.87	317.8	12	38	0						16	49 PP
KARLSKRONA	99.10	325.8	12	43	4				14	54	16	48 PP
COLLEGE	99.36	25.3	12	39	-1				14	48	16	54 PP

PRUHONICE	100.02	319.6	12	43	0					17	2 PP
SKALSTUGAN	100.14	333.5	12	43	-1					16	58 PP
LJUBLJANA	100.19	315.6	12	44K	0					16	46 PP
KASPERSKE H.	100.69	318.7	12	45	-1					17	25
COPENHAGEN	100.90	325.5									
COLLMBERG	100.93	321.0	12	47A	0				14 59	17	0 PP
HALLE	101.57	321.2	12	49	-1	22	28	-3			
ROME	101.82	311.4								17	9
JENA	101.85	320.7	12	51	0	23	26	53	15 2	17	8 PP
FLORENCE X.	102.62	313.4								17	16
STUTTGART	103.54	318.6	12	59	0	23	53	72		17	19 PP
ALERT	103.55	359.4	12	58	-1						
MUNSTER	104.19	322.0								17	17
MOULD BAY	104.32	11.3	13	2	0						
STRASBOURG	104.56	318.5								17	12
BENSBERG	104.61	321.0								17	30 PP
ROSELEND	105.71	315.7	17	37	777						
GARCHY	107.89	317.7	17	22	777					17	53
PARIS	107.97	319.4	17	23	777					17	55
CLERMONT-FD.	108.13	316.2	18	17	777						
DURHAM	108.95	326.1								17	51 PP
KEW	109.12	322.5								17	58 PP
RESOLUTE	109.55	7.6	13	25	777					17	24 PKP
FOLINIERE	109.90	319.8	17	26	777						
PENTICTON	118.33	36.2	17	41K	1						
BANFF	119.74	32.9	17	44	1						
CALISTOGA	120.38	48.5	17	46K	2					19	21
MINERAL	120.54	46.3	17	46A	2						
LICK	121.48	49.6	17	49K	3						
HUNGRY HORSE	122.03	35.1	17	49	2					19	31 PP
RENO	122.11	46.6	17	50	3						
PRIEST	122.60	50.7	17	51K	3						
BUTTE	124.09	36.9	17	54	3						
EUREKA	124.88	45.3	17	55	2				20 7	19	51 PP
PASADENA	125.17	52.2	17	55	2					20	35
BOZEMAN	125.18	36.6	17	55	2					19	52 PP
BOULDER CITY	127.09	48.9	18	0	3						
FLAMING GRGE	128.69	40.8	18	2	2					20	4 PP
GLEN CANYON	129.06	46.4	18	3	2				20 17	40	6 SKKP
M.BOUR	130.13	283.6	18	5	2						
LARAMIE	130.90	38.4	18	6	2					20	27
TUCSON	131.59	51.6	17	53	-13					19	30 PP
TUCSON TELE.	131.64	51.5	17	52	-14					19	33 PP
ALBUQUERQUE	133.69	46.2	17	58	-12					30	40 SKKP
MANHATTEN	137.57	34.6	18	8	-9						
DUBUQUE	138.08	26.4	18	25K	7						
LAWRENCE	138.48	33.8	18	34	16						
SEVEN FALLS	138.95	4.0	18	13	-6						
WICHITA MTS.	139.23	41.3	18	14	-6	24	22	-10	20 38	21	20 PP
SHAWINIGAN	139.35	6.1	18	14	-6						
BREBEUF	140.28	7.3	18	17	-5					21	19 PP
ROLLA	141.06	32.0	18	19	-5						
FAYETTEVILLE	141.09	36.1	18	19K	-5					21	29 PP
LONDON ONT.	141.10	16.6	18	20K	-5						
FLORISSANT	141.15	29.6	18	20A	-5						
ST. LOUIS 1	141.35	29.6	18	20	-5						
HALIFAX	141.46	356.1	18	21	-4						
DALLAS	141.56	42.2	18	22	-3						
CLEVELAND	142.42	18.0	18	24K	-2						
BLOOMINGTON	142.61	25.3	18	24	-3						
LITTLE ROCK	143.07	35.9	18	26	-1						
MORGANTOWN	144.60	17.3	18	31K	1					20	58 PP
PALISADES	144.65	9.0	18	31	1				20 50		
WASHINGTON	146.06	14.1	18	30	-2				20 42	19	18
GEORGETOWN	146.06	14.1	18	33	1						
CHAPEL HILL	148.29	18.8	18	36	1						
COLUMBIA	149.31	23.2	18	39	2						
LA PAZ	157.57	177.2	18	52	4					21	12 PP
SAN JUAN	167.71	355.9	19	0	2					24	1
ANTIGUA	167.86	335.7	18	54	-4						
ST. VINCENT	170.93	321.7	19	2	2					24	15 PP
CHINCHINA	171.38	96.7	19	5K	5					24	16 PP
TRINIDAD	172.79	309.8	19	4	3					24	22 PP
FUQUENE	173.31	94.6	19	3	2					24	30 PP

MARCH 22 0.H 19.M 44.S EPICENTRE -6.04 112.99 DEPTH= 575.KM

A=-0.38836 B= 0.91557 C=-0.10447 D= 0.9206 E= 0.3905
G= 0.0408 H=-0.0962 K=-0.9945 HT= 7.0

DEPTH OF FOCUS= 0.086R

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
DJAKARTA	6.12	268.3	1 40	-2	3 0	-3		
TANGERANG	6.32	268.5	1 43	-1	3 5	-1		
MEDAN	17.19	303.4	3 29	-1	9 17	-2		
MANILA	22.08	21.3	4 10	-5	7 34	-6		
PERTH	25.92	174.5	4 52	3	8 38	-3		11 55
MUNDARING	25.98	173.7	4 49A	-1				11 10
PORT BLAIR	26.76	311.1	4 45	-12	8 48	-6	6 10	
HONG KONG	28.19	2.3	5 10A	1	9 9	7	6 39	7 55 *SP
HENGCHUN	28.88	15.0	5 18	3				
CANTON	28.95	0.7	5 17A	1	9 27	-1	6 49	12 21 *SS
TAWU	29.26	15.1	5 19	1				
TAITUNG	29.70	15.3	5 24	2	9 38	-1		
HWALIEN	30.99	15.5	5 34	1	9 57	-2		
ILAN	31.79	15.2	5 41	1	10 0	-11		
KUNMING	32.53	342.6	5 49A	3	10 26	3	7 26	
PORT MORESBY	34.01	97.8	5 59K	1	10 42	-3		8 21 PCP
CHITTAGONG	35.01	324.4	6 8A	1	10 54	-6	7 46	15 13 SCS
CHARTERS TS.	35.20	116.5	6 8	0	11 1	-2		
GUAM	37.01	58.3	6 20	-3	11 27	-3		
TOCKLAI	37.06	332.4	6 28	4	11 31	0		12 10
CALCUTTA	37.23	320.5	6 29	4	11 33	0		
ADELAIDE	37.31	144.0	6 26A	0	11 31	-3		8 30 PCP
CHENGTU	37.49	347.2	6 27A	0	11 34	-3		
SHILLONG	37.52	327.7	6 26A	-1	11 27	-11	8 13	8 7 PP
VISHAKHAPTNM	37.63	309.4	6 28	0	11 29	-10		
MADRAS	37.68	300.2	6 26K	-3	11 33	-7	8 6	8 30 PCP
ZO-SE	37.75	11.5	6 29A	0	11 38	-3	8 10	
NANKING	38.28	8.0	6 34A	0	11 47	-2	8 18	
RABAUL	39.07	89.2	6 40	0				
BOKARO	39.81	319.2	6 47A	1	12 7	-4	8 28	15 18 *SS
SIAN	40.25	354.8	6 50A	1	12 16	-1	8 34	
CHATRA	41.14	323.7	6 56K	0	12 26	-4		9 33 PCP
LHASA	41.26	330.4	6 58A	1	12 30	-2	8 42	9 46 *SP
LANCHOW	42.74	349.0	7 9A	0	12 52	-1	8 57	8 47 PCP
MELBOURNE	42.97	142.0	7 11	0	12 56	0		
BRISBANE	43.34	124.0	7 16	2	13 5	4		
CANBERRA	44.11	136.3	7 19A	-1	13 11	-1	8 14	16 38 SS
RIVERVIEW	44.86	133.2	7 26K	0	13 23	1		9 25 PP
SEHORE	45.53	310.9						9 18
POONA	45.66	303.1	7 31K	-1	13 28	-5		9 14 PP
ABUYAMA	45.93	26.1	7 32A	-2				
PEKING	45.93	3.4	7 34A	0	13 35	-2	9 20	8 59 PCP
PAOTOW	46.47	356.9	7 39A	1	13 55	10	9 25	
HONIARA	46.63	97.2	7 38A	-1				10 23
BOMBAY	46.69	302.9	7 38	-2	13 43	-5	9 26	16 24 SCS
TARRALEAH	46.73	145.8	7 40	0				
MOORLANDS	47.23	145.5	7 44K	0				9 4 PCP
FORT NELSON	47.63	145.9			13 58	-3		
MATUSIRO	48.50	27.3	7 51A	-2	14 8	-5	9 36	9 54 PP
NEW DELHI	48.71	316.8	7 43A	-12	14 9	-6	9 41	14 17 PS
TUKUBASAN	49.13	29.2	7 55K	-3	14 7	-14		12 10
DEHRA DUN	49.27	319.2	7 59	0	14 16	-7	9 46	17 14 SS
CHANGCHUN	50.87	11.5			14 41	-4	9 59	16 58 SCS
VLADIVOSTOK	51.85	17.6	8 16A	-2	14 54	-4	10 6	10 24 PP
MIZUSAWA	51.95	27.8	8 17	-1	14 55	-4		
LAHORE	52.51	317.8	8 18	-4	15 2	-4	10 8	
ULAN-BATOR	53.99	354.9	8 33A	0	15 19	-7		
NOUMEA	54.00	113.1	8 32A	-1				
KARCHI	54.22	306.4	8 33	-1				
ESEN BULAK	54.29	345.8	8 36A	1	15 29	-1		
PORT VILA	55.20	107.3	8 41	0				
WARSAK DAM	55.86	318.4	8 45	-1				
QUETTA	56.94	312.0	8 52	-1				
KHOROG	58.02	321.6	9 0	-1	16 14	-4	10 53	
IRKUTSK	58.55	353.8	9 4A	0	16 25	0	10 58	
FRUNSE	59.81	328.1	9 12A	-1	16 39	-1	11 6	
WILKES	60.23	181.1	9 13K	-2	16 37	-8		11 57 *SP
DUZHAMBE	60.40	321.0	9 16	0				
MACQUARIE I.	60.78	151.3	9 18	-1				

TASHKENT	61.78	323.8	9	25	0	17	1	-4			9	59 PCP
MIRNY	61.98	188.9				17	10	3			12	10 PP
ROXBURGH	62.48	138.7	9	28	-2				11	26	10	1 PCP
KAIMATA	62.92	135.0	9	38	5							
SEMIPALATNSK	62.93	337.1	9	32A	-1	17	15	-4	11	29	18	23
ONERAHI	63.38	127.0	9	37	1							
COBB RIVER	63.44	133.1	9	36	0	17	25	0				
KARAPIRO	64.76	129.1	9	44	0							
TANANARIVE	64.85	252.0	9	51	6				11	43		
WELLINGTON	64.97	132.9	9	43	-3	17	40	-3				
CHATEAU	65.04	130.5	9	19	-27						9	46 PCP
TUAI	66.18	129.8	9	51	-2				12	11		
ASHKABAD	66.98	315.5	10	1	3	18	5	-2			11	54 PP
YAKUTSK	69.08	8.4	10	10K	-1				12	6	10	29 PCP
MAWSON	70.06	198.2	10	15K	-2				12	22		
PETROPAVLOVK	70.33	27.3				18	44	-1			22	23 *SS
TEHERAN	71.09	310.8	10	22K	-1	18	51	-3	12	20		
MAGDAN	71.92	19.2	10	26	-1	18	59	-4			12	17
SVERDLOVSK	75.72	333.3	10	47K	-2	19	37	-7	12	47	23	19 *SS
GORIS	76.19	313.0	10	51	0							
SCOTT BASE	76.90	169.9	10	54	-1							
TIFLIS	78.03	314.7	11	2K	1	20	6	-3	13	3	20	20
TIKSI	78.22	5.1	11	0K	-2							
BULAWAYO	82.68	250.5	11	24A	-1							
KSARA	82.71	305.1	11	26	1	21	9	13	13	28	16	31 PPP
PRETORIA	82.74	244.9	11	24	-1							
JERUSALEM	82.83	303.0	11	26	0				13	30		
AMDERMA	83.20	344.1	11	25K	-3							
BROKEN HILL	83.22	256.2	11	23	-5						20	51
LWIRO	83.99	268.4	11	32K	0	20	58	-10	13	35	11	36 PCP
SOUTH POLE	84.00	180.0	11	31	-1						11	52
KIMBERLEY	85.56	241.7	11	43	4							
SIMFEROPOL	86.40	315.7	11	43K	0	21	29	-1	13	48	21	11 SKS
MOSCOW	86.78	326.8	11	43K	-2	21	31	-3	13	49	15	21 PP
ISTANBUL UN.	89.41	311.2	11	57A	0	21	31	-27			14	3
HERMANUS	89.72	235.6				22	4	4			21	35 SKS
KHEYS	90.53	352.3	12	2K	0	22	5	-3	14	8	15	49 PP
IASI	91.27	317.2				21	39	-35				
FOCSANI	91.33	315.6				21	44	-31				
PULKOVO	91.48	329.9	12	6K	-1	22	12	-4	14	12	15	57 PP
APATITY	91.56	337.8	12	6A	-1	21	41	-35	14	13	15	53 PP
BACAU	91.65	316.5				21	54	-23				
BUCHAREST	91.96	314.3				21	46	-34			23	35
KAJAANI	93.32	334.0	12	14	-1				14	21	17	59
SODANKYLA	94.12	337.2	12	17	-2	21	55	-43	14	25	16	15 PP
HELSINKI	94.20	329.9	12	20	1				14	28	29	18 PKKP
KEVO	94.22	339.6	12	19	0							
NURMIJARVI	94.38	330.3	12	19	-1	22	38	-3	14	27	16	18 PP
UZHGOROD	94.94	318.3	12	22	-1							
WARSAW	95.93	321.8				22	51	43	14	34	25	39 PS
KIRUNA	96.52	337.6	12	28	-2	22	5	-6	14	35	22	54 S
KRAKOW	96.55	319.6	12	30	0	22	57	46	14	36		
UMEA	96.59	333.5	12	37	7	22	16	4	14	45	23	4 S
BUDAPEST	97.09	317.0				22	13	-2			18	15
RACIBORZ	97.66	319.6	12	34	-1				14	42		
BANDEIRA	97.75	254.1	12	34K	-1							
UPPSALA	97.88	329.5	12	35	-1	22	14	-4	14	43	23	6 S
BRATISLAVIA	98.39	317.7	12	36	-2				14	44	18	32 *PPP
VIENNA-H.	98.88	317.8	12	40	0						16	50 PP
KARLSKRONA	99.10	325.8	12	43	2				14	47	16	32 PKP
ZAGREB	99.18	315.3									22	16
COLLEGE	99.34	25.3	12	44	2				14	49		
MESSINA	99.54	307.6									22	24
PRUHONICE	100.02	319.6	12	45	0	22	28	-1			18	46 PKP
SKALSTUGAN	100.14	333.5	12	44	-2				14	52	16	37 PKP
LJUBLJANA	100.19	315.6									16	41 PP
KASPERSKE H.	100.69	318.7	12	46	-2						17	0 PP
TRIESTE	100.74	315.2				22	30	-2				
COLLMBERG	100.93	321.0	12	48	-1	22	30	-3	14	56	17	0 PP
HALLE	101.57	321.2	12	51	-1	22	32	-4				
ROME	101.82	311.4									18	55
JENA	101.85	320.7	12	53	-1	22	34	9	14	59	17	4 PP
FLORENCE X.	102.62	313.4									19	9
STUTTGART	103.55	318.6									15	9
CHIAVARI	103.97	314.0									23	14
MUNSTER	104.19	322.0									18	30
MOULD BAY	104.30	11.3	13	3	-1						28	47 PKKP
STRASBOURG	104.56	318.5									18	33

BENSBERG	104.62	321.0								19	26 PP
DE BILT	105.65	322.4								25	58 PS
ROSELEND	105.71	315.7	17	55	777						
GARCHY	107.89	317.7	17	13	777					19	52
PARIS	107.97	319.4	17	24	777						
DURHAM	108.95	326.1				23	10	2		26	31 PS
RESOLUTE	109.54	7.6	13	27	777					17	25 PKP
SCORESBY SD.	109.54	345.4	17	11	777						
ALBERNI	115.22	37.8	17	38	1						
PENTICTON	118.31	36.2	17	43A	0						
CALISTOGA	120.36	48.5	17	46A	-1						
MINERAL	120.52	46.3	17	47K	0						
LICK	121.47	49.6	17	50A	1						
HUNGRY HORSE	122.02	35.1	17	50	0					19	26 PP
EUREKA	124.86	45.3	17	57	2				20 17	19	52 PP
PASADENA	125.15	52.2	17	58	2					20	13
BOZEMAN	125.16	36.6	17	56	0					20	14 PP
BOULDER CITY	127.07	48.9	17	51	-9					20	6 PP
SALT LAKE C.	127.13	42.2	18	1	1						
M.BOUR	130.14	283.7								20	35
RAPID CITY	130.61	34.1	18	8	2					20	40 PP
LARAMIE	130.88	38.4	18	8	1					20	38
TUCSON	131.57	51.6	18	10	2					19	43 PP
TUCSON TELE.	131.62	51.5	18	11	3					19	43 PP
MANHATTEN	137.55	34.6	18	10	-9						
SEVEN FALLS	138.94	4.0	18	15	-7						
WICHITA MTS.	139.22	41.3	18	16	-6	24	20	-17	20 40	21	6 PP
SHAWINIGAN	139.33	6.1	18	17	-6					21	4 SKP
BREBEUF	140.27	7.3	18	19	-6					21	21 PP
ROLLA	141.04	32.0	18	20	-7						
FAYETTEVILLE	141.07	36.1	18	20	-7					20	47 SKP
LONDON ONT.	141.08	16.6	18	22K	-5						
FLORISSANT	141.14	29.6	18	21	-6						
ST. LOUIS 1	141.33	29.6	18	22	-5						
HALIFAX	141.45	356.1	18	23A	-5						
DALLAS	141.55	42.2	18	23	-5						
BLOOMINGTON	142.60	25.3	18	29	0						
C. GIRARDEAU	142.70	30.3	18	26K	-3						
LITTLE ROCK	143.06	35.9	18	32	2						
MORGANTOWN	144.58	17.4	18	33A	1				20 42		
PALISADES	144.64	9.0	18	32	0	24	29	-16	20 57		
WASHINGTON	146.04	14.1	18	32	-3				20 44	19	28
GEORGETOWN	146.04	14.1	18	36	1					20	47
CHAPEL HILL	148.27	18.8	18	40	2						
COLUMBIA	149.29	23.2	18	42	3						
ANTOFAGASTA	150.26	173.7	18	43	2					21	4
LA PAZ	157.58	177.2	18	54	3					21	36 PP
SAN JUAN	167.70	356.0	19	2	1					24	6 PP
ANTIGUA	167.86	335.8	19	2	1						
ST. VINCENT	170.93	321.8	19	4	2						
CHINCHINA	171.37	96.6	19	1K	-1					20	28 PKP2
TRINIDAD	172.80	309.9	19	6	3					20	37 PKP2
FUQUENE	173.29	94.5	19	4	1					24	30 PP

MARCH 22 0.H 37.M 36.S EPICENTRE -5.88 112.84 DEPTH= 593.KM

A=-0.38611 B= 0.91682 C=-0.10183 D= 0.9216 E= 0.3881
G= 0.0395 H=-0.0938 K=-0.9948 HT= 7.0

DEPTH OF FOCUS= 0.088R

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
DJAKARTA	5.98	266.9	1	40	-1	3	1	0				
TANGERANG	6.18	267.0	1	43K	0	3	6	1				
MEDAN	16.98	303.3	3	31K	4	6	21	7				
DARWIN	18.89	111.2	3	45	0	6	42	-4				
MANILA	22.00	21.7	4	16	3							
MUNDARING	26.14	173.5	4	49A	-1							
PORT BLAIR	26.55	311.1				8	48	-1				
PORT MORESBY	34.18	98.0	5	58K	0							
CHITTAGONG	34.80	324.4				10	58	3	7	50		
CHARTERS TS.	35.40	116.6	6	9K	1	11	0	-4				
GUAM	37.05	58.6	6	23	1				8	27		
ADELAIDE	37.52	143.9	6	26A	0	11	30	-5				

MELBOURNE	43.18	142.0								8	47	
BRISBANE	43.55	124.1	7	16	2					7	46	
CANBERRA	44.32	136.3	7	20A	0					8	51	PCP
RIVERVIEW	45.07	133.2	7	26	0							
MATUSIRO	48.43	27.5	7	50K	-1					9	7	PCP
LAHORE	52.30	317.8	8	18	-1							
NOUMEA	54.20	113.2	8	32K	-1							
PORT VILA	55.38	107.4	8	40K	-1							
QUETTA	56.72	312.0	8	51	1							
Y.-SAKHLINSK	58.94	23.4	9	5K	0							
ROXBURGH	62.69	138.7	9	28	-1					10	0	PCP
KARAPIRO	64.97	129.1	9	43	-1							
TUAI	66.39	129.8	9	51	-2							
YAKUTSK	68.95	8.4	9	59	-9	18	27	0				
PETROPAVLOVK	70.26	27.4	10	17K	1							
AFIAMALU	74.45	102.8	10	42	2							
SCOTT BASE	77.08	169.9	10	54	0							
TIFLIS	77.82	314.7	11	1K	3	20	6	3	13 5			
KSARA	82.50	305.1	11	27	5							
BULAWAYO	82.60	250.5	11	25	2							
JERUSALEM	82.63	303.0	11	26	3				13 31			
AMDERMA	83.02	344.2	11	26K	1							
BROKEN HILL	83.12	256.2	11	27K	2					13	32	
SOUTH POLE	84.16	180.0	11	30	0					13	36	
KIMBERLEY	85.51	241.7								19	2	
MOSCOW	86.58	326.8	11	44A	2	21	33	4	13 49			
PULKOVO	91.28	329.9	12	5	1	22	10	-1	14 14			
KAJAANI	93.11	334.0	12	13	1							
SODANKYLA	93.92	337.2	12	17	1							
HELSINKI	94.00	329.9	12	19	3							
NURMIJARVI	94.18	330.3	12	19	2				14 28	29	16	PKKP
KIRUNA	96.32	337.6	12	27	0							
UMEA	96.39	333.5	12	36	9							
BANDEIRA	97.66	254.1								19	2	
UPPSALA	97.67	329.5	12	33	0							
COLLMBERG	100.72	321.0	12	49	2							
PENTICTON	118.27	36.1	17	42	2					19	2	
CALISTOGA	120.37	48.4	18	35K	51							
MINERAL	120.52	46.2	17	47K	2							
BERKELEY	120.85	49.1	18	31K	46							
LICK	121.48	49.5	18	28K	41							
RENO	122.09	46.5	17	30K	-18							
PRIEST	122.60	50.6	18	20K	31							
EUREKA	124.86	45.2	18	18	25					19	48	PP
PASADENA	125.17	52.0	17	57	3							
BOULDER CITY	127.08	48.7	17	51	-6							
LARAMIE	130.86	38.2	17	54	-11							
TUCSON	131.59	51.5	17	29	-37							
TUCSON TELE.	131.64	51.3	17	30	-36					17	52	
MANHATTEN	137.51	34.4	17	18K	-59							
LAWRENCE	138.41	33.6	17	38	-41							
SEVEN FALLS	138.80	3.8	17	34A	-45							
WICHITA MTS.	139.20	41.1	16	58	-82					17	38	
SHAWINIGAN	139.20	5.9	17	31	-49							
LONDON ONT.	140.98	16.4	17	15A	-70							
ROLLA	140.99	31.7	17	0K	-85							
FAYETTEVILLE	141.03	35.8	16	54K	-91					18	18	
FLORISSANT	141.08	29.3	17	2	-83							
ST. LOUIS 1	141.27	29.4	17	1	-84							
HALIFAX	141.29	355.9	17	19A	-66							
BLOOMINGTON	142.52	25.0	17	1K	-86							
LITTLE ROCK	143.02	35.6	16	41	-107							
MORGANTOWN	144.48	17.1	16	52A	-98							
PALISADES	144.51	8.8	18	32	2					16	55	P
ANTOFAGASTA	150.43	173.9	18	49	10							
AREQUIPA	157.39	169.1	18	53	5							

MARCH 22 15.H 13.M 3.S EPICENTRE -3.25 142.42 DEPTH= 0.KM

A=-0.79128 B= 0.60886 C=-0.05630 D= 0.6098 E= 0.7925
G= 0.0446 H=-0.0343 K=-0.9984 HT= 7.1

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

PORT MORESBY	7.71	142.7	1	55K	-1							
RABAUL	9.77	95.8	2	21K	-4	4	17	1				
RAPINDIK	9.80	96.0	2	21	-4							
DARWIN	14.63	231.0	3	31	1							
GUAM	16.76	7.8	4	56	58	7	4	0				
CHARTERS TS.	17.15	167.7	4	6	4	7	17	4				
HONIARA	18.46	110.2	4	15K	-4	7	41	-2				
BRISBANE	25.97	158.6	5	37	1	9	53	-12				
MANILA	27.64	310.6	5	47	-4	9	52	-40				
NOUMEA	30.03	131.1	6	13	0							
RIVERVIEW	31.50	166.0	6	25A	-1	11	34	0			7	43 PPP
ADELAIDE	31.75	185.8	6	27A	-1	11	39	1				
CANBERRA	32.49	170.0	6	34A	0	11	46	-3			8	28
HENGCHUN	32.85	320.8	6	34	-3							
TAWU	33.01	321.4	6	18	-21							
TAITUNG	33.15	322.2	6	4	-36							
HWALIEN	33.79	324.3	6	50	4	12	0	-9				
ILAN	34.34	325.3	6	53	3							
TAIPEI	34.67	325.3	6	13	-40	12	21	-2				
YAKUSIMA	35.39	342.1	6	59	0	12	35	1				
DJAKARTA	35.59	264.0	6	57	-4	12	49	12				
TANGERANG	35.78	264.0	7	0	-3	12	22	-18				
KAGOSIMA	36.42	342.8	7	8	0						10	13
MIYAZAKI	36.51	344.2	7	20	11	12	56	5				
SIMIDU	36.93	346.7	7	14	2	12	59	1				
SIOMISAKI	37.04	350.7	7	15	2	12	52	-7				
MUROTO	37.13	348.5	7	3	-11						16	7
HONG KONG	37.51	313.9	7	18A	1	13	7	0			9	34 PPP
KOTI	37.55	347.8	7	17	-1	13	8	1				
KUMAMOTO	37.55	343.7	7	17	-1							
OWASE	37.58	351.5	7	12	-6							
MUNDARING	37.72	217.8	7	19A	0	13	12	2				
OMAESAKI	37.85	354.3	7	28	8							
OSIMA	37.92	355.9									15	44
PERTH	37.94	218.2	7	22	1	13	15	2			9	17 PPP
TOMIE	37.95	341.1	7	21	0	13	12	-1				
MATUYAMA	38.00	346.9	7	18	-3						18	34
SAGA	38.07	343.4	7	24	2							
TAKAMATU	38.19	348.8	7	22	-1	13	14	-3				
SHIZUOKA	38.20	354.7									16	37
SUVA	38.24	115.4				13	42	24			16	27 SS
OSAKA	38.25	350.8	7	31	8	13	19	1				
MISIMA	38.30	355.4	7	41	17							
KAMEYAMA	38.31	352.1	7	24	0							
ABUYAMA	38.46	350.9	7	22A	-3							
NAGOYA	38.56	352.8	7	25	-1	13	18	-5				
YOKOHAMA	38.56	356.4	7	33	7						16	13
KYOTO	38.58	351.2	7	23	-3	13	18	-5				
HIROSIMA	38.58	346.7	7	20	-6						15	30
CANTON	38.60	314.2	7	28A	2	13	25	2			8	53 PP
HUNATU	38.70	355.2	7	40	13							
HIKONE	38.75	351.9	7	31	3	13	37	11				
IIDA	38.80	354.0	7	27	-1							
TOKYO C.M.O.	38.81	356.5	7	42	14	13	4	-22				
GIHU	38.81	352.6									7	53
KOHU	38.88	355.0	7	28	-1							
TOYOOKA	39.23	350.2	7	29	-3	13	30	-3			16	32
MOORLANDS	39.25	174.4	7	33	1							
KUMAGAYA	39.30	356.1	7	29	-3	13	30	-4				
TUKUBASAN	39.32	357.0	7	30A	-2	13	24	-10			9	1 PP
KAKIOKA	39.33	357.1	7	39	7	13	30	-4				
MATSUE	39.48	348.0	7	33	-1							
MATUMOTO	39.51	354.3	7	56	22							
HUKUI	39.52	352.1	7	33	-1							
OIWAKE	39.54	355.1	7	32	-2	13	36	-1				
UTUNOMIYA	39.66	356.8	7	33	-2							
ZO-SE	39.71	330.9	7	36A	0	13	39	-1			9	8 PP
FORT NELSON	39.75	174.3	7	36	0	13	29	-12				
MATUSIRO	39.78	354.7	7	34A	-2	13	34	-7			9	12 PP
NAGANO	39.91	354.7	7	23	-14	13	35	-8				
ONAHAMA	40.02	358.1	7	37	-1							
TOYAMA	40.04	353.5	7	33	-5							
SHIRAKAWA	40.21	357.3	7	39	-1							
HUKUSIMA	40.83	357.6	7	50	5							
NIIGATA	41.08	355.9									10	27
AIKAWA	41.24	355.0	7	46	-2							
SENDAI	41.33	358.2	7	43	-6						13	54
YAMAGATA	41.33	357.5	7	48	-1							
ISINOMAKI	41.48	358.7	7	44	-6							

NANKING	41.68	329.2	7 53A	1	14 10	1		
MIZUSAWA	42.19	358.5	7 57	1	14 2	-15		
MIYAKO	42.69	359.5	8 11	11	14 20	-4		
MORIOKA	42.75	358.6	8 0	-1				
AKITA	42.81	357.4						14 25
HATINOHE	43.57	359.0						14 34
ONERAHI	43.80	141.6	8 17	8				10 6 PP
MEDAN	44.24	278.5	8 8	-5	14 38	-9		
KARAPIRO	45.92	143.0	8 26	0				
SAPPORO	46.11	358.9	8 24	-4				11 10
COBB RIVER	46.49	148.3	8 31	0	15 19	0		
CHATEAU	46.75	144.3	8 33	0	15 25	2		
KAIMATA	46.88	150.6			15 3	-22		9 6
VLADIVOSTOK	47.12	349.5	8 36A	0	15 28	0		10 24 PP
TUAI	47.44	142.8	8 37	-1				
KUNMING	47.72	308.5	8 42A	2	15 41	4		10 34 PP
WELLINGTON	47.72	147.0	8 38	-2	15 33	-4		10 43 PP
ROXBURGH	48.21	154.7	8 43	-1	15 43	0		16 47
SIAN	48.85	322.6	8 50A	1	15 53	1		10 41 PP
CHANGCHUN	49.33	343.7	8 52A	-1	15 58	-1		
PEKING	49.35	333.4	8 52A	-1	15 58	-1		
CHENGTU	49.79	315.5	8 57A	1	16 7	1		
Y.-SAKHLINSK	50.06	0.3	8 56	-2				15 48
PAOTOW	52.72	329.2	9 19A	0	16 48	2		
LANCHOW	53.17	320.8	9 23A	1	16 55	3		
TOCKLAI	54.82	306.0	9 42K	8				
CHITTAGONG	55.58	299.9	9 41	2	17 25	1		11 46 PP
SHILLONG	56.72	303.5	9 50A	2	18 41	61		12 48 PP
PETROPAVLOVK	57.71	11.5	9 50A	-5				10 46 PCP
CALCUTTA	58.64	298.8	10 6	5				14 52
LHASA	59.02	307.5	10 6A	2	18 14	4		
ULAN-BATOR	59.67	333.1	10 7	-1	18 18	0		
CHATRA	61.10	303.0	10 17K	-1	18 39	2		11 56 PP
BOKARO	61.29	299.3	10 20A	1	18 42	3		12 34 PP
VISHAKHAPTNM	61.88	291.9	10 22K	-1	18 49	3		12 41 PP
MAGADAN	62.96	4.8	10 28A	-3	18 59	-1		19 16 PS
HONOLULU	63.09	64.3	10 39	8	19 3	1		23 1 SS
KIPAPA	63.20	64.2	10 38	6				
MADRAS	63.86	286.1	10 34	-2	19 11	0		12 33 PP
IRKUTSK	64.00	335.0	10 37A	0	19 16	3		
ESEN BULAK	64.03	326.3	10 38A	0	19 17	4		
HAWAII V.OB.	65.21	67.0	10 53	8	19 3	-25		
YAKUTSK	65.81	353.5	10 47A	-2	19 32	-3		23 39 SS
KODAIKANAL	66.04	282.6	10 48	-3	19 42	4		13 9
HYDERABAD	66.33	290.5	10 52A	0	19 43	1		13 24 PP
WILKES	66.82	193.4	10 53A	-3	19 45	-3		20 51 PS
DEHRA DUN	69.81	303.8	11 15	1	20 28	5		13 59 PP
NEW DELHI	70.05	301.8	11 15A	-1	20 26	0		13 50 PP
POONA	70.84	290.8	11 20A	0	20 34	-1		13 57 PP
MIRNY	71.85	198.7	11 25	-1	20 41	-6		14 1 PP
BOMBAY	71.86	291.0	11 27	0	20 48	1		13 56 PP
LAHORE	73.22	304.2	11 33	-2				
SEMIPALATNSK	75.23	324.2	11 45A	-1	21 23	-2		14 31 PP
TIKSI	75.26	355.6	11 44A	-2	21 22	-3		14 39 PP
SCOTT BASE	75.66	174.8	11 47	-2				
WARSAK DAM	76.09	306.0	11 52A	1	21 37	3		
FRUNSE	76.15	315.5	11 51A	0	21 37	2		14 42 PP
KHOROG	76.95	309.5	11 58	2	21 47	3		
KARACHI	78.15	296.1	12 2	0	21 58	1		
QUETTA	79.12	301.4	12 9A	1	22 6	-1	12 19	
TASHKENT	79.57	312.9	12 11A	1	22 14	2		
MAWSON	83.02	202.3	12 27A	-1	22 42	-6		13 49
COLLEGE	84.46	23.7	12 33	-3				15 57 PP
SOUTH POLE	86.77	180.0	12 46	-1				13 11
ASHKABAD	87.30	308.1	12 51	1	23 8	-21		16 19 PP
SVERDLOVSK	88.21	327.0	12 52A	-2	23 12	-26		18 22 PPP
AMDERMA	89.82	339.9	12 59A	-3	23 47	-6		
KHEYS	92.26	350.6						16 45 PP
TEHERAN	92.72	305.5	13 15A	0	23 12	-66	16 56	
TANANARIVE	93.56	250.9	13 21	2				
MOULD BAY	95.10	13.8	13 24	-2				
BERKELEY	96.18	52.4	13 28A	-3	24 2	-5		
GORIS	96.76	309.2	13 33K	-1				
PENTICTON	97.64	40.8	13 40	2				
TIFLIS	97.84	311.5	13 38A	0	24 15	-1		17 44 PP
PASADENA	99.60	56.1	13 46	0	24 23	-2		17 55 PP
ALERT	100.09	3.2	13 46	-3				
APATITY	100.18	338.3	13 47A	-2	24 26	-2		17 55 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.

MOSCOW	100.99	326.1	13	50A	-3					17	55 PP
EUREKA	101.02	50.6	13	53	0					17	54 PP
RESOLUTE	101.40	13.2	13	52	-3						
HUNGRY HORSE	101.42	41.4	14	2	7						
BOULDER CITY	102.22	54.0	18	5	247						
SODANKYLA	102.71	339.1	13	57	-3	24	41	1			
KAJAANI	103.53	335.8	14	1	-3						
PULKOVO	103.81	331.1	14	3A	-2	24	41	-4		18	21 PP
KIRUNA	104.65	340.6	14	7	-2	24	44	-5		18	27 PP
KSARA	105.54	304.1	14	11	777	24	56	3		18	31 PP
HELSINKI	106.19	332.5	14	14	777					18	42 PP
NURMIJARVI	106.20	332.9	14	13	777	24	55	-1		18	39 PP
JERUSALEM	106.32	302.0	14	16	777				18 42		
UMEA	106.64	336.9	14	21K	777	24	51	-7		18	42 PP
LARAMIE	108.59	47.5	18	51	777						
ALBUQUERQUE	109.12	54.2	18	30	777					29	53
RAPID CITY	109.63	44.2	19	8	777						
UPPSALA	109.64	333.9				24	59	-12		19	4 PP
ISTANBUL UN.	109.70	312.5	14	29	777	25	10	-1		19	8 PP
SKALSTUGAN	109.77	338.7								18	59 PP
LWOW	110.51	322.5	14	36	-238					19	11 PP
BUCHAREST	110.89	316.6								19	19 PP
BULAWAYO	111.07	247.1	18	4	-31						
WARSAW	111.37	325.7								19	19 PP
BROKEN HILL	112.25	253.1	18	33	-4						
KIMBERLEY	112.32	237.2	18	38	0						
KARLSKRONA	112.43	331.0								19	25 PP
KRAKOW	112.88	323.8				25	20	-4	18 52	19	29 PP
SKALNATE PL.	113.04	322.9								19	39 PP
SOFIA	113.32	315.5	18	38	-2					19	34
LWIRO	113.43	266.2	14	48	-232	25	38	12		19	34 PP
RACIBORZ	113.88	324.4	18	43	2						
BUDAPEST	114.47	321.5				25	31	1		20	34 PP
BELGRADE	114.57	318.4				25	34	4		19	40 PP
HERMANUS	114.85	229.7								19	42 PP
BRATISLAVA	115.36	322.8	18	49	5					19	49 PP
WICHITA MTS.	115.50	53.0	18	45	1	25	35	1		19	49 PP
VIENNA-H.	115.76	323.1	18	44	0					19	49 PP
MANHATTEN	115.78	47.7	18	44	0						
PRUHONICE	116.02	325.5	18	45	0					19	50 PP
COLLMBERG	116.22	327.3	18	53	8	25	33	-3		19	51 PP
HALLE	116.68	327.8	18	47	1					27	44
LAWRENCE	116.84	47.6	19	11	25						
KASPERSKE H.	116.99	325.0	18	47	0					19	42 PP
ZAGREB	117.06	320.8				25	39	-1		19	14
JENA	117.18	327.4	18	48	1	25	21	-19		19	58 PP
LJUBLJANA	117.88	321.6	18	49	1					20	4 PP
TARANTO	118.37	314.9								29	32
TRIESTE	118.54	321.4				25	46	1		20	8 PP
FAYETTEVILLE	118.56	50.4	18	49K	-1						
MUNSTER	118.65	330.0	18	52	2						
DUBUQUE	118.76	42.4	18	55	5						
FELDBERG	119.24	328.0	18	54	3						
ABERDEEN	119.35	338.7				25	49	1		20	19 PP
HOUSTON	119.36	57.6								20	13
BENSBERG	119.48	329.2	18	53	1				19 0	20	16 PP
HEIDELBERG	119.56	327.1	18	51	-1						
STUTTGART	119.60	326.3	18	53	1	25	48	0		20	15 PP
ROLLA	119.68	47.7	18	52	0						
DE BILT	119.77	331.2	15	15	-217					20	17 PP
PADOVA	119.82	321.9								20	16 PP
RAVENSBURG	119.94	325.2	18	53	1						
KARLSRUHE	119.94	326.9	18	57	5						
EBINGEN	120.09	325.8	18	53	0						
MESSINA	120.44	313.0				25	54	3		20	25 PP
STRASBOURG	120.54	326.7	18	55	1	25	57	5		20	23 PP
DURHAM	120.93	336.6								20	29 PP
FLORENCE X.	120.99	320.5	18	56	1					30	30 PS
ROME	121.06	318.1	18	55A	0	25	56	3		30	17 PS
BASLE	121.23	325.8								20	16
DOURBES	121.30	329.6	18	53	-2					20	29 PP
CHIAVARI	121.93	321.9				26	12	16		35	37 SS
BESANCON	122.29	326.3	18	57	0						
KEW	122.75	333.2								20	36 PP
ROSELEND	122.81	324.4	18	59	1						
BLOOMINGTON	123.04	44.3	19	2A	4						
PARIS	123.19	329.4	19	5	6					20	5 PP
MONACO	123.40	322.1	18	59	0						

GARCHY	123.85	327.7	19	1	1		20	45
BANGUI	123.93	273.1	19	1	1		20	44 PP
LONDON ONT.	124.64	37.9	19	2K	0			
FOLINIERE	124.69	331.0	19	2	0			
CLERMONT-FD.	124.75	326.3	19	3	1		20	54 PP
BANDEIRA	126.48	248.3	19	6A	-1		21	5 PP
SHAWINIGAN	127.15	29.9	19	6K	0			
BREBEUF	127.43	31.4	19	7	0		21	5 PP
SEVEN FALLS	127.69	28.2	19	7K	0			
LUANDA	127.95	256.2					21	12 PP
ALICANTE	131.37	320.8	19	8	-6		21	39 PP
TOLEDO	132.56	324.8	19	18	1		21	43 PP
ALMERIA	133.53	320.5	19	20	1			
GRANADA	134.04	321.6					22	42 PP
BALBOA HTS.	137.90	80.3	19	25	-2			
GALERAZAMBA	141.88	76.7					29	33 SKKS
CHINCHINA	142.02	86.1	19	30	-4		19	34 PKP2
LA PAZ	143.99	124.0	19	37	0		23	13 PP
SAN JUAN	148.27	59.6	19	46	1			
ST. KITTS	151.63	58.7	19	57	7			
ANTIGUA	152.47	58.2	19	58	7			
FORT FRANCE	154.11	62.4	19	55	2			
ST. VINCENT	154.59	65.8	19	53	-1			
TRINIDAD	155.25	71.5	19	56	1		30	43 SKKS
M.BOUR	156.86	299.8	19	59	2		24	2 PP

MARCH 22 18.H 58.M 50.S EPICENTRE -28.26 -68.75 DEPTH= 100.KM

A= 0.31977 B=-0.82210 C=-0.47106 D=-0.9320 E=-0.3625
G=-0.1708 H= 0.4390 K=-0.8821 HT= 2.4

DEPTH OF FOCUS= 0.011R

SE= 1.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
LA PAZ	11.72	2.9	2	46	1	5	22	27				
CHINCHINA	33.70	347.6	6	35	1							
TRINIDAD	39.33	11.4	7	22	1							
GRENADA	40.65	10.6	7	35	3							
ST. VINCENT	41.82	11.0	7	40	-2							
FORT FRANCE	43.37	10.7	7	53	-1							
ST. KITTS	45.71	8.0	8	11	-2							
SAN JUAN	46.44	3.4	8	17	-2						10	37
SOUTH POLE	61.90	180.0	10	10	-1						10	37
M.BOUR	65.63	56.7	10	37	1							
LITTLE ROCK	66.56	338.9	10	40	-2							
FAYETTEVILLE	68.35	338.0	10	52K	-1				11	45	11	22 PCP
WICHITA MTS.	68.70	333.9	10	54	-1	19	40	-9	11	50	11	19 PCP
BLOOMINGTON	69.12	345.3	11	0K	2							
SCOTT BASE	69.24	190.8	10	57	-1							
ROLLA	69.30	340.6	10	58K	-1							
ST. LOUIS 1	69.52	342.2	10	58K	-2							
FLORISSANT	69.71	342.1	11	0K	-1							
LAWRENCE	71.32	338.5	11	34	23							
LONDON ONT.	71.87	350.4	11	13K	-1							
MANHATTEN	71.97	337.6	11	14K	-1							
ALBUQUERQUE	72.27	328.2	11	17	0							
TUCSON	72.27	323.4	11	17	0							
TUCSON TELE.	72.28	323.5	11	17	0							
DUBUQUE	73.27	343.2	11	24K	2							
BREBEUF	73.54	356.4	11	24	0							
SHAWINIGAN	74.55	357.1	11	30	0							
SEVEN FALLS	75.05	358.5	11	33K	0							
WINDHOEK	76.18	108.3	11	39	0							
BANDEIRA	76.22	99.7	11	41K	2						12	22
GLEN CANYON	76.35	325.9	11	41	1							
LARAMIE	77.17	332.4	11	45	0							
PASADENA	77.72	319.9	11	48	0							
FLAMING GRGE	78.48	329.8	11	52	0							
RAPID CITY	78.60	335.4	11	53	0							
LUANDA	78.83	94.1									21	12
KIMBERLEY	79.76	117.0	11	57A	-2							
EUREKA	80.48	324.8	12	3	0						12	34
PRIEST	80.57	319.8	12	4A	1							
LICK	81.97	320.1	12	12K	2							

RENO	82.53	322.7	12	15A	2							
BOZEMAN	83.02	331.6	12	16	0							
CALISTOGA	83.41	320.5	12	15K	-3							
HUNGRY HORSE	86.38	331.6	12	32	0							
BULAWAYO	86.84	111.0	12	35K	0							
BROKEN HILL	89.46	106.0	12	50	3							
PENTICTON	89.54	329.5	12	47	-1							
ROXBURGH	89.63	216.7	12	48	0							
CHATEAU	90.05	224.4	12	51	1							
KARAPIRO	90.82	225.4	12	55	1							
LWIRO	95.59	95.5	13	15	0							
FOLINIERE	97.88	38.3	13	25	-1							
STUTTGART	103.42	41.7	13	51	0							
COLLMBERG	106.69	40.4									18	30 PP
COLLEGE	110.77	333.4	18	21	0							
NURMIJARVI	115.80	33.3	18	30	-1							
SODANKYLA	117.80	25.8	18	36	1							
TEHERAN	129.36	65.5	18	59	2							
POONA	144.45	97.6									19	25
TANGERANG	145.48	171.9	19	27A	0							
GUAM	145.56	251.6	19	28	1				19	58		
NEW DELHI	150.10	81.2	19	30	-4							
DEHRA DUN	151.02	77.8	19	40	5						19	43
MATUSIRO	155.85	296.8	19	43	1				20	41		
CHATRA	158.60	88.2									19	28

MARCH 24 1.H 34.M 8.S EPICENTRE -17.67-172.94 DEPTH= 0.KM

A=-0.94616 B=-0.11725 C=-0.30171 D=-0.1230 E= 0.9924
G= 0.2994 H= 0.0371 K=-0.9534 HT= 5.2

SE= 3.77

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
AFIAMALU	3.90	16.7	0	59	-2	1	45	-5				
SUVA	8.23	265.4				3	43	4				
PORT VILA	17.86	267.0	4	12A	0							
ONERAHI	21.26	209.5	4	45	-5						8	42
KARAPIRO	22.57	204.3	5	0	-3							
TUAI	22.76	200.4	5	2	-3	9	9	-1				
CHATEAU	23.68	202.7	5	10	-4							
KAIMATA	28.13	205.0	6	2	6							
RIVERVIEW	35.91	236.4				12	59	17				
CANBERRA	38.05	234.9	7	20	-2							
CHARTERS TS.	38.62	259.8	7	20	-7							
PORT MORESBY	39.60	276.6	7	34	-1	13	52	13				
BYRD STATION	66.66	171.2	10	52	-3							
MATUSIRO	70.95	320.1	11	18	-3	21	10	33			12	42
SOUTH POLE	72.44	180.0	11	27	-3							
CHINA LAKE	74.64	43.9	11	42	-1							
TUCSON	77.42	50.1	11	59	0							
TUCSON TELE.	77.55	50.1	11	58	-2							
EUREKA	77.81	41.6	12	0	-1							
GLEN CANYON	79.31	45.7	12	8	-1							
PENTICTON	81.69	32.0	12	18	-4							
ALBUQUERQUE	81.92	49.5	12	22	-1							
HUNGRY HORSE	84.05	35.1	12	32	-2							
COLLEGE	84.50	10.5	12	34	-2							
BANFF	84.89	32.2	12	35	-3							
WICHITA MTS.	87.66	52.5	12	51	-1	23	26	-7			29	22 SS
LITTLE ROCK	92.46	54.4	12	53	-21							
ROLLA	93.84	51.6	13	10	-11							
FLORISSANT	95.27	51.1	13	13	-14							
C. GIRARDEAU	95.44	52.7	13	3	-25							
BREBEUF	108.85	47.2									23	40
BULAWAYO	136.88	210.3	15	34	-231							
MUNSTER	145.78	359.4	19	42	1							
HALLE	146.03	354.5	19	41	0				19	52		
COLLMBERG	146.12	353.3	19	42A	1						19	52 PKP2
RACIBORZ	146.45	347.0	19	44	2							
JENA	146.62	354.8	19	42	0							
BENSBERG	146.79	359.9	19	44	1						20	30
SKALNATE PL.	146.80	344.1	19	44	1						21	3
BANDEIRA	147.05	191.0	19	48K	5							
PRUHONICE	147.21	351.1	19	45	2							
KASPERSKE H.	148.18	351.9	19	47	2						21	5

FOLINIERE	148.38	9.5	19	48	3						
BRATISLAVA	148.50	347.1	19	49	4						
PARIS	148.72	5.8	20	6	20						
STUTTGART	148.93	357.2	19	45	-1					20	35
STRASBOURG	149.17	359.1	19	48	2						
KSARA	149.61	307.5	19	54	7						
GARCHY	150.29	5.5	19	54	6						
LWIRO	150.83	229.4	19	57A	8						
JERUSALEM	150.93	304.2	19	56	7						
LJUBLJANA	151.03	349.2	19	52	3						
SOFIA	151.47	334.4	19	54	4						

MARCH 24 12.H 59.M 33.S EPICENTRE -5.78 145.20 DEPTH= 95.KM

A=-0.81708 B= 0.56778 C=-0.09999 D= 0.5706 E= 0.8212
G= 0.0821 H=-0.0571 K=-0.9950 HT= 7.0

DEPTH OF FOCUS= 0.010R
SE= 2.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	4.08	151.9	1	1A	-1	1	46	-3					
RABAUL	7.11	77.6	1	42A	-1	3	5	2					
RAPINDIK	7.14	77.9	1	42A	-2	3	5	1					
CHARTERS TS.	14.26	176.0	3	21	2	6	3	8					
GUAM	19.12	358.6	4	15	-3	7	50	6					
BRISBANE	22.67	162.3	4	54	0	8	53	2					
KOUMAC	23.64	130.2	5	4A	1						5	54	
PORT VILA	25.52	119.7	5	20	-1								
RIVERVIEW	28.45	169.6	5	50K	2	10	27	0			6	55	PPP
CANBERRA	29.61	173.7	5	57K	-1	10	45	0	6	23	6	32	*SP
ADELAIDE	29.66	190.8	5	58	-1	10	45	-1	6	25	6	33	*SP
MANILA	31.38	310.6	6	10	-4	10	26	-47					
SUVA	34.68	113.7									7	27	
MOORLANDS	36.55	177.5	6	58K	0				7	24			
FORT NELSON	37.05	177.4	7	2K	0	12	41	0					
LEMBANG	37.37	266.3	7	4	-1	12	38	-7					
HWALIEN	37.46	323.6	7	10	4	12	38	-9					
MUNDARING	37.59	222.5	7	7	0	12	50	1					
PERTH	37.84	222.8	7	17	8	12	57	4			8	42	PP
ILAN	37.99	324.0	7	16	6	12	51	-4					
DJAKARTA	38.16	267.4	7	9	-3								
TAIPEI	38.32	324.0	7	14	1	13	0	0					
TANGERANG	38.36	267.4	7	11	-2	13	5	4					
HATIDYOZIMA	39.00	352.8	7	15	-4								
SIOMISAKI	40.02	347.7	7	28	1	13	21	-5					
ONERAHI	40.11	142.0	7	28	0						8	8	
OWASE	40.54	348.5	7	31	0						9	7	
KOTI	40.65	345.0	7	44	12	13	27	-8					
OSIMA	40.70	352.6	7	34	1	13	28	-8					
KUMAMOTO	40.78	341.2	7	35	2								
MERA	40.79	353.2	7	32	-1	13	57	20					
OOITA	40.88	342.5	7	35	1								
AJIRO	41.01	352.4	7	33	-2								
SHIZUOKA	41.03	351.5	7	36	1	13	35	-5					
SUMOTO	41.07	347.0	7	35	-1	13	38	-3					
MISIMA	41.10	352.2	7	35	-1	13	35	-6					
OSAKA	41.23	347.9	7	36	-1	13	38	-5					
KAMEYAMA	41.24	349.1	7	27	-10	13	37	-7					
HONG KONG	41.25	313.6	7	37K	0	13	43	-1	8	4	10	4	PPP
YOKOHAMA	41.32	353.1	8	5	27	13	40	-5					
ABUYAMA	41.44	348.0	7	37K	-2								
NAGOYA	41.46	349.8	7	39	0								
HUNATU	41.50	352.1	7	38	-1	13	38	-9					
KYOTO	41.55	348.2	7	41	1						16	29	
TOKYO C.M.O.	41.55	353.3	7	47	7	13	43	-5					
IIDA	41.66	350.9	7	40	-1	13	44	-6					
HIKONE	41.69	349.0	7	43	2	13	47	-3					
KOHU	41.70	351.9	7	40	-1	13	44	-6					
HIROSIMA	41.71	344.0	7	53	12	13	45	-6					
GIHU	41.72	349.6	7	43	2								
TITIBU	41.93	352.6	7	42	-1	13	49	-5					
TUKUBASAN	42.05	353.8	7	42A	-2	13	43	-12	8	14			
KAKIOKA	42.05	353.9	7	44	0								
KUMAGAYA	42.06	353.0	7	44	0	13	53	-3					

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TSURUGA	42.09	348.9	7	45	1							
MITO	42.17	354.3	7	46A	1	13	54	-3				
TOYOOKA	42.23	347.4	8	0	15	13	54	-4				
KARAPIRO	42.24	143.6	7	46K	1						13	22 SCP
CANTON	42.34	313.8	7	47K	1	14	2	2				
MAEBASI	42.35	352.6	7	46	0	13	55	-5			8	22
OIWAKE	42.35	352.0	7	47	1	13	55	-5				
MATUMOTO	42.35	351.3	7	44	-2	13	55	-5				
TOTTORI	42.36	346.6	8	0	14							
UTUNOMIYA	42.40	353.6	7	49	2	13	55	-6				
MATUSIRO	42.60	351.7	7	45A	-3	13	49	-15	8	15	10	10 PPP
ONAHAMA	42.69	354.9	7	50A	1	14	1	-4				
NAGANO	42.73	351.7	7	50	1	14	2	-3				
COBB RIVER	42.90	149.1	7	51	0	14	12	4				
TOYAMA	42.91	350.5	7	52	1	14	5	-3				
SHIRAKAWA	42.93	354.1	7	52	1	14	4	-4				
AFIAMALU	43.09	104.1	7	51K	-1	14	10	-1				
CHATEAU	43.10	144.9	7	53K	1	14	21	10			13	24 SCP
ZO-SE	43.27	329.4	7	52K	-2	14	11	-2	8	32	15	4 *SS
KAIMATA	43.34	151.6	7	56	2	14	16	2				
HUKUSIMA	43.53	354.5	7	57	1	14	13	-4				
WAZIMA	43.63	350.4	8	0	3	14	15	-3				
TUAI	43.77	143.3	7	58	0						13	29 SCP
NIIGATA	43.85	353.0	8	3	5	14	22	0				
SENDAI	44.00	355.1	7	58	-2	14	19	-5				
YAMAGATA	44.03	354.5	8	1	1	14	21	-3				
WELLINGTON	44.11	147.7	8	8	7	14	31	6				
ISINOMAKI	44.13	355.6	7	59	-2	14	21	-5				
ROXBURGH	44.77	155.9	8	4	-2	14	35	0			13	35 SCP
MIZUSAWA	44.84	355.5	8	8	2	14	34	-2				
NANKING	45.27	327.9	8	9K	-1	14	42	0			15	36 *SS
MIYAKO	45.30	356.5	8	10	0	14	36	-7				
MORIOKA	45.40	355.6	8	11	0	14	41	-3				
AKITA	45.51	354.5	8	18	6	14	45	-1				
HATINOHE	46.20	356.1	8	15	-2	14	47	-8				
MEDAN	47.38	280.2	8	25	-1	15	17	5				
HAKODATE	47.53	355.5	8	28	0						8	58
URAKAWA	47.75	357.6	8	29	0	15	16	-1				
MORI	47.83	355.3	8	33	3	15	35	17				
OBIHIRO	48.50	358.0	8	37	2							
KUSIRO	48.53	359.2	8	34	-1	15	25	-3				
SAPPORO	48.74	356.2	8	36A	-1	15	26	-5				
NEMURO	48.88	0.4	8	46	8	15	30	-3				
MACQUARIE I.	49.84	169.6	8	45	0							
VLADIVOSTOK	50.14	347.3	8	45	-3						10	3 PCP
KUNMING	51.45	308.5	8	58K	0	16	13	4	9	34	11	0 PP
SIAN	52.53	321.9	9	4K	-2	16	24	1			17	17 *SS
CHANGCHUN	52.55	341.9	9	3K	-3	16	20	-4	9	45	17	13 *SS
Y.-SAKHLINSK	52.61	357.9	9	5K	-1	16	20	-4			10	55 PP
PEKING	52.85	332.1	9	6K	-2	16	25	-3	9	45	17	18 *SS
CHENGTU	53.53	315.1	9	12K	-1	16	38	1			17	32 *SS
PORT BLAIR	55.01	288.5	9	24	0	16	58	1				
PAOTOW	56.31	328.2	9	32K	-1	17	15	1	10	15	18	10 *SS
LANCHOW	56.87	320.2	9	37K	0	17	24	2			11	51 PP
TOCKLAI	58.54	306.1	9	52	3							
CHITTAGONG	59.23	300.1	9	54	0	17	57	5	10	22	12	10 PP
PETROPAVLOVK	59.67	9.4	9	53	-4						13	41 PPP
SHILLONG	60.42	303.6	10	2K	0	18	6	-2	10	37	12	4 PP
HONOLULU	61.75	62.2	10	12	1							
KIPAPA	61.86	62.1	10	12	1							
CALCUTTA	62.28	299.0	10	12	-2	18	40	9				
ULAN-BATOR	63.18	332.1	10	19K	-1	18	42	0				
HAWAII V.OB.	63.69	65.1	10	23	-1							
CHATRA	64.80	303.1	10	31K	0	19	3	1			12	46 PP
BOKARO	64.94	299.5	10	30	-2	19	7	3			12	53 PP
WILKES	65.06	194.7	10	31K	-2	18	59	-7	10	52	10	57 PCP
MAGADAN	65.27	3.1	10	32	-2	19	7	-1				
VISHAKHAPTNM	65.39	292.4	10	38K	3	19	16	6			12	57 PP
MADRAS	67.22	286.6	10	48K	2	19	33	1			11	23 PCP
IRKUTSK	67.46	334.2	10	46K	-2	19	37	2	11	11	20	27 SCS
ESEN BULAK	67.67	325.6	10	53K	4	19	45	8				
YAKUTSK	68.65	352.2	10	53K	-2	19	45	-4	11	17	23	57 SS
HYDERABAD	69.81	290.8	11	1K	-1	20	1	-2			13	52 PP
MIRNY	70.39	199.6	11	4	-2	20	9	0	11	36		
DEHRA DUN	73.51	303.8	11	23	-1	20	44	-1			15	57 PPP
NEW DELHI	73.73	301.8	11	26K	1	20	46	-1	11	52	11	30 PCP
POONA	74.32	291.0	11	28K	-1	20	56	2			11	39 PCP
BOMBAY	75.35	291.1	11	32	-3	21	3	-2			12	20 PP

TIKSI	78.00	354.8				21	29	-5			26	21 SS
SEMIPALATNSK	78.89	323.8	11	53K	-1	21	40	-3				
WARSAK DAM	79.81	305.9	12	0	1	21	54	1				
FRUNSE	79.89	315.2	12	0K	0	21	55	1				
KHOROG	80.68	309.3	12	4	0	22	2	0				
KARACHI	81.74	296.0	12	14K	4	22	20	7				
MAWSON	81.76	202.6	12	7K	-3	22	10	-3	12	37	12	46 *SP
QUETTA	82.80	301.3	12	15K	0	22	26	2			38	30 PKPPKP
TASHKENT	83.31	312.6	12	18K	0	22	30	1			23	19 *SS
SOUTH POLE	84.26	180.0	12	20	-2							
BYRD STATION	85.27	170.0	12	27	0						13	4
COLLEGE	85.65	23.2	12	26	-3				12	47	30	30 PKKP
ASHKABAD	91.04	307.9	12	55	0				13	23	26	5 PS
AMDERMA	93.14	339.7	13	2	-3	24	1	1				
ALBERNI	94.32	41.1	13	9	-1							
KHEYS	95.19	350.5	13	4	-10	23	36	-3			17	7 PP
VICTORIA	95.20	41.9	13	5	-9							
CALISTOGA	95.30	51.8	13	12K	-2							
TANANARIVE	95.35	250.4	13	18	3							
BERKELEY	95.51	52.6	13	16K	1	23	33	-8				
LICK	95.97	53.1	13	16	-1							
MINERAL	96.13	50.1	13	18	0							
TEHERAN	96.43	305.2	13	19	-1	23	50	4				
MOULD BAY	96.88	13.9	13	23	1							
RENO	97.48	51.0	13	24	0							
PENTICTON	97.72	41.1	13	25	0							
PASADENA	98.69	56.4	13	30	0	23	57	-1			13	54
EUREKA	100.45	51.0	13	37	-1						17	41 PP
GORIS	100.49	309.0	13	36A	-2							
BOULDER CITY	101.43	54.6	13	38	-4							
HUNGRY HORSE	101.45	42.0	13	41	-1							
TIFLIS	101.58	311.3	13	41	-2	24	15	3			17	57 PP
ALERT	102.43	3.6	13	43	-4							
RESOLUTE	103.19	13.7	13	47	-3							
APATITY	103.54	338.5	13	51A	0	24	19	-2			18	9 PP
BOZEMAN	103.71	44.5	14	0	8							
GLEN CANYON	104.00	53.5	17	29	216							
MOSCOW	104.62	326.1	13	57	1	24	23	-3	14	22		
KEVO	104.91	341.5	13	57	0							
FLAMING GRGE	105.40	49.3	13	57	777							
SODANKYLA	106.04	339.3	14	1	777				14	35	18	29 PP
KAJAANI	106.96	335.9	14	4	777						18	20 PKP
PULKOVO	107.34	331.3	14	9	777	24	37	-1	14	37	18	39 PP
KIRUNA	107.93	340.9	18	15	777						18	40 PP
ALBUQUERQUE	108.31	55.2	14	12	777						18	46 PP
KSARA	109.24	303.7	14	18	777	26	30	104			18	50 PP
HELSINKI	109.70	332.7	14	17	777						18	55 PP
NURMIJARVI	109.70	333.1	14	18	777						18	52 PP
JERUSALEM	110.00	301.6	18	57	777							
UMEA	110.03	337.2	18	21	1						18	52 PP
BULAWAYO	112.60	245.5	18	27	2							
SKALSTUGAN	113.11	339.1	18	25	-1						18	57 PP
UPPSALA	113.12	334.2	18	25	-1						18	56 PP
KIMBERLEY	113.24	235.5	18	29	3							
ISTANBUL UN.	113.45	312.3	18	27A	0						36	2 SS
BROKEN HILL	114.13	251.5	18	30K	2							
LWOW	114.19	322.6	18	31	3						14	45 P
WICHITA MTS.	114.75	54.5	18	31	2	25	11	3	18	57	19	31 PP
WARSAW	115.00	325.8									19	28 PP
HERMANUS	115.27	227.7									26	7 SKKS
MANHATTEN	115.37	49.3	18	34	3							
KARLSKRONA	115.96	331.4	18	34	2						19	34 PP
LWIRO	115.99	264.7	18	33	1	27	19	126			19	39 PP
SKALNATE PL.	116.71	323.0	18	35	2				19	8	19	37 PP
RACIBORZ	117.54	324.5	18	33	-2				19	2		
FAYETTEVILLE	117.97	52.1	18	35	-1							
BUDAPEST	118.16	321.6	18	46	10						22	32
ATHENS	118.16	310.1	18	32	-4							
DUBUQUE	118.68	44.3	18	37	0							
BRATISLAVA	119.03	323.0	18	38	0						20	53 *SPP
ROLLA	119.25	49.6	18	40	2							
VIENNA-H.	119.43	323.3	18	39K	1						20	17 PP
LITTLE ROCK	119.75	53.1	18	38	-1							
COLLMBERG	119.83	327.6	18	39K	0				19	9	20	6 PP
HALLE	120.28	328.2	18	40	0	25	35	7				
KASPERSKE H.	120.63	325.2	18	22	-19						20	14 PP
JENA	120.79	327.8	18	39	-2	25	52	22	19	7	20	12 PP
REYKJAVIK	121.02	353.4	18	42	0						19	22

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C. GIRARDEAU	121.22	49.6	18	42	0					20	49
LJUBLJANA	121.57	321.7	18	43K	0			19	12		
WINDHOEK	121.96	239.0	18	45	2					32	19 PPS
TARANTO	122.11	314.8									
WITTEVEEN	122.14	331.7	18	55	11						
MUNSTER	122.21	330.5	18	44	0						
TRIESTE	122.23	321.6								28	15
ABERDEEN	122.68	339.5				25	36 0			20	26 PP
FELDBERG	122.83	328.4	18	47	2			19	18		
BENSBERG	123.05	329.7	18	45	0			19	15	20	21 PP
HEIDELBERG	123.17	327.5	18	45	-1						
STUTTGART	123.22	326.6	18	46	0			19	13	20	20 PP
DE BILT	123.30	331.7								20	31 PP
RAVENSBURG	123.58	325.5	18	46	-1						
EBINGEN	123.73	326.2	18	46	-1						
STRASBOURG	124.15	327.1	18	47	-1					23	17 PP
MESSINA	124.18	312.8								20	2
FLORENCE X.	124.69	320.6	18	51	2					28	37
ROME	124.79	318.1	18	49K	0					20	41
LONDON ONT.	124.83	40.3	18	45	-4						
DOURBES	124.87	330.1	18	51	2					30	32
BESANCON	125.91	326.7	18	52	1						
KEW	126.23	334.0	18	53	1						
ROSELEND	126.46	324.8	19	3	11					20	2
PARIS	126.75	330.0	18	53	0			19	26	20	51
MONACO	127.09	322.4	18	55	2						
GARCHY	127.45	328.2	18	55	1			19	23	20	59
SHAWINIGAN	127.86	32.5	18	41	-14						
BREBEUF	128.04	34.0								38	11 SS
BANDEIRA	128.09	246.1	18	58A	3			19	29	22	13
FOLINIERE	128.22	331.7	18	54	-1						
CLERMONT-FD.	128.38	326.7	18	57	1						
SEVEN FALLS	128.50	30.9	18	43	-13						
COLUMBIA	128.86	50.4	18	58	1						
WASHINGTON	129.57	42.9	19	11	13						
PALISADES	130.51	38.9	18	59	-1	26	34 36				
TOLEDO	136.21	325.4	19	14	4					21	51 PP
CHINCHINA	139.35	89.1	19	10	-6					23	3 PKS
GALERAZAMBA	139.67	80.2								23	3 PKS
LA PAZ	140.29	124.4	19	13	-5						
LOME	144.18	272.4	19	25	0						
SAN JUAN	146.98	65.0	19	30	0						
ST. KITTS	150.37	64.8	19	39	4						
ANTIGUA	151.24	64.6	19	36	0						
FORT FRANCE	152.61	69.0	19	43	5						
GRENADA	152.69	74.9	19	38	0						
ST. VINCENT	152.89	72.4	19	40	1					20	29
TRINIDAD	153.24	77.8	19	41	2					21	37
M.BOUR	160.49	297.3	19	50	2					24	11 PP

MARCH 25 21.H 38.M 26.S EPICENTRE 39.12 14.55 DEPTH= 343.KM

A= 0.75294 B= 0.19549 C= 0.62838 D= 0.2513 E=-0.9679
G= 0.6082 H= 0.1579 K=-0.7779 HT= -1.4

DEPTH OF FOCUS= 0.049R

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	
MESSINA	1.20	139.4	0	48	1	1	21	-2					
REGGIO CALA.	1.33	139.5	0	29K	-18						1	14	
ROME	3.20	331.0	1	1A	-1						2	8	
FLORENCE X.	5.28	333.0									2	42	
CHIAVARI	6.50	324.7	1	54	16	2	58	4					
TRIESTE	6.55	355.1	1	38	0						2	57	SGSG
LJUBLJANA	6.93	359.8	1	43K	1						1	54	PP
MONACO	7.06	313.0	1	44A	0								
ATHENS	7.28	96.2	1	44A	-3						2	4	PG
ISOLA	7.56	314.4	1	50	0								
CHUR	8.56	336.2	2	3A	1	3	39	1					
ROSELEND	8.80	320.8	2	6	1	3	49	6					
VIENNA-H.	9.22	7.6	2	11K	1								
BRATISLAVA	9.23	10.7	2	10	0						3	4	
RAVENSBURG	9.37	339.1	2	11	-1						4	0	
NEUCHATEL	9.64	327.3	2	14	-1	4	4	3					

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
BASLE	9.82	331.1	2 17	0	4 7	2		
EBINGEN	9.92	337.8	2 17	-1				4 11
KASPERSKE H.	10.03	356.3	2 19	-1				4 44
TUBINGEN	10.20	339.0	2 22	0				4 16
STUTTGART	10.37	340.2	2 23	-1				5 4
STRASBOURG	10.64	334.9	2 27K	0	4 25	2		3 49
CLERMONT-FD.	10.74	311.9	2 29K	1				
SKALNATE PL.	10.85	20.2	2 30	1				
PRUHONICE	10.86	360.0	2 31	1				4 56
NIEDZIKA	11.09	19.9	2 34	2				2 48 PP
HEIDELBERG	11.09	339.8	2 32	0				
ISTANBUL UN.	11.23	75.6	2 34A	0				4 44 PP
RACIBORZ	11.26	12.1	2 36	2				2 49 PP
SOMMEE LORME	11.28	319.7	2 33	-2				
GARCHY	11.68	318.0	2 40	1	4 53	8		3 18
FELDBERG	11.91	340.7	2 18	-24				4 14
JENA	11.99	350.9	2 44	1				2 49 PP
COLLMBERG	12.23	355.4	2 48A	2				6 4
HALLE	12.51	352.5	2 50K	1	4 42	-21		
PARIS	13.00	322.1	2 55	0				
DOURBES	13.05	330.5	2 54K	-2				
MUNSTER	13.73	341.7	3 3	-1				
FOLINIERE	14.48	316.7	3 10	-2				
KARLSKRONA	17.06	2.0	3 36K	-3				
COIMBRA	17.73	280.8	3 45A	-1				
KSARA	17.94	100.5	3 48	0	7 7	15		
UPPSALA	20.84	4.4	4 17K	0				
HELSINKI	22.07	13.9	4 29K	0				
NURMIJARVI	22.33	13.2	4 31	0				
SKALSTUGAN	24.53	357.5	4 51K	0				
UMEA	24.97	6.0	4 55K	0				
KAJAANI	26.19	13.1	5 6	0				
KIRUNA	28.95	4.6	5 30K	-1				
SODANKYLA	29.10	9.6	5 32K	0				
APATITY	30.36	14.2	5 42A	-1				
TROMSOE	30.66	3.0	5 44	-2				
KEVO	31.41	8.3	5 53	1				
THULE	50.69	342.4	8 20	-8				
RESOLUTE	57.53	342.7	9 17	0				
MOULD BAY	61.25	348.6	9 42K	0				
BREBEUF	62.35	307.5	9 49A	0				
SAN JUAN	71.54	278.9	10 46	0				
COLLEGE	75.43	352.3	11 9	0				
C. GIRARDEAU	76.80	307.4	11 16	0				
LITTLE ROCK	80.18	306.9	11 35	1				
HUNGRY HORSE	81.69	328.2	11 44	2				
PENTICTON	83.08	331.8	11 51A	2				
LARAMIE	83.16	319.0	11 52	2				
WICHITA MTS.	84.01	310.4	11 55	1				15 16 PP
VICTORIA	85.11	333.5	12 1	2				
MATUSIRO	88.55	42.1	12 15	-1				
EUREKA	89.61	324.0	12 22	1				
CANBERRA	143.81	98.6	18 55	0				

MARCH 26 9.H 22.M 12.S EPICENTRE 38.03 20.64 DEPTH= 80.KM

A= 0.73897 B= 0.27841 C= 0.61353 D= 0.3526 E=-0.9358
G= 0.5741 H= 0.2163 K=-0.7897 HT= -1.0

DEPTH OF FOCUS= 0.007R

SE= 5.23

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
ATHENS	2.43	90.5	0 35K	-3	1 8	1		0 43 PG
TARANTO	3.59	313.8	0 52	-2				1 56
REGGIO CALA.	3.94	272.5	0 51	-8	1 34	-11		
SKOPJE	3.98	8.6	0 53	-7				1 3 P*
MESSINA	4.02	273.9	0 53	-7	1 37	-10		1 3 PG
TITOGRAD	4.52	346.9	1 1	-6	1 50	-9		1 7 P*
SOFIA	5.09	22.9	1 8	-7	2 9	-4		1 18 P*
BELGRADE	6.78	358.8	1 50	11	3 7	12		2 54 PG
ISTANBUL UN.	7.11	62.4	2 1	18	3 3	0		3 51
ROME	7.36	304.2	1 48	1				3 30
TIMISOARA	7.72	3.0	2 15	24				4 18
SZEGED	8.22	357.5	1 46	-12				3 13

ZAGREB	8.52	337.4	2	23	21	4	45	67				
FLORENCE X.	9.14	311.9							4	4		
TRIESTE	9.18	328.2				3	56	2	5	2	SG	
LJUBLJANA	9.21	332.3	2	0	-12	3	42	-13				
BRATISLAVA	10.46	346.8							5	28		
CHIAVARI	10.59	309.9	2	36	6				3	40		
VIENNA-H.	10.68	344.4	2	34	2							
MONACO	11.50	303.8	2	47	4							
LWOW	12.03	10.6	2	58	8				5	9		
KASPERSKE H.	12.21	337.5	2	40	-12				4	15		
SIMFEROPOL	12.23	51.3	2	56	4							
PRUHONICE	12.72	341.9	2	47	-12				6	8		
ROSELEND	12.94	310.7	2	55	-7				5	10		
KSARA	13.04	104.2	3	2	-1	5	22	-5				
JERUSALEM	13.48	113.2	3	17	8							
STUTTGART	13.53	326.1	2	59	-10				7	15		
STRASBOURG	14.09	322.6							7	43		
HEIDELBERG	14.24	326.7	3	8	-11							
COLLMBERG	14.32	340.3	3	20	0				8	20		
JENA	14.41	336.4	3	26	5				6	42		
HALLE	14.80	338.3	3	24	-2	5	58	-10				
GARCHY	15.86	311.2	3	42	3				4	15		
BENSBERG	16.07	327.8	3	38	-4							
PARIS	16.98	315.2	3	53	0							
KARLSKRONA	18.45	351.0	4	0	-11							
GORIS	20.07	77.8	4	27K	-2							
MAKHACH-KALA	20.97	67.9	4	33K	-5	8	33	11				
MOSCOW	21.07	27.4	4	39	0	8	23	-1				
UPPSALA	21.92	355.9	4	41	-6							
HELSINKI	22.33	5.7	4	49	-2							
NURMIJARVI	22.64	5.2	4	48	-7	9	0	8				
TEHERAN	24.65	85.8	5	15	1							
UMEA	25.82	359.6	5	20	-5							
SKALSTUGAN	26.07	351.5	5	24A	-3							
KAJAANI	26.42	7.0	5	26	-5							
VANNOVSKAYA	29.39	78.4	5	54	-3							
SODANKYLA	29.58	4.7	5	57	-2							
KIRUNA	29.85	359.8	5	41	-20							
DUZHANBE	37.43	73.8	7	5	-2							
AMDERMA	38.52	21.5	7	12K	-4							
SCORESBY SD.	39.35	339.0	7	21	-2							
LWIRO	40.78	167.5	7	38K	4							
NEW DELHI	47.57	83.9	8	28	-1							
THULE	53.16	342.8	9	6	-5							
BULAWAYO	58.34	171.2	9	51	2							
RESOLUTE	59.94	343.9	9	57	-3							
MOULD BAY	63.20	350.1	10	19	-3							
YAKUTSK	65.21	29.4	10	32	-3							
COLLEGE	77.03	355.0	11	43	-2							
BLOOMINGTON	78.16	310.6	11	56	4							
ST. LOUIS 1	80.73	312.1	12	6	0							
ROLLA	82.20	312.5	12	14	1							
RAPID CITY	83.78	323.0	12	21	0							
MANHATTEN	83.94	316.0	12	22	0							
HUNGRY HORSE	85.03	331.6	12	27	0							
BOZEMAN	86.04	328.3	12	33	1							
PENTICTON	86.18	335.2	12	35	2							
LARAMIE	87.02	322.5	12	38	1							
WICHITA MTS.	88.27	314.0	12	44	1							
ALBUQUERQUE	92.38	319.0							18	0	PPP	
EUREKA	93.19	327.8	13	7	1							

MARCH 26 12.H 4.M 54.S EPICENTRE -0.15 -19.50 DEPTH= 0.KM

A= 0.94266 B=-0.33376 C=-0.00268 D=-0.3338 E=-0.9427
G=-0.0025 H= 0.0009 K=-1.0000 HT= 7.2

SE= 2.12

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
M.BOUR	14.66	9.7	3	29	-2								
BANDEIRA	35.59	115.8	7	2K	1	12	36	-2			8	21	PP
BANGUI	38.35	82.8	7	24	0								
MALAGA	39.27	19.3	7	31A	-1	13	34	0			9	2	PP
LISBON	39.84	12.7	7	39	2	13	50	8					

GRANADA	39.96	19.9	7	43K	5	13	58	14		9	10 PP
ALMERIA	40.06	21.4	7	37	-2	13	52	7		9	10 PP
COIMBRA	41.41	12.8	7	52K	2	14	8	2		9	33 PP
WINDHOEK	42.00	124.6	8	1	6						
ALICANTE	42.12	22.5	7	50	-6	14	21	5		9	32 PP
SERRA PILAR	42.27	12.3	7	58A	1					9	38 PP
TOLEDO	42.27	17.7	7	59K	2	14	25	7		9	44 PP
LWIRO	48.33	92.9	8	45	0	15	50	5		19	22 SS
BROKEN HILL	49.51	108.9	8	54	0						
HERMANUS	49.73	137.3								16	5 PPS
MONACO	49.87	25.4	8	57	0						
CLERMONT-FD.	49.89	20.6	9	4	7	16	17	10			
MESSINA	49.96	36.2	8	59	1						
LA PAZ	50.60	248.7	8	59	-4	16	12	-5			
ROME	50.84	30.7	9	6	2	16	28	8	9 12	10	58 PP
KIMBERLEY	50.95	127.9	9	2A	-3						
BULAWAYO	51.07	116.0	9	5	-1						
ROSELEND	51.14	23.4	9	8	1						
CHIAVARI	51.17	26.4	8	54	-13	16	11	-14		11	9 PP
GARCHY	51.19	19.6	9	8	1					11	4 PP
FOLINIERE	51.43	16.0	8	8	-61						
FLORENCE X.	51.64	28.2	9	13	2	16	40	9	9 41	11	14 PP
BESANCON	52.19	21.8	9	16	1					10	18
PARIS	52.34	18.2	9	17	1	17	46	65			
TARANTO	52.44	35.2	9	11	-6	16	53	11			
PRETORIA	52.53	122.8	9	24	7						
PADOVA	53.16	27.3								11	19
KEW	53.94	14.7	9	27	-1	17	0	-3			
STRASBOURG	53.96	22.1	9	26	-2	17	8	5			
RAVENSBURG	54.04	23.9	9	27	-1						
FBINGEN	54.10	23.2	9	28	-1						
DOURBES	54.14	18.9	9	28	-1	17	9	4			
TRIESTE	54.22	28.3	9	30	0	17	10	4		11	41 PP
STUTTGART	54.70	23.0	9	32	-1	17	16	3		20	24
LJUBLJANA	54.88	28.4	9	36K	1					11	48 PP
HEIDELBERG	55.00	22.2	9	34	-1						
FELDBERG	55.57	21.4	9	24	-16						
BENSBERG	55.73	20.1	9	41K	0					11	59 PP
DE BILT	56.05	18.1	9	42	-1	17	38	7			
CHINCHINA	56.28	276.0	9	45A	0	17	34	0		23	31 SSS
DURHAM	56.69	12.3	9	53K	5	17	47	8			
MUNSTER	56.73	19.7	9	48	0						
KASPERSKE H.	56.74	25.4	9	48	0					11	52
BELGRADE	57.06	33.0	9	51	1	17	52	8		11	53 PP
JENA	57.32	22.8	9	51	-1	17	42	-6		11	56 PP
VIENNA-H.	57.34	27.7	9	52	0	17	48	0			
SOFIA	57.39	36.5	9	54	1					12	1 PP
BRATISLAVA	57.63	28.2	9	52	-2					11	35
PRUHONICE	57.80	25.3	9	55	0	17	57	3			
HALLE	57.91	22.6	9	56	0	17	59	3			
COLLMBERG	58.17	23.4	9	58K	0	18	4	5		11	8
SANTIAGO	58.26	230.0	9	57	-2						
RACIBORZ	59.49	27.2	10	8	1						
SKALNATE PL.	59.83	29.0	10	9	-1					11	15
ISTANBUL UN.	60.03	40.8	10	9	-2	18	24	1		13	40 PPP
BUCHAREST	60.03	36.2	10	9	-2	18	27	4			
KSARA	61.87	51.0	10	23	0	18	32	-14		12	33 PP
LWOW	62.12	30.3	10	25	0	18	59	9			
WARSAW	62.26	26.8	10	29	3	18	58	7			
KARLSKRONA	62.90	21.2	10	28	-2					10	48
PALISADES	63.98	316.8	10	38	1	19	14	1			
SEVEN FALLS	64.87	323.9	10	46	3						
SIMFEROPOL	65.21	39.0	10	43	-2						
SHAWINIGAN	65.75	322.6	10	51	2						
UPPSALA	66.41	19.4	10	53K	0	19	44	1			
SKALSTUGAN	67.80	14.7	11	2	0						
SOTCHI	68.28	42.2	11	2K	-3	20	1	-4			
TANANARIVE	68.28	110.2	11	7	2						
HELSINKI	69.24	22.0	11	9	-2						
NURMIJARVI	69.35	21.6	11	11K	-1						
LONDON ONT.	69.76	316.5	11	16	2						
UMEA	70.20	17.5	11	11	-6						
PULKOVO	71.08	24.1	11	22	0	20	41	3			
TIFLIS	71.16	45.5	11	23	0	20	42	3			
MOSCOW	72.25	29.9	11	29	0	20	50	-2			
KAJAANI	72.77	19.7	11	32	0						
KIRUNA	73.23	14.7	11	35K	0	21	10	7			
MAKHACH-KALA	73.44	44.8	11	32	-4	21	2	-3			
C. GIRARDEAU	74.30	308.9	11	41	0						

SODANKYLA	74.59	16.8	11	43	0						
TEHERAN	74.64	52.9	11	43	0	20	35	-44			
ST. LOUIS 1	75.12	310.1	11	45	-1	21	22	-2			
FLORISSANT	75.26	310.2	11	47	0	21	24	-2			
LITTLE ROCK	76.04	305.9	11	49	-2						
KEVO	76.29	15.1	11	52	0						
APATITY	76.76	18.3	11	56K	1	21	48	6	14	51	PP
FAYETTEVILLE	77.75	306.9	12	0A	0						
LAWRENCE	79.04	309.7	12	29	21						
MANHATTEN	80.10	309.8	12	14	1						
VANNOVSKAYA	80.32	51.6	12	14	0						
WICHITA MTS.	81.12	305.0	12	18	-1	22	26	-2	23	15	PS
THULE	81.20	349.6	12	20	1						
RAPID CITY	85.57	314.1	12	43	2						
RESOLUTE	86.31	345.1	12	46	1						
QUETTA	87.00	59.9	12	50	2	23	33	6			
AMDERMA	87.09	20.1	12	49	0	23	34	7			
LARAMIE	87.15	311.2	12	51	2						
ALBUQUERQUE	87.59	304.8	12	52	1						
TASHKENT	89.18	48.9	12	59A	0	23	51	4			
SOUTH POLE	89.85	180.0	12	58	-4						
FLAMING GRGE	90.02	310.7	13	3	0						
WARSAK DAM	90.96	56.2	13	7	0						
GLEN CANYON	91.77	306.8	13	10	-1						
SALT LAKE C.	91.89	310.6	13	14	3						
MOULD BAY	92.49	346.3	13	15	1						
HUNGRY HORSE	93.14	318.2	13	17	0						
EUREKA	95.10	309.5	13	29	3						
DEHRA DUN	96.60	59.6	13	34	1						
PENTICTON	96.72	319.6	13	34	0						

MARCH 26 16.H 32.M 41.S EPICENTRE -40.53 -73.66 DEPTH= 0.KM

A= 0.21444 B=-0.73139 C=-0.64737 D=-0.9596 E=-0.2814
G=-0.1821 H= 0.6212 K=-0.7622 HT= -1.9

SE= 2.45

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CONCEPCION	3.91	19.3	1	0	-2								
SANTIAGO	7.49	19.7	1	50	-3	3	24	5					
ANTOFAGASTA	17.01	10.2	3	58	-2								
LA PAZ	24.42	12.9	5	22	1	9	33	-6					
HUANCAYO	28.41	356.6	5	59	1								
BYRD STATION	43.11	190.6	8	2	-1								
CHINCHINA	45.32	357.3	8	22	1	15	2	0			18	36	SS
FUQUENE	45.78	359.9	8	24	-1								
BALBOA HTS.	49.55	352.3	8	52	-2								
SOUTH POLE	49.66	180.0	8	53	-2								
GALERAZAMBA	51.07	358.0	9	22	16	16	22	-1					
TRINIDAD	52.17	15.3	9	11	-3	16	30	-8					
GRENADA	53.47	14.6	9	20	-4								
ST. VINCENT	54.65	14.8	9	30	-2								
FORT FRANCE	56.19	14.6				17	30	-3					
ANTIGUA	58.42	13.3	9	40	-19								
ST. KITTS	58.47	12.3	9	55	-5								
SAN JUAN	59.03	8.4	10	0	-3				10	10			
CAPE HALLETT	59.08	198.7	10	1	-3	18	10	0					
MAWSON	67.30	163.4	10	56	-2								
HERMANUS	70.58	118.9				20	32	0					
MIRNY	72.75	174.5	11	28	-3						11	47	PCP
WILKES	73.41	181.8	11	33A	-2	21	15	11			25	52	SS
M.BOUR	75.77	56.7	11	49	0	21	32	1					
DALLAS	76.08	340.1	11	48	-3								
WINDHOEK	76.25	107.9	11	50K	-2								
LITTLE ROCK	76.90	344.3	11	48	-7								
ROXBURGH	77.50	219.9	11	55	-4								
WELLINGTON	77.63	225.9	11	56	-3								
KIMBERLEY	77.79	117.3	11	59K	-1								
TUAI	77.98	229.0	12	0	-1								
LUBBOCK	78.20	336.2	11	59	-3								
BANDEIRA	78.21	99.5	12	2A	-1	22	7	-10	12	10			
WICHITA MTS.	78.33	339.2	11	59	-4	21	54	-4			14	59	PP
KAIMATA	78.55	223.2	12	24	20								
FAYETTEVILLE	78.55	343.2	12	2K	-2								

CHATEAU	78.63	227.8	12	2	-3					
C. GIRARDEAU	78.83	347.2	12	2	-4					
COBB RIVER	78.87	224.9	12	5	-1					
KARAPIRO	79.50	228.7	12	7	-3			12 22		
ROLLA	79.83	345.4	12	8	-3					
MORGANTOWN	79.99	355.1	12	10K	-2					
TUCSON	80.16	328.7	12	11	-2					
TUCSON TELE.	80.20	328.8	12	11	-2					
BLOOMINGTON	80.21	349.9	12	10K	-3					
ST. LOUIS 1	80.24	346.9	12	10	-3					
FLORISSANT	80.42	346.8	12	11	-3					
ALBUQUERQUE	80.96	333.2	12	15	-2					
FORDHAM	81.00	359.8	12	16	-2	22 27	1			
PALISADES	81.16	359.8	12	17	-1	22 28	0	12 36		
LAWRENCE	81.55	343.1	12	39	19					
CLEVELAND	81.94	354.0	12	21K	-1					
PRETORIA	82.03	117.0	12	20	-3					
LONDON ONT.	83.47	354.5	12	28	-2					
GLEN CANYON	84.62	330.4	12	39	3					
PASADENA	84.89	324.3	12	37	0	23 25	19		15 51	PP
BOULDER CITY	85.03	327.6	12	38	0					
HALIFAX	85.25	7.2	12	39	0					
BREBEUF	85.65	0.0				23 33	20		23 1	SKS
BULAWAYO	86.02	113.0	12	42	-1					
LARAMIE	86.47	336.5	12	44	-1					
SHAWINIGAN	86.70	0.6	12	44A	-2					
AFIAMALU	87.13	254.3	12	47K	-2					
SEVEN FALLS	87.31	1.9	12	47A	-2					
FLAMING GRGE	87.35	333.7	12	47	-3					
PRIEST	87.67	323.7	12	51K	0					
SALT LAKE C.	88.06	332.0	12	51	-2					
EUREKA	88.49	328.6	12	53	-2			13 4	16 25	PP
LICK	89.10	323.7	12	58K	0					
BROKEN HILL	89.69	108.7	13	1A	0					
BERKELEY	89.82	323.6	13	1K	0	24 1	9			
RENO	90.12	326.1	13	2	-1					
CALISTOGA	90.59	323.8	13	4K	-1					
MINERAL	91.56	325.4	13	7K	-2					
BOZEMAN	92.12	334.8	13	10	-2			13 20		
BUTTE	92.93	334.0	13	14	-2					
CANBERRA	94.92	213.8	13	23	-2					
RIVERVIEW	95.24	216.1	13	30	4				26 1	PS
HUNGRY HORSE	95.45	334.3	13	24	-3			13 35	30 50	PKKP
LWIRO	97.99	99.8	13	38	-1	24 22	6		17 59	PP
PENTICTON	98.21	331.6	13	36	-4					
ADELAIDE	99.16	206.5	13	42	-2					
BRISBANE	99.83	220.8	14	7	20	24 40	14			
TOLEDO	102.07	47.5				24 39	2			
HONIARA	109.93	237.7							19 13	
ROME	113.10	54.1							29 9	
FLORENCE X.	113.41	51.8							29 7	PS
DE BILT	114.74	41.8							29 19	PS
STUTTGART	115.05	46.4	18	42	-1					
RESOLUTE	115.80	353.9	18	42	-2				29 14	
LJUBLJANA	116.60	51.1							19 31	PP
THULE	116.73	1.4	18	42	-4					
JENA	117.47	45.3	18	52	5				20 2	PP
KASPERSKE H.	117.65	47.8	18	47	-1				20 3	
PORT MORESBY	117.66	226.7							19 15	PP
HALLE	117.96	44.9	18	47	-1	26 2	20			
COLLMBERG	118.42	45.5	18	49K	0				19 15	
PRUHONICE	118.62	47.3	18	58	8				30 8	
RABAUL	118.85	234.8	18	49	-1					
COLLEGE	119.77	331.8	18	35	-17			18 50	19 0	*SP
BUDAPEST	119.99	51.5							20 27	
MOULD BAY	120.06	348.6	18	50	-2					
KARLSKRONA	122.07	41.3	18	51	-5					
ALERT	122.90	1.8	18	56	-2					
JERUSALEM	123.32	74.7	18	59	0					
ISTANBUL UN.	123.34	62.1							27 39	
SKALSTUGAN	123.70	32.4	18	58	-1					
LWOW	124.00	50.7	19	1	1				30 44	PS
UPPSALA	124.58	37.8	18	59K	-2				20 54	PP
KSARA	124.81	72.9	19	2	0					
UMEA	127.10	33.7	19	4K	-2					
NURMIJARVI	128.11	38.5	19	8	0					
HELSINKI	128.16	38.9	19	6	-2					
TROMSOE	128.20	26.4	19	6	-2					
KIRUNA	128.28	28.8	19	7K	-1					

SIMFEROPOL	128.39	59.6	19	7	-1	26	6	-9					
SODANKYLA	130.51	30.1	19	11	-1								
PULKOVO	130.66	40.3	19	11	-2						22	35	SKP
LEMBANG	132.86	181.7	19	15	-2						21	39	PP
APATITY	133.14	30.2	19	15	-2								
MOSCOW	133.66	46.8	19	18	0						21	50	PP
TIFLIS	134.52	67.4	19	20	0						24	42	PPP
KHEYS	136.20	10.2	19	21	-2						22	7	PP
MEDAN	142.57	167.4	19	29	-5						22	41	PP
AMDERMA	142.70	23.8	19	39	4								
PETROPAVLOVK	142.88	307.6	19	32	-3								
ASHKARAD	143.10	78.1	19	35	0						22	50	PP
KARACHI	143.73	103.4	19	35	-1								
MADRAS	144.24	132.7	19	38	1								
POONA	144.53	118.6	19	36A	-2								
QUETTA	146.50	95.4	19	43	2								
MAGADAN	146.53	319.7	19	41	0								
TIKSI	146.84	347.2	19	38	-4								
VISHAKHAPTNM	149.81	132.1	19	52	5						20	42	
DUZHANBE	151.10	81.5	19	53	4						30	25	SKKS
WARSAK DAM	151.68	92.1	19	50	1								
TASHKENT	152.12	76.1									19	57	PKP2
LAHORE	152.73	99.0	19	52	1								
KHOROG	152.88	85.1									19	59	PKP2
Y.-SAKHLINSK	153.12	296.1	19	50	-1						23	41	PP
TUKUBASAN	153.28	271.7	19	48	-4						23	44	PP
NEW DELHI	153.33	107.4	19	52A	0						23	59	
YAKUTSK	154.26	334.5	19	50	-3						23	47	PP
MATUSIRO	154.83	271.2	20	2	8	26	59	0			23	53	PP
CHITTAGONG	158.11	141.5	19	58	0				20	10	24	4	PP
CHATRA	159.05	124.8	19	59A	0								
HONG KONG	160.65	202.4	20	43	42								
SHILLONG	160.81	136.6	20	2A	1						20	42	
CANTON	161.63	200.9	20	0A	-2						24	23	PP
LHASA	163.44	126.3	20	4A	0				20	18	20	55	PKP2
KUNMING	164.34	167.8	20	5	0				20	19	24	43	PP
ZO-SE	164.74	236.6	20	4	-1				20	18	24	52	PP
NANKING	166.89	233.7	20	6	-1						25	3	PP
IRKUTSK	168.18	6.1	20	6	-2						35	48	SKSP
CHENGTU	169.97	168.4	20	9A	0				20	23	25	11	PP
ESEN BULAK	170.61	48.0	20	8	-1						21	41	PKP2
PEKING	172.47	269.3	20	8	-2				20	22	25	22	PP
ULAN-BATOR	172.60	357.1	20	9	-1						21	36	PKP2
SIAN	173.40	198.9	20	9A	-2				20	24	25	27	PP
PAOTOW	177.19	272.1	20	10A	-2				20	25	25	44	PP

MARCH 27 5.H 22.M 33.S EPICENTRE -3.96 129.08 DEPTH= 104.KM

A=-0.62888 B= 0.77448 C=-0.06851 D= 0.7763 E= 0.6304
G= 0.0432 H=-0.0532 K=-0.9977 HT= 7.1

DEPTH OF FOCUS= 0.011R

SE= 1.77

	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	
DARWIN	8.55	168.4	2	2	-1	3	35	-3					
PORT MORESBY	18.74	107.7	4	13	0								
LEMBANG	21.55	261.5	4	40A	-2	8	33	4					
DJAKARTA	22.27	263.4									5	19	
TANGERANG	22.47	263.5	4	51	0								
RABAUL	23.04	91.4	4	59	2								
CHARTERS TS.	23.19	135.2	4	59A	1	9	6	8					
GUAM	23.26	41.7	4	46	-13						5	47	PP
HONG KONG	29.89	331.4	5	59	-1	10	48	0					
MUNDARING	30.37	202.0	6	3	-1								
CANTON	30.96	331.0	6	10A	1	11	5	0					
ADELAIDE	32.13	165.0	6	19A	-1						7	31	PP
BRISBANE	32.48	138.3	6	23	0	11	24	-5					
ZO-SE	35.66	348.3	6	50A	0	12	17	-1					
RIVERVIEW	36.14	148.0	6	54	0	12	30	5			13	7	SS
CANBERRA	36.25	151.9	6	55A	0	12	26	-1			15	36	SSS
MELBOURNE	36.72	158.7	7	0	1								
NANKING	37.13	345.4	7	3A	1	12	41	1					
KUNMING	38.59	319.9	7	17A	3	13	5	3			8	54	PP
ABUYAMA	39.10	8.5	7	49	30								

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
PORT BLAIR	39.35	293.7			13 15	1		17 19
MATUSIRO	41.18	11.2	7 35A	-1	13 42	1		8 5 *SP
MOORLANDS	41.58	159.7	7 40	1				
CHENGTU	41.93	326.9	7 42	0	13 50	-2		9 24 PP
FORT NELSON	42.07	159.9	7 43K	0				9 22 PP
SIAN	42.49	335.0	7 47A	1	14 0	0		9 30 PP
CHITTAGONG	44.83	307.4	8 7	2	14 36	2	8 37	9 57 PP
PEKING	45.35	346.0	8 9A	0	14 38	-4		17 55 SCS
LANCHOW	46.28	331.4	8 19A	2	14 55	0	8 39	17 58 SCS
SHILLONG	46.51	311.2	8 19K	0				
PAOTOW	47.63	340.3	8 27	0	15 13	-1		
CHANGCHUN	47.69	356.3	8 25A	-3				
LHASA	49.43	315.1	8 44	3	15 42	3		18 24 SCS
CHATRA	50.75	309.6	8 53K	2				
MADRAS	51.39	290.0	8 58	2	16 9	3		
Y.-SAKHLINSK	52.17	11.8	8 58	-4				
KARAPIRO	54.17	135.0	9 16	-1				
CHATEAU	54.75	136.4	9 21	0				
ULAN-BATOR	55.20	342.0	9 24A	0	16 57	-1		
TUAI	55.69	135.3	9 27	-1				
POONA	58.79	294.3	9 48K	-2				
NEW DELHI	59.40	306.5	9 49A	-5				19 29
DEHRA DUN	59.46	308.7	9 54	0	17 53	0		10 59
BOMBAY	59.83	294.4	10 17	20	17 56	-2		
PETROPAVLOVK	61.99	19.7	10 11	0				
LAHORE	62.87	308.4	10 13	-4				
MAGADAN	65.60	11.9	10 34	-1				
YAKUTSK	65.79	0.3	10 36A	0	19 12	-1		
WARSAK DAM	65.99	309.9	10 39	2				
KARACHI	66.64	299.1	10 36	-6				
QUETTA	68.31	304.5	10 53	1	19 43	0		
SEMIPALATNSK	68.43	328.8	10 52	-1	19 42	-2		
DUZHANBE	69.83	313.5	11 3	2	20 2	1		
TASHKENT	70.55	316.3	11 6	0	20 10	1		
TIKSI	75.44	359.9	11 33	-1	21 2	-2		
VANNOVSKAYA	77.58	310.1	11 48	2				
KIZYL-ARVAT	79.28	310.9	11 58	3				
SOUTH POLE	86.07	180.0	12 29	-1				
TIFLIS	88.34	311.8	12 44	3				
COLLEGE	90.62	25.1	12 53	1				
SODANKYLA	98.42	337.5	13 27	0				
MOULD BAY	98.89	13.0	13 28	-2				
BROKEN HILL	99.26	254.8	13 33K	2				
KIRUNA	100.63	338.5	13 37	-1				
RESOLUTE	104.89	11.0	13 57	1				
EUREKA	111.66	49.0	18 25	3				
ALBUQUERQUE	120.19	51.6	18 42	3				
WICHITA MTS.	126.32	49.1	18 53	2			19 23	22 5 SKP
FAYETTEVILLE	128.95	45.5						21 53
SHAWINIGAN	133.53	20.7						22 24 SKP
SEVEN FALLS	133.68	18.8	19 7	2				22 24 SKP
LA PAZ	153.50	140.5	19 47	9				
SAN JUAN	159.35	44.9	19 20	-26				20 26

MARCH 27 21.H 19.M 34.5 EPICENTRE 17.09 -99.77 DEPTH= 56.KM

A=-0.16235 B=-0.94251 C= 0.29209 D=-0.9855 E= 0.1698
G=-0.0496 H=-0.2878 K=-0.9564 HT= 5.3

DEPTH OF FOCUS= 0.004R

SE= 2.66

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
TACUBAYA	2.36	13.3	0 35A	-3	1 10	4		
PUEBLA	2.44	37.6	0 44	5	1 20	12		
OAXACA	2.87	91.0	0 38	-7	1 9	-10		
VERA CRUZ	4.05	58.3	1 0	-1	1 51	3		
LEON	4.39	336.2	1 13	7				2 1
MANZANILLO	4.75	294.9	1 6	-5	2 11	5		2 36
GUADALAJARA	4.90	317.3	1 18	5	2 24	15		
COMITAN	7.37	95.4						3 25
MERIDA	10.34	66.6			4 31	7		3 31
CHIHUAHUA	12.87	334.3						4 50
DALLAS	15.92	9.2	3 40	-2				
LUBBOCK	16.52	353.9	3 50	0				

			P	O-C	S	O-C	*PP	SUPP.
	DELTA DEG.	AZ. DEG.	M S	S	M S	S	M S	M S
WICHITA MTS.	17.59	3.2	4 0	-3				
TUCSON	18.11	328.5	4 9	0	7 8	-18		
TUCSON TELE.	18.13	328.9	4 8	-1				
ALBUQUERQUE	18.76	342.7	4 16	-1				
LITTLE ROCK	18.83	19.2	4 16	-2				
FAYETTEVILLE	19.56	13.6	4 31	5				
ROLLA	21.86	16.9	4 49	-1				
C. GIRARDEAU	22.08	22.2	4 48	-4				
LAWRENCE	22.15	9.4	5 13	20				
MANHATTEN	22.20	6.6	4 53K	0				
GLEN CANYON	22.39	334.5	4 56	1				
ST. LOUIS 1	23.04	19.4	5 0	-1	9 30	26		
BOULDER CITY	23.08	327.5	5 0	-2				
FLORISSANT	23.14	19.0	5 1	-1	9 30	24		
PASADENA	23.68	319.3	5 8	1	9 26	11		12 20
COLUMBIA	23.80	41.4	5 10	1				
LARAMIE	24.65	349.5	5 18	1				13 12
BLOOMINGTON	24.88	25.1	5 18A	-1	9 57	22		
FLAMING GRGE	25.16	342.7	5 22	0				13 34
CHAPEL HILL	26.27	40.5	5 33	1				
EUREKA	26.39	330.9	5 33	0				
PRIEST	26.52	319.7	5 32K	-2				
CHINCHINA	26.55	114.2	5 41	6	9 59	-4		
CHICAGO JSA.	26.82	20.3	5 38	1				
LICK	27.89	320.6	5 47K	0				
MORGANTOWN	28.31	33.5	5 51K	0				
RENO	28.36	326.1	5 52	1				
BERKELEY	28.61	320.8	5 52A	-1	11 14	38		
CALISTOGA	29.30	321.7	6 6A	7				
BOZEMAN	30.01	344.1	6 5	-1				
PALISADES	32.63	37.8	6 29	0	12 6	26		
HUNGRY HORSE	33.29	342.6	6 33	-1				17 40
PENTICTON	35.95	337.8	6 57	0				
VICTORIA	36.81	333.6	7 4	0				
SHAWINIGAN	36.92	31.4	7 12	7				
ALBERNI	37.98	333.2	7 14	0				
SEVEN FALLS	38.29	32.2	7 16	-1				
LA PAZ	45.68	135.3	8 17	0				
COLLEGE	57.51	337.9	9 45	-1				
RESOLUTE	57.66	1.5	9 45A	-2				
MOULD BAY	60.04	354.7	10 2A	-2				
THULE	61.54	8.1	10 11	-3				
ALERT	67.07	5.0	10 48	-2				
FOLINIERE	83.29	41.1	12 23	1				
SKALSTUGAN	84.23	24.6	12 29	2				
PARIS	85.13	40.4	12 32	1				12 49
GARCHY	86.03	41.7	12 37	1				
SODANKYLA	87.15	18.2	12 41	0				
UMEA	87.16	22.6	12 41	0				
KAJAANI	89.62	20.4	12 52	-1				
COLLMBERG	90.29	35.4	12 57	1				
QUETTA	131.29	15.3	19 8	2			19 16	
TANANARIVE	148.89	98.4	19 41	3				
LEMBANG	151.37	287.6	19 49	8				

MARCH 28 0.H 51.M 54.S EPICENTRE 36.53 71.45 DEPTH= 99.KM

A= 0.25630 B= 0.76362 C= 0.59262 D= 0.9480 E=-0.3182
G= 0.1886 H= 0.5618 K=-0.8055 HT= -0.4

DEPTH OF FOCUS= 0.010R

SE= 2.22

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
KHOROG	0.95	4.0	0 22	2	0 38	2		
KULYAB	1.93	315.8	0 33	1	0 58	2		
WARSAK DAM	2.52	178.0	0 42K	2	1 11	1		
DZERGETAL	2.69	356.4	0 43	0	1 16	2		
DUZHANBE	2.95	314.6	0 45	-1				1 14
FERGANA	3.86	3.8	1 0	2	1 42	-1		
ANDIJAN	4.28	9.5	1 5	1	1 52	-1		2 10
NAMANGAN	4.45	2.2	1 7K	0	1 55	-3		
TASHKENT	5.07	341.2	1 14K	-1	2 8	-5		1 55
LAHORE	5.51	153.4	1 21	0	2 20	-4		

TCHIMKENT	5.94	346.6	1	26	-1					1	51 *SP
NARYN	6.04	34.5	1	27	-1						
FRUNSE	6.75	20.3	1	38K	0	2	51	-3		3	43
QUETTA	7.36	212.0	1	47K	0	3	8	-1		2	19 SP
FABRICHNAYA	7.63	28.6	1	55	5	3	17	1			
ALMATA	7.95	30.4	1	54	0	3	21	-2		2	27
PRZHEVALSK	8.01	40.0	1	55	0	3	23	-2			
DEHRA DUN	8.29	136.4	1	58	-1	3	25	-7		2	9 PP
CHILIK	8.82	35.1	2	5	-1					4	1
NEW DELHI	9.29	146.9	2	8K	-5	3	49	-7			
ASHKABAD	10.54	281.7	2	24	-5	4	16	-10		2	55 *SP
VANNOVSKAYA	10.74	281.6	2	29	-3	4	24	-7			
KARACHI	12.26	199.2	2	57	5						
KIZYL-ARVAT	12.29	287.1	2	47	-6	5	3	-5		3	13 *SP
SEHORE	14.18	158.4	3	13	-4	5	49	-3		3	46
SEMIPALATNSK	15.25	21.9	3	27	-4	6	6	-11			
TEHERAN	16.23	273.2	3	43	0	6	47	7			
CHATRA	16.49	121.5	3	44A	-2	6	36	-10			
BOMBAY	17.60	175.7	3	59	-1	7	19	9		4	13 PP
BOKARO	17.70	131.7	3	59K	-2	7	1	-12			
LHASA	17.78	107.1	4	5	3	7	10	-4			
POONA	18.05	172.6	4	6	0	7	26	6		4	30 PPP
MAKHACH-KALA	19.47	296.6	4	23	2					4	41 PP
GORIS	19.99	286.2	4	29K	2						
HOWRAH	20.19	129.0	4	30	1	8	1	-4			
SHILLONG	20.59	116.3	4	33K	0	8	21	9		5	2 PPP
GROZNY	20.79	297.0	4	36	1					5	1 PP
TIFLIS	21.27	292.3	4	42	2					5	16 *SP
VISHAKHAPTNM	21.46	147.7	4	46A	4	8	41	12		5	22 PPP
CHITTAGONG	22.61	123.0	4	57	4	8	55	6		5	33 *SP
PIATIGORSK	22.83	297.9	4	57	2					5	37 PP
MADRAS	24.71	159.3				9	52	27		5	48
KRASNAYA	24.84	296.4	5	17	3						
LANCHOW	26.05	81.3	5	29	3						
CHENGTU	27.67	92.7	5	41	0	10	10	-4			
KUNMING	29.06	104.2				10	33	-3			
MOSCOW	29.86	320.8	5	59	-1					6	38 *SP
ISTANBUL UN.	33.16	291.0	6	31	2					14	6
PULKOVO	35.10	324.6	6	46	0	12	9	-1		7	22 *SP
UZHGOROD	37.54	304.5	7	6	0						
ATHENS	37.69	287.0	7	34K	27						
APATITY	37.73	337.3	7	8K	0	12	50	0	7 38	9	24 PP
HELSINKI	37.76	323.7	7	10	2					8	40 PP
KAJAANI	37.99	330.4	7	10	0						
NURMIJARVI	38.01	324.2	7	10	0	12	52	-2		8	40 PP
SKALNATE PL.	38.88	305.5	7	18	1				7 42	9	30
BUDAPEST	39.77	302.8								9	18
SODANKYLA	39.86	334.8	7	25	0					9	46 PCP
KEVO	40.91	338.2	7	34	0					9	2
UMEA	40.98	328.2	7	34	0						
BRATISLAVA	41.01	304.0	7	35	0				7 58	9	33 PCP
UPPSALA	41.27	321.9	7	37	0					9	15 PP
VIENNA-H.	41.50	304.2	7	39	0						
KARLSKRONA	41.92	316.1	7	42	0						
KIRUNA	42.22	334.0	7	45	0				8 25	9	27 PP
PRUHONICE	42.56	306.9	7	49	2					9	34
LJUBLJANA	43.00	301.2	7	51	0					8	28
KASPERSKE H.	43.26	305.7	7	54	1					9	34 PP
COLLMBERG	43.46	308.9	7	55	0				8 23	8	32 *SP
YAKUTSK	43.75	35.5	7	55K	-2						
HALLE	44.10	309.3	8	1	1					9	52 PP
JENA	44.38	308.5	8	2	0					10	10
SKALSTUGAN	44.38	326.7	8	2	0				8 47	9	44 PP
KHEYS	44.51	356.9	8	2	-1					8	40 *SP
TIKSI	45.61	22.0	8	10	-2					14	44
VLADIVOSTOK	46.02	62.3	8	20	5						
STUTTGART	46.12	305.7	8	17	1				8 48	10	55
HEIDELBERG	46.38	306.7	8	18	0						
MUNSTER	46.73	310.3	8	16	-5						
STRASBOURG	47.13	305.7	8	26	2					9	2
BENSBERG	47.14	309.0	8	20	-4					10	21 PP
MONACO	48.39	299.4	8	39	5					9	0
BESANCON	48.57	304.3	8	35	0						
DOURBES	48.90	308.2	8	39	1						
GARCHY	50.50	304.9	8	51	1				9 27	9	44 *SP
PARIS	50.52	306.9	8	50	0				9 28		
KEW	51.68	310.8	8	59	0						
MATUSIRO	52.61	68.7	9	4	-2					9	50
LWIRO	55.33	235.4	9	24	-2						

TANANARIVE	59.59	206.4	9	56	0						
THULE	64.50	350.3	10	22	-6						
BROKEN HILL	64.91	226.8	10	30A	-1						
MOULD BAY	67.31	2.8	10	45	-1						
RESOLUTE	68.70	356.1	10	53	-2						
BULAWAYO	69.38	223.0	10	58A	-1						
COLLEGE	74.36	16.3	11	27	-2						
BANDEIRA	74.95	238.2	11	30A	-2						
MUNDARING	79.99	142.6	11	59	-1						
CHARTERS TS.	90.23	114.9	12	50	-1					13	18
SHAWINIGAN	91.27	336.2	12	56K	1						
PENTICTON	93.97	7.2	13	7	-1						
SOUTH POLE	126.34	180.0	18	49	-2						

MARCH 28 4.H 5.M 36.S EPICENTRE 1.46 97.46 DEPTH= 179.KM

A=-0.12984 B= 0.99121 C= 0.02537 D= 0.9915 E= 0.1299
G=-0.0033 H= 0.0252 K=-0.9997 HT= 7.2

DEPTH OF FOCUS= 0.023R

SE= 2.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT BLAIR	11.18	335.3	2	41	5	4	12	-26					
TANGERANG	11.89	129.7	2	31	-14						5	16	
DJAKARTA	12.05	129.2				4	52	-6			5	56	
LEMBANG	13.06	129.2	2	47	-13						5	47	
MADRAS	20.60	304.6	4	25	-2	8	13	12			4	49	PP
VISHAKHAPTNM	21.32	320.1	4	31K	-3	8	30	15			5	1	PP
CHITTAGONG	21.48	345.6	4	26A	-9	8	32	15	4	48	5	8	PP
CALCUTTA	22.73	337.8				8	53	13			4	7	
KUNMING	24.06	11.8	5	0A	0	9	16	14					
HYDERABAD	24.52	311.5	5	4K	-1	9	24	15			6	3	PPP
SHILLONG	24.57	347.8	5	2K	-3	9	23	13			5	32	PP
BOKARO	24.94	334.0	5	6A	-2	9	30	14			10	34	SS
TOCKLAI	25.27	354.4	5	12	0								
HONG KONG	26.32	36.9	5	19	-2	10	6	27					
CANTON	26.45	34.4	5	21	-1	9	54	13					
CHATRA	27.09	339.5	5	27A	-1	10	3	12					
LHASA	28.68	348.3	5	43A	0	10	34	17			12	11	SS
POONA	28.71	307.7	5	48	5								
CHENGTU	29.69	11.4	5	49A	-3	10	45	12					
BOMBAY	29.72	307.2	5	50	-2	10	40	7			6	47	PP
NEW DELHI	33.19	326.2	6	19A	-3	11	36	9			12	37	PCS
DEHRA DUN	34.10	329.2	6	28	-2	11	53	12					
SIAN	34.33	17.0	6	31A	-1								
LANCHOW	34.92	9.0	6	37A	0	12	6	12			16	54	SCS
DARWIN	35.87	113.5	6	43	-2								
NANKING	36.47	31.3	6	50A	0								
ZO-SE	37.05	34.9	6	55	0	12	43	17			8	22	PP
LAHORE	37.05	326.2	6	52	-3								
MUNDARING	37.70	153.5	6	58	-2								
WARSAK DAM	40.44	326.0	7	22	-1								
QUETTA	40.67	317.6	7	22	-2	13	35	14			9	14	PP
PEKING	41.99	21.6	7	37A	2	13	57	17					
ESEN BULAK	44.77	358.8	8	58A	60								
NAMANGAN	45.73	332.6									13	48	
ULAN-BATOR	46.99	8.7	8	15A	0	15	9	17					
TASHKENT	47.12	331.0	8	15A	-1	15	7	13					
CHANGCHUN	48.91	26.7	8	30A	0								
PORT MORESBY	50.65	103.3	8	42	-1	15	50	7					
SEMIPALATNSK	50.90	345.9	8	44	-1	16	1	15					
VANNOVSKAYA	51.20	320.0	8	46	-1								
MATUSIRO	51.32	42.3	8	48K	0	16	17	25			10	2	PCP
VLADIVOSTOK	51.61	31.9	8	51K	1								
CHARTERS TS.	52.39	116.8	8	55A	-1								
ADELAIDE	52.94	137.3	8	58	-2	16	28	14					
RABAUL	54.96	96.1	9	10	-5								
MELBOURNE	58.72	136.9	9	44	3								
CANBERRA	60.40	132.6	9	53K	0								
TIFLIS	61.92	317.6	10	2A	-1								
YAKUTSK	65.10	16.1	10	23	-1								
LWIRO	68.75	267.0	10	45	-2								
KOUMAC	68.90	112.6	10	47	-1								

BROKEN HILL	70.07	254.2	10	52K	-3							
SIMFEROPOL	70.35	317.6	10	55	-1	20	4	11				
BULAWAYO	70.72	248.2	10	56K	-3							
MAGADAN	70.98	25.6	11	1	1							
NOUMEA	71.19	114.0	11	2A	1							
PETROPAVLOVK	71.86	33.8	11	6	1							
AMDERMA	72.19	347.7	11	6	-1	20	27	13				
MOSCOW	72.24	329.1	11	7	-1	20	25	11				
TIKSI	72.87	10.0	11	12A	1	20	35	14				
ISTANBUL UN.	72.90	312.6	11	10A	-2	20	32	10	11	53	25	24 SS
PULKOVO	77.39	331.5	11	37	0							
LWOW	78.23	320.6	11	42	0							
APATITY	78.96	339.4	11	46K	1	21	43	15				
KAJAANI	79.93	335.2	11	51	0							
HELSINKI	80.08	331.1	11	52	1							
NURMIJARVI	80.31	331.3	11	53	0						14	50 PP
SKALNATE PL.	80.54	319.6	11	54	0							
KHEYS	81.27	354.0	11	57K	-1	22	3	11				
SODANKYLA	81.35	338.3	11	59A	1							
KARAPIRO	81.50	128.5	12	2	3							
CHATEAU	81.69	129.8	12	0	0							
KEVO	81.94	340.7	12	3	2							
RACIBORZ	81.99	320.3	12	2	1						12	8 PCP
BRATISLAVA	82.48	318.3	11	58A	-6				12	8		
MESSINA	82.74	308.2									22	19
VIENNA-H.	82.97	318.3	12	7A	0							
UMEA	83.06	334.2	12	7A	0							
UPPSALA	83.63	330.0	12	10A	0	22	25	10				
KIRUNA	83.76	338.2	12	11A	1	22	31	14				
LJUBLJANA	84.04	316.0	12	12A	0						12	36
PRUHONICE	84.32	319.9	12	14	1						15	32
BANDEIRA	84.73	255.0	12	22A	7							
KASPERSKE H.	84.89	319.0	12	16	0							
ROME	85.29	311.7									22	44
COLLMBERG	85.39	321.2	12	19	0						16	0
HALLE	86.06	321.3	12	23	1				12	37		
JENA	86.27	320.8	12	24	1						14	4
SKALSTUGAN	86.55	333.5	12	25A	1							
SCOTT BASE	87.13	168.6	12	28	1							
STUTTGART	87.71	318.6	12	30	0						12	39
MUNSTER	88.76	321.8	12	37	2							
BENSBERG	89.06	320.8	12	38	2							
DOURBES	90.73	320.0	12	45	1							
SOUTH POLE	91.45	180.0	12	49	2							
GARCHY	91.92	317.2	12	52	3						13	26
NORD	92.01	352.3	12	50	0							
PARIS	92.19	318.8	12	52	1							
COLLEGE	98.95	23.1	13	26	5						17	24 PP
RESOLUTE	103.60	3.4	13	45	3							
PENTICTON	120.18	27.2	18	33	3							
HUNGRY HORSE	123.35	24.7	18	39	3							
BOZEMAN	126.72	24.7	18	46	4							
EUREKA	129.02	33.3	18	51	4						21	1 PP
SEVEN FALLS	130.54	349.5	18	53	3						22	15 SKP
FLAMING GRGE	131.24	27.1	18	54	3						22	17
PASADENA	131.27	40.0	18	57	6							
SHAWINIGAN	131.42	351.0	18	55	3						22	18 PKS
LARAMIE	132.56	23.6	18	57	3						21	23
LONDON ONT.	135.68	358.6	19	2	3							
ALBUQUERQUE	137.41	29.5	18	53	-10							
MANHATTEN	137.53	16.2	18	41	-22							
FLORISSANT	139.29	9.4	19	11	5							
ROLLA	139.89	11.5	19	4	-3							
C. GIRARDEAU	140.87	8.8	19	6	-3							
WICHITA MTS.	140.98	21.2	19	6	-3						22	14 PP
LITTLE ROCK	142.79	13.4	19	12	0							
SAN JUAN	154.51	321.4	19	57	26							
LA PAZ	159.40	222.7	19	42	5							

MARCH 28 13.H 26.M 23.S EPICENTRE 45.77 83.08 DEPTH= 41.KM

A= 0.08436 B= 0.69487 C= 0.71417 D= 0.9927 E=-0.1205
G= 0.0861 H= 0.7090 K=-0.7000 HT= -3.8

DEPTH OF FOCUS= 0.001R

SE= 2.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PRZHEVALSK	4.71	227.3	1	13	3						2	29	S*
ALMATA-2	4.79	240.6	1	13	2						2	31	S*
SEMIPALATNSK	5.01	338.8	1	13	-2	2	16	4			1	24	*SP
ALMATA	5.04	242.5	1	14A	-1						2	32	S*
FABRICHNAYA	5.44	243.4	1	20	-1								
NARYN	6.72	232.3	1	39	0	3	1	6			1	51	*SP
FRUNSE	6.74	247.2	1	39A	0	3	26	31			1	50	*SP
ESEN BULAK	9.18	81.3	2	45	32	4	48	52					
ANDIJAN	9.28	241.1	2	16	2						4	37	
FERGANA	9.86	240.9	2	23	1						5	5	
TCHIMKENT	10.31	255.1	2	26	-2	4	27	3					
DZERGETAL	10.92	237.4	2	38	1								
TASHKENT	10.96	251.0	2	41	4						4	35	
KHOROG	11.96	230.2	2	51	0						6	4	
KULYAB	12.66	236.3	2	58	-2						6	37	
DUZHANBE	12.81	240.9	3	2	0						6	21	
WARSAK DAM	14.69	220.9	3	25	-2								
IRKUTSK	15.35	57.3	3	35	0								
LAHORE	15.74	208.6	3	39	-1								
DEHRA DUN	15.92	196.0	3	39	-3						6	36	
ULAN-BATOR	16.43	73.9	3	50	1								
KABANSK	16.68	59.4	3	53	1						8	37	PCP
LHASA	17.27	156.0	4	1	1	7	19	10					
NEW DELHI	17.78	197.2	4	2K	-4						7	9	
LANCHOW	18.40	114.5	4	14	1	7	43	9					
CHATRA	19.18	168.8	4	24A	1								
QUETTA	20.04	224.6	4	30	-2								
VANNOVSKAYA	20.12	256.0	4	34	1						10	10	
KIZYL-ARVAT	20.77	261.1	4	42	2						12	2	
SHILLONG	21.36	157.7	4	41A	-5								
BOKARO	22.00	173.3									5	1	PP
SIAN	22.79	111.2	5	3	3								
CHITTAGONG	24.42	160.1	5	17	1				5	26	9	47	*SS
PEKING	24.80	91.5	5	20	1								
KUNMING	25.97	135.8	5	30	0	10	2	6					
AMDERMA	26.33	343.4	5	30	-4								
BOMBAY	28.11	201.0									14	46	
BAKURIANA	28.65	276.2	5	55	0								
MOSCOW	29.92	306.1	6	9	3						7	22	PPP
YAKUTSK	31.08	41.6	6	14	-2						18	19	
APATITY	33.54	328.0	6	41A	3								
TIKSI	33.69	24.2	6	37	-2	11	54	-4					
KAJAANI	35.28	321.2	6	51	-2								
KHEYS	36.05	353.2	6	58	-1						8	33	PP
SODANKYLA	36.08	326.8	6	58	-2								
KEVO	36.34	330.8	7	5	3								
HELSINKI	36.54	314.5	7	1	-2								
NURMIJARVI	36.68	315.1	7	3	-2								
KIRUNA	38.48	327.2	7	23	3								
UMEA	38.57	320.7	7	18A	-2								
ISTANBUL UN.	38.95	283.0	7	24	0								
UPPSALA	40.24	314.7	7	33	-1						17	26	
NIEDZIKA	41.40	298.6	7	43	-1						8	22	
SKALSTUGAN	42.12	321.0	7	48	-2								
ATHENS	43.99	281.7	8	5K	0						8	20	
PRUHONICE	44.70	301.3	8	11	0								
COLLMBERG	45.12	303.6	8	13A	-1						10	0	PP
KASPERSKE H.	45.61	300.6	8	18	0								
JENA	46.09	303.6	8	19	-3						8	46	
STUTTGART	48.34	301.7	8	44	5								
ROSELEND	51.37	299.3	9	1	-2								
GARCHY	52.72	302.6	9	11	-2								
FOLINIERE	54.02	305.7	9	26	4								
THULE	56.72	352.2	9	38	-4								
MOULD BAY	57.43	6.2	9	45K	-2								
RESOLUTE	59.84	359.4	10	6	2								
COLLEGE	62.79	21.9	10	22	-2								
BULAWAYO	82.08	230.5	12	17	0								
PENTICTON	83.25	14.7	12	23	0								
SEVEN FALLS	84.70	342.4	12	31	0								
SHAWINIGAN	85.64	343.5	12	40	5								
LARAMIE	92.96	6.5	13	17	7								
EUREKA	93.43	14.7	13	13	1								

MARCH 29 20.H 9.M 4.S EPICENTRE -0.51 127.44 DEPTH= 34.KM

A=-0.60797 B= 0.79391 C=-0.00884 D= 0.1939 E= 0.6080
G= 0.0054 H=-0.0070 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.000R

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	
DARWIN	12.26	164.2	2	51	-4	5	6	-5					
MANILA	16.34	337.6	3	49	1	7	8	20					
LEMBANG	20.75	251.9	4	41	1	8	33	8					
DJAKARTA	21.33	254.3	4	46	0								
PORT MORESBY	21.51	114.8	4	48K	0				8	45	11	30	PCS
TANGERANG	21.52	254.4	4	49	1						5	22	PP
GUAM	22.06	50.4	4	55	2								
RABAUL	24.97	98.8	5	22K	0	9	48	8					
HONG KONG	26.11	331.1	5	34	2	9	52	-7			6	50	PP
CHARTERS TS.	26.79	137.7	5	37	-2	10	13	3					
CANTON	27.18	330.6	5	44A	2	10	17	0					
ZO-SE	31.99	349.8	6	25A	0	11	31	-2			7	43	PPP
MUNDARING	33.04	197.7	6	32	-2								
PERTH	33.14	198.2									7	43	
NANKING	33.42	346.6	6	39A	2	12	0	5			24	5	SS
HONIARA	33.54	106.3	6	36K	-2	12	3	6					
KUNMING	34.94	318.6	6	53A	3	12	23	4			8	10	PP
ADELAIDE	35.86	164.1	6	58A	0	12	38	5	7	7	8	17	PP
ABUYAMA	36.01	11.4	7	1A	1								
BRISBANE	36.13	139.8	7	2	1	12	40	3					
CHENGTU	38.18	326.3	7	19A	1	13	8	0			8	46	PP
MATUSIRO	38.20	14.1	7	16A	-2	13	6	-3			8	47	PP
TUKUBASAN	38.39	16.6	7	17A	-3						12	9	
SIAN	38.70	335.1	7	23A	1	13	19	3			8	52	PP
RIVERVIEW	39.91	148.6	7	34A	2	13	47	12			9	10	PP
CANBERRA	40.04	152.2	7	33	0	13	44	7			8	14	
MELBOURNE	40.50	158.5	7	38	1								
CHITTAGONG	41.49	305.5	7	46	1	14	1	3			9	15	PP
PEKING	41.64	346.9	7	47A	1	13	58	-2			9	27	PP
LANCHOW	42.50	331.3	7	54	1	14	16	3			9	37	PP
SHILLONG	43.05	309.7	7	56A	-2	14	16	-5			9	41	PCP
VLADIVOSTOK	43.62	4.7	8	1A	-2	14	29	0					
PORT VILA	43.68	115.4	8	3A	0								
NOUMEA	43.70	122.5	8	4	1								
CHANGCHUN	44.18	357.8	8	7A	0	14	39	1			9	49	PP
CALCUTTA	44.41	303.6	8	13	4	14	47	6					
HOWRAH	44.46	303.6	8	10	1								
MOORLANDS	45.36	159.4	8	18	1								
FORT NELSON	45.85	159.6	8	21	1								
LHASA	45.87	314.0	8	26K	5								
VISHAKHAPTNM	47.06	294.9	8	32	2	15	25	6			10	23	PP
BOKARO	47.10	303.8	8	29K	-1	15	24	5					
MADRAS	48.74	287.8	8	38K	-5	15	49	7			10	40	PP
Y.-SAKHLINSK	49.19	13.8	8	45K	-2	15	38	-11					
UGLEGORSK	50.98	12.3	9	0A	0								
HYDERABAD	51.41	292.8	9	4A	1	16	17	-2			10	17	PCP
ULAN-BATOR	51.44	342.4	9	3	-1	16	18	-2					
ESEN BULAK	54.16	333.8	9	23A	-1	16	52	-5					
POONA	55.92	292.8	9	35A	-2	17	24	4					
DEHRA DUN	56.06	307.7	9	38	0	17	26	4					
NEW DELHI	56.07	305.4	9	35K	-3	17	42	20			17	30	PS
IRKUTSK	56.07	343.1	9	38A	0								
BOMBAY	56.96	292.9	9	45	1	17	39	5	11	13	11	50	PP
KARAPIRO	57.76	135.9	9	31	-19						9	49	
ROXBURGH	57.99	146.4	10	4	13	17	19	-29					
TONGARIRO	58.36	137.2	9	57	3								
CHATEAU	58.36	137.2	9	55	1								
TUAI	59.28	136.1	10	0	0								
PETROPAVLOVK	59.36	21.3	9	59	-2								
LAHORE	59.48	307.6	9	59	-3								
MACQUARIE I.	59.70	159.3	10	4	1								
YAKUTSK	62.39	1.2	10	19	-2	18	43	-1					
WARSAK DAM	62.56	309.2	10	23	0	18	53	7					
MAGADAN	62.62	13.1	10	23	0								
KARACHI	63.57	298.1	10	28	-1								
FRUNSE	63.99	319.3	10	31K	-1	19	8	4					
ANDIJAN	64.58	316.4	10	36K	0	19	17	6					
SEMIPALATNSK	64.66	328.7	10	34	-2								
QUETTA	65.04	303.8	10	39	0	19	23	6					

NAMANGAN	65.16	316.4	10	44	4	19	16	-3			
DUZHANBE	66.29	313.0	10	44	-3	19	27	-5			
WILKES	66.79	187.3				19	41	3			
TASHKENT	66.95	315.9	10	51K	0	19	45	5			
TIKSI	72.03	0.5	11	20K	-2	20	39	-1			
VANNOVSKAYA	74.13	309.7	11	34	0						
HONOLULU	75.72	68.0	11	46	2						
KIPAPA	75.80	67.9	11	45	1						
KIZYL-ARVAT	75.81	310.7	11	43A	-1	21	34	12			
CAPE HALLETT	76.54	167.7	11	48	0	22	20	50			
HAWAII V.OB.	78.18	70.1	11	58	1						
TEHERAN	78.99	306.5	12	1	-1	21	55	-2			
MAWSON	80.05	200.6	12	6	-2						
TANANARIVE	80.27	251.0	12	3	-6						
AMDERMA	82.27	341.3				22	37	6			
MAKHACH-KALA	82.98	313.3	12	22	-1	22	37	-1			
TIFLIS	84.84	311.8	12	32	0						
KHEYS	87.19	351.2	12	42K	-2						
COLLEGE	88.21	25.2	12	50	1						
SOUTH POLE	89.49	180.0	12	53	-2						
MOSCOW	90.31	325.5	12	58	-1						
KSARA	91.58	303.6	13	5	1	24	6	7		16	46 PP
APATITY	92.01	337.5	13	9	3	23	26	-37			
JERUSALEM	92.16	301.6	13	7	0						
BYRD STATION	93.41	170.7	13	13	0						
SODANKYLA	94.63	337.6	13	18	0						
KAJAANI	94.72	334.2	13	17	-2						
MOULD BAY	95.91	12.8	13	23	-1						
KIRUNA	96.85	338.6	13	25	-3	23	50	-11		17	30 PP
UMEA	98.00	334.7	13	33	-1					17	20 PP
BULAWAYO	98.12	249.7	13	35A	1						
BROKEN HILL	98.56	255.4	13	37	1						
LWOW	99.03	320.4								17	48
UZHGOROD	100.37	319.4	13	43	-1						
SKALNATE PL.	101.57	320.2								18	1
RESOLUTE	101.83	10.5	13	50	-1					32	40
PRUHONICE	104.95	322.0								18	24 PP
PENTICTON	105.17	38.6	18	20	777						
COLLMBERG	105.47	323.6								18	34 PP
KASPERSKE H.	105.81	321.4								18	44 PP
JENA	106.43	323.6								18	34
MESSINA	107.41	310.0								19	4
EUREKA	110.61	47.7	18	35	6					19	2 PP
ROSELEND	111.43	319.7								19	14
ALBUQUERQUE	119.27	49.5	18	46	0					15	16 P
MALAGA	122.77	314.6								30	36
MANHATTEN	124.35	40.8	18	55	0						
WICHITA MTS.	125.23	46.5	18	58	1					20	45 PP
DUBUQUE	125.99	34.3	19	8	9						
LITTLE ROCK	129.60	43.1	19	5	-1						
SHAWINIGAN	130.85	18.4	19	9	1						
SEVEN FALLS	130.91	16.5	19	8	0						
CHINCHINA	156.55	78.7	19	58	7					24	3 PP

MARCH 30 14.H 23.M 40.S EPICENTRE -28.88-179.07 DEPTH= 360.KM

A=-0.87692 B=-0.01418 C=-0.48043 D=-0.0162 E= 0.9999
G= 0.4804 H= 0.0078 K=-0.8770 HT= 2.2

DEPTH OF FOCUS= 0.052R

SE= 2.59

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
ONERAHI	8.83	217.2	2	9	4							
KARAPIRO	10.09	205.1	2	22	2							
TUAI	10.38	196.6	2	22	-1	4	10	-7				
CHATEAU	11.22	202.0	2	30	-3	4	40	5				
TONGARIRO	11.22	202.1	2	31	-2	4	48	13			4	13
WELLINGTON	13.36	200.5	2	54	-4	5	14	-6				
COBB RIVER	13.90	206.7	3	5	1	5	29	-3				
NOUMEA	14.61	293.3	3	14A	2						10	30
KAIMATA	15.63	206.9	3	27	4	6	6	0				
AFIAMALU	16.36	26.0	3	29K	-1	6	16	-4				
KOUMAC	17.23	295.0	3	40A	1							

ROXBURGH	18.94	205.9	3	47	-10	7	0	-8			
BRISBANE	24.85	266.6	4	51	-1				8	10	
RIVERVIEW	25.86	251.4	5	3A	2						
HONIARA	27.60	310.3	5	14	-3						
CANBERRA	27.72	248.4	5	19K	1						
FORT NELSON	30.38	233.4	5	42	1						
MELBOURNE	31.18	243.9	5	48	0						
CHARTERS TS.	32.64	277.7	6	0	-1	10	50	0			
ADELAIDE	36.13	249.3	6	30K	0						
RABAUL	36.70	306.6	6	31	-4						
DARWIN	49.30	278.7	8	15	0						
SCOTT BASE	49.48	183.9	8	18	1						
BYRD STATION	56.59	169.6	9	9	1						
SOUTH POLE	61.29	180.0	9	40	0						
LEMBANG	72.13	272.0	10	46A	-1						
TANGERANG	73.30	272.1	11	53K	59						
MATUSIRO	76.46	325.8	11	11K	-1						
BERKELEY	85.05	41.7	11	58K	1						
LICK	85.06	42.4	11	58A	1						
PASADENA	85.11	46.7	12	18	21						
MINERAL	87.10	40.2	12	7	1						
RENO	87.59	41.7	12	8	-1						
EUREKA	89.84	43.6	12	20	1				13	46	
COLLEGE	96.56	12.9									14 16
KIRUNA	139.31	348.8	18	39	-5						
KAJAANI	140.86	341.7	18	46	-2						21 51 SKP
UMEA	142.91	345.9	18	47	-4						
SKALSTUGAN	144.52	351.3	18	52	-2						
NURMIJARVI	144.56	339.9	18	52A	-2						21 59 SKP
UPPSALA	147.01	344.5	18	59A	1						
KSARA	149.84	288.3	19	0	-2						
JERUSALEM	150.33	284.2	19	11	8						
COLLMBERG	155.84	341.3									19 39 PKP2

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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.