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

JULY 1 21.H 10.M 28.S EPICENTRE 37.08 96.08 DEPTH= 18.KM

A=-0.08468 B= 0.79523 C= 0.60036 D= 0.9944 E= 0.1059
G=-0.0636 H= 0.5970 K=-0.7997 HT= -0.6

SE= 1.94

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LANCHOW	6.32	97.0	1	34A	-1	2	48	0			2	1	PG
LHASA	8.53	211.0	2	8	2						2	41	PG
CHENGTU	9.19	131.9	2	15	0	4	5	6					
ESEN BULAK	9.31	0.7	2	16	-1	4	5	3					
PAOTOW	11.43	67.9	2	44A	-2								
SHILLONG	12.02	198.6	2	51K	-3								
CHATRA	12.71	219.0	3	3	0								
KUNMING	13.21	152.6	3	11	1								
ULAN-BATOR	13.44	32.9	3	13	0	5	43	0					
ALMATA-2	15.57	299.2	3	38A	-3								
ALMATA	15.86	298.9	3	42	-2								
PEKING	15.99	73.2	3	50A	4	7	0	17					
IRKUTSK	16.26	18.3	3	51	2								
FRUNSE	17.41	295.9	4	4	0	7	14	-2					
SEMIPALATNSK	17.50	324.5	4	4	-1								
NEW DELHI	17.97	247.3	4	8A	-3								
LAHORE	18.78	259.3	4	19	-2								
NANKING	19.34	98.3	4	25	-2								
KHOROG	19.53	278.6	4	28	-2								
WARSAK DAM	20.18	268.6	4	35	-2								
TASHKENT	21.16	289.8	4	45	-2								
HONG KONG	21.49	128.3									11	30	
ZO-SE	21.60	98.6	4	50A	-1								
CHANGCHUN	23.16	64.0	5	6A	-1	9	20	7					
QUETTA	25.15	262.7	5	26K	0	10	3	16					
ASHKABAD	29.81	283.3	6	15	7								
VANNOVSKAYA	30.00	283.4	6	11	1								
KIZYL-ARVAT	31.21	286.3	6	27	6								
YAKUTSK	32.50	29.1	6	30K	-2								
MATUSIRO	33.54	77.9	6	37	-4								
SHIRAZ	36.87	271.4	7	9A	-1				7	19			
KIROVOBAD	38.49	291.1	7	22	-1								
GORIS	38.72	289.3	7	25	0								
TIFLIS	39.42	293.1	7	31	0								
BAKURIANI	40.36	293.4	7	40	1								
MOSCOW	42.96	315.0	7	59	-1								
KHEYS	45.93	351.9	8	23A	-1								
APATITY	45.94	331.7	8	23K	-1								
VIBORG	47.57	322.1	8	35	-2								
KAJAANI	48.02	326.7	8	39A	-1						10	32	PP
KSARA	48.43	285.1	8	44	0								
SODANKYLA	48.53	331.1	8	43A	-1						10	8	PCP
HELSINKI	49.50	321.5	8	51	-1						10	12	PCP
NURMIJARVI	49.62	322.0	8	51A	-2	16	0	1					
JERUSALEM	49.74	282.9	8	54	0								
KIRUNA	50.90	331.7	9	1A	-1						10	16	PCP
UMEA	51.33	326.6	9	4A	-2						10	18	PCP
TROMSOE	51.34	334.1	9	4	-2				9	14			
LWOW	51.90	308.5	9	10	0								
UPPSALA	53.19	321.9	9	18A	-2								
UZHGOROD	53.31	307.4	9	52A	31								
SKALSTUGAN	54.86	327.1	9	30A	-2								
KARLSKRONA	55.14	317.7	9	33A	-1								
ATHENS	55.99	294.7	9	39	-1								
GOTEBORG	56.59	320.2	9	42A	-2								
COPENHAGEN	56.97	317.8	9	45K	-2								
PRUHONICE	57.69	310.9	9	52	0						11	14	
COLLMBERG	58.14	312.8	9	54A	-1				10	1			
KASPERSKE H.	58.58	310.3	9	57A	-1						10	39	
HALLE	58.68	313.3	9	58	-1								
JENA	59.11	312.8	9	59	-3						10	22	
STUTTGART	61.33	311.2	10	17	0								
DOURBES	63.51	314.0	10	3	-29								
ROSELEND	64.30	308.9	10	38	1								
DURHAM	64.69	320.6				19	28	11					
MOULD BAY	64.74	8.8	10	38	-2								
ISOLA	64.74	307.3	10	39	-1								
PARIS	65.33	313.4	10	43	-1								
PORT MORESBY	66.52	123.2	10	50K	-1								
COLLEGE	66.88	24.6	10	52	-2								

FOLINIERE	67.06	314.5	10 54	-1	
RESOLUTE	68.28	3.1	11 1A	-1	
BAGNERES	69.64	309.0	11 10	-1	
LWIRO	73.43	254.1	11 32K	-1	
CHARTERS TS.	73.96	131.3	11 34	-2	
TAMANRASSET	77.06	288.7	11 53A	-1	
CHILEKA	77.81	239.6	11 54	-4	
BROKEN HILL	81.59	244.9	12 17	-2	
ADELAIDE	81.92	145.8	12 19K	-1	
BULAWAYO	85.27	240.6	12 37	0	
EDMONTON	86.36	17.2	12 42A	-1	
SCHEFFERVLLE	87.29	350.2	12 46A	-1	
BANFF	87.84	19.3	12 49	-1	
PENTICTON	88.34	22.5	12 52A	0	
SEATTLE	88.94	24.8	13 0	5	
BLUE MTS.	93.04	23.1	13 14A	0	16 50 PP
SHASTA	94.94	28.3	13 23K	0	
MINERAL	95.54	28.0	13 26A	0	
UINTA BASIN	99.46	19.6	13 44	1	17 49 PP
TONTO FOREST	104.56	23.1	14 8	2	
WICHITA MTS.	107.27	12.6			29 56 PKKP

JULY 4 10.H 58.M 12.S EPICENTRE -26.39-177.73 DEPTH= 152.KM

A=-0.89630 B=-0.03548 C=-0.44203 D=-0.0396 E= 0.9992
G= 0.4417 H= 0.0175 K=-0.8970 HT= 2.9

DEPTH OF FOCUS= 0.019R

SE= 2.24

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
RAOUL ISLAND	2.86	183.3	0 50	3				
KARAPIRO	12.84	204.6	2 56	-2			3 30	
AFIAMALU	13.61	25.3	3 2	-6	5 3	-33		
CHATEAU	13.97	202.2	3 7	-6	5 41	-3		
NOUMEA	14.98	282.4	3 31	6	6 24	17		
PORT VILA	15.52	300.9	3 36	4	6 28	8		
WELLINGTON	16.10	200.8	3 32	-7	6 19	-14		4 44
KOUMAC	17.48	285.6	3 59	3	7 14	10		
ROXBURGH	21.69	205.2	4 45	5	8 25	0		5 17 PP
BRISBANE	26.29	261.1	5 25	1				
HONIARA	27.04	304.5	5 28	-2	10 14	19		
RIVERVIEW	27.85	247.1	5 41	3	10 8	0		6 37 PP
CANBERRA	29.80	244.5	5 56A	1	10 31	-8	6 29	7 4 PP
MOORLANDS	32.80	231.8	6 23	2			7 5	
TOOLANGI	32.94	241.0	6 22	-1	11 26	-2	7 6	7 33 PP
TARRALEAH	33.27	232.3	6 26	1			7 11	
CHARTERS TS.	33.60	273.1	6 28	0	11 35	-3		
RABAUL	36.28	302.3	6 48	-3	11 56	-23		7 48 PP
PORT MORESBY	37.28	290.4	6 58K	-1	12 28	-7	7 48	7 58 *SP
ADELAIDE	38.17	246.3	7 7A	0	12 30	-18		9 38 PCP
CAPE HALLETT	46.44	185.1	8 15	1				
DARWIN	50.17	275.8	8 40	-2				
HAWAII V.OB.	50.49	27.9	8 44	-1				9 41
HONOLULU	51.08	23.7	8 50	1	15 58	4		10 55 PP
KIPAPA	51.22	23.8	8 49	-1	15 58	3		18 28 SCS
SCOTT BASE	52.04	184.1	8 58	1				
MUNDARING	57.16	247.6	9 35	1	17 8	-7		
PERTH	57.48	247.5	9 39	3	17 17	-2		13 23 PPP
WILKES	58.81	206.6	9 42	-3	17 28	-9	10 45	
BYRD STATION	58.82	170.0	9 45	0				
SOUTH POLE	63.77	180.0	10 17	-1				10 51
MIRNY	65.82	206.0	10 29	-3	18 57	-7		20 7 SCS
MANILA	72.11	297.0	11 9	-1	20 16	-2		
LEMBANG	73.26	270.6	11 16	-1	20 28	-3	11 53	
BAGUIO CITY	73.49	298.2	11 16	-2	20 28	-6		12 18 *SP
TUKUBASAN	73.88	325.6	11 19K	-1	20 37	-1	11 58	14 13 PP
DJAKARTA	74.25	270.9	11 21	-1	20 35	-7	12 0	14 10 PP
TANGERANG	74.43	270.8	11 22K	-2	20 38	-6	12 1	21 7
MATUSIRO	75.10	324.6	11 26	-1	20 48	-4		
ABUYAMA	75.27	321.8	11 28	0				
MIZUSAWA	75.66	328.1	11 30	-1				
MAWSON	76.14	200.1	11 33	0	20 59	-4	12 15	22 5 SS
NHATRANG	80.64	288.6	11 58A	0				11 54 PCP
PARAISO	81.32	42.2	12 5	4				

Y.-SAKHLINSK	81.32	333.9	12	1K	0	22	1	3			12	16	PCP
ZO-SE	81.67	310.6	12	2K	-1	21	55	-6			15	7	PP
PETROPAVLOVK	81.71	345.8	12	2K	-1	21	57	-5			15	9	PP
HONG KONG	81.77	299.8	12	4K	0	22	1	-1	12	50	16	20	PP
PRIEST	82.23	43.3	12	7K	1								
BERKELEY	82.41	41.1	12	8K	1	22	14	5	13	6	15	20	PP
PASADENA	82.54	46.1	12	9	1	22	16	6	12	51	13	11	*SP
UKIAH	82.69	39.7	12	10	2								
CALISTOGA	82.73	40.4	12	9K	0								
CANTON	82.84	300.0	12	10K	1	22	12	-1			13	11	*SP
N-LAZARVSKYA	82.88	183.2	12	8K	-1						22	50	*SS
VLADIVOSTOK	83.23	325.4	12	12K	1	22	13	-4					
KERGUELEN I.	83.52	217.5	12	13	0	22	49	29					
NANKING	83.89	310.2	12	15K	1	22	19	-4	12	59	15	28	PP
SHASTA	84.22	38.9	12	16K	0				13	2			
MINERAL	84.44	39.6	12	11K	-6						12	56	
BOULDER CITY	85.82	46.4	12	25K	1	22	30	-12			38	34	PKPPKP
MEDAN	85.84	276.0	12	20K	-4	22	34	-8			12	47	
GUADALAJARA	85.96	64.7	12	28	3	22	48	4					
TUCSON	86.36	51.4	12	30	3				13	13	38	33	PKPPKP
CHANGCHUN	87.19	322.6	12	31K	0	22	56	1	13	15	15	54	PP
TONTO FOREST	87.21	49.5	12	32K	1	23	3	8	13	16	15	54	PP
EUREKA	87.22	43.1	12	31K	0	22	45	-11	13	11	38	22	PKPPKP
CHIHUAHUA	87.85	56.6	12	12	-22						22	16	
GLEN CANYON	88.52	47.1	12	39	2								
PORT HARDY	88.65	29.3	12	36K	-2								
TACUBAYA	88.72	67.7	12	42	4	23	13	4			24	13	
SANTA LUCIA	88.74	126.9	12	39	1						13	21	
SEATTLE	88.94	33.8	12	38	-1						23	15	
VICTORIA	88.98	32.7	12	39K	0								
MAGADAN	89.47	344.6	12	39K	-2	22	52	-24			14	19	
DUGWAY	89.60	43.9	12	43K	1								
BLUE MTS.	89.76	38.2	12	43K	0	23	23	4	13	28	16	6	PP
PEKING	90.24	315.4	12	45K	0	23	23	0	13	30	22	56	SKS
SITKA	90.47	21.6	12	47	1	23	32	7			16	22	PP
PRICE	90.52	45.3	12	47K	1								
SALT LAKE C.	90.53	43.9	12	47	1						13	32	
ALBUQUERQUE	90.89	51.1	12	49	1	23	2	-27	13	29	23	37	*SSKS
VERA CRUZ	91.19	69.2									18	52	
PENTICTON	91.39	33.8	12	27	-23								
SPOKANE	91.55	36.0	12	50	-1								
UINTA BASIN	91.71	45.2	12	52K	0	23	44	8	13	39	16	32	PP
SIAN	91.99	307.4	12	53K	0	23	37	-2			23	7	SKS
FLAMING GRGE	92.16	44.8	12	54	0								
KUNMING	92.22	296.9	12	56K	2	23	44	3	13	40	23	11	SKS
BUTTE	93.12	39.3	12	58	0	23	54	5			24	59	SP
COMITAN	93.26	73.6									23	3	
LUBBOCK	93.48	54.2	12	59	-1								
BOZEMAN	93.80	40.2	13	2	1	24	3	9	13	49	23	17	SKS
CHENGTU	93.84	302.3	13	3K	1	23	57	2	13	49	16	50	PP
COLLEGE	93.88	12.3	13	0	-2	23	52	-3	13	48	16	48	PP
GOLDEN	94.10	47.5	13	3	0						17	0	PP
NANA	94.28	105.5	13	6	2	23	25	-34					
PAOTOW	94.47	313.3	13	5K	1	24	6	6	13	56	23	24	SKS
BANFF	94.59	34.0	13	4	-1								
PORT BLAIR	94.70	280.6	13	3A	-2						16	14	
LARAMIE	94.79	46.0	12	37	-29								
HUANCAYO	95.55	106.3	13	14	5								
WICHITA MTS.	96.40	54.5	13	12	-1	23	34	0	13	55	16	54	PP
LANCHOW	96.50	307.0	13	15K	1				14	0	14	23	*SP
AREQUIPA	96.68	111.9	13	17	3								
DALLAS	96.89	56.9	13	16	1								
EDMONTON	96.97	33.0	13	14K	-2								
MERIDA	97.44	70.4									24	5	
YAKUTSK	97.61	337.8	13	17A	-2								
RAPID CITY	97.70	44.5	13	19	0								
TULSA	98.98	54.5	13	24K	-1	23	46	-1			18	23	PP
LA PAZ	99.44	113.6	13	31	4	23	51	1					
ULAN-BATOR	100.06	318.6	13	30K	0	24	51	58					
LAWRENCE	100.68	51.9	13	32	-1								
SHILLONG	101.27	292.9	13	35	0	25	0	62			18	47	PP
CHINCHINA	103.04	90.9	13	46	3	24	6	-1			25	34	S
IRKUTSK	103.51	321.8	13	43K	-2	24	7	-2			17	58	PP
LHASA	103.55	296.5	13	46K	1	25	19	70	14	36	18	3	PP
FLORISSANT	104.10	53.6	13	48	0								
ST. LOUIS 1	104.14	53.8	13	46	-2	25	28	76					
BOGOTA	104.27	91.9	13	51K	3	24	13	1			18	10	PP
TIKSI	104.46	344.8	13	47K	-2	24	5	-8			18	4	PP

VISHAKHAPTNM	105.48	282.3									16	54	
ESEN BULAK	106.02	314.1	13	54	777	25	41	81					
MADRAS	106.37	276.6									25	53	
CUMBERLAND	106.48	58.1	14	3	777	24	10	-12			18	24	PP
MOULD BAY	108.46	12.4	14	6	777						18	10	PKP
BLACKSBURG	110.94	58.0	14	20	-235								
CLEVELAND	111.38	53.3				26	32	109					
LONDON ONT.	112.06	51.8	18	18	0								
CARACAS	113.16	89.5	14	29A	-231	24	46	-4					
RESOLUTE	113.35	16.7	14	28	-232						18	20	PKP
DEHRA DUN	114.36	293.1									26	50	
NEW DELHI	114.55	291.0	14	34A	-228						18	22	
OTTAWA	116.44	50.3	14	42A	-224						18	25	PKP
PALISADES	116.82	55.4	18	27	0				19	13	14	29	P
SAN JUAN	116.89	81.8	18	27K	0	25	4	0			19	35	PP
SEMIPALATNSK	117.33	315.2	18	25	-3								
HERMANUS	117.42	195.8				25	7	1			29	22	
LAHORE	117.78	293.4	18	29	0								
BREBEUF	117.91	50.5	18	30K	1	27	28	140			19	44	PP
TRINIDAD	118.18	91.8	18	31	2								
ST. KITTS	119.54	84.2	18	34	2								
FRUNSE	119.96	306.0	18	33	0	25	16	1			29	41	SKSP
FORT FRANCE	120.00	87.7	18	35	2								
SEVEN FALLS	120.07	49.0	18	32	-1								
CHANGALANE	120.21	211.2	18	34	1								
WARSAK DAM	120.64	295.4	18	34	0								
KIMBERLEY	121.07	203.1	18	37K	2								
KHEYS	121.25	350.9	18	35	0	25	17	-2			19	51	PP
KHOROG	121.37	299.4	18	36	0						20	1	PP
SCHEFFERVLLE	123.10	40.2	18	36K	-3								
SEPT ILES	123.27	45.7	18	38	-1								
QUETTA	123.59	290.0	18	41K	1						20	18	PP
TASHKENT	123.68	303.6	18	41	1	25	28	1			20	21	PP
NORD	124.19	3.3	18	39	-2								
HALIFAX	124.84	52.6	18	43K	1								
GODHAVN	126.35	21.5	18	44A	-1								
BULAWAYO	127.16	211.5	17	48K	-59								
CHILEKA	127.47	221.0	18	48A	1								
ASHKABAD	131.79	298.4	18	57	1				19	22	22	24	PKS
BROKEN HILL	132.07	215.2	18	57	1								
SCORESBY SD.	133.73	11.0	18	59	0								
APATITY	134.66	343.8	18	46	-15						21	24	PP
TROMSOE	135.64	351.7	19	0	-3						21	40	PP
SHIRAZ	135.79	286.3	19	3	0						21	47	PP
SODANKYLA	136.37	346.6	18	54	-10						21	44	PP
KIRUNA	137.09	350.0	18	56	-9						21	57	PP
TEHERAN	137.27	295.0	18	58	-8				19	51	21	51	PP
KAJAANI	138.85	343.3	19	0	-9				19	55	21	58	PP
UMEA	140.77	347.5	19	0K	-12						22	10	
MOSCOW	141.11	328.6	19	6	-7	26	24	18			22	5	PP
GORIS	141.15	300.9	19	10	-3				19	57	22	16	PP
ADDIS ABABA	141.36	250.2	19	12	-1								
PULKOVO	141.43	337.6	19	7	-7				19	58	22	15	PP
TIFLIS	141.99	304.7	19	19	4				19	50	22	18	PP
SKALSTUGAN	142.23	352.7	19	9	-6						22	20	
NURMIJARVI	142.61	341.9	19	10	-6				19	58	22	18	PP
HELSINKI	142.80	341.4	19	12	-4								
LUANDA	143.39	198.4	19	8	-9				20	2	22	36	PP
UPPSALA	144.90	346.5	19	18K	-2				20	3	22	36	SKP
BERGEN	145.94	357.3	19	22	1						19	24	PKP2
GOTEBORG	147.95	350.2	19	24K	-1				20	12			
SIMFEROPOL	148.46	314.2	19	25	-1				20	7	23	1	PP
KARLSKRONA	148.73	345.6	19	26K	0				20	14	22	57	SKP
COPENHAGEN	149.81	348.5	19	27K	0								
KSARA	150.09	292.5	19	26K	-2				20	18	23	9	PP
WARSAW	150.57	336.3	19	29K	1				20	1	23	19	PP
JERUSALEM	150.77	288.4	19	29K	0								
IASI	151.20	322.8	19	2	-27						20	27	
DURHAM	151.50	4.7	19	31A	1	26	51	31	19	47	24	16	PP
BACAU	151.95	322.3	19	33	2						20	29	
FOCSANI	152.30	320.5	19	40	9						20	2	
KRAKOW	152.74	334.7	19	33	1						23	22	PP
VALENTIA	152.79	17.1	19	32	0						29	57	
UZHGOROD	152.85	330.1	19	34	2						19	54	PKP2
CHORZOW	152.89	336.1	19	40	8				20	39	19	50	PKP2
RACIBORZ	153.35	336.8	19	32	0				20	26	23	23	PKS
WITTEVEEN	153.39	354.0	19	33	0								
ISTANBUL UN.	153.53	310.3	19	32	-1						23	31	PP

BUCHAREST	153.67	319.2	19	57	24					30	2	
CAMPULUNG	153.78	321.8	19	26	-7					20	0	
COLLMBERG	153.81	344.6	19	33	0				20	29		
HALLE	153.86	346.2	19	33	0					23	28	PP
MUNSTER	154.13	352.4	19	34	0							
DE BILT	154.23	355.9	19	35	1					23	31	PP
JENA	154.48	346.2	19	34	0				20	21	23	30 PP
PRAGUE	154.56	341.6	19	35A	1						23	31 PP
PRUHONICE	154.61	341.3	19	34	0						23	27 PP
KEW	154.87	3.8	19	34	-1				21	2	23	32 PP
CHEB	155.09	344.4	19	43A	8							
HURBANOVO	155.17	333.9	19	29	-6						20	3 PKP2
BENSBERG	155.18	352.6	19	35K	0						23	32 PP
BRATISLAVA	155.34	335.7	19	34K	-1						23	33 PP
TIMISOARA	155.45	326.8	19	38	3							
VIENNA-H.	155.54	336.8	19	37K	2						23	39 PP
DOURBES	156.26	356.3	19	37	1						23	42 PP
SOFIA	156.31	318.7	19	36	0	26	25	-1			23	41 PP
HEIDELBERG	156.49	349.4	19	36	-1				20	6		
BELGRADE	156.50	326.2	19	37K	0						23	48 PP
STUTTGART	156.99	348.1	19	37K	0				20	10	23	42 PP
TUBINGEN	157.26	348.2	19	38K	0				20	10		
STRASBOURG	157.43	350.4	19	38	0				20	17	23	49 PP
FOLINIERE	157.55	4.8	19	38	0							
PARIS	157.61	359.6	20	39K	1						23	44 PP
EBINGEN	157.62	348.2	19	38	0				20	13		
ZAGREB	157.73	334.1	19	38	0				20	15	23	48
WELSCHBRUCH	157.78	352.8	19	40	2						20	13 PKP2
SKOPJE	157.87	319.5									20	29
RAVENSBURG	157.88	346.7	19	38	-1				20	13		
FELDBERG	158.08	349.6	19	39	0				20	14		
LJUBLJANA	158.08	336.7	19	39K	0				20	14	23	50 PP
M.BOUR	158.40	119.8	19	41	2						20	13 PKP2
ATHENS	158.53	307.8	19	40	1							
TRIESTE	158.69	337.4	19	40	0				20	16	23	57 PP
CHUR	158.78	346.1	19	40	0						23	55
TITOGRAD	158.79	323.3	19	41	1						23	54 PP
BESANCON	158.97	352.9	19	40	0				20	18	23	58 PP
GARCHY	159.14	358.5	19	40	0						20	17 PKP2
PADOVA	159.51	340.4	19	48	8						27	58 PPP
ROSELEND	160.42	350.8	19	42	1				20	24	24	5 PP
PAVIA	160.44	345.3	19	42K	1				20	28	24	3 PKS
CLERMONT-FD.	160.64	358.2	19	42	0						25	8
PRATO	161.13	339.9	19	41	-1	27	31	61				
FLORENCE X.	161.18	339.5	19	46	4				20	30	24	4 PKS
AQUILA	161.64	333.0	19	43	0	26	8	-23	20	29	24	23 PP
MONACO	162.19	347.7	19	43	0							
ROME	162.39	334.1	19	44	1	26	28	-3			24	22 PP
BAGNERES	163.27	5.4	19	34	-10						24	19 PP
MESSINA	163.75	319.7	19	44A	-1	26	31	-1	20	38	24	24 PP
REGGIO CALA.	163.76	319.2	19	46	1				20	40		
LISBON	164.40	35.2	19	47K	2						24	28 PP
TOLEDO	165.55	19.8	19	48K	2				20	36	24	33 PP
ALICANTE	167.85	10.3	19	49K	1	26	30	-5			24	46 PP
GRANADA	168.14	23.4	19	49A	1	27	1	26			24	46 PP
MALAGA	168.24	27.2	19	50	2						24	46 PP
ALMERIA	168.82	20.0	19	52	3						24	50 PP
ALGIERS UNI.	169.63	356.5	19	52K	3	26	52	16	20	37	24	58 PP
SETIF	169.86	345.5	19	50A	1				20	37	24	55 PP
TAMANRASSET	175.35	220.2	19	53K	1				20	39	25	25 PP

JULY 4 22.H 56.M 21.S EPICENTRE -18.61 -12.79 DEPTH= 73.KM

A= 0.92484 B=-0.20996 C=-0.31715 D=-0.2214 E=-0.9752
G=-0.3093 H= 0.0702 K=-0.9484 HT= 5.0

DEPTH OF FOCUS= 0.006R

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
HERMANUS	32.52	125.4				11	53	19				
M.BOUR	33.04	352.6	6	34	4	11	53	11				
KIMBERLEY	35.73	113.5	6	52A	-1							
BULAWAYO	39.02	99.2									13	17
BROKEN HILL	39.71	90.4	7	27	1							

LWIRO	43.85	73.2	8	1	1						
TAMANRASSET	44.86	24.3	8	6K	-2	14	45	5		9	58 PP
CHILEKA	45.64	94.0	8	12	-3						
AVERROES	51.87	5.7	9	7	4					9	41
LA PAZ	52.63	263.2	9	7	-1	16	36	8			
MALAGA	55.59	8.2	9	28	-2	17	21	13			
ALMERIA	56.01	10.0	9	33A	0					11	59 PP
TRINIDAD	56.07	297.3	9	35	2	17	29	14			
ALGIERS UNI.	57.07	15.1	9	41	0						
LISBON	57.12	3.4	9	42A	1						
SETIF	57.16	17.5	9	38	-3						
PONTA DELGDA	57.33	347.9	9	45	3	17	50	19			
ADDIS ABABA	57.80	66.1	9	48	2						
ALICANTE	57.82	11.4	9	46A	0						
TOLEDO	58.75	7.9	9	49	-3	18	2	12		11	59 PP
HUANCAYO	60.42	266.5	10	4	0						
CARACAS	60.73	294.0	10	6A	0	18	31	16			
NANA	61.87	266.1	10	13	0						
MESSINA	62.46	24.9	10	18	1	18	52	15		12	41 PP
BAGNERES	62.51	10.7	10	13	-5						
SAN JUAN	63.99	302.1	10	25	-3						
ROME	64.58	20.7	10	11	-20	18	41	-23		12	46 PP
BOGOTA	64.60	284.6	10	33	2	19	14	10			
FUQUENE	64.62	285.6	10	32K	0						
TARANTO	65.08	24.9	10	44	9					20	54 PPS
AQUILA	65.29	21.1	10	36	0	19	23	11		23	34 SS
CLERMONT-FD.	65.68	12.2	10	38	0						
FLORENCE X.	65.88	18.9	11	9	29	19	59	40		11	55
ATHENS	65.91	31.0	10	40	0						
CHINCHINA	66.16	284.3	10	37K	-4	19	33	10			
ROSELEND	66.38	14.7	10	43	0					11	8 PCP
PAVIA	66.55	16.8	10	50	6	19	52	24		24	20 SS
BESANCON	67.69	13.7	10	50	-1					12	49
FOLINIERE	67.96	8.8	10	51	-2						
JERUSALEM	68.03	43.0	10	55A	2						
TRIESTE	68.34	19.7				20	1	12			
PARIS	68.48	10.8	10	56	0						
LJUBLJANA	68.94	20.0	10	57	-2						
ZAGREB	69.23	21.1	11	2	1						
STRASBOURG	69.36	14.4	11	1	0	20	12	11		11	24 PCP
SOFIA	69.49	27.6	12	3	61					12	32 PCP
KSARA	69.78	41.8	11	6	2	20	26	20		13	43 PP
STUTTGART	69.90	15.4	11	3	-2	20	17	10			
BELGRADE	70.02	24.5	11	7A	2					11	26 PCP
DOURBES	70.11	11.8	11	7	1	20	17	7			
VALENTIA	70.27	1.7	11	3	-4	20	20	8			
KEW	70.62	8.2	11	8	-1	20	24	8		24	53 SS
ISTANBUL UN.	70.88	32.2	11	10	-1	20	25	6			
BALBOA HTS.	71.31	286.6	11	14	1						
BENSBERG	71.45	13.2	11	14	0					13	53 PP
VIENNA-H.	71.48	20.1	11	13	-1						
BRATISLAVA	71.65	20.6	11	12	-3	20	37	9		11	21 PCP
DE BILT	72.13	11.5	11	19	1	20	44	11			
PRUHONICE	72.44	18.1	11	19	-1	20	45	8			
JENA	72.48	15.9	11	18	-2	20	45	8		14	6 PP
PRAGUE	72.49	18.0	11	21	1						
MUNSTER	72.50	13.1	11	20	0						
HALLE	73.09	15.9	11	23	-1					14	6 PP
WITTEVEEN	73.10	12.2	11	25	1						
COLLMBERG	73.19	16.6	11	24	0					14	8 PP
RACIBORZ	73.67	20.2	11	27	0					12	3
DURHAM	73.71	6.7	11	20A	-7					14	22 PP
KRAKOW	74.22	21.2	11	32	2	21	6	9			
BYRD STATION	74.65	190.0	11	34	1						
WARSAW	76.43	20.6	11	43	0	21	22	1		21	35 *SS
COPENHAGEN	77.03	14.4	11	47	1	21	41	14			
KARLSKRONA	78.23	15.8	11	55	2						
GOTEBORG	78.77	13.3	11	56	0						
SHIRAZ	79.12	53.6	11	55	-3	22	1	11	12 5	14	52 PP
TEHERAN	81.28	47.8	12	12	3	22	29	17			
PALISADES	81.99	318.0	12	14	1	22	34	14	12 20		
UPPSALA	82.01	15.0	12	12K	-1	22	29	9			
SKALSTUGAN	84.22	11.0	12	25K	1						
HELSINKI	84.25	17.9	12	24	0						
BLACKSBURG	84.42	312.1	12	27	2	21	51	-53			
NURMIJARVI	84.44	17.6	12	25	0	22	51	7		15	46 PP
OTTAWA	85.47	321.0	12	31	1						
UMEA	86.07	14.0	12	33K	0	23	0	0		28	42 SS
CUMBERLAND	87.42	308.8	12	39	-1	23	9	-4		29	17 SS

LONDON ONT.	87.68	317.0	12	42	1						
KAJAANI	88.16	16.6	12	44	0						
SCORESBY SD.	89.08	356.9	12	1	-47						
CAPE HALLETT	89.29	180.9	12	50	1						
KIRUNA	89.56	12.0				23	49	16			
SODANKYLA	90.51	14.2	12	55	0						
QUETTA	90.71	58.4	12	54	-2						
ST. LOUIS 1	92.05	310.1	13	3	1						
FLORISSANT	92.21	310.2	13	3	1						
TULSA	95.24	306.0	12	57K	-19	24	29	45		17	5 PP
WICHITA MTS.	97.04	304.1	13	25	1	24	56	62		17	26 PP
ALBUQUERQUE	103.34	302.6	18	13	260						
UINTA BASIN	106.86	307.5	14	22	777					18	36 PP
TONTO FOREST	107.08	301.1	17	38	777					18	47 PP
BLUE MTS.	113.08	311.5	18	30	2					19	19 PP
COLLEGE	124.98	338.4	18	47	-5						
CHARTERS TS.	136.40	150.8	19	16	3						
PORT MORESBY	145.85	142.9	19	33	3						
LUGANVILLE	146.09	179.9	19	33	3						
MATUSIRO	148.87	49.1	19	37	2					23	27 PP

JULY 5 5.H 48.M 15.S EPICENTRE -11.51 -77.53 DEPTH= 66.KM

A= 0.21168 B=-0.95702 C=-0.19825 D=-0.9764 E=-0.2160
G=-0.0428 H= 0.1936 K=-0.9802 HT= 6.3

DEPTH OF FOCUS= 0.005R

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	
HUANCAYO	2.22	104.2	0	38	2	1	6	4					
LA PAZ	10.38	119.6	2	27	-1	4	30	6					
BOGOTA	16.39	12.3	3	48K	1	6	54	8					
CHINCHINA	16.48	6.7	3	49	1	6	55	7					
FUQUENE	17.29	12.8	3	58A	0								
GALERAZAMBA	22.26	5.9									6	15	
SANTA LUCIA	22.72	165.0	4	57	0	8	54	-2					
CARACAS	24.27	26.1	5	12K	0	9	31	8					
TRINIDAD	27.23	36.6	5	39	-1	10	13	1					
FORT FRANCE	30.71	32.3	6	8	-3								
ST. CLAUDE	31.53	30.1	6	17	-1								
SAN JUAN	31.76	20.9	6	17	-3								
ST. KITTS	32.18	27.3	6	23	-1								
TACUBAYA	37.41	325.0	7	7	-1								
CUMBERLAND	47.46	351.1	8	28	-2	15	17	-1			10	25	PP
BLACKSBURG	48.54	356.9	8	37	-1								
FAYETTEVILLE	49.89	342.3	8	49A	0						9	4	PP
WICHITA MTS.	50.13	337.3	8	5U	-1	15	58	2			10	10	PCP
GEORGETOWN	50.15	0.5	8	5U	-1								
TULSA	50.22	340.7	8	51K	0	16	0	3			18	33	SCS
LUBBOCK	50.47	333.5	8	54	1								
ST. LOUIS 1	51.28	347.2	8	59	0								
FLORISSANT	51.46	347.2	8	59	-2								
PENNSYLVANIA	52.04	359.7	9	5	0								
FORDHAM	52.20	3.5	9	6	0								
PALISADES	52.36	3.5	9	7	0	16	18	-9	9	24	16	50	*SS
ALBUQUERQUE	53.73	330.5	9	18	0								
TUCSON	53.92	324.9	9	20	1								
LONDON ONT.	54.39	356.7	9	20A	-2								
SCARBOROUGH	54.98	358.5	9	26A	-1								
TONTO FOREST	55.69	326.2	9	33	1	17	18	7	9	47	10	26	PCP
OTTAWA	56.67	1.5	9	37A	-2								
BREBEUF	56.85	3.3	9	39K	-1	17	29	2			19	19	SCS
GOLDEN	57.14	334.6	9	42	0								
GLEN CANYON	57.89	328.0	9	5U	3								
LARAMIE	58.58	335.5	9	54	2								
SEVEN FALLS	58.67	5.4	9	53	0								
BOULDER CITY	58.91	325.0	9	54	-1								
UINTA BASIN	59.50	331.9	9	59	0	18	5	4	10	15	11	49	PP
PRICE	59.53	330.5	10	1A	2								
FLAMING GRGE	59.91	332.5	10	2	1				10	17			
SALT LAKE C.	60.93	330.7	10	10	2								
DUGWAY	60.96	329.6	10	9K	0								
SEPT ILES	62.22	8.1	10	16	-1								
PRIEST	62.45	321.4	10	20A	1								

PARAISO	63.62	320.5	10	23	-3					
BOZEMAN	64.43	334.6	10	34	2					
BERKELEY	64.54	321.9	10	33	1					
CALISTOGA	65.23	322.4	10	37A	0					
M.BOUR	65.29	68.3	10	34	-3					
BUTTE	65.36	333.9	10	38	0					
MINERAL	65.77	324.3	10	41A	1					
SHASTA	66.46	324.2	10	23A	-22				10 47	
BLUE MTS.	66.64	330.3	10	45	-1	19 37	7		20 37	SCS
SCHEFFERVLLE	66.69	6.7	10	45A	-1					
SPOKANE	68.77	332.4	11	1	2					
PONTA DELGDA	68.94	41.9	11	1	1					
PENTICTON	70.97	332.4	11	12	0					
SEATTLE	71.07	329.8	11	9	-4					
BYRD STATION	71.20	187.1	11	13	-1					
EDMONTON	71.50	338.3	11	14K	-2					
VICTORIA	72.21	329.9	11	21	1					
SOUTH POLE	78.57	180.0	11	51	-5				12 37	
N-LAZARVSKYA	79.01	160.3	11	57	-1	21 51	0			
AVERROES	80.16	53.1	12	18A	13					
GODHAVN	82.31	8.4	12	14K	-2	22 24	-1			
MALAGA	83.65	50.7	12	24	1	22 42	4			
SCOTT BASE	84.05	191.1	12	24	-1					
TOLEDO	84.96	47.8	12	30A	1	22 51	0	12 48	22 55	PS
KIPAPA	85.48	292.8				23 6	10		35 54	
VALENTIA	85.48	35.0	12	32	0	22 45	-11			
HONOLULU	85.52	292.7				23 7	10		35 47	
CAPE HALLETT	85.68	196.5	12	33	0					
RESOLUTE	86.70	355.4	12	37	-1					
TAMANRASSET	88.10	66.4	12	45K	1					
BAGNERES	88.95	45.7	12	47	-1					
SCORESBY SD.	90.03	16.1	12	54	0	23 42	3			
FOLINIERE	90.19	40.1	12	54	0					
MOULD BAY	91.00	350.8	12	58K	0	23 23	-25			
KEW	91.09	37.6	12	58	-1	23 24	-24			
SETIF	91.09	53.4	12	59	0				16 32	PP
AFIAMALU	91.33	255.6	13	2	2					
DURHAM	91.36	34.2	13	3K	3	23 28	-23			
CLERMONT-FD.	91.73	43.7	13	3	2					
GARCHY	92.07	42.2	13	3	0					
COLLEGE	92.18	336.3	13	3	-1			13 20	16 49	PP
DOURBES	93.74	39.7	13	13	2	23 42	-29			
BESANCON	93.99	42.7	13	22	10					
ROSELEND	94.10	44.4	13	15	3			13 31		
ALERT	94.12	2.0	13	12A	0					
BENSBERG	95.53	39.2	13	20	1					
PAVIA	95.75	45.2							21 58	
STUTTGART	96.46	41.7	13	23	0					
JENA	98.27	39.7	13	30	-1				17 28	PP
COLLMBERG	99.21	39.5	13	37	1				17 40	PP
COPENHAGEN	99.39	35.0	13	39	3					
PRUHONICE	100.04	40.9	13	39	0				17 44	
UMEA	103.68	26.9	18	8	253					
NURMIJARVI	105.94	30.2							18 25	PP
RIVERVIEW	115.40	223.8							29 51	
YAKUTSK	125.86	344.5	18	54	0					
CHARTERS TS.	126.68	234.2	18	58	2					
SHIRAZ	130.28	60.9	19	5	2				21 17	
PORT MORESBY	130.96	246.7	19	5	1					
VANNOVSKAYA	132.48	48.6	19	10	3					
ASHKABAD	132.66	48.5	19	7	0					
MATUSIRO	139.31	313.8	19	13	-7				22 41	PP
ALMATA-2	141.60	29.9	19	21	-3					
QUETTA	142.18	55.1	19	23	-2					
WARSAK DAM	143.99	46.6	19	28	0					
LAHORE	147.26	48.1	19	38	4					
PEKING	149.12	339.3	19	39	2					
NEW DELHI	150.91	50.6	19	48K	9					
ZO-SE	153.93	321.2	20	7	23					
LHASA	159.05	28.9	19	56	6					
SHILLONG	162.79	34.2	20	3	9					

JULY 7 19.H 20.M 39.S EPICENTRE 39.67-111.97 DEPTH= 0.KM

A=-0.28880 B=-0.71579 C= 0.63579 D=-0.9274 E= 0.3742
G=-0.2379 H=-0.5896 K=-0.7719 HT= -1.6

SE= 2.79

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
DUGWAY	0.83	309.8	0	19K	0								
PRICE	0.90	93.4	0	16A	-4								
SALT LAKE C.	1.10	4.8	0	23	0	0	35	-4					
UINTA BASIN	1.96	69.8	0	36	1	1	4	4					
FLAMING GRGE	2.34	56.6	0	42	2								
GLEN CANYON	2.71	173.5	0	44	-2						1	30	
EUREKA	3.10	267.8	0	52	1								
BOULDER CITY	4.32	212.5	1	9	0						1	50	
GOLDEN	5.09	87.5	1	19	0								
LARAMIE	5.14	69.4	1	30	10								
TONTO FOREST	5.40	173.8	1	23	-1						1	38	P*
CHINA LAKE	5.89	231.0	1	30	-1	3	10	30					
BOZEMAN	6.04	6.2	1	34	1								
ALBUQUERQUE	6.44	135.3	1	35	-3								
BLUE MTS.	6.52	324.3	1	40	0						2	9	
MOUNT WILSON	7.30	223.7	1	51	0								
PASADENA	7.41	223.9	1	53	1								
MINERAL	7.42	278.3	1	53A	1								
TUCSON	7.46	172.5	1	51	-2								
PRIEST	7.72	245.6	1	59A	3								
RAPID CITY	7.89	53.2	1	57	-2								
LICK	7.93	256.0	2	1A	2								
VINEYARD TE.	7.97	251.5	2	2	2								
SHASTA	8.04	280.7	2	3	2						4	17	
BERKELEY	8.23	260.7	2	3K	-1	4	19	41					
CALISTOGA	8.31	266.3	2	4K	-1								
UKIAH	8.73	270.0	2	16	6	3	51	0					
HUNGRY HORSE	8.80	351.0	2	13	1								
PARAISO	8.86	251.2	2	4	-8								
SPOKANE	8.94	336.1	2	15	2								
LUBBOCK	10.15	123.6	2	31	1								
TUMWATER	10.83	316.3	2	43	4								
SEATTLE	10.93	320.3	2	31	-10	4	37	-8					
PENTICTON	11.08	333.1	2	38	-5								
WICHITA MTS.	11.76	110.7	2	49	-3						3	39	PG
CHIHUAHUA	12.04	154.4	3	1	5	5	25	13					
VICTORIA	12.07	320.9	2	55	-1								
TULSA	13.34	101.2	3	11A	-2						4	10	PG
EDMONTON	13.75	356.5	3	15	-4								
FAYETTEVILLE	14.49	98.7	3	29	1						7	43	
PORT HARDY	15.52	320.5	2	47	-55								
FLORISSANT	16.76	86.1	3	55	-3								
ST. LOUIS 1	16.90	86.5	3	58	-1								
GUADALAJARA	20.33	156.1									10	49	
CUMBERLAND	21.27	92.7	4	49	-1	8	44	1					
TACUBAYA	23.01	147.7									8	59	
SITKA	23.11	326.5	5	13	4								
CLEVELAND	23.14	75.6									9	23	
LONDON ONT.	23.29	71.7	5	11K	1								
VERA CRUZ	24.55	141.6									14	45	
SCARBOROUGH	24.69	69.9	5	23	-1								
BLACKSBURG	24.77	85.6	5	25	0								
COLUMBIA	25.33	93.1	5	30	0								
PENNSYLVANIA	25.97	76.4	5	35	-1								
BREBEUF	28.64	65.6	6	2	2								
PALISADES	28.90	74.9							10	47	-6		
COLLEGE	32.64	332.4	6	36	0								
SCHEFFERVLLE	33.56	48.0	6	43	-1								
RESOLUTE	35.99	7.6	7	3	-2								
MOULD BAY	36.81	357.1	7	12	1								
CARACAS	49.35	113.5	8	54A	1				15	59	-1		
KIRUNA	67.00	17.7	10	55	-2								
SKALSTUGAN	68.02	23.5	11	2	-1								
SODANKYLA	68.77	15.9	11	7	-1								
LA PAZ	69.23	134.7	11	11	0								
UMEA	70.14	20.4	11	13	-3								
KAJAANI	71.79	17.4	11	24	-2								
UPPSALA	72.51	24.1	11	29	-2								
MURMIJARVI	74.05	20.7	11	38	-2								
DOURBES	74.69	36.7	11	43	0								

JENA	77.15	32.7	11	54	-3								12	44	
COLLMBERG	77.46	31.8	11	58	-1										
PRUHONICE	79.11	31.9	12	7	-1										
KASPERSKE H.	79.36	32.9	12	7	-2										
MATUSIRO	80.44	309.8	12	14	-1										

JULY 8 11.H 5.M 8.S EPICENTRE 0.38 -17.85 DEPTH= 33.KM

A= 0.95184 B=-0.30652 C= 0.00653 D=-0.3065 E=-0.9519
G= 0.0062 H=-0.0020 K=-1.0000 HT= 7.2

DEPTH OF FOCUS= 0.000R

SE= 2.54

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
M.BOUR	13.94	3.5	3	17	-1	5	42	-10					
TAMANRASSET	31.82	44.0	6	28A	4	11	40	9			7	34	PP
AVERROES	34.19	15.7	7	39A	54						8	50	PP
BANDEIRA	34.35	117.5	6	45A	-1				6	57	7	58	PP
MALAGA	38.25	17.6	7	20	1	13	21	11					
GRANADA	38.92	18.2	7	31K	6				7	40	9	0	PP
ALMERIA	38.99	19.8	7	27A	2	13	29	8			8	59	PP
ALICANTE	41.02	21.0	7	34K	-8						9	16	PPP
ALGIERS UNI.	41.06	25.9	7	44A	2	14	0	8			9	19	PP
TOLEDO	41.28	16.2	7	47K	3	14	6	10			9	22	PP
BAGNERES	45.46	18.5	8	18	0						10	6	
LWIRO	46.71	93.4	8	26	-2								
BROKEN HILL	48.13	109.8	8	41	2								
MESSINA	48.57	35.3	8	43A	1	15	48	7			10	36	PP
CLERMONT-FD.	48.83	19.4	8	47	3	15	57	13					
ROME	49.56	29.7	8	52A	2	16	4	10			10	48	PP
CARACAS	49.81	283.4	8	50	-2	15	54	-4					
BULAWAYO	49.83	117.0	8	47A	-5								
ROSELEND	50.02	22.3	8	54	0						11	9	PP
AQUILA	50.35	30.0	8	58	2	16	14	9			10	56	PP
FLORENCE X.	50.40	27.2	8	56	0	16	4	-2			10	42	PP
FOLINIERE	50.48	14.8	8	58	1								
BESANCON	51.10	20.7	9	2	0								
VALENTIA	51.77	6.0	9	6	-1	16	32	7					
FELDBERG	52.37	21.8	9	11	0								
STRASBOURG	52.87	21.1	9	16	1	16	49	9			12	19	PPP
TRIESTE	52.98	27.4	9	17	1								
KEW	53.02	13.6	9	17	1	16	47	5					
DOURBES	53.12	17.9	9	17	0	16	50	7					
ATHENS	53.47	40.7	9	19A	0								
STUTTGART	53.58	22.0	9	20	0								
LJUBLJANA	53.64	27.6	9	21A	0								
HEIDELBERG	53.90	21.2	9	22	-1								
ZAGREB	54.16	28.7	9	26	1								
BENSBERG	54.68	19.1	9	21	-7								
CHANGALANE	54.99	122.8									9	39	PP
DE BILT	55.05	17.1	9	32	1	17	16	7					
AREQUIPA	55.46	249.7	9	36	2								
KASPERSKE H.	55.57	24.5	9	34A	-1						11	36	
BELGRADE	55.73	32.3	9	37	1								
DURHAM	55.84	11.3	9	33	-4	17	26	6					
SOFIA	56.00	35.8	9	36	-2						9	55	PP
VIENNA-H.	56.12	26.9	9	39	0								
JENA	56.21	22.0	9	37	-2	17	30	5			11	42	PP
BOGOTA	56.31	275.3	9	37K	-3	17	30	4					
BRATISLAVA	56.39	27.4	9	40	-1								
PRUHONICE	56.63	24.5	9	42	0	17	35	5					
PRAGUE	56.65	24.3	9	41	-2								
HALLE	56.80	21.8	9	43	-1								
COLLMBERG	57.04	22.6	9	44	-1						11	49	PP
CHINCHINA	57.87	275.6	9	42	-9	17	43	-4					
ABERDEEN	58.01	10.0				17	52	3			23	54	
RACIBORZ	58.27	26.5	9	53	-1						10	51	PCP
JERUSALEM	58.99	52.6	9	59	0								
KRAKOW	59.04	27.4	10	0	1						21	16	
UZHGOROD	59.21	29.9	9	59	-2								
SANTA LUCIA	59.86	230.4	10	11	6	18	14	1					
KSARA	60.26	50.6	10	7	-1						13	48	PPP
COPENHAGEN	60.37	19.2	10	9	0	18	29	10					
PALISADES	64.74	316.0				19	18	4					

UPPSALA	65.37	18.8	10	41	-1	19	26	4				
BREBEUF	66.41	320.6	11	1	13						27	10 SSS
SKALSTUGAN	66.87	14.1	10	51	0							
SCHEFFERVLLE	67.32	331.8	10	57	3							
NURMIJARVI	68.26	21.1	11	9	9							
BAKURIANI	68.72	44.8	11	2	-1							
UMEA	69.21	17.0	11	6	0	20	14	6				
TIFLIS	69.62	45.2	11	8	0							
GORIS	70.06	47.8	11	9	-2	20	24	6				
KIROVOBAD	70.39	46.6	11	11	-2	20	25	3				
MOSCOW	70.98	29.5	11	15	-1	20	32	3				
KAJAANI	71.72	19.3	11	20	-1							
CUMBERLAND	71.77	307.4	11	20	-1						20	46
KIRUNA	72.30	14.3	11	24	0	20	52	8				
SHIRAZ	72.80	59.1	11	26	-1	20	53	3			13	47 PP
TROMSOE	73.35	12.6	11	31	0							
SODANKYLA	73.61	16.4	11	32	0							
N-LAZARVSKYA	73.64	170.2	11	31	-1	21	2	3				
APATITY	75.74	18.0	11	44K	0							
KIZYL-ARVAT	77.48	50.0	11	54A	0	21	45	4				
VANNOVSKAYA	78.70	51.4	12	0	-1							
LAWRENCE	79.97	309.4	12	6	-2							
TULSA	80.01	306.3	12	7	-1	22	9	1				
WICHITA MTS.	82.17	304.8	12	17	-2	22	32	2			23	26 PS
LUBBOCK	84.79	303.5	12	33	0							
QUETTA	85.31	59.9	12	35	0				12	50		
RESOLUTE	86.22	344.9	12	42	2							
RAPID CITY	86.39	314.0	12	40	0							
GOLDEN	87.85	309.5	12	48	1							
LARAMIE	88.04	311.1	12	50	2							
ALBUQUERQUE	88.64	304.8	12	52	1							
WARSAK DAM	89.29	56.2	12	54	0							
SOUTH POLE	90.37	180.0	13	2	3							
FLAMING GRGE	90.92	310.8	13	3	1							
UINTA BASIN	91.07	310.1	13	3	0	24	2	7			25	19 PS
TUCSON	92.33	302.1	13	4	-4							
MOULD BAY	92.37	346.4	13	11	2							
BYRD STATION	92.39	189.8	13	14	5							
TONTO FOREST	92.62	304.2	13	9	-1				13	18	18	55 PPP
EDMONTON	93.00	323.3	13	10	-2							
EUREKA	96.04	309.6	13	31	6							
BLUE MTS.	96.45	315.1	13	27	0						26	17 PS
MATUSIRO	137.07	28.7	19	11	-9						19	21 PKP2
CHARTERS TS.	154.98	142.5									20	8

JULY 8 16.H 2.M 31.S EPICENTRE 36.46 28.03 DEPTH= 57.KM

A= 0.71158 B= 0.37881 C= 0.59174 D= 0.4699 E=-0.8827
G= 0.5223 H= 0.2781 K=-0.8061 HT= -0.4

DEPTH OF FOCUS= 0.004R

SE= 3.47

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ATHENS	3.75	294.9	0	52K	-5						1	50	SG
ISTANBUL UN.	4.63	9.0	1	2	-7						2	29	SGSG
ISTANBUL KA.	4.67	9.7	1	8	-2								
PATRAS	5.31	291.3	1	18	-1								
KSARA	6.95	110.0	1	39	-3	3	1	1					
SOFIA	7.21	331.2	2	40	55	3	58	52			4	43	SG
SKOPJE	7.51	319.1									4	58	
JERUSALEM	7.57	126.0	1	48	-2	3	11	-4					
TITOGRAD	9.02	314.0				3	51	0			5	32	
SIMFEROPOL	9.65	26.7	2	14	-5	3	55	-12					
MESSINA	10.09	283.6	2	19	-6	4	7	-10					
BELGRADE	10.13	327.8	2	35	10						5	37	
TIMISOARA	10.60	333.2									5	27	
AQUILA	12.74	301.9									3	3	PP
UZHGOROD	12.86	342.7	3	0	-2								
ROME	13.22	299.0	3	6	-1						7	35	
LWOW	13.66	349.0	3	18	6								
LJUBLJANA	13.94	317.5	3	13	-3								
TRIESTE	14.13	314.9	3	23	4	6	7	13			7	41	
BRATISLAVA	14.20	328.8	3	19	0	6	49	53					
GORIS	14.75	72.6	3	29	2								

FLORENCE K.	14.76	304.8	3 5	-22						
KRAKOW	14.79	339.2	3 27	0					8 34	PCP
GROZNY	15.21	57.8	3 37	4						
RACIBORZ	15.36	335.5	3 36	2					3 56	PPP
MAKHACH-KALA	16.31	60.6	3 46	-1						
KASPERSKE H.	16.47	324.7	3 46	-3	7 2	13			5 39	
WARSAW	16.53	344.7	3 50	1					3 57	PP
PRUHONICE	16.67	328.4	3 51	0	7 3	10				
PAVIA	16.69	307.2							10 9	
PRAGUE	16.78	328.4	3 52	0						
SETIF	18.23	275.9	4 8	-2						
COLLMBERG	18.31	328.8	4 8	-3					4 25	PP
TUBINGEN	18.40	316.8	4 13	1						
STUTTGART	18.42	317.7	4 9	-4						
ROSELEND	18.53	306.4	4 11	-3						
FELDBERG	18.66	313.9	4 11	-4						
JENA	18.66	325.9	4 11	-4	7 44	6			10 47	
HALLE	18.90	327.7	4 15	-3			4 21			
KARLSRUHE	19.03	317.3	4 40	20						
HEIDELBERG	19.09	318.7	4 17	-3						
STRASBOURG	19.15	315.5	4 19	-2	7 59	10			5 15	
BESANCON	19.58	310.2	4 21	-5					5 24	
WELSCHBRUCH	19.88	313.6	4 20	-9						
ALGIERS UNI.	20.04	278.3	4 26	-5	8 9	1				
MOSCOW	20.35	15.7	4 30	-4	8 10	-4				
BENSBERG	20.81	320.7	4 36A	-3						
CLERMONT-FD.	20.87	304.2	4 37	-2						
MUNSTER	21.20	323.4	4 39	-4						
KARLSKRONA	21.43	340.7	4 40	-5						
SHIRAZ	21.59	101.3	4 48A	1	8 45	8			5 13	PP
DOURBES	21.71	316.2	4 48	0						
BAGNERES	22.36	295.7	4 56	2						
PULKOVO	23.37	2.9	5 1	-3						
GOTEBORG	23.77	338.4	5 5	-3						
TAMANRASSET	23.78	241.2	5 9K	1	9 24	8			5 38	PP
HELSINKI	23.80	356.2	5 6	-2						
VANNOVSKAYA	23.95	77.4	5 12	2						
ASHKABAD	24.15	77.3	5 13	1						
NURMIJARVI	24.16	355.9	5 13	1	9 33	10				
FOLINIERE	24.16	309.5	5 9	-3						
UPPSALA	24.35	347.2	5 10	-3	9 27	1				
TOLEDO	25.38	287.5	5 21A	-2	9 53	10			5 47	
MALAGA	25.98	280.3							10 14	
KAJAANI	27.65	359.7	5 44	0					7 50	
UMEA	27.79	352.6	5 43	-3	10 38	15				
SKALSTUGAN	28.80	345.4	5 50	-5						
SODANKYLA	30.96	358.9	6 24	10						
APATITY	31.29	4.0	6 19A	2						
KIRUNA	31.71	354.5	6 17	-3						
QUETTA	32.96	89.5	6 32K	1						
TROMSOE	33.59	354.3	6 30	-7						
NEW DELHI	41.83	86.3	7 47A	1						
CHATRA	50.57	83.3	8 56K	1						
CHILEKA	52.27	171.5	9 9	1						
SHILLONG	54.90	82.2	9 26	-1						
BULAWAYO	56.30	179.3	9 38	1						
ULAN-BATOR	57.14	51.8	9 43	0						
TIKSI	59.13	21.3	9 55	-2						
YAKUTSK	63.59	31.0	10 24A	-3						
MOULD BAY	65.68	351.8	10 37	-3						
COLLEGE	78.95	358.2	11 57	-2						
EDMONTON	84.47	337.9	12 26	-2						
CUMBERLAND	85.42	311.5	12 30	-2						
TULSA	91.07	317.6	12 58A	-1						
BLUE MTS.	93.20	336.1	13 6	-3					13 31	
WICHITA MTS.	93.47	318.5	13 8	-2					13 34	
UINTA BASIN	94.23	328.9	13 13	-1						
EUREKA	97.47	332.7	13 28	-1						
TONTO FOREST	100.03	326.7	13 39	-1			13 45		17 24	PP

JULY 8 17.H 49.M 26.S EPICENTRE 65.78-154.25 DEPTH= 0.KM

A=-0.37153 B=-0.17923 C= 0.91096 D=-0.4345 E= 0.9007
G=-0.8205 H=-0.3958 K=-0.4125 HT=-10.7

SE= 1.81

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	•PP M	•PP S	SUPP. M	SUPP. S	
COLLEGE	2.85	105.8	0	45	-2	1	15	-8					
SITKA	12.54	125.3	3	3	0								
MOULD BAY	15.10	31.8	3	34	-2						6	15	
PORT HARDY	20.38	124.8	4	40A	-1								
RESOLUTE	20.92	39.8	4	46	-1								
EDMONTON	23.62	101.9	5	13A	0								
VICTORIA	23.66	121.9	5	16A	2								
PENTICTON	24.36	115.7	5	21	0								
SEATTLE	24.79	121.4	5	35	10	9	43	-2					
MAGADAN	25.23	282.0	5	29	0								
ALERT	25.67	17.7	5	35	2								
PETROPAVLOVK	26.42	264.1	5	40	0								
SPOKANE	26.53	114.8	5	40	-1						13	52	
TIKSI	26.67	316.5	5	42	0								
HUNGRY HORSE	27.28	110.0	5	48	0								
BLUE MTS.	28.98	118.1	6	2A	-1						11	15	
BUTTE	29.77	111.0	6	10	0								
BOZEMAN	30.64	109.7	6	17	-1								
SHASTA	30.89	128.6	6	21K	1						6	41	
MINERAL	31.47	127.8	6	26A	1								
YAKUTSK	31.76	299.6	6	28A	0								
CALISTOGA	32.71	130.5	6	35A	-1								
BERKELEY	33.51	130.6	6	42K	-1	12	6	1					
EUREKA	34.16	121.4	6	50	1								
SALT LAKE C.	34.52	115.4	6	52	0								
DUGWAY	34.66	117.0	6	54K	1								
PARAISO	34.90	131.8	6	58	3								
RAPID CITY	35.07	102.7	6	56	-1								
FLAMING GRGE	35.31	112.4	6	59	0								
PRIEST	35.61	129.7	6	57K	-4								
UINTA BASIN	35.77	113.1	7	1	-2						9	55	
LARAMIE	36.46	107.8	7	8	0								
Y.-SAKHLINSK	37.60	271.7	7	18	0								
BOULDER CITY	37.69	122.6	7	19	0								
GOLDEN	37.92	109.0	7	20	-1								
PASADENA	38.23	127.9	7	28	5								
TONTO FOREST	40.47	119.6	7	42	0				7	48	8	54	PCP
SCHEFFERVLLE	41.11	61.6	7	47	0								
ALBUQUERQUE	41.66	113.7	7	52	0								
LAWRENCE	42.59	99.1	8	4	5								
TROMSOE	44.78	3.4	8	20	3								
WICHITA MTS.	44.91	105.6	8	16	-2	14	56	-1			18	22	SS
TULSA	45.00	101.9	8	18A	-1	14	54	-4					
BREBEUF	45.99	74.8	8	26	-1						18	28	SS
KIRUNA	46.61	2.8	8	32	0	15	20	-1					
APATITY	46.84	356.0	8	34	1								
SODANKYLA	47.13	359.5	8	36A	0								
MATUSIRO	48.17	267.3	8	44	0	15	39	-4					
CUMBERLAND	49.45	92.3	8	53	-1						19	56	SS
PALISADES	49.62	78.3				16	0	-3			19	42	SCS
BLACKSBURG	50.19	86.6	8	58	-1								
KAJAANI	50.43	358.9	9	2A	1								
SKALSTUGAN	50.56	7.8	9	2	0								
UMEA	50.63	3.2	9	3A	0	16	17	0					
ULAN-BATOR	50.85	301.0	9	4	0								
NURMIJARVI	54.02	0.7	9	28	0	17	8	4			19	18	
PEKING	54.13	288.7	9	28	-1								
HELSINKI	54.36	0.5	9	31	0								
SVERDLOVSK	54.90	337.4	9	34	-1								
ESEN BULAK	55.79	307.9	9	41	0								
SEMIPALATNSK	56.86	321.5	9	46	-3								
MOSCOW	58.48	352.2	10	1	1								
LANCHOW	62.31	296.4	10	26	0								
COLLMBERG	62.84	9.0	10	30	0								
JENA	63.11	10.0	10	29	-3						11	4	
DOURBES	63.31	15.1	10	36	3								
FOLINIERE	64.00	19.0	10	40	3								
ALMATA-2	64.21	320.5	10	37	-2								
PRUHONICE	64.25	8.0	10	40	1	19	21	5					
KASPERSKE H.	65.04	8.8	10	44	0						11	55	
STUTTGART	65.08	11.9	10	45	1								
WELSCHBRUCH	65.16	14.1									14	58	
FRUNSE	65.33	322.4	10	46K	0								
UZHGOROD	65.89	2.5	10	49	-1								
ROSELEND	67.88	14.4	11	3	1								
TASHKENT	68.04	326.0	11	1	-2								

TOLEDO	72.16	23.7	11	29	1									
LHASA	72.66	304.1	11	33	2									
KIROVOBAD	72.71	343.7	11	32	0									
GORIS	73.84	343.6	11	38	0									
MALAGA	75.18	24.7											26	49
NEW DELHI	78.03	315.3	12	1	-1									
QUETTA	79.23	324.5	12	8K	-1				12	21				
SHIRAZ	82.66	336.7	12	27A	0									
SCOTT BASE	145.32	193.6	19	39	-1									
BYRD STATION	146.91	169.5	19	45	3									

JULY 9 3.H 4.M 42.S EPICENTRE 46.76 153.63 DEPTH= 61.KM

A=-0.61596 B= 0.30542 C= 0.72616 D= 0.4442 E= 0.8959
G=-0.6506 H= 0.3226 K=-0.6875 HT= -4.2

DEPTH OF FOCUS= 0.004R

SE= 2.05

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
PETROPAVLOVK	7.06	25.5	1	49	6						3	0
Y.-SAKHLINSK	7.48	276.0	1	49A	0	3	18	5				
UGLEGORSK	8.10	290.9	1	55	-3							
OKHA	9.65	318.7	2	20	1						4	27
MAGADAN	12.92	353.6	3	0	-3							
MATUSIRO	15.37	233.9	3	28	-7	6	25	2				
VLADIVOSTOK	15.80	264.6	3	37A	-3							
YAKUTSK	20.48	326.9	4	34K	-1	8	25	9				
TIKSI	27.54	343.3	5	42	-1						14	50
PEKING	27.84	269.7	5	45A	-1							
ZO-SE	29.43	249.5	6	UA	0	10	54	6				
NANKING	30.38	253.6	6	9	1	11	9	6				
ULAN-BATOR	31.31	289.5	6	15	-2	11	16	-2				
COLLEGE	35.92	38.4	6	57	1						7	31
LANCHOW	38.27	272.1	7	16A	0	13	10	5				
ESEN BULAK	38.68	291.1	7	20	1							
CANTON	39.99	247.9	7	31	1							
BAGUIO CITY	40.79	233.2	7	36	-1							
CHENGTU	41.21	265.1	7	41A	1	13	59	10				
MOULD BAY	44.48	20.0	8	7	0							
KUNMING	45.59	259.9	8	17A	1	15	1	8				
KIPAPA	46.42	106.0				15	16	11				
HONOLULU	46.45	106.2				15	20	15				
SEMIPALATNSK	46.85	302.8	8	23	-3							
ALERT	49.72	5.8	8	49	1							
RESOLUTE	50.72	18.6	8	56	0							
LHASA	50.74	273.5	8	58A	2							
FRUNSE	53.96	296.7	9	19	-1							
PENTICTON	54.93	53.0	9	26	-1							
CHATRA	55.15	273.5	9	30	1							
EDMONTON	55.96	46.2	9	30	-4							
APATITY	57.48	336.8	9	44K	-1	17	36	0				
TASHKENT	58.09	298.0	9	48	-1							
SHASTA	58.23	62.8	9	51A	1							
HUNGRY HORSE	58.52	51.4	9	53	1							
BLUE MTS.	58.78	56.3	9	54	0	18	1	8			10	14
TROMSOE	59.28	343.2	9	57	-1							
SODANKYLA	59.37	338.9	9	57	-1						10	59
BERKELEY	60.02	65.3									25	24
KIRUNA	60.45	341.5	10	5A	-1	18	23	8	10	16		
NEW DELHI	60.82	281.7	10	7A	-1							
LAHORE	60.85	286.1	10	8	0							
KAJAANI	61.64	336.1	10	13	-1							
EUREKA	62.87	60.4	10	22	0							
UMEA	63.81	338.9	10	28A	0	19	3	6	10	38		
CHINA LAKE	64.21	64.5	10	30	-1				10	41		
MOSCOW	64.64	325.8	10	33	-1							
NURMIJARVI	65.35	335.0	10	37K	-1	19	14	-2			14	38 PPP
HELSINKI	65.53	334.6	10	39	0							
FLAMING GRGE	65.76	55.6	10	41	0							
SKALSTUGAN	65.84	342.2	10	40	-1							
UINTA BASIN	66.06	56.2	10	43	0	19	36	12				
QUETTA	66.56	289.6	10	47A	1							
RAPID CITY	67.02	49.7	10	48	-1							
LEMBANG	67.14	230.8									12	57

UPPSALA	67.84	337.7	10	53	-1				11	4		
TONTO FOREST	69.11	62.0	11	2	0				11	12	11	22 PCP
GOTEBORG	71.15	339.4	11	5	-9				11	15		
ALBUQUERQUE	71.53	58.6	11	11	-5							
TIFLIS	71.62	311.7	11	18	1							
GORIS	72.43	309.2	11	23A	1	20	53	14				
SIMFEROPOL	74.29	320.1	11	33A	0							
KRAKOW	75.59	331.2	11	40	0						11	52 PCP
UZHGOROD	75.99	329.1	11	41	-1							
SHIRAZ	75.99	298.3	11	43A	1	21	24	5	11	55	13	58 PP
WICHITA MTS.	76.19	53.9	11	43	0	21	30	9			26	26 SS
COLLMBERG	76.61	335.8	11	46	0						11	58 PCP
HALLE	76.72	336.5	11	49	3				11	59		
JENA	77.34	336.5	11	50	0							
PRUHONICE	77.34	334.3	11	54	4							
BRATISLAVA	78.14	331.9	11	54	0							
KASPERSKE H.	78.38	334.5	11	56A	0							
BENSBERG	78.46	339.1	11	56	0							
BREBEUF	79.17	31.7	12	0	0							
ISTANBUL UN.	79.67	320.8	12	4	1	23	6	67				
DOURBES	79.87	340.3	12	6	2							
STUTTGART	79.93	336.9	12	5	1							
STRASBOURG	80.50	337.8	12	9	2	22	6	-1			12	49
WELSCHBRUCH	81.02	338.6	12	12	2							
KSARA	82.19	312.0	12	18	2							
FOLINIERE	82.22	343.0	12	17	1							
CUMBERLAND	82.31	44.9	12	16	-1	22	34	8				
BLACKSBURG	83.40	40.6	12	23	1							
JERUSALEM	84.14	311.1	12	29	3							
TOLEDO	91.47	343.0	14	1	60							
SETIF	92.62	334.8	13	5	-1							
N-LAZARVSKYA	149.79	204.0	19	43A	5							

JULY 9 9.H 24.M 34.S EPICENTRE 8.38 -83.18 DEPTH= 39.KM

A= 0.11748 B=-0.98247 C= 0.14477 D=-0.9929 E=-0.1187
G= 0.0172 H=-0.1437 K=-0.9895 HT= 6.7

DEPTH OF FOCUS= 0.001R

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
BALBOA HTS.	3.63	80.6	0	51	-4	1	46	9				
SAN SALVADOR	7.91	312.2	1	55	0							
GALERAZAMBA	8.16	72.4				4	6	35				
CHINCHINA	8.24	113.8	1	59A	-1	3	41	8				
BOGOTA	9.79	111.9	2	21K	0	4	18	7				
FUQUENE	9.82	106.5	2	21	-1							
COMITAN	11.73	312.7	2	54	6	5	14	16			5	28
OAXACA	15.79	304.3	3	50	9						7	6
CARACAS	16.17	81.2	3	45K	-1	6	42	-2				
TACUBAYA	19.00	306.9	4	25	4	8	11	23				
SAN JUAN	19.33	57.3	4	25A	0						8	10
HUANCAYO	21.74	158.9	4	50	0							
ST. KITTS	21.82	63.9	4	54	3							
ST. CLAUDE	22.31	68.0	4	57	2	9	9	16				
FORT FRANCE	22.48	71.7	4	59	2	9	11	15				
HOUSTON	24.13	333.2	5	13	0							
COLUMBIA	25.57	4.1	5	29	2	10	3	13				
CUMBERLAND	27.17	355.7	5	40	-2	10	24	8			9	56
DALLAS	27.42	334.5	5	44	0							
CHAPEL HILL	27.67	7.2	5	46	0							
BLACKSBURG	28.81	4.6	5	56	-1							
LA PAZ	28.86	148.9	5	58	1	10	52	9				
BERMUDA	29.41	33.1	6	1	-1							
CHIHUAHUA	29.51	316.0	6	18	15	11	20	27			13	38
TULSA	29.72	339.1	6	3	-2	11	2	5				
WICHITA MTS.	29.79	333.9	6	3	-2	11	0	2			6	54 PP
ST. LOUIS 1	30.79	349.2	6	13	-1							
GEORGETOWN	30.88	9.3	6	16	1	11	20	5				
FLORISSANT	30.97	349.0	6	14	-2							
TERRE HAUTE	31.07	353.7	6	16	-1	11	26	8				
MORGANTOWN	31.25	4.8	6	19	1						11	35
LAWRENCE	32.33	342.3	6	28	0							
PENNSYLVANIA	32.63	7.5	6	33	3							

FORDHAM	33.38	12.9	6	38	1	11	58	4				
PALISADES	33.52	12.8	6	38A	0	12	4	8	6	52	9	54 PCP
ALBUQUERQUE	33.98	324.5	6	41	-1							
ANTOFAGASTA	34.24	158.9	6	44	0	12	17	10				
LONDON ONT.	34.57	2.6	6	46A	-1							
TONTO FOREST	36.49	319.0	7	5	2				7	16	8	29 PP
GOLDEN	36.97	331.0	7	7	0							
OTTAWA	37.44	8.7	7	11	0							
BREBEUF	37.89	11.0	7	15A	0	13	10	6			8	47 PP
UINTA BASIN	39.56	327.7	7	29	0	13	32	3			9	15 PP
RAPID CITY	39.61	337.2	7	29	0	13	28	-1				
HALIFAX	39.91	21.9	7	31	-1							
SALT LAKE C.	41.10	326.3	7	42	0							
PASADENA	41.13	313.7	7	44	2	14	4	12				
DUGWAY	41.25	324.9	7	46	3							
EUREKA	42.65	321.8	7	50	-4						9	38 PPP
PRIEST	43.89	314.7	8	7A	2							
BOZEMAN	44.23	332.0	8	8	1							
LICK	45.17	315.7	8	17K	2							
PARAISO	45.20	314.0	8	11	-4							
BUTTE	45.20	331.2	8	14	-1							
BERKELEY	45.86	316.0	8	22K	2	15	14	13			9	58 PP
CALISTOGA	46.46	316.7	8	19A	-6							
MINERAL	46.70	319.3	8	27K	0							
BLUE MTS.	46.81	326.8	8	27	-1	15	23	9			10	1 PCP
SHASTA	47.39	319.2	8	31A	-1							
HUNGRY HORSE	47.58	332.4	8	34	0							
SCHEFFERVLLE	48.13	12.7	8	36	-2							
SPOKANE	48.73	329.7	8	38	-5							
BANFF	50.31	334.0	8	52	-3							
PENTICTON	50.92	330.0	8	59	0							
EDMONTON	51.07	337.2	8	58K	-3							
SEATTLE	51.27	326.8	8	57	-5	16	15	-2				
VICTORIA	52.39	327.2	9	10K	0							
PORT HARDY	55.82	327.5	9	36A	0							
GODHAVN	63.79	11.3	10	26K	-4	19	1	0				
M.BOUR	65.01	78.1	10	37	-1	19	22	6				
RESOLUTE	66.60	356.6	10	46K	-2							
MOULD BAY	70.61	351.4	11	11	-2							
COLLEGE	71.83	336.0	11	20	-1						13	59 PP
SCORESBY SD.	72.76	18.0	11	25	-1							
KIPAPA	72.92	289.8	11	31	4						21	4 SP
HONOLULU	73.00	289.7	11	31	3	21	4	14				
AVERROES	73.56	57.8	11	29	-2	21	21	24				
ALERT	74.61	2.8	11	36	-1							
TOLEDO	76.35	51.0	11	46K	-1	21	36	8			14	56 PP
GRANADA	76.70	53.8	11	51K	2	21	46	15				
ALMERIA	77.61	54.1	11	53K	-1	21	47	6				
ABERDEEN	78.17	33.4									20	21
DURHAM	78.36	35.8	11	51A	-7	21	57	8			12	1 PCP
FOLINIERE	78.95	42.0	12	0	-1							
KEW	79.05	39.2	12	1	-1	21	59	2				
BAGNERES	79.47	47.8	12	4	0							
GARCHY	81.37	43.4	12	18K	4							
CLERMONT-FD.	81.48	44.9	12	14	-1							
DOURBES	82.22	40.5	12	20	1	22	37	8				
DE BILT	82.45	38.5	12	20	0	22	40	8				
SETIF	83.98	54.4	12	25	-2							
STRASBOURG	84.41	41.8	12	30	0	22	56	5			15	51 PP
SKALSTUGAN	84.99	26.6	12	31K	-2							
STUTTGART	85.39	41.5	12	37	3	23	6	5				
TAMANRASSET	85.62	67.7	12	37K	1	23	10	7			15	56 PP
COPENHAGEN	86.31	34.4	12	39	0	23	10	0				
TROMSOE	86.39	20.1	12	39	0							
JENA	86.55	39.2	12	39	-1	23	8	-4			16	9
HALLE	86.69	38.6	12	40	-1	23	22	8				
PRATO	87.33	46.2				23	39	19			13	26
COLLMBERG	87.37	38.7	12	43	-1							
KIRUNA	87.39	21.7	12	43	-1	23	11	-9			16	10 PP
FLORENCE X.	87.45	46.3	12	51	6	23	21	0				
PADOVA	87.63	44.6				23	31	9				
KASPERSKE H.	88.13	40.7	12	48K	0							
UPPSALA	88.21	29.7	12	47	-1	23	25	-3				
UMEA	88.40	25.6	12	48K	-1	23	15	-15				
PRAGUE	88.50	39.7	12	50	0							
PRUHONICE	88.59	39.8	13	0	10	23	41	10			23	24 SKS
ROME	88.66	48.0	12	53	3	23	22	-10				
TRIESTE	88.89	44.1	12	52A	1	23	46	12	16	34	23	23 SKS

AQUILA	89.25	47.4	12	56	3	23	26	-12			30	6
SODANKYLA	89.79	21.4	12	54	-2							
VIENNA-H.	90.12	41.2	12	57	0							
BYRD STATION	90.20	185.9	12	59	1							
BRATISLAVA	90.61	41.2	12	58	-2	23	34	-16			30	56 SS
NURMIJARVI	91.39	28.1	13	3	0	24	2	5			16	40 PP
KAJAANI	91.43	24.3	13	1	-2							
MESSINA	91.67	51.2									23	34
KRAKOW	91.95	38.9	13	10	4	23	43	-19			16	56 PP
WARSAW	92.01	36.6	13	6	0	24	8	6			16	38 PP
APATITY	92.10	20.1									16	46
TARANTO	92.47	48.7									19	51
LWOW	94.55	38.4	13	22	4	24	52	28				
ISTANBUL UN.	100.82	45.5	13	47	1						17	51 PP
WELLINGTON	104.53	229.6									32	56 SS
KSARA	108.66	50.2									19	59
SHIRAZ	123.04	46.5									20	34
PEKING	128.61	341.0	19	4	1						21	8 PP
WARSAK DAM	131.51	28.3	19	11	2							
QUETTA	132.11	35.5	19	12	2							
ZO-SE	134.33	330.4	19	19	5						22	48 PKS
NANKING	134.65	333.5	19	20	5						21	46 PP
LANCHOW	135.32	351.9	19	19	3						21	46 PP
CHENGTU	140.58	350.2	19	25	0						23	7 PKS
LHASA	141.79	8.1	19	31	3							
CANTON	144.79	333.0	19	35	2						22	55 PP
HONG KONG	145.09	331.1	19	18	-15							
SHILLONG	145.91	8.0	19	36K	1							
BAGUIO CITY	145.94	316.3	19	38	3							
KUNMING	146.21	350.3	19	38K	3						23	22 PKS

JULY 10 2.H 12.M 3.S EPICENTRE 36.36 71.43 DEPTH= 105.KM

A= 0.25710 B= 0.76515 C= 0.59029 D= 0.9479 E=-0.3185
G= 0.1880 H= 0.5596 K=-0.8072 HT= -0.4

DEPTH OF FOCUS= 0.011R

SE= 2.51

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KHOROG	1.12	4.2	0	24A	1	0	41	1				
WARSAK DAM	2.36	177.5	0	40	1	1	15	8				
OBI-GARM	2.71	330.0	0	45A	2							
GARM	2.78	341.6	0	45A	1						1	26
MURGAB	2.83	44.1	0	47	2	1	18	-1				
DZERGETAL	2.86	356.9	0	47	2							
DUZHANBE	3.05	317.0	0	48	0	1	22	-2				
FERGANA	4.02	3.8	1	3K	2	1	46	-2				
ANDIJAN	4.44	9.3	1	8A	1						1	55
NAMANGAN	4.61	2.3	1	10	1						2	0
TASHKENT	5.23	342.0	1	18A	0						2	14
LAHORE	5.37	152.5	1	19	-1	2	15	-6				
TCHIMKENT	6.10	347.1	1	30	1	2	36	-2			3	9
NARYN	6.19	33.8	1	30	-1							
FRUNSE	6.91	19.9	1	41A	0						2	55
RYBACHE	7.10	29.7	1	45	2						3	25
QUETTA	7.21	212.6	1	46	1						3	3
ALMATA	8.10	29.9	1	56	-1	3	22	-5			2	27
DEHRA DUN	8.18	135.5	1	59	1	3	22	-7			3	34 SS
ALMATA-2	8.27	31.7	1	57K	-2	3	25	-7				
KURMENTY	8.47	36.4	2	0	-2							
CHILIK	8.97	34.5	2	7	-1	4	2	14				
NEW DELHI	9.16	146.2	2	7K	-4	3	42	-11				
ASHKABAD	10.56	282.5	2	28	-2	4	21	-6				
VANNOVSKAYA	10.76	282.4	2	30	-3	4	27	-4				
KIZYL-ARVAT	12.32	287.8	2	51A	-2							
SEMIPALATNSK	15.41	21.7	3	31	-2						6	28
TEHERAN	16.22	273.7	3	48	5	6	54	15				
CHATRA	16.42	120.9	3	42A	-4	6	33	-11				
SHIRAZ	17.20	252.5	3	58	3						7	5 SKP
LHASA	17.75	106.6	4	1K	-1	7	5	-9				
ELTSOVKA	19.83	27.0	4	24	-1							
GORIS	20.03	286.6	4	31	4						5	1
KIROVOBAD	20.08	289.9	4	32	4	8	10	8				
ESEN BULAK	21.08	53.9	4	35	-3	8	26	5				

TIFLIS	21.32	292.7	4	44	4					8	36
LANCHOW	26.09	81.0	5	28K	2						
CHENGTU	27.67	92.3	5	42	2						
ULAN-BATOR	28.48	54.9	5	50	2						
MOSCOW	29.98	321.0	6	4	3						
PEKING	35.08	70.1	6	47	2						
UZHGOROD	37.62	304.7	7	10	3						
APATITY	37.88	337.3						7	38		
HELSINKI	37.89	323.8	7	11	2					7	37
KAJAANI	38.13	330.5	7	12	1					8	38 PP
NURMIJARVI	38.14	324.3	7	13K	2	13	36 40			8	50 PP
KRAKOW	39.18	307.0	7	22	3					7	45
SODANKYLA	40.01	334.9	7	28	2					7	53
BRATISLAVA	41.09	304.2	7	27	-8						
UMEA	41.11	328.3	7	37	2			8	1		
UPPSALA	41.39	322.0	7	41	3			8	5		
KARLSKRONA	42.02	316.3						8	22		
KIRUNA	42.36	334.0	7	47	1			8	21		
PRUHONICE	42.65	307.1	7	53	5					8	28
LJUBLJANA	43.07	301.3	7	55	4					8	31
KASPERSKE H.	43.34	305.9	7	57	3					10	15
TROMSOE	43.53	336.2	7	57	2						
COLLMBERG	43.55	309.1	7	58	3					10	59
JENA	44.47	308.6	8	5	2					10	31
SKALSTUGAN	44.51	326.8						8	26		
KONGSBERG	45.39	321.1	8	12K	2			8	22		
TIKSI	45.77	21.9	8	11	-2						
VLADIVOSTOK	46.11	62.1	8	18A	2						
ROSELEND	48.55	302.2	8	38	3					9	31
DOURBES	48.99	308.3	8	1	-37						
GARCHY	50.58	305.0	8	53K	3						
SETIF	52.24	290.8	9	3	0					9	40
FOLINIERE	52.52	307.6	9	7	2						
MATUSIRO	52.69	68.5	9	6	0					10	20 PCP
TOLEDO	57.81	298.3	9	44	1					10	33
TAMANRASSET	57.90	276.0	10	21	37						
BROKEN HILL	64.79	226.9	10	33	3						
MOULD BAY	67.47	2.8	10	47A	0						
BULAWAYO	69.25	223.1	11	0K	2						
COLLEGE	74.52	16.3	11	57	28						
CHARTERS TS.	90.18	114.9	13	9	19						
TONTO FOREST	109.67	2.4								19	10 *PPP

JULY 10 3.H 14.M 47.S EPICENTRE 46.64 153.37 DEPTH= 65.KM

A=-0.61586 B= 0.30885 C= 0.72479 D= 0.4483 E= 0.8939
G=-0.6479 H= 0.3249 K=-0.6890 HT= -4.2

DEPTH OF FOCUS= 0.005R

SE= 2.21

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
KURILSK	4.09	251.7	0	58A	-3	1	51	2				
PETROPAVLOVK	7.24	26.2	1	46	1						3	17
Y.-SAKHLINSK	7.31	276.8	1	45	-1						3	21
UGLEGORSK	7.98	291.9	1	56	1						3	37
KLYUCHI	10.75	23.0				4	53	20				
MIZUSAWA	11.69	234.4				4	43	-12			6	4
MAGADAN	13.02	354.2	3	5	2						8	21
MATUSIRO	15.16	233.6	3	24	-7	6	17	-1				
VLADIVOSTOK	15.61	264.7	3	42A	5							
CHANGCHUN	19.92	272.1	4	23	-6	7	57	-7				
YAKUTSK	20.48	327.3	4	34K	0							
TIKSI	27.60	343.5	5	41	-2						6	34 PP
PEKING	27.66	269.8	5	43	0	10	22	3			6	32 PP
ZO-SE	29.23	249.4	5	57	0	10	50	6				
NANKING	30.18	253.5	6	3	-3	11	2	3				
ULAN-BATOR	31.18	289.6	6	12	-3							
SIAN	35.56	265.8	6	53	0	12	29	6				
COLLEGE	36.12	38.3	6	57	0	12	37	5			15	29
LANCHOW	38.10	272.1	7	14A	0	13	6	4				
CANTON	39.79	247.7	7	26	-2	13	33	6			9	8 PP
BAGUIO CITY	40.58	233.0	7	31	-3							
CHENGTU	41.02	265.0	7	39	1	13	51	6				
MOULD BAY	44.65	19.9	8	8A	0							

KUNMING	45.40	259.8	8	13	-1	14	55	6			10	1 PP
KIPAPA	46.56	105.7				15	13	7				
HONOLULU	46.59	105.9	8	25	2	15	20	14				
ALERT	49.85	5.8	8	48	0							
LHASA	50.57	273.4	8	56	2	16	12	10				
RESOLUTE	50.89	18.6	8	56A	0							
ALMATA-2	51.92	295.8	9	4A	0							
SHILLONG	52.55	268.8	9	8A	-1							
CHATRA	54.98	273.4	9	27A	0							
PENTICTON	55.14	52.8	9	28	0							
EDMONTON	56.16	46.1	9	35A	0							
APATITY	57.51	336.8	9	43A	-2	17	34	-1			21	33 SS
TASHKENT	57.98	297.9	9	50	2						17	0
SHASTA	58.44	62.6	9	52K	1							
HUNGRY HORSE	58.73	51.2	9	53	0							
BLUE MTS.	58.99	56.1	9	35	-20	18	7	12			19	42 SCS
TROMSOE	59.34	343.1	9	57	0							
SODANKYLA	59.41	338.9	9	57	-1							
BERKELEY	60.23	65.1									16	19
KIRUNA	60.50	341.4	10	4	-1	18	19	5				
NEW DELHI	60.67	281.6	10	5K	-1							
WARSAK DAM	60.99	289.9	10	8	-1							
KAJAANI	61.67	336.1	10	12K	-1							
EUREKA	63.08	60.2	10	18	-5							
UMEA	63.85	338.9	10	26A	-2	19	1	5				
PULKOVO	64.21	331.9	10	30	0						14	27 PPP
CHINA LAKE	64.42	64.3	10	31	0				10	43		
DUGWAY	64.48	57.9	10	31	-1							
MOSCOW	64.63	325.7	10	34	1							
NURMIJARVI	65.37	334.9	10	36K	-1	19	17	2			12	54 PP
HELSINKI	65.56	334.5	10	37	-2							
SKALSTUGAN	65.90	342.1	10	39	-2							
FLAMING GRGE	65.97	55.4	10	43	2							
UINTA BASIN	66.27	56.0	10	43	0	19	39	13			20	37 SCS
ASHKABAD	66.66	300.9	10	47	1							
CHARTERS TS.	66.73	187.3	10	45	-1	19	36	5				
UPPSALA	67.88	337.6	10	52A	-1							
TONTO FOREST	69.32	61.8	11	3	1				11	11	11	17 PCP
KONGSBERG	69.98	341.4	11	7A	1				11	17		
BERGEN	70.19	343.8	11	8	1							
TUCSON	70.98	63.1	11	16	4							
GOTEBORG	71.19	339.3	11	12	-2							
TIFLIS	71.56	311.6	11	17	1						28	25 SSS
KARLSKRONA	71.62	336.7	11	10	-6							
TEHERAN	72.23	303.3	11	22	2							
GORIS	72.36	309.1	11	23K	3							
COPENHAGEN	72.88	338.1	11	24K	0	21	35	52				
SIMFEROPOL	74.26	319.9	11	32	0							
LWOW	74.38	328.7	11	31	-1							
KRAKOW	75.60	331.1	11	39	0				11	41		
SHIRAZ	75.88	298.2	11	42A	1						21	49
UZHGOROD	75.99	329.0	11	42	1							
WICHITA MTS.	76.40	53.7	11	43	-1	21	29	7			26	34 SS
COLLMBERG	76.64	335.7	11	45	0							
HALLE	76.76	336.4	11	47	1				11	57		
TULSA	77.04	51.1	11	51	4	21	34	5				
PRUHONICE	77.36	334.2	11	51	2	21	43	10				
JENA	77.37	336.3	11	49	0	21	37	4			22	8 PS
BRATISLAVA	78.16	331.8	11	43	-11	21	50	9				
VIENNA-H.	78.33	332.3	11	55	1							
KASPERSKE H.	78.41	334.3	11	55	0							
BENSBERG	78.50	339.0	11	56	1							
BREBEUF	79.36	31.6	12	0	0							
ISTANBUL UN.	79.64	320.6	12	3A	1	22	1	4				
RAOUL ISLAND	79.88	154.8									14	54
DOURBES	79.92	340.2	12	4	1	22	16	16				
STUTTGART	79.96	336.8	12	4	1							
STRASBOURG	80.54	337.6	12	8	2	22	14	7			15	11 PP
WELSCHBRUCH	81.06	338.5	12	13	4							
PARIS	81.61	341.0	12	14	2							
KSARA	82.14	311.8	12	17K	2	22	43	20			15	26 PP
FOLINIERE	82.28	342.9	12	16	1							
CUMBERLAND	82.52	44.8	12	16	-1	22	35	8				
GARCHY	82.91	340.1	12	19A	0							
PALISADES	83.11	34.1	12	19	-1	22	35	2				
ROSELEND	83.50	337.2	12	23	1							
FLORENCE X.	83.92	333.4	13	5	41						21	37
JERUSALEM	84.08	311.0	12	27	2							

ATHENS	84.45	322.3	12	27	1							22	59	
AQUILA	84.53	331.4										22	59	
ROME	85.23	331.8	13	4A	34							21	37	
MALAGA	94.64	342.2										17	9	
N-LAZARVSKYA	149.61	204.0	19	39	2									

JULY 10 5.H 22.M 55.S EPICENTRE 46.56 153.33 DEPTH= 9.KM

A=-0.61656 B= 0.30974 C= 0.72382 D= 0.4489 E= 0.8936
G=-0.6468 H= 0.3249 K=-0.6900 HT= -4.1

SE= 3.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	4.04	252.7	1	4A	1	1	56	4				
NEMURO	6.38	242.3	1	35	-1	2	47	-3				
ABASHIRI	6.87	251.5	1	44	1	3	12	9				
KUSIRO	7.29	243.8	1	48K	-1	3	4	-9				
Y.-SAKHLINSK	7.30	277.4	1	52A	3						3	24
PETROPAVLOVK	7.32	26.1	1	49	-1	3	11	-3				
UGLEGORSK	7.98	292.5	2	4A	5						3	26
OBIHIRO	8.08	246.8	2	1	1							
WAKKANAI	8.19	266.2	1	46	-16	3	15	-21				
ASAHIGAWA	8.23	254.2	2	4A	2	3	52	15				
HIROO	8.34	242.7	2	1	-3	3	30	-9				
RUMOE	8.66	256.7	2	10	2							
URAKAWA	8.75	243.5	2	9K	-1	3	45	-5				
SAPPORO	9.20	252.0	2	17	1	4	12	11				
TOMAKOMAI	9.26	249.1	2	17	0							
OKHA	9.67	320.1	2	24	2						4	34
MURORAN	9.79	248.8	2	23	-1							
SUTTSU	10.06	252.8	2	30	2							
MORI	10.17	248.6	2	31	2	4	7	-18				
HAKODATE	10.20	246.7	2	26	-4	4	16	-9				
HATINOHE	10.47	239.1	2	27	-6	4	28	-4				
AOMORI	10.74	242.2	2	38	1	4	37	-2			5	7
MIYAKO	10.79	234.3	2	42	4	4	34	-6				
KLYUCHI	10.84	22.9	2	40	2						4	52
MORIOKA	11.22	236.7	2	38	-6	4	37	-13				
MIZUSAWA	11.62	234.6	2	56	7	4	51	-9				
ISINOMAKI	12.01	231.7	2	48	-6	4	52	-18				
SENDAI	12.36	232.3	2	55	-4	4	52	-26				
SAKATA	12.52	237.1	3	6	5	5	30	8				
YAMAGATA	12.68	233.7	3	0	-3	5	10	-16				
HUKUSIMA	12.97	231.8	3	4	-3	5	26	-7				
MAGADAN	13.10	354.3	3	9A	0						8	36
ONAHAMA	13.34	228.4	3	29	17							
SHIRAKAWA	13.57	230.6	3	13	-2	5	36	-11				
NIIGATA	13.64	235.8	3	28	12							
MITO	14.00	227.9	3	15	-6						6	50
UTUNOMIYA	14.18	229.9	3	27	4	6	0	-2				
KAKIOKA	14.26	228.3	3	21	-3	5	50	-14				
TAKADA	14.67	235.2	3	19	-10	5	48	-25				
MAEBASI	14.72	231.5	3	28	-2						7	41
KUMAGAYA	14.74	230.1	3	29	-1						7	58
HONGO	14.87	228.0	3	34	2	6	40	22				
TOKYO C.M.O.	14.91	228.0	3	33	0	6	42	23				
NAGANO	15.00	234.2	3	34	0	6	41	20				
TITIBU	15.03	230.3	3	24	-10							
OIWAKE	15.05	232.5	3	37	2	6	8	-14				
MATUSIRO	15.09	233.8	3	31K	-4	6	25	2				
YOKOHAMA	15.15	227.6	3	40	4	6	49	24				
WAZIMA	15.25	238.9	3	35	-2							
MATUMOTO	15.43	233.6	3	40	1							
MERA	15.46	226.0	3	48	8							
KOHU	15.54	230.8	3	43	2	6	37	3				
TOYAMA	15.55	236.4	3	29	-12						8	25
HUNATU	15.55	229.9	3	43	2	6	31	-3				
VLADIVOSTOK	15.58	265.0	3	45	4							
AJIRO	15.73	228.1	3	41	-2	6	22	-16				
MISIMA	15.75	228.6	3	49	5	6	56	17				
OSIMA	15.81	226.8	3	54	10						7	53
IIDA	16.04	232.1	3	47	0	6	43	-3				
SHIZUOKA	16.15	229.5	3	50	1						8	6
OMAESAKI	16.53	229.1	3	55	1							

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HUKUI	16.56	236.7	3	55	1					
HAMAMATU	16.70	230.4	3	59	3					
NAGOYA	16.77	233.1	3	55	-2	7	19	17		
HATIDYOZIMA	16.96	222.3	4	3	4					
HIKONE	17.10	234.8	4	3	2	7	19	9		
KYOTO	17.58	235.3	4	3	-4	7	21	0		
TOYOOKA	17.74	238.2	4	9	0					
NARA	17.77	234.3	4	11	2					
ABUYAMA	17.78	235.2	4	6A	-3					
OSAKA	17.96	234.8	4	12	1	7	46	16		
OWASE	18.02	232.2	4	15	3	7	41	10		
KOBE	18.13	235.6	4	12	-2	7	32	-1	9	46
SAIGO	18.18	242.4	4	26	12				10	12
SUMOTO	18.53	235.3	4	20	1	7	47	4		
YONAGO	18.68	240.6	4	19	-1					
SIOMISAKI	18.72	231.8	4	25	4	7	54	7		
TORISIMA	18.98	216.8	4	26	2	7	59	6		
TAKAMATU	19.04	236.9	4	25	0	8	11	17		
MUROTO	19.75	234.4	4	31	-2	8	16	6		
HAMADA	19.81	241.5	4	35K	1	8	15	4		
CHANGCHUN	19.89	272.3	4	30A	-4	8	6	-7		
KOTI	19.89	236.2	4	32	-2	8	1	-12		
HIROSIMA	19.96	239.8	4	37	2	8	20	6		
YAKUTSK	20.54	327.4	4	43A	2					
ASHIZURI	20.80	235.5	4	45	1					
SIMONOSEKI	21.15	241.4	4	47	-1					
OOITA	21.24	238.9	4	52K	4	9	1	21		
HUKUOKA	21.73	241.5	4	57	4	9	1	12		
ASOSAN	21.79	239.1	4	57	3					
SAGA	22.01	241.0	5	1	5				6	13
KUMAMOTO	22.07	239.6	4	59	2	9	7	12		
MIYAZAKI	22.30	236.7	5	5	6	9	11	12		
NAGASAKI	22.62	240.7	5	5	3	9	16	11		
KAGOSIMA	23.06	237.5	5	10	3				6	1
YAKUSIMA	23.91	235.7	5	18K	3	9	42	14		
PEKING	27.63	269.9	5	49A	-1	10	38	8	6	37 PP
TIKSI	27.67	343.6	5	48	-2				12	11 SSS
ZO-SE	29.17	249.5	6	3	-1	10	56	1		
NANKING	30.13	253.6	6	11A	-1	11	14	4	7	15 PP
ULAN-BATOR	31.18	289.7	6	20	-2	11	31	4		
IRKUTSK	31.88	298.6	6	24A	-4				7	44 PPP
TAIPEI	33.23	240.8	7	8	29				13	14
SIAN	35.53	265.9	6	59A	0	12	36	2		
TAWU	35.63	238.5	6	59	-1					
COLLEGE	36.21	38.2	7	5	0	12	47	3		
LANCHOW	38.07	272.2	7	21A	0	13	15	2	8	56 PP
ESEN BULAK	38.55	291.2	7	26	1					
CANTON	39.73	247.8	7	34A	0	13	38	0	9	15 PP
HONG KONG	39.77	246.1	7	36	1	13	47	8	9	7 PP
BAGUIO CITY	40.51	233.1	7	39	-2	13	48	-2		
CHENGTU	40.99	265.1	7	45A	0	14	0	3		
MANILA	41.67	231.0	7	50	0	14	0	-7		
SITKA	43.39	48.9	8	8	4					
MOULD BAY	44.73	19.9	8	15A	0					
KHEYS	45.28	346.7	8	19	-1	14	58	-2	10	0 PCP
KUNMING	45.36	259.9	8	20A	0	15	0	-1	10	8 PP
KIPAPA	46.57	105.6	8	28	-2	15	17	-1	10	17 PP
HONOLULU	46.60	105.8	8	30	0	15	19	1	10	7 PP
SEMIPALATNSK	46.79	302.9	8	31	-1				14	0 PCS
HAWAII V.OB.	49.79	105.0	8	54	-1	16	7	4		
ALERT	49.93	5.8	8	55A	-1					
PORT HARDY	50.12	54.4	9	0A	3					
NHATRANG	50.47	241.9	9	0	0				9	11
LHASA	50.54	273.4	9	2A	1	16	17	3	11	0 PP
RABAUL	50.55	181.5	8	59	-2					
RESOLUTE	50.97	18.5	9	3A	-1					
ALMATA-2	51.93	295.8	9	10A	-1					
NORD	51.97	358.1	9	12	0					
SHILLONG	52.52	268.8	9	15A	-1	16	41	0		
VICTORIA	53.52	55.2	9	24A	1					
FRUNSE	53.87	296.7	9	24A	-2				12	34 PPP
SEATTLE	54.62	55.6	9	37	6	17	32	23		
CHATRA	54.96	273.4	9	35	1	17	23	9	19	28
PENTICTON	55.21	52.7	9	34	-1					
PORT MORESBY	55.98	187.4	9	36	-5	17	27	-1		
HONIARA	56.05	172.1	9	19	-23	17	21	-7		
EDMONTON	56.24	46.0	9	42A	-1					
BANFF	56.37	49.1	9	44	0					
CALCUTTA	56.92	268.6	9	49	1	17	41	1	19	30 SCS

SPOKANE	57.36	53.3	9	52	1							
APATITY	57.57	336.8	9	50A	-2	17	41	-8			12	4 PP
BOKARO	57.84	271.6	9	52K	-2	17	48	-4			12	5 PP
TASHKENT	58.00	297.9	9	55A	0	17	54	0			10	44 PCP
SHASTA	58.50	62.5	10	1	2							
HUNGRY HORSE	58.80	51.2	9	56	-5	18	4	-1			13	16
KHOROG	58.88	293.1	10	1A	0							
DEHRA DUN	58.99	282.6	10	3A	1	18	19	12			12	16 PP
BLUE MTS.	59.06	56.0	10	2	-1	18	15	7			19	50 SCS
MINERAL	59.20	62.4	10	5A	1							
TROMSOE	59.41	343.1	10	4	-1				10	15		
SODANKYLA	59.48	338.9	10	3	-3							
CALISTOGA	59.62	64.5	10	9K	2							
BERKELEY	60.29	65.1	10	13A	2	18	20	-4			12	41 PP
KIRUNA	60.57	341.4	10	11	-2	18	28	1			13	55
NEW DELHI	60.66	281.6	10	12K	-2	18	17	-12			14	1 PPP
LAHORE	60.70	286.1	10	13	-1							
WARSAK DAM	61.00	289.9	10	15	-1							
BUTTE	61.00	52.6	10	15	-1	18	39	6				
PARAISO	61.17	66.5	10	23	6							
PORT BLAIR	61.50	256.2	10	21A	2	18	46	7			23	2 55
KAJAANI	61.73	336.1	10	19	-2						12	42 PP
DARWIN	62.05	205.0	10	20	-3							
BOZEMAN	62.05	52.2	10	25	2	18	49	3	10	37		
PRIEST	62.37	65.7	10	26A	1							
GODHAVN	62.81	10.4	10	28A	0	19	5	9				
LUGANVILLE	63.03	165.0	10	26	-4							
EUREKA	63.14	60.2	10	30	0	19	6	6			39	25 PKPPKP
SCORESBY SD.	63.22	358.2	10	32	1	19	4	3				
VISHAKHAPTNM	63.67	268.3	10	34	0	19	8	1			12	57 PP
UMEA	63.92	338.9	10	33A	-2	19	5	-5			14	30
SEHORE	64.27	277.1	10	30	-8							
PULKOVO	64.27	331.9	10	35	-3	19	8	-6			12	50 PP
DUGWAY	64.55	57.8	10	39A	-1	19	22	5				
MOSCOW	64.68	325.7	10	42K	2	19	20	1			12	59 PP
SALT LAKE C.	64.74	56.8	10	42	1							
PASADENA	65.20	66.0	10	45	1	19	25	-1				
NURMIJARVI	65.44	334.9	10	43	-2							
HELSINKI	65.62	334.5	10	44	-2							
SKALSTUGAN	65.96	342.1	10	48A	-1							
FLAMING GRGE	66.04	55.3	10	49	0							
PRICE	66.10	57.2	10	50A	0							
UINTA BASIN	66.34	55.9	10	50	-1	19	45	6			11	24 PCP
QUETTA	66.43	289.5	10	50	-2	19	44	3				
CHARTERS TS.	66.64	187.2	10	52	-1	19	39	-4				
ASHKABAD	66.68	300.9	10	54	1						11	15 PCP
TANGERANG	66.84	231.9	10	52K	-2							
LEMBANG	66.86	230.6	10	52	-2						13	21 PP
HYDERABAD	67.21	271.6	11	4	7	20	14	24			13	31 PP
RAPID CITY	67.30	49.4	10	57	0							
GLEN CANYON	67.39	59.8	10	58	0						11	26
AFIAMALU	67.87	143.2	10	59	-2	19	57	-1				
UPPSALA	67.94	337.6	10	59	-2	19	59	0				
MADRAS	69.10	266.9	11	13	5	20	25	13			13	49 PP
GOLDEN	69.14	54.1	11	10	1	20	16	3				
TONTO FOREST	69.38	61.7	11	9	-1	20	16	0	11	24	13	42 PP
POONA	69.62	275.7	11	17A	5	20	31	12			12	43 PP
KONGSBERG	70.05	341.3	11	14	0	20	38	14	11	17	13	46 PP
BOMBAY	70.08	276.7	11	14	0	20	29	5			25	16 SS
BERGEN	70.26	343.8	11	15	0						11	51
TUCSON	71.04	63.0	11	20	0							
GOTEBORG	71.26	339.3	11	21	-1							
TIFLIS	71.59	311.6	11	23	-1						11	44 PCP
KARLSKRONA	71.68	336.7	11	26A	2							
ALBUQUERQUE	71.80	58.3	11	24	-1							
TEHERAN	72.25	303.3	11	28	1	21	5	16				
GORIS	72.39	309.1	11	28A	0	20	51	0			11	38 PCP
KODAIKANAL	72.92	266.9									21	45
COPENHAGEN	72.94	338.0	11	31A	-1	21	0	3				
WARSAW	73.44	331.7	11	35	1	20	58	-5			11	57 PCP
SCHEFFERVLLE	73.45	22.9	11	35	1							
BRISBANE	73.60	180.5	11	35	0	21	2	-2				
SIMFEROPOL	74.30	319.9	11	38A	-1	21	12	0			16	8 PPP
LWOW	74.43	328.6	11	39	-1	21	13	-1			24	47 SS
ABERDEEN	74.62	346.4	11	45A	4	21	19	3			14	15 PP
IASI	75.26	325.1									14	50
KRAKOW	75.66	331.1	11	50	3	21	31	4			11	59 PCP
SHIRAZ	75.90	298.2	11	48A	-1	21	25	-5			26	35 SS
RACIBORZ	76.20	332.1	11	52	2						12	5 PCP

WICHITA MTS.	76.47	53.6	11	51	-1	21	39	3		14	45	PP
COLLMBERG	76.70	335.7	11	53	0	21	40	1				
HALLE	76.82	336.4	11	55	1					14	42	PCP
DURHAM	76.83	345.4	11	56	2	21	45	5				
WITTEVEEN	76.97	340.0	11	57	2							
TULSA	77.12	51.1	11	54	-1	21	41	-2		26	25	SS
PRAGUE	77.38	334.3	11	59	2	21	44	-2		29	29	SSS
PRUHONICE	77.43	334.2	11	58	1	21	43	-4				
JENA	77.43	336.3	11	56	-1	21	41	-6		15	5	PP
MUNSTER	77.52	339.1	11	59	1							
FAYETTEVILLE	77.83	50.0	11	32	-27	21	46	-5				
ST. LOUIS 1	77.91	45.8	12	1	1	21	51	-1				
DE BILT	77.99	340.6	12	0	0	21	59	6		27	17	SS
HURBANOVO	78.12	331.0	11	50	-11							
BRATISLAVA	78.22	331.8	12	1	-1	21	55	0		15	7	PP
VIENNA-H.	78.38	332.2	12	4	2	21	58	1		22	58	PPS
KASPERSKE H.	78.47	334.3	12	2	-1					13	55	
LONDON ONT.	78.55	37.5	12	4A	1							
BENSBERG	78.57	338.9	12	5K	2					15	48	PP
OTTAWA	78.75	32.9	12	4	0							
TIMISOARA	78.88	328.0	12	8	3							
SEVEN FALLS	79.01	29.0	12	6	0							
BREBEUF	79.44	31.5	12	8K	0	22	5	-3		27	20	SS
CLEVELAND	79.68	38.6	12	4A	-5	22	2	-9				
ISTANBUL UN.	79.69	320.6	12	11A	1	22	17	6				
KEW	79.75	343.6	12	9	-1	22	12	1		27	44	SS
BELGRADE	79.96	328.0	12	10	-1	22	24	10		12	20	PCP
DOURBES	79.98	340.2	12	14	3	22	12	-2				
STUTTGART	80.02	336.8	12	12	1	22	19	5		12	53	
RIVERVIEW	80.05	181.8	12	13	2	22	17	3		27	32	SS
STRASBOURG	80.60	337.6	12	15	1	22	22	2		15	14	PP
ZAGREB	80.65	331.3	12	16	1							
SOFIA	80.67	325.1	12	16	1					14	50	PP
VALENTIA	80.88	349.8	12	16	0	22	25	2				
LJUBLJANA	80.92	332.3	12	17	1					12	58	
WELSCHBRUCH	81.13	338.4	12	19	2							
FELDBERG	81.18	337.2	12	18	1							
TRIESTE	81.52	332.6	12	20	1	22	30	0		28	16	SS
CANBERRA	81.60	183.6	12	24	4	22	35	4		21	9	
PARIS	81.68	341.0	12	21	1	22	35	4				
PENNSYLVANIA	81.79	36.7	12	23	2							
MORGANTOWN	81.88	38.7	12	23A	2							
HOUSTON	82.00	54.9	12	24	2							
SKOPJE	82.03	325.9	12	28	6	22	34	-1				
KSARA	82.17	311.8	12	25	2	22	52	16		15	28	PP
ADELAIDE	82.22	192.1	12	23	0	22	35	-2	12 35	28	13	SS
BESANCON	82.29	338.2	12	25	2					13	6	
PADOVA	82.32	333.7	12	35	12	22	50	12				
FOLINIERE	82.35	342.9	12	24	0							
TITOGRAD	82.46	327.5	12	22	-2					22	49	SCS
CUMBERLAND	82.60	44.7	12	24	-1	22	41	0		28	24	SS
GARCHY	82.98	340.1	12	26	-1							
PALISADES	83.19	34.0	12	29	1	22	45	-2				
FORDHAM	83.34	34.1	12	31	2	22	47	-1				
HALIFAX	83.53	25.6	12	41K	11							
ROSELEND	83.57	337.2	12	31	1					13	13	
BLACKSBURG	83.68	40.4	12	32	2							
GEORGETOWN	83.72	37.2	12	30	-1							
PRATO	83.94	333.5	12	44	12	22	56	2				
FLORENCE X.	83.98	333.4	12	36	4	22	10	-45		16	3	PP
TOOLANGI	84.05	186.3	12	33	1	22	58	3	12 43	45	23	
JERUSALEM	84.12	311.0	12	34	1							
CLERMONT-FD.	84.39	339.5	12	38	4	23	7	8				
ATHENS	84.50	322.3	12	35	1							
AQUILA	84.58	331.4	12	37	2	23	10	9		16	5	PP
MONACO	85.16	335.9	12	40	2							
PERTH	85.17	211.3				23	14	8		28	16	SS
ROME	85.29	331.8	12	36A	-2	23	9	1		16	4	PP
CHAPEL HILL	85.36	40.2	12	39	0							
COLUMBIA	86.05	42.6	12	44	2	23	19	4				
KARAPIRO	86.44	162.6	12	45	1							
MESSINA	87.53	328.0	12	50	1	23	32	3		16	22	PP
BAGNERES	87.63	340.7	12	49	-1					15	21	
WELLINGTON	89.52	164.0	13	0	1	23	25	-23		16	53	PP
TOLEDO	91.60	342.8	13	7A	-2	24	10	4		16	53	PP
SETIF	92.71	334.5	13	14	0					16	36	PP
ROXBURGH	92.73	168.8				23	45	-31		30	23	SS
ALGIERS UNI.	92.85	336.5	13	17	3	24	27	10		17	7	PP

GRANADA	94.10	341.7	13	22A	2						17	10	PP
MALAGA	94.71	342.2	13	21	-2	24	47	14					
AVERROES	98.63	343.8	13	38	-3						17	45	PP
TAMANRASSET	105.09	329.4	14	11	777	24	59	11			18	32	PP
CARACAS	112.76	43.6				25	21	0			19	31	PP
CHINCHINA	112.90	54.6				25	30	9			19	25	PP
FUQUENE	113.54	52.6									19	33	PP
BOGOTA	114.06	53.5				25	33	7			19	40	PP
WILKES	117.26	198.0									20	15	
M.BOUR	118.72	349.3				25	55	12			20	10	PP
BROKEN HILL	124.16	286.1	19	1	2								
SCOTT BASE	124.42	176.6	18	59	-1								
HUANCAYO	126.58	66.2	19	6	2								
BULAWAYO	128.10	281.1	19	9	2								
CHANGALANE	129.73	272.4	19	11	1								
MAWSON	132.11	211.1	19	13	-1								
LA PAZ	134.46	62.9	19	23	4				19	37			
BYRD STATION	134.97	165.7	19	22	2								
SOUTH POLE	136.37	180.0	19	34	12								
KIMBERLEY	136.38	275.5	19	25	3								
SANTA LUCIA	144.32	84.4	19	36	0								
N-LAZARVSKYA	149.52	204.0	19	46	1								
ARGENTINE I.	152.46	146.3	19	55	6								

JULY 10 9.H 49.M 29.S EPICENTRE 13.70 -45.01 DEPTH= 37.KM

A= 0.68709 B=-0.68738 C= 0.23539 D=-0.7073 E=-0.7070
G= 0.1664 H=-0.1665 K=-0.9719 HT= 6.0

DEPTH OF FOCUS= 0.001R

SE= 2.16

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
FORT FRANCE	15.68	275.7	3	38	-2							
TRINIDAD	16.30	261.1	3	47	-1							
SAN JUAN	20.81	285.7	4	42K	1							
CARACAS	21.66	264.0	4	50	0	8	15	-27				
M.BOUR	27.21	85.2	5	44	1	10	25	8				
FUQUENE	29.45	256.7	6	6	3							
BOGOTA	30.04	255.3	6	10	2	11	16	14				
CHINCHINA	31.39	256.9	6	21	1	11	30	6				
PALISADES	37.08	322.7	7	25	16	13	5	13				
LA PAZ	37.71	218.0	7	14	0				7	24		
AVERROES	39.32	53.7	7	39	11						8	19 PP
HUANCAYO	39.47	231.0	7	29	0							
AREQUIPA	39.78	222.0	7	29	-2							
BREBEUF	39.88	328.3	7	35A	3							
NANA	40.59	232.5	7	37	-1							
CUMBERLAND	42.42	308.2	7	56	3	14	27	15				
MALAGA	42.87	50.2	8	0	3	14	27	9				
GRANADA	43.63	50.0	8	21A	18	14	44	14			10	9 PP
TOLEDO	44.35	46.2	8	11A	2	14	43	3			9	54 PP
ALMERIA	44.36	50.9	8	12A	3							
SCHEFFERVLLE	44.41	342.1	8	11K	2							
ST. LOUIS 1	46.96	310.5	8	32	3							
FLORISSANT	47.11	310.6	8	33	2							
BAGNERES	48.52	43.9	8	42	0							
TAMANRASSET	48.64	71.7	8	45	2	15	55	14			10	38 PP
SETIF	50.25	54.2	8	56	1							
TULSA	50.48	305.4	8	58K	1	16	14	7				
FOLINIERE	50.59	36.9	8	59	1							
LAWRENCE	50.80	309.4	9	0	1							
CLERMONT-FD.	51.53	41.7	9	6	1							
GARCHY	52.09	40.0	9	10K	1							
WICHITA MTS.	52.50	303.3	9	12	0	16	35	1			20	24 SS
DURHAM	53.07	29.9	9	18A	2							
ISOLA	53.60	44.8	9	22	2							
MONACO	53.73	45.5	9	22	1							
ROSELEND	53.80	42.9	9	23	1							
DOURBES	54.15	37.2	9	26	2							
STRASBOURG	55.50	39.9	9	35	1	17	26	11				
BENSBERG	56.00	37.1	9	39	1							
KARLSRUHE	56.05	39.6									10	24
STUTTGART	56.51	40.1	9	41	0							
MUNSTER	56.64	36.1	9	43	1							

ROME	56.87	48.7	9	56	12						
PADOVA	57.24	44.6	10	1	15						
AQUILA	57.63	48.4								24	51
RAPID CITY	57.83	313.7	9	52	1						
TRIESTE	58.58	44.7	9	56K	0	18	5	10		23	59 SSS
JENA	58.61	38.2	9	56	0					11	49
GOLDEN	58.63	308.2	9	58	2						
ALBUQUERQUE	58.95	302.6	10	0	2						
HALLE	59.01	37.7	9	57	-2					12	12 PP
LJUBLJANA	59.19	44.3	10	1K	1						
KASPERSKE H.	59.32	40.7	10	1K	0						
COLLMBERG	59.57	38.1	10	3K	0						
PRUHONICE	60.16	39.9	10	8	1	18	28	12			
KONGSBERG	60.77	28.3	10	12A	1						
VIENNA-H.	60.91	42.2	10	12	0						
BRATISLAVA	61.37	42.4	10	15K	0						
FLAMING GRGE	61.83	309.2	10	12	-6						
UINTA BASIN	61.90	308.5	10	20	2	18	52	14		25	31
TUCSON	62.46	299.3	10	23	1						
RACIBORZ	62.47	40.4	10	25	3					10	45
KARLSKRONA	62.48	33.3	10	24	2						
TONTO FOREST	62.87	301.6	10	27	2	10	41			12	48 PP
BELGRADE	63.09	46.6	10	32	6					10	56
GLEN CANYON	63.23	304.6	10	31	4						
SKALSTUGAN	63.55	24.9	10	31	2						
KRAKOW	63.56	40.7	10	31	2						
BOZEMAN	63.60	314.3	10	34	4						
SALT LAKE C.	63.67	308.8	10	32	2						
BANDEIRA	64.32	114.1	10	36A	2					11	3 PCP
DUGWAY	64.37	308.1	10	36K	1						
UPPSALA	64.62	29.8	10	37	1						
BUTTE	64.70	314.6	10	38	1						
UZHGOROD	64.86	42.5	10	39	1						
BOULDER CITY	65.82	303.4	10	47	3						
EDMONTON	66.22	322.5	10	47K	0						
EUREKA	66.77	307.2	10	52	2					13	26 PP
RESOLUTE	66.83	347.2	10	51	1						
UMEA	66.96	26.0	10	52	1						
BANFF	67.24	319.9	10	54	1						
BLUE MTS.	67.93	313.0	10	58	1					38	50 PKPPKP
SPOKANE	68.10	316.1	10	59	1						
NURMIJARVI	68.18	30.0	10	59	0	20	3	8			
KIRUNA	68.22	21.8	10	59	0						
HELSINKI	68.27	30.4	11	0	0						
TROMSOE	68.29	19.8	11	1	1						
PASADENA	68.59	301.5	11	3	2						
ALERT	69.17	357.6	11	7K	2						
PENTICTON	69.71	317.7	11	9K	1						
KAJAANI	70.23	26.5	11	13	1						
SODANKYLA	70.40	22.9	11	13A	0						
PRIEST	70.54	303.7	11	16A	3						
PULKOVO	70.88	31.2	11	15	0						
MINERAL	71.09	308.2	11	18K	1						
SHASTA	71.68	308.6	11	21K	1						
BERKELEY	71.72	305.6								34	7
PARAISO	71.90	304.0	11	19	-3						
CALISTOGA	71.93	306.4	11	26A	4						
VICTORIA	72.20	316.8	11	24K	1						
SIMFEROPOL	72.79	46.9	11	28	1						
APATITY	73.01	23.2	11	29A	1						
MOULD BAY	73.05	346.0	11	30K	2						
PORT HARDY	74.78	319.2	11	37	-1						
LWIRO	74.84	96.2	11	39	0						
KSARA	75.02	58.3	11	42	2						
BROKEN HILL	77.92	108.2	11	58	2						
TIFLIS	80.88	49.3	12	14	2						
KIROVOBAD	82.22	50.2	12	20K	1						
COLLEGE	83.06	335.2	12	25	2						
SHIRAZ	89.72	59.7	12	58	2					16	23 SKP
TIKSI	94.77	1.9	13	20K	1						
MATUSIRO	129.94	356.6	19	8A	2						
TANGERANG	151.11	77.8	19	48A	4						
LEMBANG	152.24	78.5	19	49A	4					21	51
TOOLANGI	154.45	199.6	20	15	27					21	19

JULY 10 19.H 52.M 21.S EPICENTRE 19.14 145.46 DEPTH= 181.KM

A=-0.77878 B= 0.53600 C= 0.32589 D= 0.5670 E= 0.8238
G=-0.2685 H= 0.1848 K=-0.9454 HT= 4.9

DEPTH OF FOCUS= 0.023R

SE= 2.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	5.69	187.1	1	21	-3							
TORISIMA	12.22	338.5				4	50	-12				
HATIDYOZIMA	14.80	341.1	3	24	2	6	6	5				
OSIMA	16.48	342.1	3	44	2	6	41	2				
MERA	16.49	343.5	3	46	4	6	44	5				
OMAESAKI	16.69	338.8	3	44	-1							
AJIRO	16.82	341.7	3	44	-2	6	45	-1				
MISIMA	16.93	341.4	3	47	-1	6	46	-3				
YOKOHAMA	17.02	343.6	3	46	-3	6	49	-2				
TOKYO C.M.O.	17.23	344.1	3	52	1	6	52	-3				
HUNATU	17.34	341.4	3	51	-1	6	59	2				
KOHU	17.56	341.1	3	58	3	7	5	3				
KAMEYAMA	17.57	334.8				7	5	3			5	11
KAKIOKA	17.65	345.8	3	54	-2	6	59	-5				
NAGOYA	17.65	336.5	3	50	-6	7	5	1				
IIDA	17.66	339.1	3	55	-1	7	3	-1				
TITIBU	17.70	342.7	3	55	-1	7	4	-1				
MITO	17.73	346.7	3	56	-1	7	9	3				
KUMAGAYA	17.77	343.7	3	56	-1	7	10	3				
OSAKA	17.79	332.3				7	13	6				
KOTI	17.87	325.8				7	13	6			6	45
GIHU	17.93	336.4	3	59	0	7	16	6				
ABUYAMA	17.96	332.7	3	56K	-3							
KYOTO	18.02	333.3	3	58	-2	7	11	-1				
HIKONE	18.02	334.9	4	0	0	7	14	2				
UTUNOMIYA	18.03	345.3	3	59	-1	7	13	1				
OIWAKE	18.17	341.8	4	1	0	7	19	4				
ONAHAMA	18.19	348.2	3	59	-3	7	29	14				
TAKAMATU	18.21	328.4	3	59	-3	7	17	1				
MATUMOTO	18.28	340.4	4	2	-1	7	19	2				
MATUSIRO	18.47	341.3	4	1K	-4	7	19	-2				
SHIRAKAWA	18.49	346.7	4	3	-2	7	25	4				
NAGANO	18.59	341.4	4	5	-1	7	27	4				
HUKUI	18.71	336.1									7	25
OOITA	18.71	321.3	4	7	0	7	27	1				
TOYAMA	18.94	339.2	4	9	0	7	27	-3				
TAKADA	18.98	342.0	4	5	-5	7	27	-4				
HUKUSIMA	19.05	347.8	4	10	-1	7	39	7				
SENDAI	19.47	349.2	4	13	-2	7	39	-1				
NIIGATA	19.53	344.7	4	21	5							
YAMAGATA	19.56	347.9	4	15K	-1	7	45	3				
ISINOMAKI	19.56	350.2	4	14K	-2	7	46	4				
WAZIMA	19.66	339.4	4	22	5						6	45
MIZUSAWA	20.27	350.2	4	23	0	8	1	6				
SAKATA	20.29	347.2	4	22	-1	8	9	14				
AOMORI	21.98	350.5	4	41	1	8	34	8				
HAKODATE	22.95	351.0	4	49K	0	8	48	6				
URAKAWA	23.05	354.9	4	51	1	8	50	6				
MORI	23.26	350.8	4	54	2							
MANILA	23.74	263.0	4	59	2	9	9	13				
KUSIRO	23.78	358.1	4	56	-1	9	7	11				
OBIHIRO	23.78	355.9	5	57	60							
BAGUIO CITY	23.84	267.4	4	59	1							
SAPPORO	24.11	352.6	4	58	-2	9	11	9				
RABAUL	24.11	163.4	4	59	-1						10	1 PCP
NEMURO	24.12	0.2	4	59	-1	9	5	3				
ASAHIGAWA	24.70	354.6	5	5A	-1							
ABASHIRI	24.83	358.0	5	6A	-1						5	35
ZO-SE	24.94	303.2	5	7	-1				5	38	5	54 *SP
NANKING	27.20	303.5	5	28	-1	9	55	2	6	3	6	17 *SP
PORT MORESBY	28.41	176.5	5	38A	-2							
HONG KONG	29.41	281.6	5	50K	1	10	37	9	6	30	11	33 *SS
CHANGCHUN	29.86	330.0	5	50	-3	10	34	-1	6	29		
CANTON	30.19	283.2	5	57K	1						6	49 *SP
HONIARA	31.78	152.0	6	7	-2							
PEKING	32.66	315.9	6	15K	-2	11	19	0			7	3 *SP
DARWIN	34.48	205.8	6	33	0							
NHATRANG	35.52	264.3	6	43	2				7	13		
SIAN	35.73	302.4	6	45	2							

PAOTOW	37.07	312.9	6	54K	0					7	41	*SP
CHARTERS TS.	38.99	178.8	7	10	0	12	49	-6				
CHENGTU	39.11	295.3	7	11K	0	12	58	1		13	56	*SS
KUNMING	39.90	286.5	7	19K	1	13	14	5		14	14	*SS
LANCHOW	40.22	303.5	7	21K	1					8	12	*SP
YAKUTSK	44.23	349.4	7	52	-1	14	11	-1				
LEMBANG	45.34	238.9	8	1K	-1					8	38	PP
TANGERANG	45.78	240.5	7	59A	-6				8	35		
NOUMEA	46.01	152.5	8	7	0					18	19	
BRISBANE	46.79	171.1	8	12	-1					15	49	
ESEN BULAK	48.50	315.6	8	27	1	15	19	7				
SHILLONG	49.71	287.6	8	33	-3							
LHASA	50.27	293.0	8	41K	1					9	32	*SP
RIVERVIEW	52.95	174.1	9	2	2							
TIKSI	53.39	353.5	9	1K	-2				9	47		
CHATRA	53.82	289.6	9	18K	12							
ADELAIDE	54.19	186.8	9	8	-1					11	14	PP
CANBERRA	54.26	176.4	9	9K	0				9	48	10	14 PCP
TOOLANGI	56.40	180.0	9	24	-1					11	24	
MUNDARING	58.04	209.3	9	37	1				10	15		
SEMIPALATNSK	59.73	317.7	9	46	-2							
MOORLANDS	61.29	178.5	9	59	1							
ALMATA-2	61.30	309.4	9	58A	-1							
NEW DELHI	62.42	292.8	10	4K	-2							
FRUNSE	63.32	308.9	10	11K	-1				11	6		
KARAPIRO	63.42	153.7	10	12	-1				10	49		
LAHORE	64.49	296.5	10	18	-1							
CHATEAU	64.50	154.4	10	19	-1							
WELLINGTON	65.97	156.2	10	30	1							
WARSAK DAM	66.48	299.5	10	32	0							
TASHKENT	67.39	307.6	10	37K	-1							
SITKA	68.31	35.3	10	43	-1							
KHEYS	70.82	350.0	10	58K	-1						12	14 SP
QUETTA	70.97	296.2	11	0K	0							
SVERDLOVSK	71.39	324.7	11	1A	-1							
MOULD BAY	72.79	14.5	11	9K	-1							
PORT HARDY	73.58	41.4	11	15K	0							
ASHKABAD	76.28	305.6	11	31	1							
VANNOVSKAYA	76.47	305.7	11	31	0							
VICTORIA	76.63	43.1	11	32K	0							
KIZYL-ARVAT	77.56	307.3	11	39	2							
ALERT	77.71	3.6	11	36	-2							
PENTICTON	78.85	41.6	11	44K	0							
RESOLUTE	79.06	13.6	11	45K	-1							
SHASTA	79.35	50.6	11	47K	0							
CALISTOGA	79.78	52.7	11	50K	1						12	10 PP
MINERAL	80.03	50.8	11	51K	0							
BERKELEY	80.24	53.4	11	53K	1						35	57
APATITY	80.52	338.8	11	52K	-1	21	39	-4	12	30	14	5
PARAISO	80.60	54.9	11	59	5							
SPOKANE	80.77	42.7	11	55	0							
BANFF	80.79	39.0	11	54	-1							
EDMONTON	81.30	36.5	11	58K	0							
BLUE MTS.	81.69	45.5	12	0K	0				12	41	15	8 PP
PRIEST	81.98	54.6	12	2K	1						12	15 PP
TEHERAN	82.25	305.0	12	3	1							
SODANKYLA	82.87	340.0	12	4K	-2							
SHIRAZ	83.21	298.9	12	6	-1	22	12	1			28	49
TROMSOE	83.79	343.6	12	8	-2						12	16 PCP
GROZNY	83.89	313.7	12	7	-4							
KAJAANI	84.30	337.0	12	11K	-2							
EUREKA	84.41	50.3	12	14	1							
KIROVOBAD	84.42	311.0	12	12	-1							
BUTTE	84.43	43.2	12	13	0							
KIRUNA	84.52	341.8	12	13K	-1							
PASADENA	84.54	55.9	12	16	2							
GORIS	84.82	309.9	12	15K	0							
TIFLIS	85.12	312.4	12	17	0							
PULKOVO	85.54	332.6	12	17	-2							
BOZEMAN	85.54	43.2	12	19	0						15	37 PP
DUGWAY	86.43	48.7	12	22A	-1	22	35	-7				
BOULDER CITY	86.48	53.2	12	25K	2							
SALT LAKE C.	86.89	47.9	12	26	1							
UMEA	87.12	338.7	12	24K	-3							
NURMIJARVI	87.50	334.8	12	26K	-2	22	49	-3	13	11	15	51 PP
HELSINKI	87.57	334.5	12	27	-2							
PRICE	88.07	48.7	12	32K	1							
FLAMING GRGE	88.54	47.0	12	35	2							

GLEN CANYON	88.54	51.3	12	35	2							
UINTA BASIN	88.66	47.6	12	35	1				13	22	16 3	PP
TONTO FOREST	89.82	53.7	12	41K	2	22	59	-14			16 12	PP
SKALSTUGAN	89.88	341.0	12	38K	-2							
UPPSALA	90.65	336.5	12	41K	-2						16 17	PP
GOLDEN	91.84	46.8	12	54	1							
ALBUQUERQUE	93.16	51.5	12	56	1							
MIRNY	93.91	198.5									16 41	
KARLSKRONA	93.95	334.5	12	57	-1							
GOTEBORG	94.27	337.0	12	57	-3							
UZHGOROD	95.70	326.1	13	5	-1							
COLLMBERG	98.46	332.1	13	17K	-2						17 19	PP
BRATISLAVA	98.67	327.9									17 18	PP
PRUHONICE	98.68	330.4	13	19	-1						17 22	
HALLE	98.77	332.7									17 20	PP
WICHITA MTS.	98.97	48.6	13	21	0				14	3	17 22	PP
VIENNA-H.	98.98	328.3									17 26	PP
JENA	99.35	332.5	13	19	-4				14	4	17 25	PP
KASPERSKE H.	99.72	330.3	13	22	-3						17 29	PP
STUTTGART	101.94	332.1	13	33	-1						17 47	PP
STRASBOURG	102.75	332.7				25	9	70			18 41	
DOURBES	102.88	335.4									27 54	
BESANCON	104.54	332.8									18 4	
MAWSON	104.73	203.1									17 56	PP
PARIS	104.74	335.7	18	4	257							
ROSELEND	105.45	331.4									18 10	PP
GARCHY	105.74	334.4	18	9	777							
FOLINIERE	105.89	337.3	18	8	777							
ISOLA	106.41	330.1									18 18	PP
CLERMONT-FD.	106.93	333.4									18 22	PP
CUMBERLAND	107.20	41.6									18 28	PP
BAGNERES	110.36	333.6									18 46	PP
SETIF	113.25	325.6	18	34	18							
TOLEDO	114.76	334.5									19 15	PP
TAMANRASSET	122.85	315.0	18	36K	1				19	24	20 17	PP
SANTA LUCIA	144.83	121.2	19	17	1							
LA PAZ	147.94	90.7	19	25	4							

JULY 12 15.H 28.M 3.S EPICENTRE 46.80 153.56 DEPTH= 0.KM

A=-0.61512 B= 0.30582 C= 0.72670 D= 0.4452 E= 0.8954
G=-0.6507 H= 0.3235 K=-0.6870 HT= -4.2

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	
KURILSK	4.27	250.4	1	10A	2	2	3	4					
PETROPAVLOVK	7.03	25.9	1	47A	0	3	2	-7					
Y.-SAKHLINSK	7.43	275.6	1	57A	4						2	33	
MIZUSAWA	11.90	234.3	3	6	12	5	2	-7					
MAGADAN	12.88	353.7	3	8A	1						7	20	
MATUSIRO	15.36	233.6	3	36	-4	6	25	-7					
VLADIVOSTOK	15.76	264.4	3	44A	-1						6	53	
ABUYAMA	18.05	235.1	4	12A	-2								
CHANGCHUN	20.05	271.8	4	36A	-2								
YAKUTSK	20.42	326.9	4	40	-2								
TIKSI	27.49	343.3	5	47	-3						6	33	PP
PEKING	27.80	269.6	5	53A	0						6	42	PP
ZO-SE	29.41	249.3	6	7A	-1	11	3	2	6	18			
NANKING	30.35	253.5	6	16A	0	11	19	3					
ULAN-BATOR	31.26	289.5	6	22	-2	11	57	27					
PAOTOW	31.77	274.8	6	29A	1	11	33	-5					
SIAN	35.71	265.7	7	1	-2								
COLLEGE	35.92	38.4	7	4	0						8	10	
LANCHOW	38.23	272.0	7	25A	1	13	17	-1					
ESEN BULAK	38.62	291.1	7	27	0								
CANTON	39.97	247.8	7	39A	1				7	52			
HONG KONG	40.02	246.1	7	39	0	13	45	0					
BAGUIO CITY	40.78	233.1	7	42	-3	13	54	-3					
CHENGTU	41.17	265.0	7	49A	1	13	57	-5					
SITKA	43.11	49.2	8	9	5	14	33	2					
MOULD BAY	44.45	20.0	8	17	2								
KUNMING	45.56	259.8	8	25A	1	15	6	0	8	37	10	15	PP
KIPAPA	46.47	106.0				15	20	1			19	2	
HONOLULU	46.51	106.2	8	32	1	15	21	1					
SEMIPALATNSK	46.79	302.8	8	33	-1								

ALERT	49.68	5.8	8	55	-1						
RESOLUTE	50.69	18.6	9	4	0						
LHASA	50.69	273.4	9	6A	2	16	19	0	11	6	PP
YELLOWKNIFE	50.70	36.9	9	4	0						
RABAUL	50.80	181.8	9	5	1						
NORD	51.74	358.2	9	12	0						
SHILLONG	52.69	268.8	9	19	0						
FRUNSE	53.90	296.7	9	29	1				26	53	
SVERDLOVSK	54.00	317.3	9	27	-1						
PENTICTON	54.94	53.0	9	34	-1						
CHATRA	55.11	273.4	9	39	2						
EDMONTON	55.95	46.2	9	41A	-2						
BANFF	56.09	49.3	9	41	-3						
HONIARA	56.27	172.4	9	43	-2	17	27	-7			
SPOKANE	57.09	53.5	9	53	2						
APATITY	57.42	336.8	9	51	-2	17	38	-11	21	46	SS
TASHKENT	58.03	297.9	9	57	0				14	46	SCP
HUNGRY HORSE	58.52	51.4	10	1	0						
BLUE MTS.	58.79	56.3	10	1	-2	18	15	8	24	47	SSS
KHOROG	58.93	293.1	10	4A	0						
MINERAL	58.94	62.7	10	15A	11						
DEHRA DUN	59.10	282.6	9	57	-8						
TROMSOE	59.22	343.1	10	4	-2				10	16	10 46 PCP
SODANKYLA	59.31	338.9	10	5	-1						10 46
CALISTOGA	59.37	64.8	10	8A	1						
BERKELEY	60.04	65.3	10	23A	12	18	25	1			22 27 SS
KIRUNA	60.39	341.4	10	13A	-1	18	29	1			
NEW DELHI	60.77	281.7	10	15A	-1						
LAHORE	60.80	286.1	10	16	-1						
WARSAK DAM	61.07	289.9	10	20	2						
KAJAANI	61.58	336.1	10	21	-1						10 52
BOZEMAN	61.78	52.4	10	24	1						
PRIEST	62.12	66.0	10	24K	-2						
GODHAVN	62.55	10.5	10	28A	0	19	3	8			
SCORESBY SD.	62.99	358.3	10	33	2						
UMEA	63.76	338.9	10	33A	-3	19	9	-2			14 40
PULKOVO	64.14	331.9	10	37	-2	19	8	-7			
DUGWAY	64.28	58.0	10	37	-3						
SALT LAKE C.	64.47	57.0	10	41	0						
MOSCOW	64.58	325.7	10	41	-1						13 5 PP
NURMIJARVI	65.29	334.9	10	46	0	19	25	-4			13 7 PP
HELSINKI	65.47	334.6	10	46	-1						
SKALSTUGAN	65.79	342.1	10	48A	-1						
BOULDER CITY	65.83	62.7	10	48	-2						
UINTA BASIN	66.07	56.1	10	50	-1	19	43	4			24 5 SS
QUETTA	66.51	289.5	10	54A	0	19	47	3			
ASHKABAD	66.69	301.0	10	56	1						
CHARTERS TS.	66.90	187.5	11	2	5						28 4
UPPSALA	67.78	337.7	11	1A	-1	19	58	-2			11 57
AFIAMALU	67.97	143.4				20	3	1			
GOLDEN	68.86	54.3	11	9	0	20	16	3			
TONTO FOREST	69.13	61.9	11	9	-1				11	16	13 49 PP
BERGEN	70.08	343.9	11	17	1						
GOTEBORG	71.09	339.4	11	22	0						
KARLSKRONA	71.53	336.7	11	22	-3						
ALBUQUERQUE	71.54	58.5	11	24	-1						
TIFLIS	71.56	311.7	11	27	2						21 20 SCS
TEHERAN	72.26	303.4	11	31	2	20	59	7			21 40 SCS
GORIS	72.37	309.2	11	31	1						
COPENHAGEN	72.78	338.1	11	34	1	21	2	4			
SCHEFFERVLLE	73.16	23.0	11	35	0						
WARSAW	73.30	331.8	11	36	0						11 47 PCP
SIMFEROPOL	74.22	320.0	11	41A	0						14 28 PP
KRAKOW	75.53	331.2	11	50	2	21	28	-1			16 11
SHIRAZ	75.93	298.3	11	51A	0	21	23	-10			26 57
RACIBORZ	76.06	332.2	11	53	2						12 1 PCP
WICHITA MTS.	76.20	53.8	11	50	-2	21	37	1			15 4 PP
COLLMBERG	76.55	335.8	11	54	0						
DURHAM	76.64	345.5	11	59A	4	21	42	1			14 47 PP
HALLE	76.67	336.5	11	55	0						
WITTEVEEN	76.80	340.1	11	58	2						
TULSA	76.84	51.3				21	42	-1			26 53 SS
PRAGUE	77.24	334.4	11	58	0	21	49	2			
JENA	77.28	336.5	11	58	0	21	47	-1			14 57 PP
PRUHONICE	77.28	334.3	12	2	4	21	48	0			
FAYETTEVILLE	77.55	50.2	11	56	-4						
DE BILT	77.81	340.7	12	1	0	21	57	3			
BRATISLAVA	78.08	331.9	12	4	1	21	58	1			15 42 PP
VIENNA-H.	78.25	332.4	12	4	0						12 16 PCP

KASPERSKE H.	78.33	334.5	12	4	0							13	13	
BENSBERG	78.40	339.1	12	5K	1									
BREBEUF	79.15	31.7	12	8K	-1	22	6	-2						
HEIDELBERG	79.44	337.5	12	11	1									
KEW	79.56	343.7	12	11	0	22	16	4						
ISTANBUL UN.	79.61	320.7	12	12	1	22	14	1						
DOURBES	79.81	340.3	12	12	0	22	14	-1						
BELGRADE	79.84	328.1	12	13	1	22	14	-1				12	24	PCP
STUTTGART	79.87	336.9	12	14	2									
STRASBOURG	80.44	337.8	12	17A	2	22	26	4				23	7	PS
VALENTIA	80.67	349.9	12	17	0									
LJUBLJANA	80.78	332.5	12	18	1									
WELSCHBRUCH	80.96	338.6	12	21	3									
TRIESTE	81.38	332.8	12	19A	-1	22	33	2						
PARIS	81.50	341.1	12	24	3									
MORGANTOWN	81.59	38.9	12	23	1									
BESANCON	82.13	338.4	12	24	0							12	57	
KSARA	82.13	311.9	12	25	1	23	6	27	12	54				
FOLINIERE	82.17	343.0	12	24	-1									
CUMBERLAND	82.31	44.9	12	23	-2							22	19	
GARCHY	82.81	340.2	12	27A	-1									
PALISADES	82.90	34.2	12	27	-1	22	44	-3						
PAVIA	83.18	335.5	12	32	2							23	18	PS
BLACKSBURG	83.39	40.5	12	30	-1	22	51	-1						
ROSELEND	83.41	337.4	12	31	0							13	21	
FLORENCE X.	83.84	333.6	12	42	9	22	51	-5						
JERUSALEM	84.08	311.1	12	37	3									
CLERMONT-FD.	84.22	339.7	12	37	2							13	23	
ISOLA	84.69	336.5	12	38	1							13	6	
ROME	85.15	331.9	12	37	-3	22	55	-14						
TACUBAYA	87.26	64.5										13	42	
MESSINA	87.41	328.2	12	48	-3	23	15	-16				17	18	PP
TOLEDO	91.41	343.0	13	11A	1	24	7	-1				16	44	PP
SETIF	92.56	334.7	13	15	0									
MALAGA	94.53	342.4										17	14	
TAMANRASSET	104.96	329.6				24	42	-9				18	0	
LWIRO	114.82	295.3										19	46	PP
BROKEN HILL	124.25	286.5	19	4	3									

JULY 12 23.H 41.M 50.S EPICENTRE 33.24 141.91 DEPTH= 0.KM

A=-0.65960 B= 0.51706 C= 0.54551 D= 0.6169 E= 0.7870
G=-0.4293 H= 0.3365 K=-0.8381 HT= 0.7

SE= 5.61

	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
HATIDYOZIMA	1.78	266.2	0	28	-4	0	54	-1				
MERA	2.41	314.8	0	39	-2							
OSIMA	2.60	306.8	0	41	-2							
TYOSI	2.63	340.9	0	37	-7	1	0	-17				
AJIRO	2.95	308.6	0	42	-6	1	12	-13				
TOKYO C.M.O.	3.02	324.4	0	44	-5	1	15	-12				
HONGO	3.03	325.0	0	57	7						1	18
KAKIOKA	3.31	335.0	0	45	-9	1	16	-18				
MITO	3.35	339.7	0	46	-8	1	16	-19				
OMAESAKI	3.35	294.9	1	3	9						2	44
SHIZUOKA	3.38	301.7	1	0	5						2	28
HUNATU	3.44	311.9	0	47	-8	1	26	-12				
TITIBU	3.60	320.4	0	49	-9							
KOHU	3.68	312.2	0	57	-2	1	42	-2				
UTUNOMIYA	3.71	333.7	0	51	-8	1	30	-14				
HAMAMATU	3.78	294.2	1	6	6						2	44
ONAHAMA	3.80	347.7	1	2	1							
MAEBASI	3.92	324.3	1	8	6						3	10
IIDA	4.07	305.2	1	1	-3	1	47	-6				
SHIRAKAWA	4.11	340.8	0	57	-8	1	34	-21				
MATUMOTO	4.42	313.9	1	15	6							
MATUSIRO	4.48	318.4	1	4	-6	1	49	-15				
NAGOYA	4.52	296.6	1	4	-7	1	54	-11				
NAGANO	4.58	319.4	1	11	-1							
HUKUSIMA	4.65	345.8	1	4	-9	1	48	-20				
GIHU	4.77	298.3	1	13	-1							
KAMEYAMA	4.79	291.1									1	40
OWASE	4.83	281.5									1	49

SENDAI	5.09	351.0	1 21	2	2 0	-19		
HIKONE	5.10	295.0	1 36	17				5 5
SIOMISAKI	5.14	274.1						2 4
YAMAGATA	5.16	346.2	1 10	-10	1 59	-22		
TOYAMA	5.18	313.1	1 16	-4	3 3	41		
ISINOMAKI	5.20	354.9	1 9K	-12	1 58	-24		
NIIGATA	5.22	334.3						1 46
NARA	5.25	287.6						1 57
TSURUGA	5.39	298.1						2 13
KYOTO	5.42	290.9	1 32	8				3 20
OSAKA	5.48	286.7						2 11
ABUYAMA	5.51	289.0	1 24A	-1				
AIKAWA	5.63	329.1	1 33	7				
KOBE	5.77	286.3						2 39
SAKATA	5.90	344.0	1 28	-2				
MIZUSAWA	5.91	354.1	1 39	8				4 5
SUMOTO	5.93	282.6	1 40	9	2 55	15		
MIYAKO	6.40	0.4						2 23
MORIOKA	6.48	355.0						2 30
TAKAMATU	6.63	281.5	1 40	-1				4 21
AKITA	6.63	347.8	1 58	17	2 43	-15		
KOTI	7.01	274.8						4 32
AOMORI	7.62	353.5	2 1	6				
HIROSIMA	7.97	280.8						4 33
HAMADA	8.33	284.2						4 1
HAKODATE	8.61	354.3	2 24	16				
OOITA	8.62	272.8			4 14	26		2 52
MORI	8.91	353.6						3 5
URAKAWA	8.92	4.2	2 5	-8	3 31	-24		
MIYAZAKI	8.95	264.4						5 37
ASOSAN	9.10	270.8						4 48
KUMAMOTO	9.42	270.5	2 8	-12				
HUKUOKA	9.64	275.2						4 12
OBIHIRO	9.72	5.6						3 45
SAPPORO	9.83	357.6						3 31
NEMURO	10.48	14.9						4 0
VLADIVOSTOK	12.61	324.4	2 57	-6				
CHANGCHUN	16.72	314.1	3 55	-2				
ZO-SE	17.68	268.7	4 7	-2				
PEKING	21.69	295.6	4 40	-14	8 34	-16		
BAGUIO CITY	25.51	234.1						7 0
PAOTOW	26.42	295.3	5 35	-5	10 11	-1		
HONG KONG	26.77	253.1			9 58	-20		10 34 *SS
YAKUTSK	29.84	348.5	6 5	-6				
ULAN-BATOR	30.07	309.6	5 51	-22	10 23	-48		
LANCHOW	31.32	286.0	6 21	-3				
KUNMING	34.98	267.0			12 45	18		
ESEN BULAK	36.95	304.6	7 12	0				
TIKSI	39.08	353.5	7 26	-4	13 27	-3		
LHASA	43.21	279.5	7 53	-11				
ALMATA-2	50.52	301.3	9 0	-1				
NEW DELHI	54.93	283.7	9 30A	-4				
TASHKENT	56.82	300.8	9 48	0	17 39	-2		
MOULD BAY	60.06	15.9	9 57	-14				10 19
QUETTA	62.53	289.5	10 26	-1				
ASHKABAD	65.89	300.6	10 54	5				
APATITY	66.32	336.6	10 48	-4	19 34	-7		
SODANKYLA	68.62	337.9	11 3	-3				
KAJAANI	70.18	334.8	11 11	-5				
KIRUNA	70.21	339.9			20 24	-4		
MOSCOW	70.55	324.5	11 16	-2				
UMEA	72.92	336.7	11 42	10	20 51	-8		
KIROVOBAD	73.02	307.6	11 31	-2				
NURMIJARVI	73.49	332.7	11 37	1	20 52	-13		25 30 SS
GORIS	73.59	306.6	11 35	-1	21 7	1		
SHIRAZ	73.96	295.1	11 36A	-2	21 8	-2		
BLUE MTS.	74.22	46.6	11 39	-1			11 53	12 35
BERKELEY	74.57	54.8						31 28
WOODY	78.03	55.2	12 16	15				
UINTA BASIN	81.49	47.1	12 20	0	22 36	5		15 13 PP
KSARA	83.71	306.4	12 47	15	23 11	17		23 28
TONTO FOREST	83.97	52.8	12 39	6			12 48	13 14
COLLMBERG	84.60	330.6	12 35	-1				13 6
PRUHONICE	84.94	329.0	12 36	-2	23 3	-3		
BRATISLAVA	85.12	326.5	12 35	-4	23 6	-2		
JERUSALEM	85.36	305.1	12 53	13				
JENA	85.46	331.1	12 38	-2	23 10	-1		13 13
KASPERSKE H.	85.99	328.9	12 41	-2				

ALBUQUERQUE	86.72	49.9								13	17	
ATHENS	88.78	315.8								23	10	
STRASBOURG	88.84	331.5				23	31	-12		24	47	PS
GARCHY	91.72	333.4	13	10	0							
WICHITA MTS.	91.76	45.8	13	15	5							
ROME	91.97	324.8								30	43	
LA PAZ	148.21	65.7	19	55	11							

JULY 13 8.H 24.M 25.S EPICENTRE 29.63 50.88 DEPTH= 43.KM

A= 0.54939 B= 0.67548 C= 0.49183 D= 0.7758 E=-0.6310
G= 0.3103 H= 0.3816 K=-0.8707 HT= 1.9

DEPTH OF FOCUS= 0.002R

SE= 1.62

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
SHIRAZ	1.43	88.7	0	23K	-1						11	57	PCS
TEHERAN	6.11	3.9	1	31	1	2	44	4					
VANNOVSKAYA	10.24	34.0	2	27	-1								
KIZYL-ARVAT	10.53	23.5	2	31	-1								
GORIS	10.54	340.4	2	32A	0	4	36	7					
KIROVOBAD	11.61	342.6	2	47	1								
TIFLIS	13.03	339.4	3	9	4	5	38	8					
KSARA	13.43	292.0	3	9	-1	5	41	2					
MAKHACH-KALA	13.59	349.4	3	9	-4	5	38	-5					
JERUSALEM	13.64	283.0	3	14	1								
QUETTA	13.96	83.7	3	16	-1	6	7	15					
GROZNY	14.27	344.7	3	25	4	6	9	10					
WARSAK DAM	18.10	70.8	4	7	-3								
KHOROG	18.89	60.1	4	21	1	7	53	8					
TASHKENT	18.95	47.1	4	23K	3	7	54	7					
SIMFEROPOL	20.23	323.7	4	33A	-1								
ISTANBUL UN.	21.12	308.5	4	43	0	8	42	11					
NEW DELHI	23.01	86.1	5	1K	-1						9	12	
FRUNSE	23.15	48.9	5	6	2	9	18	10					
ADDIS ABABA	23.42	211.4	5	10	4								
DEHRA DUN	23.53	81.5	5	9K	2								
ALMATA	24.88	49.7	5	24	4								
ALMATA-2	25.16	50.0	5	25	2								
MOSCOW	27.75	343.8	5	50	3								
SVERDLOVSK	28.05	11.4	5	49	-1								
LWOW	28.61	322.3	5	56	1						13	16	
UZHGOROD	28.92	319.0	5	58	1								
KRAKOW	30.98	319.9	6	15	-1				6	35			
RACIBORZ	31.97	318.9	6	24	0								
CHATRA	32.02	86.0	6	24A	-1								
KASPERSKE H.	34.33	315.1	6	43	-2						9	2	
COLLMBERG	35.48	318.4	6	54A	-1								
NURMIJARVI	35.52	337.9	6	54	-1								
JENA	36.17	317.2	6	59	-2								
KARLSKRONA	36.36	327.0	7	0A	-2								
SHILLONG	36.42	86.3	7	0A	-3								
KAJAANI	37.48	343.5	7	11	0						8	36	PP
ISOLA	37.48	305.0	7	12	0								
UPPSALA	37.61	333.0	7	11A	-2						9	32	
ROSELEND	38.00	307.4	7	15	-1						8	8	
LWIRO	38.09	217.5	7	17	0								
GOTEBORG	38.85	327.5	7	22	-1								
MUNSTER	38.86	317.5	7	24	1								
APATITY	39.36	349.5	7	27A	0	13	28	3			8	53	
SODANKYLA	40.47	345.8	7	36	0						9	8	PP
GARCHY	40.68	309.3	7	37A	-1								
TAMANRASSET	41.06	271.4	7	43A	2						9	18	PP
SKALSTUGAN	41.90	335.3	7	47A	-1								
KIRUNA	42.28	343.4	7	51	0						9	30	PP
FOLINIERE	43.24	311.0	7	58	-1								
KEW	43.53	314.9	8	2A	1								
TROMSOE	44.00	344.5	8	5	0						9	47	PCP
ULAN-BATOR	46.27	50.5	8	24	1								
BROKEN HILL	48.86	209.4	8	43K	-1						9	20	
VALENTIA	49.72	314.7	8	50	0								
KHEYS	51.18	1.5	9	2A	1								
NORD	57.63	350.7	9	47	-1								
TIKSI	58.41	21.4	9	52A	-2								

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ALERT	63.75	352.2	10	30	0							
MOULD BAY	74.22	357.6	11	34A	0							
SCHEFFERVLLE	80.38	328.7	12	9A	0							
COLLEGE	84.69	7.9	12	31	0							
YELLOWKNIFE	87.47	353.3	12	47K	3							
BREBEUF	89.84	324.6	12	56	0							
EDMONTON	96.21	350.6	13	26A	1							
BLUE MTS.	105.10	351.3	14	1	777							
UINTA BASIN	108.08	344.4	18	29	777							
WICHITA MTS.	109.81	333.6	14	31	777						18	28 PKP
TONTO FOREST	114.23	343.8	18	35	0						19	32 PP
LA PAZ	122.95	268.8	18	55	3							
HUANCAYO	127.24	277.5	19	4	4							

JULY 13 13.H 58.M 25.S EPICENTRE 44.28 149.09 DEPTH= 24.KM

A=-0.61625 B= 0.36897 C= 0.69577 D= 0.5137 E= 0.8580
G=-0.5970 H= 0.3574 K=-0.7183 HT= -3.3

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
Y.-SAKHLINSK	5.24	303.7	1	20A	1							
UGLEGORSK	6.81	317.3	1	44A	3							
MIZUSAWA	7.87	231.9	1	56	0	3	14	-11				
MATUSIRO	11.33	230.7	2	39	-5	4	30	-21				
MAGADAN	15.33	3.3	3	36	-1							
CHANGCHUN	17.09	276.8	3	57	-2	7	38	31				
PEKING	24.67	271.6	5	20A	0	10	1	23				
ZO-SE	25.57	248.5	5	28	-1							
NANKING	26.61	253.0	5	40	1							
TIKSI	29.12	347.0	5	57	-4							
ULAN-BATOR	29.21	292.2	6	8	6							
LANCHOW	35.18	272.4	6	54A	0							
ESEN BULAK	36.63	292.4	7	11	4							
BAGUIO CITY	36.75	230.0	7	6	-2							
CHENGTU	37.81	264.5	7	15	-1							
COLLEGE	39.83	36.5	7	34	1							
KUNMING	42.00	258.6	7	52	1							
LHASA	47.68	272.5	8	38	1							
MOULD BAY	47.87	18.8	8	37	-1							
SHILLONG	49.47	267.6	8	50A	0							
ALMATA-2	50.23	295.5	8	57A	1							
CHATRA	52.09	272.2	9	10	0							
RESOLUTE	54.06	17.2	9	23	-2							
YELLOWKNIFE	54.58	34.5	9	30	1							
TASHKENT	56.40	297.1	9	41A	-1							
DEHRA DUN	56.55	281.4	9	43A	0						15	29
KHOROG	57.00	292.1	9	46A	0							
NEW DELHI	58.16	280.3	9	53A	-1							
APATITY	58.47	336.0	9	52K	-5							
WARSAK DAM	58.93	288.7	9	59	-1							
PENTICTON	58.97	49.8	9	59	-1							
EDMONTON	59.96	43.3	10	6	-1							
SODANKYLA	60.50	338.0	10	7	-4							
KIRUNA	61.74	340.3	10	18A	-1							
SHASTA	62.22	59.2	10	23A	1							
HUNGRY HORSE	62.55	48.3	10	25	1							
KAJAANI	62.57	335.0	10	24	-1							
BLUE MTS.	62.81	53.0	10	26	0						11	40
MINERAL	62.91	59.1	10	26K	-1							
QUETTA	64.34	287.9	10	35K	-1							
MOSCOW	64.84	324.4	10	39	0							
UMEA	64.93	337.6	10	38	-2							
SCORESBY SD.	65.37	356.7	10	42	-1							
VANNOVSKAYA	65.40	299.6	10	42	-1							
NURMIJARVI	66.19	333.5	10	46	-2						11	30
HELSINKI	66.35	333.1	10	47	-2							
SKALSTUGAN	67.17	340.6	10	52A	-2							
DUGWAY	68.30	54.7	11	1	0							
UPPSALA	68.87	336.1	11	3	-2							
BOULDER CITY	69.80	59.2	11	12	1				11	25		
UINTA BASIN	70.10	52.9	11	13	1							
KIROVOBAD	70.68	308.2	11	15A	-1							
TEHERAN	70.96	301.5	11	19	1							

RAPID CITY	71.04	46.5	11 18	0		
KONGSBERG	71.20	339.6	11 18	-1		
BAKURIANI	71.51	310.5	11 22	1		
BERGEN	71.56	342.0	11 21	0		
LARAMIE	71.67	49.9	11 37	15		
GOTEBORG	72.28	337.4	11 24	-1		
KARLSKRONA	72.54	334.8	11 25	-2		
GOLDEN	72.89	51.1	11 29	0		
TONTO FOREST	73.11	58.5	11 31	1	11 38	11 45 *SP
COPENHAGEN	73.88	336.1	11 35	0		
SIMFEROPOL	74.06	318.0	11 35	-1		
SHIRAZ	74.28	296.1	11 37A	0		
TUCSON	74.75	59.8	11 40	0	11 53	
ALBUQUERQUE	75.55	55.2	11 44	-1		
KRAKOW	76.14	329.0	11 47	-1		12 1 PCP
UZHGOROD	76.39	326.9	11 48	-1		
SCHEFFERVLLE	76.67	20.4	11 50	-1		
RACIBORZ	76.75	330.0	11 51	0		
HALLE	77.64	334.2	12 2	6		
PRUHONICE	78.11	331.9	11 59	0		
JENA	78.25	334.1	11 58	-2		
BRATISLAVA	78.74	329.5	12 8	6		
KASPERSKE H.	79.16	332.1	12 4A	-1		13 3
BENSBERG	79.55	336.6	12 6	-1		
WICHITA MTS.	80.22	50.6	12 10	0		15 13
TULSA	80.87	48.1	12 14K	0	12 28	
STUTTGART	80.87	334.4	12 12	-2		
DOURBES	81.04	337.7	12 16	1		
BREBEUF	82.91	28.7	12 24	0		
BESANCON	83.22	335.7	12 24	-2		
JERUSALEM	83.27	308.4	12 28	2		
FOLINIERE	83.57	340.3	12 27	-1		
GARCHY	84.03	337.5	12 30A	0		
ROSELEND	84.43	334.6	12 32	0		
ISOLA	85.66	333.7	12 37	-1		
CUMBERLAND	86.30	41.8	12 41	0		
N-LAZARVSKYA	146.23	203.9	19 39K	1		

JULY 13 14.H 6.M 25.S EPICENTRE 24.28 122.48 DEPTH= 33.KM

A=-0.49006 B= 0.76983 C= 0.40889 D= 0.8436 E= 0.5370
G=-0.2196 H= 0.3449 K=-0.9126 HT= 3.6

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
HWALIEN	0.84	248.7	0 16A	1	0 25	-2		
TAIPEI	1.15	310.7	0 24A	5	0 43	9		
HSINCHU	1.47	290.9	0 32	8	0 52	10		
HSINKONG	1.55	221.1	0 21A	-4	0 37	-8		
YUSHAN	1.61	240.7	0 30	4	0 33	-13		
TAICHUNG	1.65	265.9	0 28	1	0 48	1		
ALISHAN	1.71	244.1	0 26	-2	0 45	-4		
TAITUNG	1.95	219.0	0 27	-4	0 41	-14		
TAWU	2.41	217.4	0 38	1	1 6	0		
TAINAN	2.43	238.9	0 45	7	1 9	2		
HENGCHUN	2.77	215.4	0 42	-1	1 15	0		
PENGHU	2.78	255.0	0 33	-10	1 1	-15		
ZO-SE	6.89	350.7	1 42A	1	3 7	8		
HONG KONG	7.89	257.2	1 52	-3	3 15	-9		
BAGUIO CITY	8.02	193.2	1 51	-6				
NANKING	8.41	338.0	1 55	-7	3 36	-1		
MANILA	9.65	188.1	2 15	-4	4 50	42		
SIAN	15.44	313.1	3 38A	2				
PEKING	16.58	342.8	3 54A	3	7 7	14		
NHATRANG	17.38	228.7			7 34	22		4 16
CHENGTU	17.57	295.3	4 3A	0	7 25	9		
KUNMING	17.96	276.8	4 9A	1	7 37	12		
MATUSIRO	18.23	44.3	4 11	-1	7 41	10		
CHANGCHUN	19.64	6.1	4 29	1	8 18	16		
LANCHOW	19.90	310.4	4 33A	2	8 21	13		
ULAN-BATOR	26.64	336.2	5 36	-1				
SHILLONG	27.76	279.1	5 47	0				
LHASA	28.48	287.7	5 55A	1				
ESEN BULAK	30.49	322.9	6 12A	0				
IRKUTSK	31.19	338.3	6 16A	-2				

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CALCUTTA	31.31	273.8							9	39
CHATRA	31.90	282.2	6	25	1					
TANGERANG	33.98	209.1	6	47	5				8	6 PP
LEMBANG	34.15	207.0	6	42K	-2	12	10	3	8	33
YAKUTSK	38.04	5.5	7	14A	-3					
RABAUL	40.45	130.4	7	39	2					
NEW DELHI	40.59	286.2	7	38A	0					
PORT MORESBY	41.24	141.3	7	41	-2	13	52	-3		
ALMATA-2	41.44	308.6	7	46	1					
ALMATA	41.74	308.5	7	48A	1					
LAHORE	42.89	290.9	7	56	-1					
FRUNSE	43.33	307.4	8	2A	2					
WARSAK DAM	45.14	294.5	8	16	1					
TASHKENT	47.10	304.6	8	32A	2					
TIKSI	47.52	2.7	8	30A	-4					
QUETTA	49.33	289.7	8	48A	0	15	44	-7		
CHARTERS TS.	49.81	150.3	8	49	-2	15	59	2		
SVERDLOVSK	54.67	323.6	9	26	-2					
ASHKABAD	55.58	300.4	9	33	-1					
KIZYL-ARVAT	57.08	302.1	9	45	0					
BRISBANE	59.10	148.5	10	9	10					
ADELAIDE	60.90	164.8	10	9K	-3				10	21 34 47
TEHERAN	61.42	298.8	10	15	0					
SHIRAZ	61.74	291.8	10	13	-4	18	38	2		
RIVERVIEW	63.90	153.6	10	31	0					
CANBERRA	64.38	156.1	10	42	7					
GROZNY	64.38	308.0	10	30	-5					
GORIS	64.66	303.8	10	36A	0	19	10	-2		
TOOLANGI	65.22	160.0	10	53	13					
TIFLIS	65.36	306.4	10	41	0					
BAKURIANI	66.30	306.6	10	48	1					
MOSCOW	67.45	322.4	10	53	-1					
APATITY	67.46	335.4	10	53K	-1	19	49	2		
COLLEGE	68.17	27.4	10	59	0					
SODANKYLA	70.06	335.8	11	9K	-1					
PULKOVO	70.41	327.5	11	11	-1					
KAJAANI	70.49	332.3	11	13	0					11 35
SIMFEROPOL	72.15	311.8	11	22K	-1	20	42	0		
KIRUNA	72.18	337.1	11	22A	-1					
HELSINKI	72.87	328.8	11	26	-1					
NURMIJARVI	72.91	329.1	11	26	-1	20	51	1		21 29 PS
MOULD BAY	72.92	12.8	11	25	-2					
UMEA	73.70	333.1	11	31A	-1					
KSARA	74.24	300.3	11	36	1					
JERUSALEM	75.44	298.5	11	47	5					21 30
UPPSALA	76.41	329.9	11	47	-1	21	30	1		
ISTANBUL UN.	76.97	309.2	11	50	-1					14 46 PP
SKALSTUGAN	77.01	334.5	11	49	-2					12 25
UZHGOROD	78.52	318.2	11	59	0					
KRAKOW	79.35	320.2	12	4	0-					12 35
GOTEBORG	80.02	329.3	12	6A	-1					
BRATISLAVA	81.85	319.3	12	15	-2	22	26	-1		
ATHENS	81.91	307.9								31 35
VIENNA-H.	82.25	319.6	12	20	1					
PRUHONICE	82.48	321.7	12	20	0					
COLLMBERG	82.69	323.4	12	20A	-1					15 32 PP
KASPERSKE H.	83.45	321.3	12	24A	-1					12 57
JENA	83.65	323.5	12	26	0	22	43	-2		13 0
LJUBLJANA	84.41	318.3	12	30A	0					
TANANARIVE	84.67	246.6	12	38	7					
TRIESTE	85.07	318.2	12	32	-1	23	1	2		22 52 SKS
BENSBERG	85.99	325.0	12	38	0					
STUTTGART	86.06	322.4	12	39	1					
SEATTLE	87.80	37.7	12	52K	5					
DOURBES	87.82	325.3	12	46	-1					
DURHAM	87.87	331.3				23	29	3		
PENTICTON	88.29	35.3	12	49	0					
BESANCON	88.74	322.4	12	50	-1					
EDMONTON	88.83	29.7	12	52	0					
GARCHY	90.32	323.6	12	58K	-1					
HUNGRY HORSE	91.79	33.8	13	7	2					
BLUE MTS.	92.25	38.0	13	8	0					
CHINA LAKE	97.57	45.3	13	32	0					
UINTA BASIN	99.53	37.7	13	46	5					
TAMANRASSET	102.97	302.4								18 12 PP
PALISADES	113.28	13.4	14	11	-263	25	18	2		
CARACAS	144.23	16.0	19	32K	0					48 27 SSS
CHINCHINA	146.00	33.6	19	37K	2					
BOGOTA	147.06	31.5	19	42	5					29 30 SKKS

LA PAZ	167.40	54.1	20	5	3										

JULY 14 0.H 2.M 18.S EPICENTRE -30.58-177.08 DEPTH= 0.KM

A=-0.86134 B=-0.04389 C=-0.50613 D=-0.0509 E= 0.9987
G= 0.5055 H= 0.0258 K=-0.8625 HT= 1.6

SE= 2.44

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	#PP M	#PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.51	331.0	0	26	-3								
KARAPIRO	9.54	217.8	2	21	-1						3	3	
WELLINGTON	12.55	209.4	3	16	13	5	13	-12					
NOUMEA	16.88	295.3									6	4	
AFIAMALU	17.29	17.6	4	2	-3	7	14	-3					
ROXBURGH	18.29	211.8	4	13	-4								
PORT VILA	18.44	310.6	4	19K	0								
KOUMAC	19.52	296.3	4	33A	1								
LUGANVILLE	20.83	312.5	4	46	0								
BRISBANE	26.52	269.3	5	42	1								
RIVERVIEW	27.02	254.7	5	45	-1						10	22	
CANBERRA	28.77	251.5	6	2K	0						11	46	
HONIARA	30.02	309.7	6	9	-4	10	48	-23					
TOOLANGI	31.62	247.1	6	26	-1				6	37	7	54	PP
CHARTERS TS.	34.60	278.8	6	52	-1								
ADELAIDE	37.19	251.3	7	12A	-3	13	2	0	7	25			
RABAUL	39.10	306.0	7	26	-5								
PORT MORESBY	39.41	294.7	7	31	-3	13	23	-13			9	39	PCP
CAPE HALLETT	42.34	185.7	8	0	2								
SCOTT BASE	47.92	184.6	8	44	2								
DARWIN	51.27	278.9	9	7	-1								
BYRD STATION	54.61	169.6	9	23	-10								
HONOLULU	54.71	21.8	9	32	-2	17	18	5			19	38	
KIPAPA	54.85	21.9	9	33	-2	17	18	3					
WILKES	55.37	207.9	9	37	-1	17	22	0	9	51			
SOUTH POLE	59.59	180.0	10	8	0						11	8	
MAWSON	72.42	200.4	11	30K	0	20	51	-3					
N-LAZARVSKYA	78.74	183.0	12	5K	-1	22	3	-1					
MATUSIRO	78.84	324.7	12	4	-3	22	1	-4					
KURILSK	81.90	335.8	12	23	0	22	40	3					
PARAISO	84.04	41.5	12	37	3								
HONG KONG	84.34	299.8	12	37	1	23	0	-1					
ZO-SE	84.83	310.7	12	35	-3	23	4	-2			22	54	SKS
PRIEST	84.90	42.6	12	38K	0								
PASADENA	85.04	45.5	12	38	-1	23	10	2					
BERKELEY	85.19	40.5	12	40A	0	23	6	-4			24	58	
Y.-SAKHLINSK	85.32	333.7	12	39A	-2	23	5	-6					
CALISTOGA	85.56	39.8	12	40A	-2								
PETROPAVLOVK	85.89	345.6	12	41A	-2	23	7	-9					
SHASTA	87.12	38.4	12	49	0								
MINERAL	87.30	39.1	12	49A	-1								
BOULDER CITY	88.30	45.9	12	55	0								
TUCSON	88.54	50.9	12	56	0								
TONTO FOREST	89.50	49.1	13	0	-1				13	6	30	36	PKKP
EUREKA	89.89	42.7	13	1	-2								
CHANGCHUN	90.85	322.3	13	5A	-2	24	1	-1			23	36	SKS
SEATTLE	92.10	33.6	13	10	-3	24	8	-6					
VICTORIA	92.19	32.4	13	11	-2								
DUGWAY	92.22	43.7	13	12	-1								
BLUE MTS.	92.69	38.0	13	14	-1	24	23	4			30	27	PKKP
ALBUQUERQUE	93.07	50.9	13	16	-1								
SALT LAKE C.	93.14	43.7	13	17	-1								
PEKING	93.60	315.0	13	18	-2	24	27	0			23	55	SKS
MAGADAN	93.64	344.3	13	16	-4								
HUANCAYO	93.83	106.3	13	22	1								
UINTA BASIN	94.24	45.1	13	21	-2	24	42	10			17	8	PP
PENTICTON	94.54	33.6	13	22	-2								
SIAN	94.97	306.9	13	31	5	24	51	13			24	4	SKS
BUTTE	95.99	39.2	13	29	-2								
GOLDEN	96.50	47.5	13	32	-1								
LA PAZ	97.23	113.9	13	34	-2	24	25	12					
COLLEGE	97.84	12.2	13	38	-1								
WICHITA MTS.	98.35	54.7	13	40	-1	24	22	3			30	21	PKKP
TULSA	100.93	54.8				24	34	2			27	2	SP
YAKUTSK	101.69	337.3	13	55	-1								

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BOGOTA	103.54	92.6				24	48	4			27	38 PS
CUMBERLAND	108.17	59.0				26	38	93			29	53 PKKP
TIKSI	108.63	344.3									18	53 PP
MOULD BAY	112.41	12.7	18	37	-1							
CARACAS	112.57	91.0	14	54	-225	25	24	1				
PALISADES	118.66	57.1				25	48	2				
ALMATA-2	120.97	304.8	18	48	-7							
BULAWAYO	123.85	209.4	19	0	-1							
CHILEKA	124.62	218.4	18	53	-9							
QUETTA	125.46	287.1	19	4	0				19	16		
HALIFAX	126.85	54.9	19	6	0							
SVERDLOVSK	132.54	320.9	19	6	-11							
BANDEIRA	133.70	194.0	19	21A	2						23	5
ASHKABAD	134.17	294.8	19	20	0						22	52 PKS
VANNOVSKAYA	134.37	294.8	19	16	-5							
SHIRAZ	137.36	281.8	19	24	-2						22	10 PP
APATITY	138.82	342.8	19	26	-3						22	19 PP
LWIRO	139.08	221.8									20	8
TEHERAN	139.42	290.6	19	32	2						23	9 PKS
SODANKYLA	140.56	345.8	19	27	-5							
KIRUNA	141.30	349.5	19	35	2						41	3 SS
KIROVOBAD	143.62	298.2	19	34	-3							
GORIS	143.65	296.2	19	34A	-3							
TIFLIS	144.71	300.1	19	38	-1							
MOSCOW	144.93	325.9	19	38	-1							
UMEA	144.97	346.7	19	36	-4						22	55 PP
PULKOVO	145.49	335.7	19	39	-1							
BAKURIANI	145.67	300.3	19	42	1							
SKALSTUGAN	146.44	352.4	19	42	0						20	4 PKP2
NURMIJARVI	146.74	340.5	19	43	0						23	4 PP
HELSINKI	146.93	339.9	19	43	0							
UPPSALA	149.09	345.5	19	48	2						42	35 SS
KONGSBERG	150.57	353.1	19	53A	4						20	5 PKP2
SIMFEROPOL	151.67	309.2	19	56	6						20	13 PKP2
KSARA	151.98	285.3	19	54	3						23	34 PP
GOTEBORG	152.16	349.6	19	56	5							
JERUSALEM	152.39	280.9	19	59A	8							
KARLSKRONA	152.91	344.4	19	57	5							
COPENHAGEN	154.01	347.6									20	15
WARSAW	154.59	333.5	20	6	12						23	51
LWOW	155.06	326.4	20	3	8						31	24
DURHAM	155.60	6.3									24	42 PP
M.BOUR	155.62	127.0	20	14	18						24	11 PP
ISTANBUL UN.	156.50	303.5	19	59	2						30	56
COLLMBERG	157.98	343.0	20	14	15						25	21
JENA	158.66	344.8	19	57	-3						24	12 PP
PRUHONICE	158.73	339.0	19	59	-1						24	7 PP
KEW	159.00	5.5	20	6	6							
BRATISLAVA	159.35	332.3	19	58	-2						24	22 PP
BENSBERG	159.39	352.3									20	37 PP
VIENNA-H.	159.57	333.5	20	0	-1							
SOFIA	159.69	312.2									20	43
KASPERSKE H.	159.78	339.4	20	0	-1						24	13 PP
DOURBES	160.46	356.8	20	3	1						24	23 PP
STUTTGART	161.19	346.9	20	2	0						24	22 PP
STRASBOURG	161.64	349.7	19	53	-10						24	27 PP
PARIS	161.79	0.9	20	4	1							
LJUBLJANA	162.10	332.9	20	3	0							
TRIESTE	162.73	333.6	20	4	0						24	36 PP
GARCHY	163.32	359.6	20	4A	-1							
PAVIA	164.62	343.1	19	59	-7						25	22
ROSELEND	164.63	350.1									20	59 PKP2
CLERMONT-FD.	164.83	359.5	20	33	27							
FLORENCE X.	165.25	335.6	20	8	2						24	44 PP
AQUILA	165.55	327.3	20	12	5						24	54 PP
ISOLA	166.03	347.6									21	19 PKP2
ROME	166.33	328.4	20	6	-1						24	43 PP
MESSINA	167.10	309.5	19	35	-33						25	50 PP
TOLEDO	169.11	29.6	20	10A	1						25	17 PP
MALAGA	171.36	42.9	20	26	16						25	29 PP
GRANADA	171.47	37.7									21	41
TAMANRASSET	171.89	197.3	20	12	1						25	42 PP

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JULY 14 3.H 59.M 15.S EPICENTRE -30.43-177.02 DEPTH= 86.KM

A=-0.86258 B=-0.04494 C=-0.50391 D=-0.0520 E= 0.9986
G= 0.5032 H= 0.0262 K=-0.8638 HT= 1.7

DEPTH OF FOCUS= 0.008R

SE= 3.43

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.41	326.0	0	15	-9								
KARAPIRO	9.69	217.5	2	18	-1								
WELLINGTON	12.70	209.3				5	1	-18					
NOUMEA	16.87	294.8	3	54A	2								
AFIAMALU	17.13	17.5	3	58	2	6	55	-7					
PORT VILA	18.39	310.1	4	13	2								
ROXBURGH	18.45	211.7	4	6	-5								
KOUMAC	19.51	295.9	4	24A	1								
LUGANVILLE	20.77	312.1	4	42A	6								
BRISBANE	26.57	269.0	5	32	0								
RIVERVIEW	27.11	254.4	5	48	11								
CANBERRA	28.87	251.2	5	53	0								
HONIARA	29.97	309.4	6	1	-2								
TOOLANGI	31.73	246.9	6	19	1				6	35			
CHARTERS TS.	34.64	278.6	6	42	-1						14	42	
ADELAIDE	37.30	251.1	7	5A	-1								
PORT MORESBY	39.40	294.5	7	20	-3								
CAPE HALLETT	42.49	185.7	7	54	5								
SCOTT BASE	48.08	184.6	8	37	4								
HONOLULU	54.55	21.8				17	9	16					
KIPAPA	54.69	21.8				17	9	14					
BYRD STATION	54.75	169.6	9	24	1								
WILKES	55.52	207.8	9	27	-2								
SOUTH POLE	59.74	180.0	9	58	-1								
MAWSON	72.58	200.3	11	20	0								
MATUSIRO	78.75	324.7	11	55	0								
N-LAZARVSKYA	78.89	183.0	11	56	0								
PRIEST	84.75	42.6	11	53A	-33								
BERKELEY	85.04	40.4									38	15	
Y.-SAKHLINSK	85.21	333.7	12	30A	1								
CALISTOGA	85.41	39.7	11	54K	-36								
BOULDER CITY	88.16	45.9	12	48	5								
TUCSON	88.40	50.9	12	36	-8								
TONTO FOREST	89.36	49.0	12	50	1				12	59	30	37	PKKP
BLUE MTS.	92.54	37.9	13	4	1	24	11	14			30	30	SS
ALBUQUERQUE	92.93	50.9	13	8	3								
UINTA BASIN	94.10	45.1	13	14	4	24	33	22			30	17	PKKP
COLLEGE	97.68	12.1	13	29	2								
WICHITA MTS.	98.22	54.6	13	30	1	24	17	19			25	3	S
CUMBERLAND	108.04	59.0									29	49	PKKP
PALISADES	118.53	57.0				24	44	-40					
SHIRAZ	137.39	282.0	19	23	9								
APATITY	138.70	342.8	19	14	-3								
SODANKYLA	140.43	345.9	19	20	0								
KIROVOBAD	143.60	298.3	19	24	-1								
MOSCOW	144.84	326.1	19	28	1								
UMEA	144.84	346.8	19	27	0								
BAKURIANI	145.64	300.5	19	30	1								
SKALSTUGAN	146.31	352.5	19	35A	5								
NURMIJARVI	146.62	340.6	19	33	2								
UPPSALA	148.96	345.7	19	39	5						19	53	PKP2
KONGSBERG	150.43	353.2	19	45	9						19	56	PKP2
KSARA	152.00	285.6									20	2	PKP2
GOTEBORG	152.03	349.7	19	41	2						19	54	PKP2
JERUSALEM	152.41	281.2	19	50	11								
KARLSKRONA	152.78	344.5	19	56	16						20	12	PKP2
COLLMBERG	157.86	343.2									20	16	
JENA	158.54	345.0	20	36	48								
PRUHONICE	158.61	339.2									20	26	PKP2
KASPERSKE H.	159.66	339.7	19	54	5						20	35	PKP2
STUTTGART	161.06	347.1									20	37	PKP2
GARCHY	163.17	359.8	20	44	52								
ROSELEND	164.50	350.4									20	58	PKP2
ISOLA	165.90	347.9									20	34	PKP2
TOLEDO	168.96	29.5									21	12	PKP2

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JULY 14 5.H 41.M 45.S EPICENTRE 10.45 -62.73 DEPTH= 34.KM

A= 0.45075 B=-0.87429 C= 0.18012 D=-0.8888 E=-0.4582
G= 0.0825 H=-0.1601 K=-0.9836 HT= 6.5

DEPTH OF FOCUS= 0.000R

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
TRINIDAD	1.32	81.0	0	17A	-6	0	55	16				
GRENADA	1.87	31.4	0	29	-2							
ST. VINCENT	3.06	27.6	0	46	-2							
CARACAS	4.14	271.1	1	5K	2	1	59	8				
FORT FRANCE	4.53	19.7	1	9	1							
ST. CLAUDE	5.64	10.1	1	25	1	2	32	3				
ST. KITTS	6.85	360.0	1	41	0							
SAN JUAN	8.54	337.8	2	5	0						3	55
FUQUENE	11.96	246.4	2	49A	-2							
GALERAZAMBA	12.34	272.7	3	21	25	5	44	30				
BOGOTA	12.64	243.6	3	1	0							
CHINCHINA	13.88	247.9	3	17	0	6	7	16				
HOPE	15.52	300.5	3	43	5							
HUANCAYO	25.62	209.6	5	28	0							
SAN SALVADOR	26.08	279.7	5	49	16							
LA PAZ	27.30	191.4	5	44	0	10	29	10				
AREQUIPA	28.10	198.1	5	50	-1							
COLUMBIA	28.82	327.2	5	58	1	10	41	-3			11	29
COMITAN	29.17	284.6				10	59	10			6	51
CHAPEL HILL	29.37	332.3	6	4	2							
BLACKSBURG	31.06	331.9	6	19	2							
GEORGETOWN	31.10	338.0	6	18	0							
WASHINGTON	31.10	338.0	6	18	0							
PALISADES	32.00	343.9	6	26	0	11	35	1				
CUMBERLAND	32.52	323.9	6	31	1	11	50	8			7	20 PP
MORGANTOWN	32.86	335.1	6	35	2						11	57
PENNSYLVANIA	33.06	338.7	6	35	0							
VERA CRUZ	33.39	289.0									7	43
OAXACA	33.67	285.0									19	19
HALIFAX	34.06	358.9	6	44A	1							
CLEVELAND	35.06	335.1	6	53K	1						8	9 PP
SCARBOROUGH	36.11	339.5	7	2A	1							
BREBEUF	36.16	347.0	7	1K	0	12	36	-2			8	21 PP
LONDON ONT.	36.24	336.9	7	3K	1							
TACUBAYA	36.28	288.5	7	9	7	12	44	4				
OTTAWA	36.57	344.6	7	4K	-1						9	31
ANN ARBOR	36.64	333.6	7	8	3							
SEVEN FALLS	37.19	350.8	7	10A	0							
ST. LOUIS 1	37.32	323.4	7	11	0	12	45	-11				
FLORISSANT	37.51	323.5	7	13	0							
DALLAS	38.44	310.7	7	21	0							
TULSA	39.25	315.6	7	27K	0	13	15	-10			8	59
SEPT ILES	39.75	356.3	7	32	1							
LAWRENCE	40.59	319.9	7	37	-1							
WICHITA MTS.	40.64	312.2	7	38	-1	13	49	3			9	17 PP
PONTA DELGDA	42.92	44.5	8	2A	4	14	25	5			17	47 SS
SANTA LUCIA	44.29	189.5	8	7	-2							
SCHEFFERVLLE	44.38	356.6	8	9K	0							
CHIHUAHUA	44.39	300.4	7	15	-54	13	55	-46				
M.BOUR	44.80	80.1	8	14	1	14	53	6				
GOLDEN	47.71	315.1	8	35	-1	15	43	15				
RAPID CITY	48.38	321.3	8	39	-2						19	53
TUCSON	49.29	303.7	8	48	0							
TONTO FOREST	50.19	306.1	8	55	0	16	26	23	9	6	8	58 PP
UINTA BASIN	50.91	314.1	8	59	-1	16	10	-3			10	59 PP
PRICE	51.54	312.8	9	5K	0							
SALT LAKE C.	52.69	313.8	9	14	0							
DUGWAY	53.18	312.8	9	17K	0							
BOULDER CITY	53.46	307.2	9	20	1							
BUTTE	55.17	319.5	9	31	-1						16	51
EUREKA	55.28	311.0	9	32	-1							
PASADENA	55.71	304.2	9	35	-1	17	25	7			11	45 PP
HUNGRY HORSE	57.02	321.6	9	54	9						17	54
BLUE MTS.	57.85	316.8	9	49	-2	17	40	-6			12	0 PP
PRIEST	58.10	306.1	9	52K	-1							
MALAGA	58.52	53.3	9	55	-1	17	55	0				
EDMONTON	58.81	327.2	9	54K	-4							
SPOKANE	58.83	320.0	9	56	-2						12	30
GODHAVN	59.05	3.8	9	57K	-2	18	3	1				

BANFF	59.05	324.2	9	58	-1								
VALENTIA	59.17	34.9	10	U	0	18	6	2					
GRANADA	59.23	52.9	10	8A	7	18	14	10			11	20	
TOLEDO	59.43	49.8	10	2A	0	18	5	-2			12	9	PP
PARAISO	59.49	306.0	9	57	-5								
BERKELEY	59.68	307.8	10	4K	0	17	51	-19	10	21	12	22	PP
MINERAL	59.68	310.7	10	2K	-2								
ALMERIA	60.07	53.5	10	7K	1	18	20	5					
CALISTOGA	60.07	308.6	10	6K	0								
SHASTA	60.35	311.0	10	6A	-2								
UKIAH	60.66	309.1	10	10	0								
PENTICTON	60.81	321.1	10	9K	-2								
ALICANTE	61.87	52.1				18	44	6					
SEATTLE	62.00	318.7	10	15	-4	18	37	-3					
VICTORIA	62.96	319.4	10	24K	-2								
BAGNERES	63.18	47.0	10	26	-1								
YELLOWKNIFE	63.80	336.0	10	29	-2								
FOLINIERE	64.02	40.6	10	32	-1								
ALGIERS UNI.	64.44	54.3	10	29	-7						11	9	
KEW	64.82	37.8	10	36	-2	19	15	0			19	33	PS
DURHAM	65.05	34.0	10	39K	0	19	21	3			19	35	PS
ABERDEEN	65.55	31.4	10	46K	3	19	25	1			24	5	SS
CLERMONT-FD.	65.77	44.5	10	46	2	19	34	7					
PARIS	65.94	41.1	10	44	-1								
GARCHY	66.01	42.8	10	53	7								
TAMANRASSET	66.06	69.7	10	46	0	19	40	10			11	14	PCP
RESOLUTE	66.73	351.1	10	47K	-3								
DOURBES	67.54	40.0	10	54	-1	19	47	-1					
BESANCON	67.96	43.2	10	59	1						11	47	
ROSELEND	68.19	45.0	10	59	0						11	38	PCP
DE BILT	68.28	38.0	11	2	2	19	58	1			24	21	SS
ISOLA	68.30	46.6	11	3	3								
WELSCHBRUCH	68.38	42.0	11	6	5								
BENSBERG	69.31	39.4	11	6A	0								
WITTEVEEN	69.31	37.4	10	59	-7								
STRASBOURG	69.34	42.0	11	8	2	20	22	13			13	36	PP
PAVIA	69.91	45.7	11	17	7	20	39	23			23	16	
BERGEN	70.18	29.3	11	13	1								
STUTTGART	70.36	41.9	11	10	-3	20	23	2			13	43	PP
PRATO	71.18	47.2	11	37	19	20	33	2					
FLORENCE X.	71.29	47.3	11	25	7	20	48	16			14	3	PP
PADOVA	71.83	45.6	11	35	14	20	35	-3					
SITKA	71.84	326.7	11	21	0						20	59	
ALERT	72.05	0.0	11	7	-16								
JENA	72.07	39.8	11	21	-2	20	39	-2			25	33	SS
ROME	72.10	49.3	11	23K	0	20	48	7			14	6	PP
KONGSBERG	72.15	30.6	11	24	1	20	27	-15			25	26	SS
MOULD BAY	72.27	347.9	11	21	-3								
HALLE	72.36	39.2	11	24	-1	20	44	0					
AQUILA	72.80	48.9	11	29	2	20	55	6			14	15	PP
COLLMBERG	72.99	39.5	11	28	0	20	52	0					
GOTEBORG	73.07	32.8	11	28K	-1								
COPENHAGEN	73.08	34.9	11	28K	-1	20	55	2					
TRIESTE	73.16	45.4	11	28K	-1	20	55	2			14	20	PP
KASPERSKE H.	73.22	41.8	11	27K	-3						13	41	PP
LJUBLJANA	73.71	45.0	11	31K	-2						12	7	
PRAGUE	73.82	40.9	11	32	-1	20	29	-32			13	58	PP
NORD	73.83	6.3	11	31	-2								
PRUHONICE	73.89	41.0	11	33	-1	21	4	2					
SKALSTUGAN	74.04	26.7	11	34K	0								
MESSINA	74.43	53.2	11	39	2	21	9	1			14	22	PP
KARLSKRONA	74.89	34.6	11	39	0								
VIENNA-H.	75.03	42.8	11	39	-1	21	14	0					
ARGENTINE I.	75.49	180.7	11	43	0								
BRATISLAVA	75.52	42.9	11	41	-2	21	21	1			14	59	
UPPSALA	76.19	30.8	11	46K	-1	21	26	-1					
RACIBORZ	76.25	40.9	11	48	1						11	58	PCP
KRAKOW	77.36	40.9	11	53	0	21	52	12			14	26	
UMEA	77.59	26.8	11	53K	-2	21	38	-4					
KIRUNA	77.81	22.7	11	54K	-2								
BELGRADE	77.89	46.3	11	55	-1	21	51	5			12	8	PCP
WARSAW	78.00	38.7	11	57	0	21	50	3			12	6	PCP
TIMISOARA	78.39	45.3	12	3	4	21	55	4			22	18	PS
COLLEGE	78.53	334.3	11	58	-2	21	47	-5			14	58	PP
UZHGOROD	78.97	42.3	12	2	0								
BANDEIRA	79.43	107.4	12	6A	1								
NURMIJARVI	79.70	30.2	12	6A	0	22	4	-1			15	3	PP
HELSINKI	79.88	30.5	12	6	-1								

LWOW	80.02	41.0	12	8	0	22	11	3						
SOFIA	80.12	48.3	12	8	0	22	16	7				15	0	PP
SODANKYLA	80.19	23.1	12	8	-1							13	24	
ATHENS	80.88	53.0	12	13	1	22	19	2						
PULKOVO	82.59	30.6	12	20K	-1	22	34	-1						
APATITY	82.77	22.6	12	21	-1	22	33	-3				15	28	PP
ISTANBUL UN.	84.52	49.4	12	31K	0	22	56	2						
KHEYS	84.54	8.1	12	30	-1	22	51	-3						
MOSCOW	87.22	33.9	12	43	-1	23	22	2						
SIMFEROPOL	87.50	44.9	12	46K	0	23	25	2						
HERMANUS	89.29	125.1				23	47	8						
KIPAPA	91.10	291.9	13	8	5	23	31	-25						
HONOLULU	91.20	291.8	13	9	6	23	35	-21				25	25	
KSARA	91.30	55.4	13	7	3	24	8	11				25	17	PS
LWIRO	91.90	91.9	13	8	2	23	44	-19						
KIMBERLEY	92.79	118.6	13	10K	-1									
BROKEN HILL	93.70	103.9	13	16	1									
N-LAZARVSKYA	94.77	161.3	13	18	-2									
BYRD STATION	94.78	188.4	13	20	0									
TIFLIS	95.87	45.9	13	27	2	24	44	47						
KIROVOBAD	97.32	46.5	13	31	0									
GORIS	97.72	47.6	13	29	-4									
TIKSI	97.74	356.3	13	27	-6									
SVERDLOVSK	98.44	27.7	13	35	-1									
TEHERAN	102.84	49.6				24	34	2				25	42	
MAGADAN	105.23	343.0	18	24	777									
SHIRAZ	106.05	55.0	17	5	777							17	46	
VANNOVSKAYA	106.75	45.1	14	17	777									
AFIAMALU	110.78	259.0										34	45	SS
ESEN BULAK	120.36	16.7										20	19	PP
ULAN-BATOR	121.17	8.1										20	16	PP
NEW DELHI	125.19	43.9	18	57A	-1									
TUKUBASAN	128.84	336.2										21	8	PP
MATUSIRO	129.28	338.2	19	7	2									
PEKING	129.77	1.1	19	6	0							21	17	PP
LANCHOW	132.05	14.7	19	12	1							21	37	PP
LHASA	132.81	31.6	19	15	3							21	39	PP
SIAN	134.85	9.8	19	16	0							21	50	PP
SHILLONG	136.48	34.2	19	19	0									
CHENGTU	137.19	16.9	19	23	3									
HONIARA	137.97	267.5	19	20	-2							22	11	
ZO-SE	138.52	354.9	19	22	-1									
RIVERVIEW	141.23	227.8	19	17	-11							42	51	
KUNMING	141.92	21.6	19	25	-4									
CANBERRA	141.99	224.3	19	28	-1									
BRISBANE	142.60	238.2	19	30	0									
TOOLANGI	142.95	218.6	19	28	-3							19	55	
PORT BLAIR	147.17	48.7	19	41K	3									
HONG KONG	147.32	5.3	19	40	2	26	49	8				23	10	PP
ADELAIDE	148.72	215.3	19	46A	6							42	33	
CHARTERS TS.	150.48	247.6	19	45	2							41	54	
PORT MORESBY	150.56	269.4	19	44	1									
BAGUIO CITY	153.11	353.0	19	47	0									

JULY 14 10.H 51.M 42.S EPICENTRE 36.06 70.44 DEPTH= 110.KM

A= 0.27128 B= 0.76354 C= 0.58602 D= 0.9423 E=-0.3348
G= 0.1962 H= 0.5522 K=-0.8103 HT= -0.3

DEPTH OF FOCUS= 0.012R

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KHOROG	1.67	31.3	0	31	2	0	54	3				
KULYAB	1.92	343.5	0	33A	1	0	57	1				
WARSAK DAM	2.25	155.8	0	36	0	1	2	-2				
OBI-GARM	2.70	347.6	0	43K	0	1	15	0				
DUZHANBE	2.84	332.5	0	44K	0	1	16	-2				
GARM	2.94	357.9	0	46K	0	1	18	-3				
DZERGETAL	3.22	11.0	0	51	1	1	27	0				
MURGAB	3.62	49.3	0	58	3	1	28	-9				
FERGANA	4.44	13.4	1	6K	0	1	55	-1				
SAMARKAND	4.53	323.8	1	7K	0	1	56	-3				
ANDIJAN	4.92	17.3	1	13K	0	2	9	0				
NAMANGAN	5.01	10.7	1	14	0	2	11	0				

TASHKENT	5.33	350.6	1	18	0					2	31
LAHORE	5.54	143.1	1	21	0	2	21	-3			
TCHIMKENT	6.27	354.3	1	30	-1	2	38	-4			
QUETTA	6.55	207.5	1	35	0	2	47	-2			
NARYN	6.90	37.3	1	37	-3					2	21
FRUNSE	7.49	24.3	1	6K	-42	1	55	-77			
RYBACHE	7.78	33.1	1	52	0					3	47
FABRICHNAYA	8.44	31.4	1	59	-1						
DEHRA DUN	8.57	129.8	1	58	-4	3	39	1		2	5 PP
ALMATA	8.78	32.9	2	5	0	3	40	-3			
NEW DELHI	9.39	140.6	2	10K	-3	3	49	-9			
CHILIK	9.68	36.8	2	15	-2						
VANNOVSKAYA	10.05	284.5	2	20	-2	4	8	-5			
KIZYL-ARVAT	11.67	289.8	2	40	-4	4	42	-10			
SEHORE	14.08	154.1				5	37	-12		6	18
TEHERAN	15.45	274.4	3	35	3	6	40	20			
SEMIPALATNSK	16.00	23.3	3	36	-3						
SHIRAZ	16.35	252.1	3	46A	2	6	46	5			
CHATRA	16.96	118.2	3	56	5	6	48	-7			
POONA	17.72	169.3								7	56
BOKARO	18.02	128.4	4	24	20						
LHASA	18.44	104.4	4	14	5						
MAKHACH-KALA	18.97	298.3	4	15	0	7	44	5			
GORIS	19.35	287.5	4	22	3	7	49	3		6	1
GROZNY	20.29	298.5	4	30	1					8	15
TIFLIS	20.71	293.6	4	34	1	8	26	13		5	6 *SP
SHILLONG	21.12	113.7	4	38K	1	8	21	1		5	24 PPP
VISHAKHAPTNM	21.53	144.7	4	42	1	8	32	4			
BAKURIANI	21.66	293.3	4	44	2						
SVERDLOVSK	21.81	345.4	4	44	0						
MADRAS	24.58	156.6								9	42
LANCHOW	26.92	80.1	5	40	8						
ULAN-BATOR	29.31	54.7	5	55	1						
MOSCOW	29.72	321.8	5	57	0					6	32 *SP
PEKING	35.93	69.6	6	52	1						
ATHENS	37.05	287.3								8	0
UZHGOROD	37.14	305.1	7	2	1						
APATITY	37.85	337.9	7	8K	1	12	52	2			
NURMIJARVI	37.92	324.8	7	7	-1				7 36	8	38 PP
KRAKOW	38.72	307.3	7	16	2				7 41		
SODANKYLA	39.95	335.3	7	25A	0					8	58 PP
UMEA	40.95	328.7	7	32A	-1						
UPPSALA	41.14	322.3	7	34	0						
KARLSKRONA	41.69	316.5	7	37	-2						
PRUHONICE	42.19	307.3	7	43	0					9	24 PP
KIRUNA	42.28	334.4	7	44A	0				8 12	9	28 PP
KASPERSKE H.	42.88	306.1								8	55
COLLMBERG	43.12	309.3	7	53	2					8	36
TROMSOE	43.49	336.5	7	54	0					9	43 PP
GOTEBORG	43.78	318.6	7	55	-1						
SKALSTUGAN	44.33	327.1	8	0A	0					9	41 PP
KONGSBERG	45.13	321.3	8	1	-6						
TIKSI	46.35	21.9	8	16A	0					10	4
ROSELEND	48.04	302.2	8	29	-1					9	24
GARCHY	50.10	305.0	8	45	0						
SETIF	51.60	290.7	8	55	-2						
MATUSIRO	53.54	68.0	9	10	-1					9	41
TAMANRASSET	57.14	275.6	9	37	0						
TOLEDO	57.25	298.2	9	37K	-1						
MOULD BAY	67.81	2.5	10	47A	-1					11	17
COLLEGE	75.04	15.9	11	30	-1				12 0		
YELLOWKNIFE	81.71	2.4	12	8	1						
CHARTERS TS.	90.78	114.3	13	22	31						
EDMONTON	90.87	2.3	12	52	0						
WICHITA MTS.	108.85	350.5	18	28	777					19	13
TONTO FOREST	110.00	1.5	18	20	777					18	56 PP

JULY 14 14.H 28.M 21.5 EPICENTRE -30.31-177.36 DEPTH= 29.KM

A=-0.86384 B=-0.03978 C=-0.50220 D=-0.0460 E= 0.9989
G= 0.5017 H= 0.0231 K=-0.8648 HT= 1.7

SE= 3.18

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

RAOUL ISLAND	1.16	335.3	0	20	0						
KARAPIRO	9.60	215.8	2	15	-4						
WELLINGTON	12.66	208.1	3	11	10	5	5	-17			
AFIAMALU	17.12	18.7	3	57A	-1	7	3	-3			
ROXBURGH	18.39	210.9	4	15	1						
LUGANVILLE	20.48	312.5	4	44	6						
BRISBANE	26.28	268.9	5	36	2						
RIVERVIEW	26.86	254.2	5	39	-1					10	37
CANBERRA	28.62	251.0	5	57	1						
HONIARA	29.66	309.7	6	3	-2	10	59	1			
TOOLANGI	31.50	246.7	6	21	0					6	47
CHARTERS TS.	34.32	278.6	6	46	0	12	18	8			
ADELAIDE	37.05	251.0	7	9	0					16	15
RABAUL	38.75	306.1	7	23	0						
PORT MORESBY	39.08	294.7	7	15	-11						
SCOTT BASE	48.17	184.5	8	42	3						
DARWIN	50.99	278.8	9	1	0						
BYRD STATION	54.92	169.6	9	30	0						
WILKES	55.48	207.8	9	36	2						
SOUTH POLE	59.85	180.0	10	2	-3						
MAWSON	72.58	200.4	11	25	-1						
MATUSIRO	78.48	324.9	11	59	-1						
N-LAZARVSKYA	78.99	183.1	12	1K	-2	21	51	-7			
HONG KONG	84.00	300.0				21	51	-58			
PRIEST	84.87	42.8	12	32A	-1						
PASADENA	85.03	45.6	12	33	-1						
BERKELEY	85.15	40.6	12	36K	2	23	7	6			
CALISTOGA	85.51	39.9	12	33A	-3						
PETROPAVLOVK	85.58	345.7	12	32	-5						
SHASTA	87.07	38.6	12	45A	1						
MINERAL	87.25	39.2	12	46K	1						
BOULDER CITY	88.29	46.1	12	49	-1						
TUCSON	88.56	51.0	12	53	2						
TONTO FOREST	89.51	49.2	12	56	1				13	7	14 34
EUREKA	89.86	42.8	12	59	2						
BLUE MTS.	92.63	38.1	13	9	-1	24	24	14			30 28 PKKP
ALBUQUERQUE	93.09	51.0	13	12	0						
UINTA BASIN	94.23	45.2	13	18	1	24	37	13			23 53 SKS
COLLEGE	97.63	12.3	13	33	0						
WICHITA MTS.	98.40	54.8	13	35	-1	24	19	8			30 34 PKKP
TULSA	100.97	54.9				24	24	0			26 54 SP
CUMBERLAND	108.24	59.1								28	1 SP
MOULD BAY	112.20	12.7	18	31	-2						
SHIRAZ	137.07	282.2	19	29	9					22	54 SKP
APATITY	138.50	342.7	19	29K	6						
SODANKYLA	140.25	345.8	19	32	6						
KIROVOBAD	143.28	298.5	19	32	1						
GORIS	143.31	296.5	19	27	-4						
GROZNY	143.52	303.0	19	31	-1						
TIFLIS	144.37	300.4	19	33	0						
MOSCOW	144.57	326.0	19	33	-1						
UMEA	144.66	346.6	19	31K	-3						
SKALSTUGAN	146.15	352.3	19	37K	1						
NURMIJARVI	146.41	340.4	19	37	0					42	1 SS
HELSINKI	146.60	339.8	19	38	1						
UPPSALA	148.78	345.4	19	41	0					20	3
KONGSBERG	150.28	352.8	19	48	5					20	5 PKP2
SIMFEROPOL	151.31	309.4	19	50	6						
KSARA	151.68	285.8	19	48	3					23	32 PP
GOTEBORG	151.86	349.3	19	50	5						
JERUSALEM	152.10	281.4	19	53	7						
ISTANBUL UN.	156.15	303.8	19	50	-1						
UZHGOROD	156.35	326.2	20	11	20						
COLLMBERG	157.66	342.7	19	15	-38						
JENA	158.35	344.5	20	6	12						
KASPERSKE H.	159.45	339.2	20	35	40					21	22
STUTTGART	160.88	346.5	19	57	0						
TOLEDO	169.00	28.0								21	12 PKP2
MALAGA	171.32	40.7	20	7	2					25	43 PP
TAMANRASSET	172.07	199.7	20	10	5						

JULY 14 17.H 6.M 34.S EPICENTRE -39.61 174.85 DEPTH= 142.KM

A=-0.76942 B= 0.06931 C=-0.63497 D= 0.0897 E= 0.9960
G= 0.6324 H=-0.0570 K=-0.7725 HT= -1.5

DEPTH OF FOCUS= 0.017R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
TARATA	0.55	318.5	0	21K	-1								
CHATEAU	0.67	52.8	0	23A	1								
WAIRAKEI	1.33	43.1	0	28	1						0	50	
WELLINGTON	1.67	182.1	0	33A	2						0	55	
KARAPIRO	1.76	18.0	0	31K	-1								
TUAI	1.96	66.4	0	35A	1	1	0	-1					
COBB RIVER	2.19	227.1	0	37	0								
ONERAHI	3.85	354.1	0	59	0	1	42	-2					
GEBBIES PASS	4.41	201.3	1	5	-1	1	51	-6					
ROXBURGH	7.15	213.0	1	40K	-3	2	55	-8					
MONOWAI	8.15	218.4	1	53	-3	3	21	-6					
MACQUARIE I.	18.35	210.5	4	6K	0								
NOUMEA	18.68	335.0	4	9	0								
RIVERVIEW	19.83	279.5	4	23	2						8	8	
CANBERRA	20.94	273.6	4	34	2								
KOUMAC	21.04	331.4	4	34A	1								
BRISBANE	22.01	296.9	4	45	2								
PORT VILA	22.53	343.6	4	49A	1								
TOOLANGI	23.00	265.7	4	54A	1						8	39	PCP
LUGANVILLE	24.93	342.1	5	12	1								
AFIAMALU	28.17	28.4	5	39	-2								
ADELAIDE	28.99	267.7	5	48A	0						6	21	
CHARTERS TS.	31.31	300.1	6	9	1	11	5	1					
HONIARA	32.86	332.1	6	21	-1	11	26	-2					
SCOTT BASE	38.50	182.7	7	13	3								
PORT MORESBY	38.93	313.1	7	14A	1	13	3	3					
BYRD STATION	47.09	167.5	8	21	2						13	24	
DARWIN	47.31	292.5	8	21	0								
MUNDARING	47.45	260.1	8	20	-2				8	54			
SOUTH POLE	50.58	180.0	8	47	1						10	0	
MAWSON	61.60	203.8	10	3	-1								
HAWAII V.OB.	65.02	31.2	10	24	-3								
KIPAPA	65.79	27.8	10	30	-2								
TANGERANG	69.34	279.3	10	51A	-3								
BAGUIO CITY	75.25	306.3	11	28	0								
MATUSIRO	82.95	331.0	12	9	-1								
TONTO FOREST	100.28	53.9	13	31	0						17	37	PP
SHILLONG	100.80	294.1									20	30	
BLUE MTS.	103.83	42.7	13	51	4								
UINTA BASIN	105.20	50.1	13	57	777						18	8	PKP
COLLEGE	108.17	15.8	18	7	777								
WICHITA MTS.	108.77	60.3	14	13	777						18	11	PKP
NEW DELHI	113.12	288.6	18	49K	29								
CUMBERLAND	118.21	65.8	18	26	-4						19	53	
MOULD BAY	122.73	15.1	18	35A	-4								
BANDEIRA	123.11	201.4	18	40K	1						35	12	
RESOLUTE	127.81	19.7	18	45	-3								
SHIRAZ	132.24	276.6									19	26	
TEHERAN	135.71	283.6									20	56	
APATITY	144.91	335.4	19	17A	-3				19	55	20	46	PCP
JERUSALEM	146.52	269.3	19	25	2								
KSARA	146.82	273.1	19	27	4								
SODANKYLA	147.10	338.0	19	23A	-1						22	49	PP
TROMSOE	147.32	344.7	19	24	0						21	11	
SCORESBY SD.	147.85	10.5	19	27	2								
KIRUNA	148.42	341.8	19	27A	1						20	57	
KAJAANI	148.82	332.6	19	28	2				20	20	22	58	PP
UMEA	151.48	336.5	19	34A	4						20	13	
NURMIJARVI	152.06	328.3	19	36	5						23	23	PP
SKALSTUGAN	153.85	342.3	19	39A	5				20	37			
UPPSALA	155.19	332.2	19	45	10						23	32	PP
KONGSBERG	157.87	339.9	20	12	33								
GOTEBORG	158.76	334.1	20	2A	22								
KRAKOW	159.47	308.8	18	49	-52								
RACIBORZ	160.49	310.1	18	54	-48								
TAMANRASSET	160.93	211.5									24	33	PP
VIENNA-H.	162.30	306.3	18	48	-56								
PRUHONICE	162.65	313.2	19	5	-39						24	16	PP
COLLMBERG	162.77	318.7	19	18	-26						21	12	

KASPERSKE H.	163.61	311.6	19 2	-43		24 21	PP
JENA	163.71	319.5	19 21	-24		20 36	
BENSBERG	165.74	326.8	19 37	-10		20 46	
HEIDELBERG	166.10	319.3	19 22	-25			
STUTTGART	166.20	316.3	19 19	-28			
ROME	166.44	285.4	19 44	-4		21 0	
FELDBERG	167.41	315.3	19 18	-30			
DOURBES	167.45	329.9	19 44	-4		20 55	
KEW	167.67	345.7	20 12	24			
PAVIA	168.04	302.4				38 56	
BESANCON	168.88	317.0	19 24	-25		21 3	*SPKP
ROSELEND	169.41	308.9	18 41	-68		21 4	*SPKP
ISOLA	169.83	300.6	19 8	-42		20 40	
GARCHY	170.28	324.8	19 35K	-15			
BAGNERES	174.72	312.7	19 32	-20			
MALAGA	177.06	191.8	19 40	-12		25 54	PP
TOLEDO	179.11	288.2	19 46K	-7		25 41	PP

JULY 16 18.H 27.M 13.S EPICENTRE 43.27 41.57 DEPTH= 0.KM

A= 0.54646 B= 0.48474 C= 0.68294 D= 0.6636 E=-0.7481
G= 0.5109 H= 0.4532 K=-0.7305 HT= -2.9

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	
ZUGDIDI	0.78	163.2									0	15	PG
KRASNAYA	1.08	292.4									0	23	PG
PIATIGORSK	1.33	54.4									0	24	PG
SOTCHI	1.39	283.7									0	29	PG
ABASTUMANJ	1.78	148.1									0	32	PG
BORZHOMI	1.96	136.5	0	35	0								
BAKURIANI	2.10	136.2	0	37	0								
GORI	2.28	123.5	0	39	-1								
AKHALKALAKI	2.34	142.2	0	41	1								
DUZHETI	2.59	116.2	0	45A	1						1	19	S*
TIFLIS	2.84	121.9	0	48	0						1	28	S*
GROZNY	3.05	87.6	0	53	2								
EREVAN	3.78	143.6	1	1	0						1	49	
MAKHACH-KALA	4.35	91.9	1	11A	2						2	16	S*
KIROVOBAD	4.41	124.8	1	9K	-1						2	9	S*
GORIS	5.19	134.9	1	23K	2						2	37	S*
SIMFEROPOL	5.62	290.0	1	27A	0						2	38	
SHEMAKHA	5.88	114.2	1	32	1						2	28	
ISTANBUL UN.	9.61	260.9	2	19	-4								
KSARA	10.43	207.1	2	34K	0	4	25	-8			4	51	SSS
FOCSANI	10.56	288.3	2	40	4	4	42	6			5	30	S*
IASI	10.63	296.5	2	27	-10	4	55	17			3	19	
TEHERAN	10.67	131.5	2	40K	3	4	49	10					
BACAU	10.92	292.7	2	39	-2	5	25	40			5	51	SG
BUCHAREST	11.24	281.2	2	43K	-2	4	45	-8			5	30	
KIZYL-ARVAT	11.79	105.2	2	52K	-1						6	28	
CAMPULUNG	12.03	285.3	2	56A	0	5	12	0					
JERUSALEM	12.52	205.8	3	4	2								
MOSCOW	12.73	349.8	3	2K	-3	5	29	0					
SOFIA	13.37	273.8	3	11	-3	5	36	-8			3	29	PP
VANNOVSKAYA	13.63	107.4	3	15	-2								
ASHKABAD	13.80	107.0	3	19	0								
UZHGOROD	14.43	298.5	3	25	-3						7	33	
ATHENS	14.55	254.7	3	30K	1	6	17	5			5	42	
TIMISOARA	14.73	286.7	3	33	1	6	29	12			5	21	
SKOPJE	14.88	271.9	3	37	3						7	28	
BELGRADE	15.27	283.1	3	37	-2						3	45	PP
PATRAS	15.84	258.2	3	52	6								
SKALNATE PL.	15.88	299.3	4	3	16						8	34	
NIEDZIKA	15.89	300.2	3	44	-3	6	44	0			4	26	
SHIRAZ	16.17	143.6	3	50K	0	6	56	5			4	56	
KRAKOW	16.30	302.1	3	49	-3	6	50	-4					
TITOGRAD	16.38	274.7	3	54	1	7	2	7			4	4	PP
WARSAW	16.43	310.2	3	49	-5	6	59	2			4	6	PP
CHORZOW	16.95	302.3	3	58	-2						4	19	PPP
HURBANOVO	16.98	293.6	3	5	-56	7	35	26			4	17	PP
RACIBORZ	17.39	301.2	4	3	-3						4	23	PP
BRATISLAVA	17.75	294.5	4	9A	-1	7	39	12					
PULKOVO	17.90	341.3	4	8K	-4						8	36	PCP

SVERDLOVSK	18.19	35.1	4	13A	-3				7	47	SS
VIENNA-H.	18.24	294.6	4	18A	2	7	54	16	4	34	PP
TARANTO	18.32	269.5	4	15	-2				8	15	
ZAGREB	18.40	286.8	4	18K	0	7	56	14			
LJUBLJANA	19.41	287.6	4	30A	0	8	17	13	4	48	PP
PRUHONICE	19.67	299.4	4	33	0	8	17	7			
HELSINKI	19.71	334.9	4	33	-1						
PRAGUE	19.76	299.6	4	34	0	8	19	7			
TRIESTE	19.97	286.5	4	37A	0	8	24	7			
NURMIJARVI	20.07	335.2	4	36	-2	8	18	-1	6	3	
KASPERSKE H.	20.18	296.6	4	39A	0						
REGGIO CALA.	20.29	264.1	4	39	-1	8	24	1			
MESSINA	20.32	264.4	4	39A	-2	8	19	-5	5	2	PP
TASHKENT	20.55	85.9	4	42A	-1				5	5	PP
AQUILA	20.66	277.2	4	45	1	8	47	16	5	22	PP
COLLMBERG	20.88	302.6	4	47	1	8	49	14			
KARLSKRONA	21.03	316.9	4	49A	1	8	44	6			
DUZHANBE	21.04	93.6	4	48A	0				8	42	
CHEB	21.07	299.1	4	49	1	8	55	16			
PADOVA	21.30	286.1	4	51A	0	8	51	8			
ROME	21.42	276.4	4	53A	1	8	53	7	6	21	PP
HALLE	21.57	302.8	4	52	-1	9	0	12			
JENA	21.70	301.2	4	55	0	9	3	12	7	9	
BOLOGNA	21.78	283.7	5	7	12	9	17	25	14	24	
FLORENCE X.	21.94	281.8	5	8	11	9	21	26			
PRATO	22.03	282.1	4	43	-15	9	5	8			
UPPSALA	22.10	327.0	4	59A	0	9	0	2			
KAJAANI	22.31	343.9	5	1A	0	9	13	11			
COPENHAGEN	22.44	313.8	5	3	1	9	7	3			
CHUR	22.83	290.2	5	6	0	9	19	7			
STUTTGART	22.98	295.1	5	8A	1	9	22	8	5	34	PP
TUBINGEN	23.12	294.5	5	10A	1						
EBINGEN	23.18	293.6	5	10	1						
PAVIA	23.22	286.0	5	13A	3	9	28	10			
HEIDELBERG	23.37	296.7	5	11	0						
KHOROG	23.47	94.1	5	15	3						
GOTEBORG	23.48	318.3	5	13	1	9	34	11			
FELDBERG	23.83	292.9	5	16	0						
UMEA	23.95	336.6	5	18A	1	9	22	-9			
STRASBOURG	23.98	294.6	5	18	1	9	36	4	5	49	PP
QUETTA	24.06	114.5	5	18K	0	9	37	4			
FRUNSE	24.07	79.6	5	19A	1				9	46	
MUNSTER	24.30	302.9	5	24	4						
BENSBERG	24.47	300.4	5	23A	1	9	57	17	6	1	PP
APATITY	24.73	352.5	5	26A	2	9	46	1	6	0	PP
ISOLA	24.86	284.1	5	26	0				10	2	*SS
WELSCHBRUCH	24.93	294.2	5	30	4						
ROSELEND	24.93	287.8	5	27	1						
WITTEVEEN	24.99	304.7	5	30	3						
WARSAK DAM	25.07	101.6	5	27	-1						
BESANCON	25.23	291.5	5	30	1				6	50	
KONGSBERG	25.43	321.3	5	32A	1	9	52	-4	6	3	PP
SODANKYLA	25.46	346.6	5	32A	1	10	9	12			
ALMATA	25.65	77.7	5	35A	2				10	6	
DE BILT	25.81	302.8	5	37K	2	10	7	4			
ALMATA-2	25.94	77.6	5	36A	0				10	10	
DOURBES	26.07	298.2	5	38	1	10	4	-3			
SKALSTUGAN	26.39	330.5	5	40A	0						
KIRUNA	27.07	342.5	5	46A	0	10	20	-3	6	29	PP
SEMIPALATNSK	27.16	61.2	5	47A	0	10	26	1			
GARCHY	27.20	292.0	5	47K	0						
CLERMONT-FD.	27.36	288.7	5	48	-1	10	37	9			
PARIS	27.47	295.4	5	49A	-1						
BERGEN	27.72	320.8	5	53	1				6	7	*SP
LAHORE	28.35	103.4	5	57	-1	10	47	3			
SETIF	28.54	268.0	5	52K	-8				6	24	
TROMSOE	28.86	343.8	6	2	0				6	26	
BARCELONA	29.03	280.1				11	9	14	6	29	
KEW	29.20	301.1	6	5A	0	10	54	-4	12	22	SS
FOLINIERE	29.43	295.6	6	7	-1						
BAGNERES	29.99	284.1	6	13	0						
ALGIERS UNI.	30.01	270.7	6	10A	-3	11	13	2	10	58	
DURHAM	30.07	307.7	6	15	2	12	4	52	7	2	PP
JERSEY	30.45	296.6	6	9	-8				9	47	
ABERDEEN	30.62	312.4	6	17A	-1	11	27	7	7	7	PP
ELTSOVKA	30.91	55.4	6	20A	4				7	24	
DEHRA DUN	31.69	101.9	6	27K	-1	11	44	7	7	34	PP
ALICANTE	31.95	275.7	6	30	1	11	46	5	6	52	PP

NEW DELHI	32.09	105.3	6	30A	-1	11	37	-6			7	38	PP
TOLEDO	33.98	280.2	6	47A	-1	12	7	-6			8	1	PP
ALMERIA	34.01	274.3	6	49A	1	12	18	5			8	5	PP
ADDIS ABABA	34.19	184.9	6	49	0								
GRANADA	34.69	275.5	6	59	5	12	28	4			8	32	PP
MALAGA	35.47	275.3	7	0	0	12	34	-2					
SEHORE	35.47	112.9	7	0	0	12	38	2					
BOMBAY	35.79	122.9	7	0	-3	12	43	2			8	25	PP
TAMANRASSET	36.10	247.2	7	6A	0	12	38	-7			8	24	PP
POONA	36.71	122.0									9	2	
KHEYS	37.94	4.3	7	23A	2						8	50	PP
LISBON	38.08	280.9	7	24A	2	13	24	8	7	35			
ESEN BULAK	38.25	65.8	7	25	1	13	21	3					
AVERROES	39.23	272.2	7	33	1	13	34	1			9	8	PP
CHATRA	40.24	98.8	7	42A	2	13	49	1			9	12	PP
BOKARO	41.09	103.6	7	47K	0	14	1	0			9	27	PP
SCORESBY SD.	41.18	332.8	7	50	2						17	13	
LHASA	41.47	92.3	7	52A	2	14	9	2			9	29	PP
IRKUTSK	41.90	54.9	7	53A	-1	14	9	-4					
NORD	42.94	349.4	8	2A	0								
VISHAKHAPTNM	43.43	112.7	8	4K	-2	14	35	0			9	51	PP
CALCUTTA	43.73	102.9	8	7	-2	14	42	2					
SHILLONG	44.39	96.6	8	13A	-1	14	49	0			9	56	PCP
ULAN-BATOR	44.73	60.3	8	18A	1								
MADRAS	44.84	120.4	8	16K	-2	14	57	1			10	2	PP
KODAIKANAL	45.33	125.8				15	1	-2			19	1	
CHITTAGONG	46.31	100.2	8	29	0								
LWIRO	46.75	197.7	8	31A	-2								
LANCHOW	47.49	76.6	8	39A	0	15	36	2					
TIKSI	48.80	24.9	8	48A	-1	15	53	1			31	52	
ALERT	49.18	350.3	8	52A	0	15	58	1					
PAOTOW	49.70	68.3	8	56A	0	16	7	2					
PONTA DELGDA	50.20	287.9	9	1	1	16	21	9			20	7	
CHENGTU	50.37	82.7	9	0A	-1	16	15	1					
SIAN	52.00	75.9	9	13A	0								
GODHAVN	52.05	333.2	9	13	-1	16	29	-8					
YAKUTSK	52.17	36.6	9	12A	-3						11	15	PP
KUNMING	52.58	89.3	9	17A	-1	16	45	1					
PEKING	54.09	66.1	9	28A	-1	17	5	0					
PORT BLAIR	54.12	109.7	9	35K	6	17	10	5			11	35	PP
M.BOUR	57.46	258.7	9	51	-2	17	50	0					
LUANDA	57.93	213.6	9	55K	-2						12	5	PP
CHANGCHUN	58.06	58.0	9	56A	-1	17	56	-2					
BROKEN HILL	58.68	194.9	10	0A	-2								
RESOLUTE	58.83	347.6	10	3A	0								
CHILEKA	58.97	187.4	10	2K	-2								
NANKING	60.12	72.7	10	10A	-2								
MOULD BAY	60.15	354.8	10	11A	-1								
TANANARIVE	62.12	173.6	10	26K	1								
MAGADAN	62.28	32.9	10	26	0						20	25	SCS
ZO-SE	62.35	72.3	10	26A	-1	18	53	0					
HONG KONG	62.61	84.4	10	27	-2	19	11	15					
BANDEIRA	63.42	210.8	10	32A	-2						14	27	PPP
BULAWAYO	64.21	193.5	10	37A	-2								
SCHEFFERVLLE	64.92	322.7	10	43A	-1								
NHATRANG	65.46	96.3	10	45	-2				10	56			
Y.-SAKHLINSK	66.33	47.1	10	52A	-1						19	45	PS
SEPT ILES	67.76	318.7	11	3	1								
CHANGALANE	69.75	189.0	11	13	-1				11	24	11	33	PCP
PETROPAVLOVK	69.92	34.9	11	2	-13								
HALIFAX	70.03	312.8	11	17A	1								
KURILSK	70.22	46.1	11	15A	-2						11	42	PCP
MATUSIRO	70.31	58.2	11	15	-3	20	30	1					
BAGUIO CITY	71.00	85.1	11	21	-1	20	40	2					
TUKUBASAN	71.69	57.4	11	23	-3	20	39	-6			15	55	PPP
COLLEGE	71.95	4.2	11	27	0	20	43	-5			14	11	PP
SEVEN FALLS	72.02	318.4	11	28K	0								
MANILA	72.50	86.2	11	38	7								
YELLOWKNIFE	72.87	348.7	11	33K	0								
PIETERMZBURG	73.25	190.1	11	33	-2								
KIMBERLEY	73.31	195.4	11	33A	-2								
BREBEUF	74.53	318.7	11	43A	1	21	23	5			21	56	PS
OTTAWA	75.60	319.7	11	49	0								
GRAHAMSTOWN	77.44	192.8	12	23	24								
PALISADES	77.96	315.7	12	1	-1	21	56	1					
FORDHAM	78.06	315.6	12	23	21	21	57	1					
LONDON ONT.	79.94	321.2	12	13A	0								
HERMANUS	79.96	198.6				22	21	5			31	12	SSS

SITKA	80.02	358.3	12	14	1	22	23	6					
PENNSYLVANIA	80.10	317.8	12	14	1								
WASHINGTON	81.15	316.1	12	20	1						23	21	PPS
CLEVELAND	81.32	320.5	12	20A	0						23	40	
MORGANTOWN	82.02	318.3	12	25A	2								
BANFF	83.86	345.7	12	34	1								
CHAPEL HILL	84.44	315.4	12	37	1								
HUNGRY HORSE	86.27	344.0	12	45	0	23	17	-3					
PENTICTON	86.33	347.8	12	46A	1								
COLUMBIA	86.95	315.5	12	49	1	23	20	-6					
RAPID CITY	87.51	335.4	12	52	1						29	25	
VICTORIA	87.65	350.1	12	52A	0								
CUMBERLAND	87.93	319.4	12	52	-1	23	40	4			16	26	PP
BOZEMAN	88.16	341.2	12	55	1						23	7	
BUTTE	88.18	342.3	12	55	1	23	28	-10			16	22	PP
ST. KITTS	88.29	292.2	12	59	4								
SEATTLE	88.35	349.2	12	59A	4	23	36	-4					
FORT FRANCE	89.03	289.3	13	0	2	23	26	-20					
BLUE MTS.	90.27	345.2	13	4A	0	23	39	-18			16	42	PP
LARAMIE	90.76	335.9	13	8	2						17	2	
CORVALLIS	91.50	349.2	13	12	2						25	27	
TRINIDAD	92.05	286.6	13	15	3								
TULSA	92.15	326.6	13	13A	0	23	51	-23			16	53	PP
GOLDEN	92.17	335.1	13	14	1	23	50	-24					
UINTA BASIN	92.81	338.3	13	17A	1	23	56	-24			16	58	PP
SALT LAKE C.	92.98	340.1	13	18	1								
DUGWAY	93.75	340.6	13	21	1								
PRICE	93.80	339.0	13	21	1								
WICHITA MTS.	94.29	328.1	13	23	0	24	3	-29			17	10	PP
EUREKA	95.16	342.7	13	28	1	24	12	10			30	56	PKKP
SHASTA	95.17	347.8	13	26A	-1						13	49	
MINERAL	95.39	347.2	13	28A	0								
CARACAS	95.99	290.3	13	33	3	24	7	0					
ALBUQUERQUE	96.87	334.0	13	36	2								
CALISTOGA	97.22	347.6	13	38K	2								
BERKELEY	97.92	347.1	13	39A	0	24	23	6			17	35	PP
BOULDER CITY	98.25	340.8	13	43A	2						17	43	PP
TONTO FOREST	98.93	337.5	13	46	2				13	59	17	47	PP
PRIEST	99.33	345.5	13	48K	2								
TUCSON	100.71	336.5	13	53	1						17	58	PP
PASADENA	100.76	343.0	13	52	0						17	50	PP
FUQUENE	104.25	291.8									18	26	PP
BOGOTA	105.10	291.4				24	57	6			18	35	PP
CHINCHINA	105.89	292.9									18	35	PP
PORT MORESBY	107.72	86.2	16	34	777								
RABAUL	107.82	78.7	18	54	777						28	25	
KIPAPA	113.16	19.9									19	29	PP
HONOLULU	113.25	20.0				27	17	112			19	32	PP
CHARTERS TS.	114.03	95.4	18	42	1						29	10	
LA PAZ	115.41	270.9	18	48	4								
MIRNY	116.33	159.6									20	0	
BRISBANE	123.19	97.9	19	0	1								
TOOLANGI	123.66	112.1	18	59	-1						19	39	
RIVERVIEW	125.60	105.3	19	3	-1						32	44	PPS
SOUTH POLE	133.07	180.0	19	1	-17						21	29	
SCOTT BASE	139.16	164.6	19	21	-8						22	21	PP
CAPE HALLETT	142.16	157.1	19	27	-7								
BYRD STATION	142.47	185.3	19	28	-7								
ROXBURGH	143.12	112.0	19	33	-3								
KARAPIRO	144.99	97.2	19	39	0								
WELLINGTON	145.66	103.1	19	40	-1								

JULY 16 22.H 11.M 20.S EPICENTRE 43.18 41.53 DEPTH= 0.KM

A= 0.54760 B= 0.48497 C= 0.68186 D= 0.6630 E=-0.7486
G= 0.5105 H= 0.4521 K=-0.7315 HT= -2.9

SE= 2.49

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ZUGDIDI	0.71	158.6									0	16	PG
KRASNAYA	1.08	297.2									0	23	PG
SOTCHI	1.38	287.4									0	30	PG
PIATIGORSK	1.40	52.3									0	26	PG
BAKURIANI	2.07	133.9	0	36	0						1	5	SG

GORI	2.26	121.2	0	40	1				1	11 S*
AKHALKALAKI	2.29	140.2	0	40K	1	1	7	-2		
DUZHETI	2.59	114.1	0	44	0				1	18 S*
TIFLIS	2.83	120.0	0	47	0				1	27 S*
STEPANAVAN	3.04	134.8	0	50	0				1	43 SG
GROZNY	3.09	86.0	0	52	1				1	46 SG
EREVAN	3.73	142.4	1	1	1	1	49	4		
MAKHACH-KALA	4.38	90.7	1	16	7				2	29 SG
GORIS	5.16	133.9	1	22	2				2	35 S*
SIMFEROPOL	5.62	290.9	1	27	0	2	35	2		
KSARA	10.34	207.2	2	32	0				5	4
TEHERAN	10.64	131.0	2	29	-8					
KIZYL-ARVAT	11.80	104.7	2	52	0	5	2	-4		
MOSCOW	12.81	350.0	3	2	-4					
VANNOVSKAYA	13.63	106.9	3	10	-7					
LWOW	13.74	304.9	3	16	-2				7	34
ASHKABAD	13.81	106.6	3	18	-1					
UZHGOROD	14.44	298.8	3	24	-3					
NIEDZIKA	15.90	300.4	3	46	-1				8	54 PCP
SHIRAZ	16.12	143.3	3	49A	0	7	0	11	4	12 PPP
KRAKOW	16.32	302.4	3	48	-4	7	3	9	8	47 PCP
WARSAW	16.46	310.5							8	19
BRATISLAVA	17.75	294.8	4	10	0					
PULKOVO	17.97	341.4	4	9	-4					
VIENNA-H.	18.25	294.8	4	18	2					
PRUHONICE	19.68	299.6	4	34	1				5	21
HELSINKI	19.77	335.1	4	33	-1					
NURMIJARVI	20.13	335.3	4	37	-1	8	26	6		
KASPERSKE H.	20.19	296.9	4	38	-1				5	0
TASHKENT	20.59	85.7	4	47	4					
COLLMBERG	20.90	302.8	4	46A	0				8	29
KARLSKRONA	21.06	317.1	4	48	0					
DUZHANBE	21.07	93.4	4	48	0					
HALLE	21.58	303.0	4	54	1				12	22
JENA	21.71	301.4	4	54	0	9	4	13		
UPPSALA	22.15	327.2	4	58A	-1	9	4	5	5	18 PP
KAJAANI	22.38	344.0	5	2	1					
DZERGETAL	22.64	89.9	5	2	-2					
STUTTGART	22.99	295.3	5	8	1					
ANDIJAN	23.00	85.5	5	9	2					
GOTEBORG	23.52	318.4	5	21	9					
STRASBOURG	23.98	294.8	5	18	1					
UMEA	24.01	336.7	5	17	0					
QUETTA	24.06	114.2	5	18	1					
BENSBERG	24.48	300.5	5	24	2					
APATITY	24.81	352.6	5	25	0	9	46	1		
ISOLA	24.85	284.3	5	26	1					
ROSELEND	24.93	287.9	5	26	0				6	25
KONGSBERG	25.48	321.4	5	31	0					
SODANKYLA	25.54	346.7	5	32	0	10	21	23		
DOURBES	26.08	298.3	5	41	4					
SKALSTUGAN	26.45	330.6	5	47	7					
KIRUNA	27.14	342.6	5	46	-1					
SEMIPALATNSK	27.23	61.0	5	47	0					
TROMSOE	28.94	343.9	6	2	-1				6	25
ELTSOVKA	30.99	55.2	6	19A	-2					
TOLEDO	33.96	280.3	6	46K	-1					
TAMANRASSET	36.04	247.3	7	6	1					
ESEN BULAK	38.32	65.7	7	24	0					
SHILLONG	44.41	96.5	8	12K	-2					
BODAYBO	46.14	45.0	8	26	-2					
MOULD BAY	60.23	354.8	10	11A	-1					
BULAWAYO	64.12	193.5	10	36	-2					
COLLEGE	72.04	4.2	11	26	-2					
SEVEN FALLS	72.06	318.4	11	27	-1					
EDMONTON	81.42	345.1	12	20A	0					
HUNGRY HORSE	86.34	343.9	12	45	0					
BOZEMAN	88.23	341.2	12	56	2					
BLUE MTS.	90.34	345.1	13	4	0					
UINTA BASIN	92.88	338.3	13	16	0					
WICHITA MTS.	94.35	328.0	13	22	0					
EUREKA	95.23	342.7	13	27	0					
TONTO FOREST	98.99	337.5	13	45	1					

JULY 17 11.H 57.M 3.S EPICENTRE 43.36 41.70 DEPTH= 0.KM

A= 0.54453 B= 0.48515 C= 0.68419 D= 0.6652 E=-0.7466
G= 0.5108 H= 0.4551 K=-0.7293 HT= -2.9

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KRASNAYA	1.13	286.1									0	22	PG
PIATIGORSK	1.20	55.7									0	24	PG
SOTCHI	1.46	279.2									0	30	PG
ABASTUMANJ	1.82	152.2									0	30	PG
BAKURIANI	2.12	139.9	0	35	-2								
GORI	2.26	127.0	0	41	2								
AKHALKALAKI	2.37	145.5	0	40	0								
DUZHETI	2.56	119.1	0	43A	0						1	17	S*
TIFLIS	2.82	124.6	0	47	0	1	21	-1					
GROZNY	2.96	89.5	0	50	1						1	17	
STEPANAVAN	3.09	139.0	0	49	-2	1	28	-1					
EREVAN	3.81	145.7	0	58K	-3						1	46	
MAKHACH-KALA	4.26	93.3	1	12	5						2	33	
KIROVOBAD	4.39	126.6	1	7	-2						2	10	S*
NAKHICHEVAN	5.01	144.9	1	19	1						2	33	S*
GORIS	5.20	136.4	1	21K	1						2	45	SG
SIMFEROPOL	5.68	288.8	1	27	0	2	36	2					
ISTANBUL UN.	9.71	260.5	2	21	-3								
KSARA	10.56	207.4	2	34	-1	4	34	-1			4	58	SSS
TEHERAN	10.67	132.3	2	38K	1	4	48	10					
IASI	10.67	295.9									6	18	
BUCHAREST	11.31	280.7									5	22	
KIZYL-ARVAT	11.72	105.8	2	50	-1	5	3	-1					
JERUSALEM	12.65	206.0	3	3	-1								
MOSCOW	12.65	349.4	3	1	-3								
SOFIA	13.46	273.5	3	16	2						5	33	
VANNOVSKAYA	13.57	107.9	3	13	-3								
ASHKABAD	13.74	107.5	3	17	-1	5	52	-1					
LWOW	13.74	304.2	3	16	-2						6	4	
UZHGOROD	14.46	298.1	3	23	-5								
BELGRADE	15.34	282.8	3	44K	5						3	51	PP
NIEDZIKA	15.92	299.8	3	45	-2						9	14	
SHIRAZ	16.20	144.1	3	48	-2						7	26	
KRAKOW	16.33	301.7	3	48	-4						4	14	
WARSAW	16.44	309.9	3	55	2						4	13	PP
CHORZOW	16.98	302.0	3	57	-3	7	4	-4			4	27	PPP
RACIBORZ	17.41	300.9	4	8	3						4	27	PPP
BRATISLAVA	17.79	294.2	4	7	-3	7	37	10			4	45	PP
PULKOVO	17.84	341.0	4	9	-2						7	57	SS
SVERDLOVSK	18.05	35.1	4	10	-3								
VIENNA-H.	18.29	294.3	4	14	-2	7	45	7					
ZAGREB	18.46	286.6	4	15	-3								
LJUBLJANA	19.47	287.4	4	29A	-1						4	49	PP
HELSINKI	19.66	334.7	4	32	-1								
PRUHONICE	19.70	299.1	4	33	0	8	28	18					
PRAGUE	19.79	299.3	4	33	-1	8	29	17					
NURMIJARVI	20.02	334.9	4	35	-2	8	23	6					
TRIESTE	20.03	286.3	4	36A	-1	8	19	2					
KASPERSKE H.	20.22	296.4	4	38	-1						8	47	
REGGIO CALA.	20.39	263.9	4	40	-1								
MESSINA	20.42	264.3	4	38	-3	8	31	6			5	1	PP
TASHKENT	20.46	86.2	4	40A	-1						5	4	PP
AQUILA	20.73	277.0	4	44	0	8	34	2			5	8	PP
COLLMBERG	20.91	302.3	4	45	-1								
DUZHANBE	20.95	94.0	4	46	0								
KARLSKRONA	21.02	316.6	4	46	-1								
PADOVA	21.36	285.9									6	17	
ROME	21.50	276.2	4	51	-1	9	0	14					
HALLE	21.59	302.5	4	53	0	8	59	11					
JENA	21.72	300.9	4	53	-1	9	3	12			6	34	
FLORENCE X.	22.01	281.6	5	7	10	9	27	31					
UPPSALA	22.06	326.8	4	57A	-1	8	58	1					
KAJAANI	22.24	343.7	5	0	1	9	12	12					
COPENHAGEN	22.44	313.5	5	4	3	9	15	11					
RAVENSBURG	22.79	292.4	5	4	-1								
STUTTGART	23.02	294.9	5	7	0	9	17	3					
TUBINGEN	23.16	294.3	5	9	1								
PAVIA	23.28	285.8	5	5	-5						9	38	SS
KHOROG	23.38	94.4	5	14	3								
GOTEBORG	23.47	318.1	5	13	2								

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UMEA	23.90	336.4	5 17A	1	9 34	4	
FRUNSE	23.96	79.9	5 19A	3			5 57 PP
QUETTA	24.02	114.8	5 17K	0	9 38	6	
STRASBOURG	24.02	294.4	5 17	0	9 47	15	5 44 PP
MUNSTER	24.32	302.7	5 22	2			
BENSBERG	24.50	300.2	5 23K	2			5 45
APATITY	24.64	352.4	5 24A	1	9 44	2	10 39 SS
ISOLA	24.93	283.9	5 25	-1			
WELSCHBRUCH	24.97	294.0	5 21	-5			
ROSELEND	24.99	287.6	5 26	0			
WARSAK DAM	25.00	101.9	5 27	1			
WITTEVEEN	25.01	304.5	5 29	3			
BESANCON	25.28	291.3	5 25	-4			6 14 PP
SODANKYLA	25.39	346.4	5 31	1	10 23	28	
KONGSBERG	25.41	321.1	5 31K	1	10 6	11	
ALMATA	25.54	78.0	5 34	3			
DE BILT	25.83	302.6	5 37	3	10 35	33	
ALMATA-2	25.83	77.8	5 34A	0			6 9 PP
DOURBES	26.10	298.0	5 39	2	10 5	-2	
SKALSTUGAN	26.35	330.3	5 47A	8			12 16
KIRUNA	27.01	342.4	5 45A	0	10 26	4	
CLERMONT-FD.	27.41	288.6	5 48	-1			
TROMSOE	28.80	343.7	6 0	-1			
FOLINIERE	29.47	295.5	6 7	0			
ELTSOVKA	30.78	55.5	6 17A	-3			
NEW DELHI	32.03	105.6	6 28	-2			
TOLEDO	34.05	280.1	6 46A	-1			
ALMERIA	34.09	274.3	6 48K	0			
MALAGA	35.55	275.2	7 0	0			
TAMANRASSET	36.23	247.2	7 5A	-1			
KHEYS	37.84	4.3	7 15	-5			8 45
ESEN BULAK	38.13	65.9	7 22	0			
CHATRA	40.17	99.0	7 41	2			
LHASA	41.38	92.5	7 51	2			
NORD	42.86	349.4	8 1	0			
SHILLONG	44.31	96.8	8 11A	-2			
ULAN-BATOR	44.60	60.4	8 16	1			
BODAYBO	45.93	45.2	8 25	-1			
LANCHOW	47.38	76.8	8 38A	1			
TIKSI	48.68	24.9	8 49K	2			10 43 PP
ALERT	49.09	350.3	8 52	1			
YAKUTSK	52.03	36.7	9 5	-8			
PEKING	53.97	66.2	9 27A	0			
MOULD BAY	60.06	354.8	10 11A	0			
BANDEIRA	63.55	210.9	10 31A	-3			
SCHEFFERVLLE	64.90	322.7	10 41A	-2			
MATUSIRO	70.19	58.3	11 14	-2			
COLLEGE	71.85	4.3	11 25	-1			
SEVEN FALLS	72.00	318.5	11 27A	0			
YELLOWKNIFE	72.79	348.7	11 32	0			
KIMBERLEY	73.42	195.5	11 32A	-3			
BREBEUF	74.51	318.7	11 42	0			
PALISADES	77.96	315.7			21 59	5	
EDMONTON	81.28	345.2	12 20A	1			
BANFF	83.79	345.8	12 31	-1			
HUNGRY HORSE	86.20	344.0	12 44	0			
PENTICTON	86.26	347.9	12 45A	1			
RAPID CITY	87.46	335.5	12 51	1			
VICTORIA	87.57	350.2	12 51	0			
CUMBERLAND	87.91	319.5	12 51	-1			
BOZEMAN	88.10	341.3	12 55	2			
BLUE MTS.	90.20	345.2	13 3K	0			16 34 PP
LARAMIE	90.71	336.0	13 6	1			
GOLDEN	92.12	335.2	13 12	0			
UINTA BASIN	92.75	338.4	13 15K	0			16 54 PP
DUGWAY	93.69	340.7	13 20A	1			
WICHITA MTS.	94.26	328.1	13 22	0			25 55 PS
EUREKA	95.10	342.8	13 27A	1			16 37
MINERAL	95.31	347.3	13 26A	-1			
ALBUQUERQUE	96.82	334.1	13 34	0			
BOULDER CITY	98.19	341.0	13 42	2			
TONTO FOREST	98.87	337.6	13 45	2	13 56		17 47 PP
CHARTERS TS.	113.95	95.5	18 39	-2			
TOOLANGI	123.61	112.1	18 58	-1			
ROXBURGH	143.08	111.9	19 31	-4			
KARAPIRO	144.91	97.2	19 37	-2			

JULY 18 4.H 58.M 1.S EPICENTRE -60.73 -21.56 DEPTH= 0.KM

A= 0.45703 B=-0.18061 C=-0.87092 D=-0.3675 E=-0.9300
G=-0.8100 H= 0.3201 K=-0.4914 HT= -9.2

SE= 2.49

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
G. G. VIDELA	19.07	239.8	4	26	0						10	47	
ARGENTINE I.	19.61	238.3	4	32	0								
SOUTH POLE	29.43	180.0	6	6	-1						8	16	
BYRD STATION	32.25	198.9	6	33	1								
MAWSON	34.65	137.9	6	52A	-1	12	21	-2					
HERMANUS	37.10	63.6				13	7	6			15	48	
CONCEPCION	39.58	283.7									13	12	
SCOTT BASE	41.57	182.6	7	53	2								
SANTA LUCIA	41.68	288.2	7	53K	1	14	8	-1			17	18	
MIRNY	44.24	148.6	8	12	-1	14	33	-14	8	31			
KIMBERLEY	44.39	65.3	8	15A	1								
CAPE HALLETT	46.99	184.9	8	36	1								
WILKES	48.40	156.4	8	47	1	15	48	2	9	3			
CHANGALANE	49.87	71.2	8	59K	2				9	10	10	22	PCP
ANTOFAGASTA	49.87	295.5	7	59	-58	16	7	0			10	49	PP
BANDEIRA	52.24	44.4	9	17K	2	16	46	7	9	22	11	22	PP
LA PAZ	55.25	302.0	9	39	2	17	25	5					
AREQUIPA	56.72	298.6	9	49	1								
BROKEN HILL	58.55	60.5	10	1K	0								
CHILEKA	60.34	67.6	10	15A	2								
HUANCAYO	62.30	297.0	10	30	4								
TANANARIVE	63.48	81.3	10	38	4								
LWIRO	69.68	55.1	11	16	3	20	30	8					
ROXBURGH	73.78	188.0				21	5	-4			25	59	SS
BOGOTA	76.79	305.7	11	58K	3	21	46	4					
FUQUENE	77.43	306.3	12	0	1						14	54	PP
WELLINGTON	77.47	192.5	11	59	0	21	49	-1			27	5	SS
CHINCHINA	77.73	304.4	12	1K	1						14	56	PP
TRINIDAD	77.82	319.9	12	4	3								
CARACAS	79.52	314.6	12	13K	3	22	15	4					
KARAPIRO	80.70	193.6	12	16	0								
MUNDARING	81.40	144.7	12	20	0	22	30	-1					
TOOLANGI	81.48	169.6	12	20	0						12	55	
BALBOA HTS.	82.96	302.4	12	30	2								
ADELAIDE	83.28	163.8	12	31K	1								
ADDIS ABABA	84.00	59.7	12	43	10								
RIVERVIEW	85.59	173.9				23	8	-5			24	15	PS
TAMANRASSET	86.07	24.9	13	47	63	23	23	5			16	11	PP
MALAGA	98.12	13.9	13	50	10	25	18	60					
CHARTERS TS.	98.87	168.4	13	49	6	24	22	1					
ALGIERS UNI.	99.23	19.8				24	12	-11			14	25	
TOLEDO	101.28	13.7				24	39	6			18	9	PP
LEMBANG	101.85	128.1									14	26	
JERUSALEM	103.13	47.0									18	27	PP
MESSINA	103.15	29.2									17	54	PP
ATHENS	105.09	35.6	18	39K	777						26	19	
KSARA	105.21	46.6									18	48	PP
ROME	105.99	25.8									27	44	PS
AQUILA	106.62	26.3									28	15	PPS
FLORENCE X.	107.54	24.3									19	32	PP
SHIRAZ	108.14	61.8	18	37	777	25	4	0			26	41	
BLACKSBURG	108.75	313.8	18	48	777						25	7	
WASHINGTON	109.12	317.1	18	52	777								
CUMBERLAND	109.21	309.1	14	31	777	25	9	0			18	59	PP
PORT MORESBY	109.53	168.2	15	44	777								
TRIESTE	109.84	25.5	19	32	777								
PALISADES	110.01	320.4	14	36	-237	25	11	-1			17	52	PKP
STRASBOURG	111.51	20.5									28	55	
STUTTGART	111.96	21.5									19	29	
DOURBES	112.47	17.9	18	43	5	25	31	9					
TEHERAN	112.91	57.6									27	29	SKKS
KASPERSKE H.	113.12	24.3	18	22	-17						19	33	PP
TULSA	113.58	301.5				25	26	-1			19	15	PP
WICHITA MTS.	113.76	298.7	18	48	7	25	21	-6			19	25	PP
BREBEUF	113.99	322.6	19	39	58								
GORIS	114.12	51.8									19	51	PP
JENA	114.45	22.3	18	41	-1						19	40	
DE BILT	114.50	17.8									29	29	
OTTAWA	114.54	321.1									19	42	
SIMFEROPOL	114.61	40.2									19	52	PP

SEVEN FALLS	114.66	325.3									19	45	
COLLMBERG	115.08	23.2	18	33	-10						20	2	
QUETTA	115.12	73.0	18	47	4						29	33	
TIFLIS	115.46	49.4									20	1	PP
DURHAM	116.24	12.8	19	4	19	25	43	6			36	3	SS
TUCSON	117.20	287.7	18	50	3						29	5	PKKP
ALBUQUERQUE	117.44	292.8	18	49	1						29	10	PKKP
NEW DELHI	118.71	82.3	18	50K	0						19	30	
TONTO FOREST	119.10	288.6	18	53	2				19	6	22	56	PPP
NHATRANG	119.80	121.4									14	42	
DEHRA DUN	120.56	81.9	19	2K	8								
SCHEFFERVLLE	120.66	331.5	18	54	0								
GOLDEN	120.88	296.7	18	56	2						20	23	PP
BOULDER CITY	122.15	287.0	19	1	4						20	31	PP
PASADENA	122.24	283.1	19	0	3						20	33	PP
LARAMIE	122.29	297.6	18	59	2						20	36	
UINTA BASIN	123.25	294.0	19	0	1	26	10	9			20	42	PP
SHILLONG	123.39	97.0									30	39	
RAPID CITY	123.52	301.2	19	1	1								
UPPSALA	124.02	22.6	19	1	0								
DUGWAY	124.62	291.5	19	3K	1								
PRIEST	125.05	282.5	19	5K	3								
MOSCOW	125.16	36.5	19	5	2								
TASHKENT	125.33	67.4	19	10	7	26	9	2			20	58	
EUREKA	125.50	288.6	19	6	3						20	56	PP
NURMIJARVI	126.06	26.2	19	6	2								
LICK	126.48	282.6	19	8K	3								
SKALSTUGAN	126.61	18.1	19	6	1								
BERKELEY	127.20	282.5	19	9A	2						21	5	PP
CALISTOGA	127.96	282.8	19	11A	3								
BOZEMAN	128.16	296.9	19	12	4								
UMEA	128.17	22.1	19	10A	1						38	18	SS
MINERAL	128.84	284.9	19	11K	1								
FRUNSE	128.97	70.2	19	17	7								
BUTTE	129.10	296.1	19	12	2						21	11	PP
SHASTA	129.49	284.6	19	12K	1								
KAJAANI	129.89	25.7	19	13	1						22	40	PKS
HONOLULU	130.33	237.3									21	22	
BLUE MTS.	130.33	291.8	19	14	1	26	19	-2			21	24	PP
KIPAPA	130.40	237.4									21	24	
SCORESBY SD.	130.92	359.8	19	16	2						22	42	
GODHAVN	131.69	345.4	19	15	0								
KIRUNA	131.85	19.9	19	17	2						22	45	PKS
SODANKYLA	132.55	23.1	19	14	-3								
SEATTLE	134.71	290.8	19	21	0								
PENTICTON	134.72	294.2	19	6	-15								
EDMONTON	134.96	302.2	19	10	-11								
SEMIPALATNSK	137.19	67.2	19	34	9								
YELLOWKNIFE	141.58	311.7	19	29	-4								
NORD	142.13	1.2	19	32	-2								
RESOLUTE	143.33	334.8	19	34A	-2								
ALERT	144.52	351.5	19	38	0								
KHEYS	147.63	17.5	19	50	6						23	18	PP
MOULD BAY	149.48	332.1	19	45A	-2								
MATUSIRO	152.58	142.8	20	0	9						30	22	SKKS
TUKUBASAN	152.82	146.2	20	3	11								
COLLEGE	155.73	303.1	19	54	-1						23	53	
TIKSI	164.05	34.7	20	17	12						24	53	PP
YAKUTSK	166.22	72.1	20	7	0						20	35	
PETROPAVLOVK	172.27	181.0	20	26	15								
MAGADAN	176.00	103.9	20	9	-3								

JULY 19 5.H 45.M 24.S EPICENTRE 43.42 8.12 DEPTH= 8.KM

A= 0.72130 B= 0.10287 C= 0.68494 D= 0.1412 E=-0.9900
G= 0.6781 H= 0.0967 K=-0.7286 HT= -3.0

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	
MONACO	0.59	301.8									0	16	PG
ISOLA	1.08	314.8									0	23	PG
PAVIA	1.91	22.9									0	37	PG
PRATO	2.21	77.1	0	38	0	1	25	19					
ROSELEND	2.50	335.4	0	45	3								

PADOVA	3.34	52.3	0	57	3	1	34	0	1	7	PG
ROME	3.56	113.8	0	55K	-2				1	9	PG
CHUR	3.57	15.8	0	59	2	1	44	4			
NEUCHATEL	3.67	347.4	1	0	2						
BESANCON	4.11	339.3	1	6	1				1	31	
CLERMONT-FD.	4.27	305.0	1	7K	0	1	54	-4			
FELDBERG	4.46	359.1	1	9	-1	2	1	-1	1	40	
RAVENSBURG	4.48	13.1	1	11	1	2	4	1	3	37	
TRIESTE	4.60	59.1	1	10K	-2	2	1	-5	2	25	SG
EBINGEN	4.79	6.8	1	15	1	2	9	-2			
BARCELONA	4.86	247.7	1	14	-1	2	14	1			
WELSCHBRUCH	5.14	346.7	1	18	-1				1	40	PG
TUBINGEN	5.15	7.1	1	19	0	2	16	-4	1	58	
STRASBOURG	5.16	357.4	1	20	0	2	21	1	1	41	PG
GARCHY	5.25	319.1	1	21K	0						
LJUBLJANA	5.26	57.9	1	19K	-2	2	24	1	1	44	PG
STUTTGART	5.41	8.2	1	22	-1				2	2	SG
KARLSRUHE	5.59	2.0	1	24	-2				2	52	SG
BAGNERES	5.83	269.3	1	28	-1						
HEIDELBERG	5.99	3.8	1	31	0	2	39	-2	2	17	
ZAGREB	6.10	64.2	1	32A	-1	2	46	2			
KASPERSKE H.	6.85	31.6	1	40	-3						
DOURBES	7.10	341.4	1	46	-1	3	7	-2			
CHEB	7.27	22.2							2	24	PG
TARANTO	7.42	110.3	2	1	10	3	18	1			
SETIF	7.51	197.1	1	48	-5	3	18	-1	2	42	
VIENNA-H.	7.52	47.2	1	51	-2	3	21	2	2	30	PG
BENSBERG	7.57	355.4	1	54K	1	3	13	-7	4	14	SG
MESSINA	7.68	130.3	1	52K	-3	3	16	-7			
ALGIERS UNI.	7.70	212.0	1	52	-3	3	22	-2			
REGGIO CALA.	7.81	130.4	1	57	0	3	10	-16	5	0	
UCCLE	7.81	342.1	1	57	0				4	18	SG
BRATISLAVA	7.87	49.8	1	53	-5				2	41	S*
JENA	7.87	16.2	1	56	-2	3	22	-6			
PRUHONICE	7.91	31.7	2	3	5				4	4	SG
PRAGUE	7.93	30.9	1	58	-1	3	38	8	2	42	PG
FOLINIERE	8.01	314.8	1	58	-2						
TITOGRAD	8.24	93.1				3	38	1	2	19	P*
ALICANTE	8.25	235.0	2	4K	1	3	39	2	2	23	PPP
HURBANOVO	8.35	54.3	1	48	-16				3	13	
HALLE	8.49	16.5	2	2	-4	3	41	-2			
COLLMBERG	8.55	21.1	2	5	-2						
DE BILT	8.90	348.2	2	13	1	4	6	12			
BELGRADE	8.98	76.8	2	19	6						
JERSEY	9.11	312.7	2	4	-11	3	52	-7			
WITTEVEEN	9.45	354.6	2	26	6						
RACIBORZ	9.60	42.6	2	20	-2				3	44	
TIMISOARA	9.64	71.5	2	18	-4				4	38	
TOLEDO	9.77	252.9	2	23K	-1	3	43	-32	3	1	PG
KEW	9.87	327.6	2	24K	-1	4	24	6	2	34	PP
SKOPJE	9.92	93.9	2	29	3	4	48	29	2	56	
CHORZOW	10.12	43.5	2	28	-1				2	42	PP
SKALNATE PL.	10.17	51.3				4	23	-2			
NIEDZIKA	10.34	50.3	2	31	-1	4	41	12	2	53	PPP
ALMERIA	10.42	234.5	2	33K	0	4	29	-2	4	44	SS
KRAKOW	10.47	46.6	2	21	-13				5	32	
GRANADA	10.90	239.1	2	43A	3	5	44	61	3	22	PP
UZHGOROD	11.15	57.2	2	43	0						
SOFIA	11.16	88.5	2	46	3	4	36	-13			
PATRAS	11.55	112.1	2	47	-1				3	28	
MALAGA	11.69	239.3	2	51	1	4	58	-4			
CAMPULUNG	12.25	75.5	3	0	2				4	9	
WARSAW	12.34	40.0	3	7	8	5	26	8	3	13	PP
COPENHAGEN	12.58	11.3	3	4K	2	5	54	30			
LWOW	12.66	54.1	3	5	2	5	30	4	6	7	
DURHAM	13.00	334.3	3	6K	-2				3	25	PP
BUCHAREST	13.01	79.4	3	7	-1				6	0	
ATHENS	13.03	109.4	3	6A	-2	6	28	53	6	50	
KARLSKRONA	13.62	18.0	3	17A	1						
BACAU	13.66	70.2	3	21	4				4	15	
LISBON	13.84	256.0	3	22A	3	6	9	15			
IASI	14.20	67.8	3	24	0				4	11	
GOTEBORG	14.50	8.3	3	29	1						
VALENTIA	14.98	311.0	3	31	-3	7	14	53			
ABERDEEN	15.20	338.4	3	46A	9	6	45	19	7	21	SS
ISTANBUL UN.	15.64	91.6	3	41K	-1						
AVERROES	15.81	235.4	2	43K	-62				2	59	PP
KONGSBERG	16.28	2.7	3	57	6	7	7	16			
BERGEN	17.09	355.2	4	7	6						

UPPSALA	17.45	16.2	4	7A	2	7	28	10	7	43	SS
SIMFEROPOL	18.69	76.3	4	21	0				8	32	
HELSINKI	19.64	25.5	4	31	-1						
SKALSTUGAN	20.34	5.4	4	39A	0						
TAMANRASSET	20.70	186.8	4	44A	1	8	46	16	5	4	PP
PULKOVO	21.23	31.9	4	47A	-2				5	22	PPP
UMEA	21.59	14.7	4	51A	-1	8	48	1			
MOSCOW	22.56	46.6	5	2	0						
KAJAANI	23.52	21.7	5	12	1						
KSARA	23.62	104.6	5	13K	1	9	24	1			
JERUSALEM	24.31	109.5	5	20	1						
KIRUNA	25.33	10.9	5	28A	-1						
SODANKYLA	25.98	16.3	5	34A	-1						
PONTA DELGDA	26.17	269.0	5	41K	4	10	36	29			
TROMSOE	26.85	8.4	5	42	-1	10	10	-8			
TIFLIS	26.93	80.9	5	45	1				9	10	PCP
GROZNY	27.21	77.1	5	48	2				11	52	
APATITY	27.70	20.7	5	50A	-1	10	28	-3			
KIROVOBAD	28.35	82.3	5	56	-1						
GORIS	28.73	84.6	6	0K	0				6	41	
SCORESBY SD.	31.01	340.9	6	23	3						
TEHERAN	33.91	88.2	6	46	0	12	17	8			
SVERDLOVSK	35.32	49.0	6	57	-1				8	43	PPP
KIZYL-ARVAT	36.02	79.9	7	6K	2				13	23	
SHIRAZ	37.79	96.3	7	17	-2	13	7	-2	7	26	
VANNOVSKAYA	37.83	80.8	7	19	0						
ASHKABAD	38.01	80.7	7	17	-3						
NORD	39.22	354.4	7	31	1						
GODHAVN	40.25	331.0	7	38	-1	14	24	38			
KHEYS	41.18	11.0							9	22	PP
ADDIS ABABA	43.45	132.9	8	7	2						
TASHKENT	44.34	70.8	8	14A	2				10	33	PPP
ALERT	44.69	349.8	8	16	1						
FRUNSE	47.34	66.6	8	36	0				11	6	PPP
KHOROG	47.59	74.5	8	42	4						
SEMIPALATNSK	47.98	55.1	8	41	0						
QUETTA	48.00	85.6	8	40	-1						
SCHEFFERVLLE	48.05	311.3	8	39	-3						
LWIRO	49.12	152.2	8	26	-24	15	52	-2			
WARSAK DAM	49.31	78.5	8	48	-4						
HALIFAX	50.01	297.7	8	57A	0						
RESOLUTE	51.93	340.8	9	12	1						
LAHORE	52.59	79.6	9	15	-1						
SEVEN FALLS	53.43	303.4	9	22	-1						
BREBEUF	55.91	302.8	9	40A	-1	17	30	3			
DEHRA DUN	55.93	78.7	9	41	0						
MOULD BAY	56.02	346.7	9	41A	-1						
NEW DELHI	56.31	80.9	9	43K	-1	17	26	-6	12	56	PPP
OTTAWA	57.24	303.6	9	50A	0						
TIKSI	57.90	18.8	9	56A	1				18	33	
BANDEIRA	58.23	174.1	9	57A	0			10 4			
PALISADES	58.39	298.3	9	59	1	18	24	24			
FORDHAM	58.45	298.2	10	0	1	18	4	4			
ESEN BULAK	59.28	53.6	10	4	-1						
POONA	59.97	92.4	11	12A	63						
SCARBOROUGH	60.25	303.5	10	11	0						
IRKUTSK	60.53	44.6	10	11	-2				10	49	PCP
BROKEN HILL	60.53	157.2	10	11	-2						
PENNSYLVANIA	61.02	300.0	10	18	2						
WASHINGTON	61.57	297.8	10	21	1						
GEORGETOWN	61.57	297.8	10	20	0						
LONDON ONT.	61.81	303.7	10	21	-1						
CHILEKA	63.76	151.0	10	34	-1						
ULAN-BATOR	64.41	47.5	10	39	0						
CHAPEL HILL	64.58	296.2	10	41	1				11	18	
BLACKSBURG	64.70	298.0	10	41	0						
YELLOWKNIFE	64.93	334.5	10	42	0						
BOKARO	65.32	79.9	10	45	0				20	1	
LHASA	65.47	71.7	10	46A	0	19	27	-2			
BULAWAYO	65.99	158.9	10	48A	-1						
SAN JUAN	66.26	273.2	10	51A	0						
COLUMBIA	67.03	295.5	10	56	0	19	46	-2			
VISHAKHAPTNM	67.37	86.7	10	35A	-23				19	26	
SHILLONG	68.55	74.7	11	4A	-1						
CUMBERLAND	68.98	299.4	11	6	-2	20	7	-4	24	53	SS
ST. LOUIS 1	69.93	304.4	11	13	-1			11 51			
LANCHOW	69.97	59.1	11	14A	0	20	24	1			
COLLEGE	70.41	349.3	11	17	0						

PAOTOW	70.78	52.1	11	19	0	20	28	-5			
EDMONTON	71.31	327.4	11	22A	0						
CARACAS	72.01	267.5	11	27A	1	20	46	-1			
LAWRENCE	72.68	307.4	11	30	0						
CHANGALANE	72.81	157.5	11	32K	1						
MAGADAN	72.88	18.8	11	35	4	21	2	5			
KIMBERLEY	73.43	164.8							13	34	
RAPID CITY	73.50	315.6	11	36	1						
CHENGTU	73.56	63.3	11	37A	2	21	4	0			
BANFF	73.86	326.9	11	36	-1						
PEKING	74.61	49.2	11	42A	1	21	12	-4			
TULSA	75.06	305.4	11	44A	0	21	21	0			
HUNGRY HORSE	75.42	324.3	11	47	1						
BOZEMAN	76.15	320.9	11	52	2				22	13	
KUNMING	76.35	68.4	11	52A	1	21	34	-1			
BUTTE	76.58	322.0	11	53	0						
CHANGCHUN	76.60	41.4	11	52A	-1						
LARAMIE	76.71	314.9	11	55	2				12	32	
SPOKANE	77.29	325.7	11	59	2						
WICHITA MTS.	77.54	306.1	11	59	1	21	51	3	39	9	PKPPKP
GOLDEN	77.78	313.6	12	0	1				22	31	
PORT BLAIR	78.18	85.1	12	40K	38						
VICTORIA	79.02	329.5	12	8K	2						
UINTA BASIN	79.48	316.5	12	10	1	22	8	-1	38	53	PKPPKP
BLUE MTS.	79.57	323.9	12	9	0	22	13	3			
VLADIVOSTOK	80.22	38.1	12	13A	0	22	11	-6	22	57	PS
SALT LAKE C.	80.26	318.1	12	13	0						
PETROPAVLOVK	80.64	17.5	12	14A	-1						
DUGWAY	81.17	318.3	12	17	-1						
BOGOTA	81.17	268.0	12	19	1	22	14	-12	23	4	SKS
Y.-SAKHLINSK	81.40	29.5	12	19A	0						
NANKING	81.75	53.4	12	23	2						
ALBUQUERQUE	81.86	311.0	12	23	2						
CHINCHINA	82.06	269.3	12	23	1	22	39	3	23	17	SKS
EUREKA	83.24	319.8	12	30A	2				38	54	PKPPKP
ZO-SE	83.85	52.5	12	33	2						
KURILSK	84.74	27.3	12	36K	0						
TONTO FOREST	84.95	313.6	12	39A	2			12 48	30	38	PKKP
MINERAL	85.07	323.8	12	38A	0						
SHASTA	85.12	324.5	12	38A	0						
BOULDER CITY	85.46	316.9	12	43	3				39	25	PKPPKP
HONG KONG	85.88	63.2	12	53	11	23	48	34	16	26	PP
TUCSON	86.28	312.0	12	45	1						
CALISTOGA	86.91	323.5	12	48A	1						
BERKELEY	87.41	322.9	12	51A	2	23	58	30	17	3	PP
LICK	87.58	322.2	12	51A	1						
PRIEST	88.12	320.8	12	54A	1						
MATUSIRO	88.39	38.0	12	55	1	23	46	9			
LA PAZ	91.56	248.8	13	9	0						
HUANCAYO	93.48	256.8	13	21	4						
AREQUIPA	93.83	251.1	13	20	1						
SOUTH POLE	133.23	180.0	19	15	-2				19	52	
CHARTERS TS.	138.07	69.8	19	20	-6				20	15	
BYRD STATION	138.77	192.1	19	25	-2						
SCOTT BASE	144.40	172.4	19	37	0						
LUGANVILLE	146.92	39.2	19	46	5						
TOOLANGI	147.33	94.5	19	45	3						
KOUMAC	149.73	48.7	19	53K	7						
CAPE HALLETT	149.78	169.2	19	52	6						
RIVERVIEW	149.78	84.1	20	1	15				21	15	
NOUMEA	152.31	47.4	20	0K	10						

JULY 19 5.H 46.M 1.S EPICENTRE 43.42 7.91 DEPTH= 5.KM

A= 0.72174 B= 0.10028 C= 0.68486 D= 0.1376 E=-0.9905
G= 0.6783 H= 0.0943 K=-0.7287 HT= -3.0

SE= 2.52

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
FLORENCE X.	2.45	80.5	0	46	-4						1	46	SG
ROME	3.70	112.7	0	56	-3	1	30	-14			1	20	PG
BESANCON	4.07	341.1	1	4	0								
STRASBOURG	5.16	359.0	1	19	-1	2	21	0			1	42	PG
LJUBLJANA	5.39	58.5	1	19	-4								

STUTTGART	5.44	9.6	1	25	1						
ZAGREB	6.24	64.6	1	17	-18	2	51	3			
DOURBES	7.06	342.4	1	47	0	3	16	8			
BENSBERG	7.56	356.4	1	52	-2	3	12	-9			
ALGIERS UNI.	7.61	210.9	1	52	-2						
UCCLE	7.77	343.1	1	55	-2	3	36	10			
MESSINA	7.79	129.4	1	53	-4				2	20	
JENA	7.92	17.1	1	53	-6	3	35	5	2	20	
BELGRADE	9.13	76.9	2	22	7				5	5	
RACIBORZ	9.70	43.1	2	22	-1						
TIMISOARA	9.78	71.6	2	24	0				4	40	
KEW	9.79	328.2	2	25	1	4	27	11	2	33	PP
CHORZOW	10.23	43.9	2	25	-6						
ALMERIA	10.30	233.9	2	36	5						
KRAKOW	10.58	47.0	2	31	-4						
SOFIA	11.31	88.3	2	46	1						
WARSAW	12.45	40.3	3	0	-1	5	21	0			
COPENHAGEN	12.62	11.8							5	46	SS
DURHAM	12.94	334.7	3	6K	-1						
BUCHAREST	13.16	79.4	3	11	1						
ATHENS	13.17	109.1	3	15A	5						
KARLSKRONA	13.67	18.4	3	25	8						
LISBON	13.70	255.8	3	13	-4				3	48	
FOCSANI	13.94	73.9	3	18	-3				4	12	
GOTEBORG	14.53	8.7	3	34	6						
AVERROES	15.68	235.0	2	51	-52				5	52	
ISTANBUL UN.	15.79	91.4	3	49	4						
KONGSBERG	16.29	3.1	3	55	4	6	56	4			
BERGEN	17.08	355.6	4	4	3				4	43	
UPPSALA	17.49	16.5	4	8	2	7	23	3	7	41	55
HELSINKI	19.71	25.8	4	30	-3						
SKALSTUGAN	20.36	5.6	4	39A	-1						
TAMANRASSET	20.68	186.3	4	45	2	8	46	16			
UMEA	21.63	14.9	4	50	-3	8	48	0			
KAJAANI	23.58	21.8	5	14	2						
KSARA	23.77	104.3	5	14K	0	9	25	-2			
KIRUNA	25.36	11.1	5	28A	-1	9	49	-5			
PONTA DELGDA	26.02	268.9	5	42K	6						
SODANKYLA	26.03	16.4	5	34	-2						
TROMSOE	26.88	8.5	5	42	-2						
APATITY	27.76	20.8	5	53	1	10	31	-2			
TEHERAN	34.06	88.0	6	46	-1						
M.BOUR	35.94	224.0	7	2	-1	12	44	2			
SHIRAZ	37.94	96.1	7	18	-2	13	6	-6			
QUETTA	48.15	85.4	8	40	-3						
SEVEN FALLS	53.31	303.4	9	23	1						
BREBEUF	55.78	302.7	9	41A	1	17	29	3			
MOULD BAY	55.99	346.7	9	39	-3						
DEHRA DUN	56.08	78.5	9	42	0						
NEW DELHI	56.46	80.8	9	41	-4	17	27	-8			
OTTAWA	57.11	303.5	9	50A	0						
BANDEIRA	58.24	173.9	9	59	1				10	21	
PALISADES	58.26	298.3	10	1	3						
FORDHAM	58.32	298.1	9	59	1						
BOMBAY	59.13	92.7	10	8	4	18	41	30	12	27	
BROKEN HILL	60.58	157.0	10	13	-1						
WASHINGTON	61.44	297.7	10	22	2						
CHILEKA	63.83	150.8	10	35	-1						
CHAPEL HILL	64.45	296.0	10	41	1						
BOKARO	65.47	79.8	10	46	0						
LHASA	65.62	71.6	10	46A	-1	19	27	-5			
SAN JUAN	66.11	273.1	10	52A	2						
MADRAS	68.32	92.5	11	1A	-4	20	33	29	13	43	PP
CUMBERLAND	68.85	299.3	11	7	-1	20	4	-7	13	42	PP
ST. LOUIS 1	69.81	304.3	11	14	1						
LANCHOW	70.10	59.0	11	15A	0	20	24	-1			
COLLEGE	70.39	349.3	11	19	2						
PAOTOW	70.90	52.0	11	18A	-2						
TANANARIVE	71.91	140.6	11	28	2						
CHANGALANE	72.87	157.3	11	32K	0						
RAPID CITY	73.40	315.4	11	36	1						
CHENGTU	73.69	63.2	11	36A	-1	21	4	-3			
PEKING	74.73	49.1	11	42A	-1	21	12	-6			
TULSA	74.94	305.2	11	44A	0	21	21	0			
SITKA	75.25	340.2	11	47	1						
HUNGRY HORSE	75.34	324.2	11	47	1						
BUTTE	76.49	321.9	11	53	0						
KUNMING	76.50	68.3	11	52	-1	21	33	-5			
LARAMIE	76.61	314.7	11	55	2						

CHANGCHUN	76.71	41.3	11	53	-1							
SPOKANE	77.21	325.6	11	59	2							
WICHITA MTS.	77.42	306.0	11	59	1	21	49	1			14	45 PP
GOLDEN	77.67	313.5	12	1	2							
UINTA BASIN	79.38	316.4	12	10	1	22	11	2			15	14 PP
BLUE MTS.	79.49	323.8	12	10	1	22	12	2			15	14 PP
SALT LAKE C.	80.17	318.0	12	13	0							
ALBUQUERQUE	81.75	310.9	12	23	2						39	50
EUREKA	83.15	319.7	12	29	1							
ZO-SE	83.97	52.4	12	32	0							
TONTO FOREST	84.84	313.5	12	39	2	23	5	1	12	46	15	55 PP
SHASTA	85.04	324.4	12	39K	1							
BOULDER CITY	85.36	316.8	12	43	4							
HONG KONG	86.02	63.0	13	1	18	24	17	61			18	31 PPP
TUCSON	86.17	311.9	12	45	2							
BERKELEY	87.33	322.7	12	52	3							
PASADENA	88.46	317.9	12	56	-1							
MATUSIRO	88.49	37.9	12	53	-2						16	25
TUKUBASAN	89.59	36.8	12	59A	-2				13	8	16	29 PP
LA PAZ	91.41	248.6	13	9	1	23	40	-26				
AREQUIPA	93.68	250.9	13	20	1							
BAGUIO CITY	94.42	62.7	13	22	0	24	3	-29				
KIPAPA	114.20	345.6									35	37
HONOLULU	114.33	345.7									19	39 PP
MAWSON	118.19	159.2	18	48	-1							
MUNDARING	123.74	104.0	19	1	-2							
MIRNY	127.07	150.0	19	4	-3						20	57
RABAUL	129.77	49.3	19	12	1							
PORT MORESBY	130.99	58.6	19	15A	-1							
SOUTH POLE	133.22	180.0	19	15	-2							
WILKES	133.69	146.9	19	15	-3						21	55 PP
HONIARA	138.29	44.0	19	27	0						21	28
ADELAIDE	141.42	94.4	19	27A	-6							
TOOLANGI	147.48	94.3	19	44	1						20	5
CAPE HALLETT	149.80	169.4	19	52	6							
RIVERVIEW	149.93	83.9	19	55	9							
AFIAMALU	150.59	359.4	19	49K	2				19	51		
ROXBURGH	166.56	105.2									21	9 PKP2
KARAPIRO	169.13	63.9									21	21 PKP2
WELLINGTON	170.04	82.1	20	9	1						21	27 PKP2

JULY 19 9.H 0.M 44.S EPICENTRE 36.41 141.30 DEPTH= 53.KM

A=-0.62964 B= 0.50438 C= 0.59090 D= 0.6252 E= 0.7805
G=-0.4612 H= 0.3694 K=-0.8067 HT= -0.4

DEPTH OF FOCUS= 0.003R

SE= 2.91

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
ONAHAMA	0.63	329.3	0	13K	-2	0	24	-2				
MITO	0.67	268.1	0	12K	-3	0	22	-4				
TYOSI	0.78	208.4	0	9K	-7	0	18	-10				
KAKIOKA	0.92	259.4	0	9K	-9	0	27	-4				
SHIRAKAWA	1.13	309.7	0	19K	-1	0	34	-1				
UTUNOMIYA	1.16	277.6	0	17K	-4	0	33	-3				
HONGO	1.42	241.3	0	21	-3	0	37	-6				
TOKYO C.M.O.	1.45	240.6	0	21K	-4	0	37	-6				
HUKUSIMA	1.50	333.8	0	26K	1	0	48	4				
KUMAGAYA	1.57	261.3	0	23K	-3	0	50	4				
YOKOHAMA	1.66	234.5	0	26A	-2	0	45	-3				
TITIBU	1.85	257.4	0	27	-3	0	50	-3				
SENDAI	1.89	350.3	0	31	0	0	55	1				
MERA	1.91	219.4	0	29	-2	0	51	-3				
YAMAGATA	1.99	337.9	0	33K	1	1	0	4				
ISINOMAKI	2.02	0.4	0	32K	-1	0	59	2				
OIWAKE	2.22	268.9	0	33	-2	0	57	-5				
HUNATU	2.24	247.0	0	33	-3	0	57	-6				
AJIRO	2.25	233.6	0	32A	-4	1	4	1				
OSIMA	2.26	224.4	0	36	0							
MISIMA	2.30	236.9	0	31	-6	1	6	2				
KOHU	2.34	252.5	0	34K	-3	1	3	-2				
NIIGATA	2.35	310.7	0	37K	0	1	12	7				
MATUSIRO	2.50	274.0	0	36K	-3	1	10	1				
NAGANO	2.51	277.0	0	40	0	1	25	16				

TAKADA	2.55	286.7	0 40	0	1 11	1
MATUMOTO	2.70	267.7	0 58	16	1 44	30
MIZUSAWA	2.72	357.2	0 43	0		1 18
SAKATA	2.75	335.3	0 45	2	1 25	10
SHIZUOKA	2.76	239.6	0 42	-1	1 9	-7
AIKAWA	2.92	304.4	0 46	1	1 30	10
IIDA	2.95	253.6	0 44	-2	1 21	1
OMAESAKI	3.09	235.3	0 50	2		
MIYAKO	3.28	9.0	0 49	-1	1 29	0
TAKAYAMA	3.28	266.8	0 49	-1	1 42	13
MORIOKA	3.29	358.2	0 48A	-3	1 33	4
TOYAMA	3.32	276.3	0 48	-3	1 36	6
HAMAMATU	3.37	241.1	0 53	1	1 40	9
AKITA	3.44	344.4	0 57	4	1 40	7
HATIDYOZIMA	3.52	201.1	0 50	-4		
WAZIMA	3.66	286.7	0 59	3		
NAGOYA	3.73	252.0	0 57	0	1 42	2
KANAZAWA	3.75	273.3	0 59	2		
GIHU	3.81	256.1	1 0	2	1 54	12
HUKUI	4.12	266.6	1 13	11		
HATINOHE	4.12	2.4	1 6	4	1 58	8
KAMEYAMA	4.23	249.9	1 19	15	2 3	10
HIKONE	4.26	256.1	1 4	0	2 6	13
AOMORI	4.43	354.8	1 8	2	2 9	12
KYOTO	4.74	254.7	1 5	-6	2 5	0
OWASE	4.78	242.3	1 16	5	2 22	16
NARA	4.78	250.5	1 12	1		
ABUYAMA	4.91	253.5	1 11A	-2		
OSAKA	5.02	251.3	1 32	17	2 32	20
TOYOOKA	5.33	262.5	1 28	9	2 39	19
HAKODATE	5.41	355.7	1 22	2	2 26	4
SIOMISAKI	5.42	238.6			2 45	23 1 54
SUMOTO	5.61	250.3	1 25	2	2 34	7
MORI	5.72	354.5	1 27	3	2 45	15
URAKAWA	5.85	10.8	1 27K	1	2 36	3
MURORAN	5.91	357.7	1 33	6	2 41	6
HIROO	6.07	14.3	1 28	-1	2 36	-3
TOMAKOMAI	6.22	1.9	1 47	15		
TAKAMATU	6.28	252.8	1 37	5	3 8	24
SUTTSU	6.44	352.9	1 40	5		
MUROTO	6.65	243.8			2 58	5
SAPPORO	6.66	0.3	1 39	1	3 7	14
MATSUE	6.75	264.3	1 50	11	3 1	6
KUSIRO	6.99	19.0	1 38	-4	2 55	-6
KOTI	6.99	248.2	1 41	-1	3 2	1
ASAHIGAWA	7.41	6.0	1 44A	-4	3 7	-5
MATUYAMA	7.44	252.4	1 57	9	3 4	-8
HIROSIMA	7.53	256.9				3 56
NEMURO	7.66	24.1	1 49	-3	3 9	-9
HAMADA	7.66	261.4			3 48	30 2 46
ABASHIRI	7.94	15.7	1 58A	3	3 21	-4
OOITA	8.57	251.1	2 24	20	4 23	43
SIMONOSEKI	8.84	256.9	2 11	3		
WAKKANAI	9.01	1.7	2 10	0	3 51	0
HUKUOKA	9.39	255.7	2 33	18	4 25	24
KUMAMOTO	9.44	250.8	2 12	-4	4 17	15
NAGASAKI	10.11	252.1	2 30	5	4 44	26
KURILSK	10.12	27.4	2 22	-3	4 12	-6
Y.-SAKHLINSK	10.66	5.2	2 29K	-4	4 28	-4
CHANGCHUN	14.30	306.1	3 19	-2		
ZO-SE	17.54	258.3	4 1	-1		
PEKING	20.06	288.0	4 26	-5		4 47 PP
PETROPAVLOVK	20.60	30.8	4 36	-1		
MAGADAN	23.97	11.9	5 12	2	9 28	8
PAOTOW	24.76	289.3	5 17	-1	9 42	8
HONG KONG	27.40	246.6	5 13	-30		
ULAN-BATOR	27.75	305.3	5 43	-3		
LANCHOW	30.11	280.6	6 4	-3		
IRKUTSK	30.44	313.1	6 8	-2		
KUNMING	34.78	262.1	6 44	-3		
ESEN BULAK	34.82	300.9	6 42	-6		
TIKSI	35.88	353.3	6 57A	0	12 34	4
SHILLONG	43.32	269.9	7 56A	-2		
SEMIPALATNSK	45.26	308.0	8 13	-1		
ALMATA-2	48.51	298.8	8 40A	0		
ALMATA	48.80	298.9	8 42	0		
COLLEGE	49.67	32.0	8 49	1		
KHEYS	53.24	348.3	9 13	-2		
NEW DELHI	53.77	281.2	9 16A	-3		

HONOLULU	54.36	88.5			17 14	18		
TASHKENT	54.82	298.8	9 26A	-1				
WARSAK DAM	55.89	289.7	9 33	-2				
DUZHANBE	56.17	295.8	9 37	0				
CHARTERS TS.	56.38	174.4	9 36	-2				
MOULD BAY	57.16	16.3	9 43A	-1				
ALERT	60.76	3.5	10 8A	-1				
QUETTA	61.06	287.7	10 8	-3				
APATITY	63.23	335.8	10 23A	-2	18 48	-3		
RESOLUTE	63.24	14.3	10 24A	-1				
ASHKABAD	63.89	299.1	10 29	0				
VANNOVSKAYA	64.07	299.2	10 30	-1				
KIZYL-ARVAT	64.77	301.2	10 35	0				
SODANKYLA	65.51	337.3	10 39	-1				
TROMSOE	66.28	341.2	10 44	-1				
KIRUNA	67.07	339.3	10 49A	-1				
KAJAANI	67.12	334.1	10 50A	0				13 14 PP
MOSCOW	67.70	323.6	10 52	-2	19 48	2		
PULKOVO	68.69	329.5	10 59	-1				
EDMONTON	69.80	38.0	11 7A	0				
UMEA	69.82	336.1	11 6A	-1				
TEHERAN	69.84	299.9	11 6	-1				
HELSINKI	70.56	331.6	11 11	0				
KIROVOBAD	70.72	306.6	11 11A	-1				
TIFLIS	71.13	308.2	11 15	0				
GORIS	71.32	305.5	11 15A	-1				
SHASTA	71.55	52.8	11 20K	3				
BAKURIANI	71.94	308.7	11 21	1				
MINERAL	72.25	52.8	11 20A	-1				
HUNGRY HORSE	72.31	42.6	11 22	0				
BLUE MTS.	72.42	47.0	11 23	1	20 50	9		25 26 SS
SKALSTUGAN	72.47	338.6	11 22A	-1				
SCORESBY SD.	72.73	354.2	11 25	1				
BERKELEY	73.16	55.2						32 58
UPPSALA	73.48	334.0	11 28A	-1	20 55	2		
BUTTE	74.47	44.0	11 34	0				
BOZEMAN	75.53	43.6	11 41	0				
SIMFEROPOL	75.71	315.6	11 41	-1				
KONGSBERG	76.31	337.0	11 45	0				
EUREKA	76.31	51.0	11 46A	1				
WOODY	76.64	55.5	11 46	-1			11 58	
KARLSKRONA	76.92	332.2	11 49A	1				
GOTEBORG	77.06	334.8	11 48A	-1				
DUGWAY	77.83	48.9	11 54	1				
LWOW	77.83	323.9	11 53	0				
COPENHAGEN	78.44	333.2	11 57	0				
BOULDER CITY	79.12	53.3	12 5	4				
UZHGOROD	79.48	323.8	12 3	1				
KRAKOW	79.57	326.0	12 2	-1				12 9 PCP
UINTA BASIN	79.70	47.2	12 4	0	22 13	12		
KARAPIRO	80.46	153.2	12 22	14				
RAPID CITY	80.83	41.2	12 10	0				
LARAMIE	81.37	44.5	12 13	0				
KSARA	81.45	305.8	12 13	0				
COLLMBERG	81.60	330.1	12 14A	0				15 29
PRUHONICE	81.98	328.5	12 15	-1	22 24	0		
TONTO FOREST	82.45	52.8	12 19	1			12 44	12 24 PCP
JENA	82.46	330.6	12 18	0				
GOLDEN	82.56	45.6	12 19	0				
KASPERSKE H.	83.03	328.4	12 21	0				
JERUSALEM	83.15	304.5	12 22	0				
TUCSON	84.03	54.2	12 26	0				
ALBUQUERQUE	85.06	49.7	12 32	1				
STUTTGART	85.08	330.4	12 38	7				13 31
DOURBES	85.76	333.7	12 38	3				
STRASBOURG	85.83	331.1						14 49
SCHEFFERVLLE	85.99	15.8	12 36	0				
GARCHY	88.68	333.0	12 30	-19				
WICHITA MTS.	89.90	45.4	12 55	0	23 46	5	13 18	
TULSA	90.62	43.0	12 58	0				23 46
TAMANRASSET	107.83	317.5						18 29 PP
LA PAZ	147.23	60.6	19 39	4				
ARGENTINE I.	147.39	160.3						21 37

JULY 20 0.H 11.M 30.S EPICENTRE 65.28-133.39 DEPTH= 0.KM

A=-0.28895 B=-0.30563 C= 0.90725 D=-0.7267 E= 0.6870
G=-0.6233 H=-0.6593 K=-0.4206 HT=-10.5

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	
COLLEGE	6.11	272.8	1	32	-2								
SITKA	8.31	187.3	2	3	-2								
YELLOWKNIFE	8.73	100.0	2	8A	-3								
PORT HARDY	14.92	165.3	3	36	2								
EDMONTON	15.60	130.3	3	41K	-2								
PENTICTON	17.57	148.9	4	9	1								
VICTORIA	17.62	157.6	4	8	0								
SEATTLE	18.65	156.0	4	33	12								
HUNGRY HORSE	19.85	139.4	4	35	0						10	38	
BLUE MTS.	22.31	148.7	5	1A	0	9	12	10			7	4	
BUTTE	22.38	139.4	5	3	2						11	41	
ALERT	23.45	18.2	5	13	1								
RAPID CITY	27.01	127.0	5	44	-2								
CALISTOGA	27.41	161.4	5	52K	3								
EUREKA	27.74	150.1	5	53A	1								
FLAMING GRGE	27.97	138.9	5	55	1								
BERKELEY	28.21	161.1	5	48A	-8	11	0	18					
UINTA BASIN	28.49	139.6	6	U	1	11	7	21					
LICK	28.82	160.3	6	6A	4								
NORD	29.59	15.4	6	10	1								
PRIEST	30.14	159.2	6	2A	-12								
GOLDEN	30.27	134.0	6	15	0								
WOODY	30.86	156.5	6	20	0								
TIKSI	32.60	324.3	6	34	-1								
SCHEFFERVLLE	33.23	75.8	6	42	1								
MAGADAN	33.56	296.7	6	43	-1								
TONTO FOREST	33.76	145.9	6	47	2						9	25	PCP
ALBUQUERQUE	34.37	138.8	6	52	1								
TULSA	36.84	124.3	7	11	-1								
WICHITA MTS.	36.98	128.6	7	12	-1	13	22	23			8	47	PP
SEVEN FALLS	37.34	87.9	7	16	0								
BREBEUF	37.45	92.1	7	17K	0								
PENNSYLVANIA	39.53	100.5									16	44	
MORGANTOWN	39.66	103.6	7	32	-3								
CUMBERLAND	40.90	112.7	7	45	-1						9	25	PP
PALISADES	41.00	96.5				14	0	1					
BLACKSBURG	41.54	106.0	7	35	-16								
TROMSOE	44.00	13.5	8	11	0								
KIRUNA	45.88	13.5	8	26	0								
SODANKYLA	46.88	10.4	8	34	0								
APATITY	47.13	6.9	8	36K	0	15	22	-6					
SKALSTUGAN	49.00	19.5	8	52	2								
UMEA	49.76	15.0	8	54	-2	16	3	-2					
KAJAANI	50.21	10.7	9	0	0								
UPPSALA	53.31	17.8	9	22	-1								
HELSINKI	53.82	13.2	9	25	-2								
PULKOVO	54.67	10.0	9	32	-1								
MATUSIRO	56.82	285.9	9	48	-1								
ULAN-BATOR	57.92	316.4	9	56	0								
MOSCOW	59.13	5.9	10	4	-1								
BENSBERG	60.18	27.6	10	8	-4								
HALLE	60.53	24.1	10	12	-2								
FOLINIERE	60.60	33.8	10	15	0								
COLLMBERG	60.91	23.4	10	17K	0						13	5	
JENA	61.02	24.5	10	18	0						10	45	
SEMIPALATNSK	61.77	336.3	10	22	-1								
PEKING	62.07	305.5	10	24	-1								
STRASBOURG	62.56	28.0	10	16	-12						11	9	PCP
GARCHY	62.82	31.8	10	28	-2								
KASPERSKE H.	63.10	23.7	10	32	0								
NIEDZIKA	63.84	18.8	10	37	0								
UZHGOROD	64.88	17.6	10	44	1								
LJUBLJANA	66.24	23.8	10	52	0								
ISOLA	66.62	29.9	10	56	2								
TOLEDO	68.02	39.9	11	4K	1	20	10	8					
ALMATA-2	69.17	336.4	11	11K	1								
SIMFEROPOL	69.68	9.4	11	15	1								
LANCHOW	69.69	313.4	11	13	-1								
KIROVOBAD	74.41	0.2	11	42	0								
ATHENS	75.55	18.5	11	49K	1								

GORIS	75.56	0.2	11	49	1
VANNOVSKAYA	76.72	350.7	11	56	1
TEHERAN	79.25	356.0	12	9	0
LHASA	79.34	321.7	12	11	2
SHILLONG	82.99	319.7	12	29K	1
QUETTA	83.55	342.4	12	33	2
SHIRAZ	85.28	354.8	12	41A	1
TAMANRASSET	86.75	37.4	12	50K	3
BYRD STATION	145.30	175.8	19	40	0

JULY 20 0.H 51.M 50.S EPICENTRE 43.30 41.47 DEPTH= 0.KM

A= 0.54699 B= 0.48346 C= 0.68342 D= 0.6623 E=-0.7493
G= 0.5121 H= 0.4526 K=-0.7300 HT= -2.9

SE= 2.22

	DELTA	AZ.	P	O-C	S	O-C	*PP	SUPP.
	DEG.	DEG.	M S	S	M S	S	M S	M S
ZUGDIDI	0.84	158.9					0 16 PG	
KRASNAYA	1.00	292.0					0 21 PG	
SOTCHI	1.31	282.8					0 27 PG	
ABASTUMANJ	1.85	146.7	0 32K	-1				
BAKURIANI	2.18	135.4	0 38	0			1 7 S*	
GORI	2.36	123.2	0 38	-2			1 9 S*	
AKHALKALAKI	2.42	141.3	0 43	2	1 14	2		
DUZHETI	2.68	116.1	0 45A	0	1 19	0		
TIFLIS	2.93	121.6	0 49	0	1 25	0		
GROZNY	3.12	88.3	0 52	1			1 48	
STEPANAVAN	3.16	135.8	0 51	-1			1 40 SG	
EREVAN	3.86	143.0					1 8 P*	
MAKHACH-KALA	4.42	92.3	1 11	1			2 31	
KIROVOBAD	4.49	124.6	1 9	-2			2 12 S*	
GORIS	5.27	134.5	1 23	1			2 37 S*	
SIMFEROPOL	5.54	289.8	1 26	0	2 35	4		
ISTANBUL UN.	9.54	260.5	2 39	17	4 16	5		
KSARA	10.43	206.6	2 28	-6	4 24	-9		
TEHERAN	10.75	131.3	2 39	1			5 53	
KIZYL-ARVAT	11.87	105.2	2 52K	-1	5 10	2		
MOSCOW	12.68	350.1	3 2	-2	5 26	-2		
LWOW	13.64	304.6	3 15	-2				
VANNOVSKAYA	13.71	107.3	3 15	-3				
ASHKABAD	13.88	106.9	3 16	-4				
UZHGOROD	14.35	298.4	3 23	-3	6 8	1		
ATHENS	14.49	254.4	3 28K	0				
NIEDZIKA	15.81	300.1	3 45	0			8 39	
KRAKOW	16.22	302.1	3 48	-3			7 52	
SHIRAZ	16.25	143.4	3 47	-4				
WARSAW	16.35	310.2	3 58	6			4 9 PP	
CHORZOW	16.87	302.3	3 55	-4			9 10	
RACIBORZ	17.30	301.1	4 7	3			10 36	
BRATISLAVA	17.67	294.5	3 11	-58				
PULKOVO	17.84	341.4	4 7	-4	7 39	10		
VIENNA-H.	18.16	294.5	4 20	5				
LJUBLJANA	19.33	287.5	4 29	0				
HELSINKI	19.64	335.0	4 30	-3				
TRIESTE	19.88	286.4	4 35	-1				
KASPERSKE H.	20.09	296.6	4 37	-1			8 50	
TASHKENT	20.63	86.0	4 42K	-1				
COLLMBERG	20.80	302.6	4 45K	0			8 38	
KARLSKRONA	20.95	316.9	4 47	0				
DUZHANBE	21.11	93.6	4 47	-1				
ROME	21.35	276.2	4 49	-2				
HALLE	21.48	302.7	4 51	-1	9 1	15		
JENA	21.61	301.1	4 52	-2			10 58	
UPPSALA	22.02	327.0	4 57	-1	8 56	-1	5 18 PP	
KAJAANI	22.25	344.0	5 0K	0	9 9	8		
COPENHAGEN	22.36	313.8	5 2	1				
STUTTGART	22.90	295.1	5 8	2				
ANDIJAN	23.03	85.7	5 9	1				
GOTEBORG	23.40	318.3	5 14	3				
UMEA	23.89	336.6	5 16	0	9 31	1	10 24	
STRASBOURG	23.90	294.5	5 16	0			5 54	
QUETTA	24.15	114.4	5 18	0				
MUNSTER	24.22	302.8	5 19	0				
BENSBERG	24.39	300.3	5 23	2			6 23	
APATITY	24.68	352.6	5 25K	1	9 45	2		

ISOLA	24.78	284.0	5	26	1				5	36		
BESANCON	25.15	291.4	5	29	1						6	23
WARSAK DAM	25.15	101.5	5	26	-2							
KONGSBERG	25.36	321.3	5	32	2						6	8 PP
SODANKYLA	25.41	346.6	5	31	0	10	16	20				
DOURBES	25.98	298.1	5	40	4	9	54	-11				
ALMATA-2	26.01	77.6	5	35A	-1							
SKALSTUGAN	26.32	330.5	5	52	13							
KIRUNA	27.02	342.5	5	45	0	10	29	7				
GARCHY	27.12	291.9	5	55A	9							
SEMIPALATNSK	27.21	61.2	5	46	-1							
TROMSOE	28.81	343.8	6	2	0							
ELTSOVKA	30.95	55.4	6	19	-1							
TOLEDO	33.90	280.1	6	46	-1							
TAMANRASSET	36.05	247.0	7	4A	-1							
ESEN BULAK	38.31	65.8									8	55
CHATRA	40.32	98.8	7	41	0							
MOULD BAY	60.11	354.8	10	10	-1							
COLLEGE	71.92	4.2	11	26	-1							
YELLOWKNIFE	72.82	348.6	11	32	0							
EDMONTON	81.30	345.1	12	20A	1							
HUNGRY HORSE	86.22	343.9	12	45	1							
PENTICTON	86.28	347.7	12	44	-1							
BOZEMAN	88.10	341.1	12	55	1							
BLUE MTS.	90.21	345.1	13	3	-1							
UINTA BASIN	92.75	338.2	13	15	0							
WICHITA MTS.	94.22	328.0	13	22	0							
EUREKA	95.11	342.7	13	27A	1							
TONTO FOREST	98.86	337.4	13	28	-15						13	43

JULY 20 6.H 36.M 7.S EPICENTRE -57.77 148.12 DEPTH= 0.KM

A=-0.45502 B= 0.28305 C=-0.84430 D= 0.5282 E= 0.8491
G= 0.7169 H=-0.4460 K=-0.5359 HT= -8.2

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	
MACQUARIE I.	6.88	66.2	1	40K	-5	3	10	5					
CAPE HALLETT	17.12	157.0	4	2	0								
ROXBURGH	17.92	55.8	4	10A	-2	7	24	-7			5	34	
WILKES	19.29	228.2	4	26	-3	8	5	3					
TOOLANGI	20.29	354.0	4	35A	-5	8	24	1	4	44	5	10	PPP
SCOTT BASE	21.14	169.2	4	49	0	8	57	17					
ADELAIDE	23.67	340.5	5	13K	-1	9	31	5	5	24	10	21	SS
WELLINGTON	23.67	57.4	5	13A	-1	9	33	7			6	13	
RIVERVIEW	24.03	6.2	5	16A	-2	9	37	4	5	27	5	57	
CHATEAU	25.70	55.6									7	36	
MIRNY	26.31	227.8	5	39A	0	10	8	-3			11	47	SSS
BRISBANE	30.54	8.2	6	13	-4	11	15	-4					
SOUTH POLE	32.40	180.0	6	32	-2						8	0	
MUNDARING	33.75	306.0	6	43	-3	11	53	-16					
PERTH	33.93	305.6	6	50	3	12	13	1			16	7	SS
BYRD STATION	34.16	161.9	6	50	1								
MAWSON	37.17	219.2	7	15	0	13	10	8					
CHARTERS TS.	37.66	357.1	7	15	-4	12	57	-12					
NOUMEA	37.85	28.3	7	24	4	13	17	5					
KOUMAC	39.01	24.5	7	26A	-4								
PORT VILA	42.71	29.0	8	1A	1								
LUGANVILLE	44.53	26.6	9	12	57								
DARWIN	47.17	336.7	8	36	0								
N-LAZARVSKYA	48.07	197.9	8	42A	-1						10	35	PP
PORT MORESBY	48.27	358.7	8	43A	-2	15	35	-10					
HONIARA	49.09	15.5	8	47A	-4	15	53	-3					
AFIAMALU	53.15	51.4	9	19	-3	16	56	4					
RABAUL	53.52	5.0	9	20	-5						16	53	
ARGENTINE I.	54.88	164.0	9	34	-1								
LEMBANG	59.71	311.7	10	11	2	18	29	10			10	58	PCP
DJAKARTA	60.62	311.2	10	15	0	18	31	0			12	30	PP
MANILA	75.55	333.0									12	17	
NHATRANG	76.70	320.9	12	1	6						14	47	PP
BAGUIO CITY	77.36	333.0	12	3	5	21	43	-6					
CHANGALANE	80.70	234.9				22	19	-5	12	23	22	34	SCS
KIMBERLEY	81.64	227.9	12	23A	1								
PORT BLAIR	82.62	305.6	12	33A	6	22	50	6			15	51	PP

SANTA LUCIA	83.47	148.2	12	31	0	22	53	1				
HONG KONG	84.65	328.7								13	10	
CHILEKA	88.63	242.4	12	57	1							
HONOLULU	90.55	48.8	13	5	0	24	6	6		30	12	SS
KIPAPA	90.69	48.8	13	4	-2	24	8	7		30	12	SS
ANTOFAGASTA	92.68	145.1								21	13	
BROKEN HILL	92.72	237.4	13	17K	2							
TUKUBASAN	93.88	353.5	13	22	1	24	29	0		17	19	PP
MATUSIRO	94.32	352.0	13	21	-2	24	39	6				
SHILLONG	95.36	311.0	13	33	5	24	2	-1		25	55	PS
BOMBAY	98.23	292.3	13	6	-35	23	40	-38		16	26	PP
BANDEIRA	98.59	223.9							13 51	17	44	PP
LA PAZ	100.15	144.8	13	50	1					25	29	SKKS
LWIRO	103.25	243.5								17	5	
NEW DELHI	104.34	300.9				24	43	-5		18	22	
QUETTA	110.55	294.0	16	2	-153					16	52	
PETROPAVLOVK	110.77	6.8								28	41	PS
ESEN BULAK	112.36	323.9	18	34	-4							
IRKUTSK	115.36	331.9								19	42	PP
CHINCHINA	117.28	129.2								19	55	PP
FRUNSE	117.38	307.4	18	58	10					20	7	PP
SHIRAZ	117.45	282.5	18	53	5					20	1	
BOGOTA	117.60	130.9								20	4	PP
TASHKENT	118.50	302.8	18	58	8					20	8	PP
FUQUENE	118.51	130.9								20	22	PP
BALBOA HTS.	119.15	123.2								20	13	
PASADENA	120.04	72.9								30	19	PS
PRIEST	120.33	69.7								20	37	
BERKELEY	120.89	67.2								20	3	
WOODY	120.90	71.3	18	54	-1							
CALISTOGA	121.33	66.5								20	29	
TUCSON	122.37	79.9	18	59	1							
TEHERAN	122.82	286.0	19	2	4					37	23	SS
SHASTA	123.01	65.0	19	0	1					20	32	
BOULDER CITY	123.18	74.1	19	3	4							
TONTO FOREST	123.72	78.1	19	0	0					20	5	PP
EUREKA	125.27	70.5	19	4	1					31	49	
CARACAS	125.76	135.9								20	54	PP
ALBUQUERQUE	126.77	81.3	19	8	2							
DUGWAY	127.41	72.2	19	7A	0							
LUBBOCK	128.17	86.1	19	30	21					53	20	
SEATTLE	128.27	59.5	19	8	-1					52	42	
GORIS	128.28	285.2								23	53	PPP
JERUSALEM	128.32	270.1	19	15	6							
SALT LAKE C.	128.33	72.4	19	11	2							
BLUE MTS.	128.60	65.1	19	8	-2					21	13	PP
UINTA BASIN	129.16	74.5	19	9	-2					21	19	PP
KSARA	129.54	272.3	19	10	-1	26	8	-11		21	7	PP
FLAMING GRGE	129.71	74.1	19	10	-2							
TIKSI	129.82	352.2	19	11	-1					22	34	SKP
SPOKANE	130.66	62.5	19	15	2							
TIFLIS	130.70	286.1	19	18	4					22	45	SKP
PENTICTON	130.72	59.6	19	9	-5							
WICHITA MTS.	130.79	87.8	19	16	2					21	32	PP
GOLDEN	130.89	78.1	19	16	2							
COLLEGE	131.56	30.9	19	12	-3							
BUTTE	131.76	67.2	19	17	1							
LARAMIE	131.96	76.5	19	17	1							
HUNGRY HORSE	132.68	64.0	19	21	4							
TULSA	133.18	89.1	19	21	3					21	41	PP
SVERDLOVSK	133.82	310.4								21	43	PP
RAPID CITY	135.16	75.5	19	27	5							
M.BOUR	135.25	200.7								21	57	PP
LAWRENCE	135.73	86.7	19	19	-4							
TAMANRASSET	135.88	233.6	19	20	-3					22	4	PP
EDMONTON	136.35	59.1	19	13	-11							
CUMBERLAND	138.40	98.4	19	28	0					22	12	PP
SIMFEROPOL	138.52	281.6	19	35	7	26	44	7		23	12	PKS
ISTANBUL UN.	138.55	273.4	19	28	0							
ATHENS	139.16	265.7	20	35	66							
COLUMBIA	139.57	104.3	19	33	3							
YELLOWKNIFE	141.19	47.3	19	29	-4							
CHAPEL HILL	142.08	104.4	19	26	-8							
BLACKSBURG	142.34	101.7	19	33	-2							
SOFIA	142.74	270.7	19	55	20					21	31	
MESSINA	143.66	258.3	19	41	4					22	58	PP
MORGANTOWN	144.38	99.4	19	38A	0							
TITOGRAD	144.73	266.8	19	41	2					20	1	PKP2

WASHINGTON	145.36	103.1	19	39	-1				20	23	
GEORGETOWN	145.36	103.1	19	39	-1				35	41	PS
MOULD BAY	145.63	25.1	19	37A	-3						
BELGRADE	145.71	270.9	19	47	6	27	25	37	20	16	PKP2
TIMISOARA	145.90	272.8	19	56	15				22	19	
LONDON ONT.	146.14	94.0	19	40K	-1						
PENNSYLVANIA	146.33	100.0	19	42	0						
KHEYS	146.40	342.8	19	42	0				22	47	PP
LWOW	146.91	280.7	19	47	4				30	2	SKKS
SETIF	147.28	245.0	19	48	5				20	20	PKP2
ROME	147.97	259.8	19	48	4				25	26	PP
FORDHAM	148.45	104.0	19	51	6				30	9	
PALISADES	148.55	103.8	19	44	-1						
PULKOVO	148.72	300.4	19	48	2						
ZAGREB	148.75	268.6	19	53	7						
ALGIERS UNI.	148.87	242.8	19	54	8						
KRAKOW	149.21	278.2	19	53	7						
LJUBLJANA	149.68	267.6	19	51	4				23	22	PP
WARSAW	149.83	282.6	19	55	8				23	55	
TRIESTE	149.84	266.3	19	55	8				30	15	SKKS
CHORZOW	149.84	277.9	19	55	8				21	7	
APATITY	149.94	315.8	19	53	5	26	45	-9	23	42	PP
RACIBORZ	150.14	277.0	19	55	7				21	51	
AVERROES	150.44	224.7	19	54A	6				23	48	PP
OTTAWA	150.63	95.7	19	53	4						
PADOVA	150.68	264.2	20	6	17				26	6	
KAJAANI	151.35	307.8	19	54	4						
HELSINKI	151.37	299.1	19	54	4						
RESOLUTE	151.47	29.7	19	53A	3						
ALMERIA	151.47	235.6	19	55A	5						
ALICANTE	151.80	240.1	19	55K	5						
BREBEUF	151.82	97.6	19	58	8				43	16	SS
PAVIA	151.97	261.3							29	57	SKKS
KASPERSKE H.	152.07	271.8	19	53	2				22	5	
PRAGUE	152.15	274.2	20	1	10						
MALAGA	152.20	232.7	19	53	2						
ISOLA	152.41	257.5	20	4	13						
SODANKYLA	152.48	314.4	19	57	6						
COLLMBERG	153.58	275.4	19	55	2				23	58	PP
ROSELEND	153.65	259.5	20	3	10						
ALERT	153.87	8.7	19	53	0						
JENA	154.14	273.6	20	5	11				30	11	SKKS
STUTTGART	154.16	267.5	19	57	3				43	33	
KARLSKRONA	154.48	286.8	20	13	19						
UMEA	154.51	305.6	19	57	3				22	5	
TOLEDO	154.67	237.1	19	59	5				24	6	PP
UPPSALA	154.75	295.8	20	6	12				27	29	
HEIDELBERG	154.82	268.2	20	1	7						
STRASBOURG	154.85	265.8	20	4	9				43	32	SS
KIRUNA	154.89	315.0	20	1	6				24	8	PP
BESANCON	154.99	261.6	19	58	3				24	27	
BAGNERES	155.15	247.6	19	59	4				20	27	
CLERMONT-FD.	155.54	255.8	20	1	6				20	33	
NORD	155.67	354.6	19	56	0						
LISBON	155.86	227.7	20	1	5						
HALIFAX	156.43	110.2	20	2K	5						
BENSBERG	156.52	270.1	20	11	14				24	18	PP
GARCHY	156.55	258.6	20	1A	4						
DOURBES	157.43	265.9	20	12	14				32	36	
PARIS	157.80	261.1	20	4	6						
SKALSTUGAN	157.98	303.8							20	37	
DE BILT	158.17	271.0	19	59	0				45	23	SS
KONGSBERG	158.61	292.7	20	1	2				44	18	SS
FOLINIERE	159.34	257.7							20	44	
PONTA DELGDA	159.53	194.2							44	43	SS
SCHEFFERVLLE	160.54	83.8	20	1	-1						
KEW	160.79	264.4	20	21	19				44	47	SS
DURHAM	162.98	277.8							21	43	
GODHAVN	165.10	30.7	20	23	17						

JULY 21 6.H 1.M 48.S EPICENTRE 14.10 56.50 DEPTH= 0.KM

A= 0.53551 B= 0.80911 C= 0.24202 D= 0.8339 E=-0.5519
G= 0.1336 H= 0.2018 K=-0.9703 HT= 5.9

SE= 2.79

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SHIRAZ	15.91	347.3	3	41A	-6	6	52	7			4	21	
BOMBAY	16.36	70.8	3	56	3	6	36	-19			4	33	
POONA	17.22	72.8									5	10	
QUETTA	18.68	29.4	4	20A	-2	7	55	7					
TEHERAN	22.04	348.9	4	55	-3	9	1	4			9	10	PCP
MADRAS	23.04	89.9	5	3	-5						5	31	PPP
VANNOVSKAYA	23.80	3.1	5	14	-2								
LAHORE	23.85	40.3	5	20	4								
NEW DELHI	24.01	49.8	5	19A	1								
WARSAK DAM	24.06	31.9	5	19	1								
KIZYL-ARVAT	25.01	359.6	5	24	-3	9	49	0					
DEHRA DUN	25.59	47.3	5	35	2								
DUZHANBE	26.69	21.8	5	45	2								
GORIS	26.84	342.4	5	46K	2	10	25	5					
KHOROG	26.86	27.2	5	47	2	10	28	8					
KSARA	27.12	320.0	5	49	2	10	52	28			6	47	PP
KIROVOBAD	27.91	343.3	5	53	-1	10	37	0					
TASHKENT	29.32	19.9	6	7	0	11	3	3					
BAKURIANI	29.75	340.2	6	11	0								
CHATRA	31.31	61.3	6	27A	3								
ALMATA	33.97	27.2	6	48	0								
LHASA	35.42	58.4	7	0	0	12	39	4			8	23	PP
ISTANBUL UN.	35.98	323.5	7	5	0						8	27	
SIMFEROPOL	36.15	332.7	7	6K	0	12	45	-1					
CHILEKA	36.44	216.5	7	12K	3								
ATHENS	37.53	315.4									7	54	
SOFIA	40.34	321.5	7	43	2								
IASI	40.88	329.7									11	46	
SEMIPALATNSK	41.03	23.1	7	47	0								
MESSINA	43.41	311.3	8	6	-1	14	37	2			18	0	
MOSCOW	44.03	344.7	8	12	0								
LWOW	44.39	330.2	8	15	1	14	47	-3					
UZHGOROD	44.48	327.8	8	17	2								
KUNMING	44.72	68.5	8	13	-4								
ESEN BULAK	46.29	37.7	8	32	2	15	30	13					
KRAKOW	46.58	328.1	8	30	-2						10	18	PP
ROME	47.01	314.8	8	25	-10						8	52	
LJUBLJANA	47.47	320.8	8	38	-1						9	1	
VIENNA-H.	47.48	324.2	8	38	-1						10	24	PP
LANCHOW	47.57	53.8	8	38	-2								
TRIESTE	47.76	320.0	8	46	5	15	34	-4					
PADOVA	48.84	318.9									9	22	
TAMANRASSET	48.93	288.0	8	51A	1	15	33	-21			10	41	PP
KASPERSKE H.	49.52	324.0	8	51	-4						9	23	
SETIF	50.57	305.4	8	58	-5								
MONACO	51.13	315.3	9	7	0								
JENA	51.53	325.2	9	8	-2						11	18	
ISOLA	51.54	315.7	9	10	0								
HALLE	51.60	326.0	9	9	-2						11	11	PP
NURMIJARVI	51.82	340.6	9	15	3								
ROSELEND	52.34	317.4	9	15	-1								
ALGIERS UNI.	52.54	305.6	9	16	-2								
STRASBOURG	52.70	321.1	9	24	5	16	49	3			10	29	PP
BESANCON	53.31	319.0	9	23	0								
PAOTOW	53.41	49.7	9	24	0	16	58	2					
KAJAANI	53.76	344.8	9	26	-1								
UPPSALA	53.83	336.9	9	26A	-1								
BENSBERG	54.03	323.7	8	54	-35						9	23	
CLERMONT-FD.	54.69	316.5	9	34	0								
GARCHY	55.19	318.2	9	35A	-2								
DOURBES	55.20	321.9	9	36	-1								
APATITY	55.51	349.5									10	9	
UMEA	55.67	341.5	9	49	8	17	35	9					
PARIS	56.05	319.8	9	40	-3								
SODANKYLA	56.72	346.7	9	45	-3								
GRANADA	57.86	305.1	9	57K	1								
PEKING	57.91	51.5	9	55	-2	17	59	3					
KIRUNA	58.56	344.8	9	58A	-3								
KEW	58.60	322.2	9	59	-2								
ZO-SE	61.29	62.1				18	34	-6					
BAGUIO CITY	61.64	78.8	10	22	0								
CHANGCHUN	65.11	48.1	10	44	-1	19	29	2					
KHEYS	66.56	0.3	10	54	0								
YAKUTSK	69.79	28.8	11	12K	-3								
TIKSI	71.17	18.6				20	34	-6					
MATUSIRO	75.16	55.5	11	46	0						31	17	

ALERT	79.74	353.3	12	10	-2							
MOULD BAY	89.82	359.0	13	1	-1							
BLUE MTS.	121.07	354.9	18	56	1						20	12 PP
UINTA BASIN	124.34	347.1	19	2	0						24	2
WICHITA MTS.	125.99	334.6	19	6	1						20	49 PP
EUREKA	126.24	352.8	19	6	1						20	58 PP
TONTO FOREST	130.50	346.7	19	16	3			19	28		21	42 PP

JULY 22 0.H 29.M 15.S EPICENTRE -6.12 148.92 DEPTH= 54.KM

A=-0.85161 B= 0.51335 C=-0.10596 D= 0.5163 E= 0.8564
G= 0.0908 H=-0.0547 K=-0.9944 HT= 6.9

DEPTH OF FOCUS= 0.003R

SE= 2.02

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PORT MORESBY	3.70	208.2	0	57K	1								
RABAUL	3.76	59.6	0	56	-1								
HONIARA	11.41	107.4	2	43A	0	4	53	3					
CHARTERS TS.	14.12	190.3	3	18	-1	5	59	5					
DARWIN	18.90	249.5	4	19	1	7	44	0					
LUGANVILLE	20.16	119.1	4	32	0								
KOUMAC	20.69	135.4	4	37A	-1								
BRISBANE	21.47	170.6	4	44	-2	8	41	6					
PORT VILA	22.18	123.0	4	52A	-1								
NOUMEA	23.35	135.3	5	5A	0	8	18	8					
RIVERVIEW	27.65	176.0	5	45A	0	10	32	11			11	43	SS
ADELAIDE	30.21	196.8	6	8A	1	11	5	3			7	13	
TOOLANGI	31.46	185.2	6	17	-1	11	27	6			7	20	PP
AFIAMALU	39.42	104.4	7	27A	1	13	15	-9					
KARAPIRO	39.84	146.4	7	29	-1						9	35	PCP
MUNDARING	39.92	225.7	7	30	0	13	35	4					
CHATEAU	40.76	147.8	7	38	1								
WELLINGTON	41.92	150.5	7	47	0	13	37	-24			9	17	PP
TANGERANG	42.04	267.6	8	0K	12						9	50	PP
ROXBURGH	43.03	158.9	7	57	1	14	15	-2					
NHATRANG	43.48	294.8	8	6	7						9	44	
MATUSIRO	43.61	347.5	8	1	0								
ZO-SE	45.53	326.0	8	18	2	14	56	3	8	30			
MIZUSAWA	45.60	351.5	8	17	1								
MEDAN	51.08	279.6	8	59A	0				9	12	11	8	PP
KURILSK	51.13	359.0	9	0	1	16	18	6					
VLADIVOSTOK	51.39	344.1	9	2A	1								
Y.-SAKHLINSK	53.20	354.7	9	15A	0	16	42	2					
CHANGCHUN	54.11	339.0	9	22	1	16	50	-2	9	34			
PEKING	54.95	329.5	9	27	-1	17	3	-1	9	39	11	35	PP
PAOTOW	58.61	325.9	9	55	1	17	52	0	10	6			
HONOLULU	58.67	60.7	9	53	-1	17	59	6			22	12	
KIPAPA	58.78	60.6	9	56	1	17	56	2					
PETROPAVLOVK	59.49	6.8	9	59K	-1	18	5	2					
LANCHOW	59.55	318.3	9	59	-1	18	5	1	10	11			
SHILLONG	63.70	302.3	10	26A	-2								
MAGADAN	65.48	1.1	10	39A	-1								
WILKES	65.70	196.0	10	40	-1	19	23	2					
LHASA	65.91	306.1	10	43	1	19	25	1	10	54	19	42	*SS
CAPE HALLETT	67.41	173.1	10	53	1								
CHATRA	68.10	302.0	10	58	2								
YAKUTSK	69.55	350.5	11	4	-1								
ESEN BULAK	70.07	324.2	11	8	0	20	7	-7					
MIRNY	71.33	200.5	11	14	-2	20	51	23	11	43			
SCOTT BASE	72.30	176.1	11	23	2								
NEW DELHI	77.06	301.0	11	49	0								
TIKSI	78.72	353.6	11	57	-1								
LAHORE	80.19	303.4	12	7	1								
ALMATA-2	80.94	315.4	12	8K	-2								
FRUNSE	82.75	314.4	12	20	1	22	18	-14					
MAWSON	82.87	202.7	12	21	1	22	34	1			22	52	SCS
WARSAK DAM	83.01	305.2	12	19	-2								
SOUTH POLE	83.92	180.0	12	24	-1						13	29	PP
BYRD STATION	84.28	169.9	12	27	0								
COLLEGE	84.54	22.5	12	28	0								
QUETTA	86.14	300.8	12	37	1	22	59	-6					
TASHKENT	86.27	312.1	12	36	-1	22	54	-12					
CALISTOGA	92.61	51.6	13	10A	3								

BERKELEY	92.78	52.4	13	5A	-3	24	9	3			17	1 PP
SHASTA	92.96	49.6	13	11A	3							
MINERAL	93.52	50.0	13	22K	11							
PRIEST	93.91	54.2	13	11K	-2							
SVERDLOVSK	94.14	326.6	13	12	-2							
PASADENA	95.80	56.4	13	49	28							
MOULD BAY	96.32	13.9	13	23	-1							
BLUE MTS.	96.95	45.6	13	27	0	24	3	5			17	15 PP
EUREKA	97.80	51.1	13	31	1						38	18 PKPPKP
N-LAZARVSKYA	98.13	193.2	13	33A	1							
SHIRAZ	98.55	299.0	13	38	4							
BOULDER CITY	98.62	54.6	13	50	16						30	8 PKKP
HUNGRY HORSE	99.23	42.1	13	46	9						38	17 PKPPKP
EDMONTON	99.48	37.0	13	42	4							
TONTO FOREST	101.52	56.4	13	50	3				14	10	17	39 PP
UINTA BASIN	102.71	50.2	13	53	0				14	11	29	37 PKKP
GORIS	103.58	309.0	13	56	0						27	27 PS
APATITY	105.20	338.9	18	1	777							
ALBUQUERQUE	105.46	55.6	14	40	777						30	2 PKKP
GOLDEN	105.97	50.6	14	37	777	24	45	4				
MOSCOW	106.95	326.6	18	31	777							
SODANKYLA	107.65	339.9	18	53	777							
PULKOVO	109.41	331.9									18	59 PP
UMEA	111.75	338.1									19	25 PP
SIMFEROPOL	111.76	316.0									19	27 PP
WICHITA MTS.	111.93	55.1	18	31	2				18	46	19	14 PP
KSARA	112.50	304.0	18	25	-5						19	26 *PPP
TULSA	114.00	53.5									19	5 PP
BULAWAYO	115.80	244.3	18	38	2							
BROKEN HILL	117.51	250.3	18	43	3							
LWIRO	119.63	263.9	18	44	0							
ATHENS	121.19	311.0									20	32
VIENNA-H.	121.89	324.6	18	50	2							
PRUHONICE	121.99	327.0	18	54	6							
COLLMBERG	122.07	329.0	18	50	1						22	59
CUMBERLAND	122.15	51.6	18	50	1				19	12	20	26 PP
HALLE	122.48	329.6	18	53	4						20	27 PP
KASPERSKE H.	122.99	326.6	18	53	3							
JENA	123.01	329.2	18	52	2				19	20	20	37 PP
SCHEFFERVLLE	123.63	23.9	18	53K	1							
TRIESTE	124.76	323.0									16	15
OTTAWA	125.01	37.2	18	54	0							
STUTTGART	125.50	328.2	18	57	2							
BLACKSBURG	125.53	48.1	18	57	2						32	44
COLUMBIA	126.20	52.0	19	0	4							
BREBEUF	126.20	36.1	18	58	2						36	57 SS
DOURBES	126.96	332.0	19	2	4							
MESSINA	127.10	314.1									30	19
ISOLA	129.52	324.8	19	5	2						22	42
GARCHY	129.64	330.2	19	1	-2							
FOLINIERE	130.22	333.8	19	7	3							
BANDEIRA	131.29	244.2	19	10K	4				19	22	22	33 PKS
HUANCAYO	132.44	112.3	19	4	-4							
AREQUIPA	134.16	119.9	19	15	3							
CHINCHINA	135.66	89.2	19	14A	0						23	5 PP
BOGOTA	137.18	89.8	19	14	-3						22	52 PSS
TOLEDO	138.53	328.1	19	21	1				20	4	22	25 PP
MALAGA	140.98	325.0	19	12	-12						22	23 PP
TAMANRASSET	141.04	298.9	19	27	3						23	0 PP
SAN JUAN	143.74	67.2	19	29	0							
CARACAS	144.28	80.6	19	29	-1	27	1	29				
AVERROES	145.15	324.0	19	32	1						20	13 *SPKP
TRINIDAD	149.68	79.4	19	42	3							
M.BOUR	163.88	301.7	19	59	3							

JULY 23 6.H 17.M 51.S EPICENTRE 41.74 141.97 DEPTH= 73.KM

A=-0.58952 B= 0.46107 C= 0.66324 D= 0.6161 E= 0.7877
G=-0.5224 H= 0.4086 K=-0.7484 HT= -2.3

DEPTH OF FOCUS= 0.006R

SE= 3.25

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

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URAKAWA	0.73	55.5	0	16A	-1	0	29	-1			
HAKODATE	0.91	274.9	0	18	-1	0	33	0			
TOMAKOMAI	0.94	342.1	0	21K	2	0	38	5			
MURORAN	0.94	308.5	0	19K	0	0	34	1			
MORI	1.11	289.5	0	23	2	0	38	1			
HIROO	1.14	61.3	0	21A	-1	0	38	0			
HATINOHE	1.25	195.6	0	17A	-6	0	30	-10			
AOMORI	1.28	224.7	0	19K	-4	0	34	-7			
SAPPORO	1.41	341.1	0	26K	1	0	48	4			
OBIHIRO	1.49	37.3				0	48	2			
SUTTSU	1.67	309.9	0	29	0	0	51	1			
ASAHIGAWA	2.06	8.1	0	35A	1	1	4	5			
MIYAKO	2.09	180.0	0	27	-7	0	48	-11			
MORIOKA	2.13	196.9	0	29	-6	0	51	-9			
KUSIRO	2.19	54.6	0	34K	-2	1	0	-2			
RUMOE	2.22	353.5	0	38	2	1	9	6			
AKITA	2.47	215.8	0	40	1	1	6	-3			
MIZUSAWA	2.68	194.1	0	40	-2	1	9	-5			
ABASHIRI	2.84	35.9	0	45A	0	1	12	-6			
NEMURO	3.11	58.0	0	46	-2						
SAKATA	3.27	210.7	0	50	-1	1	36	7			
ISINOMAKI	3.34	188.8	0	45	-7	1	22	-9			
SENDAI	3.56	193.7	0	46	-9	1	24	-12			
WAKKANAI	3.69	356.8	1	8	12	1	55	16			
YAMAGATA	3.70	200.2	0	52	-5	1	32	-7			
HUKUSIMA	4.15	196.7	1	0	-3						
NIIGATA	4.43	211.5	1	24	17						
AIKAWA	4.69	218.8	1	9	-1						
SHIRAKAWA	4.81	196.9	1	8	-4	2	6	-1			
ONAHAMA	4.85	190.2	1	18	5	1	59	-9			
Y.-SAKHLINSK	5.31	5.6	1	20	1	2	24	5			
UTUNOMIYA	5.43	198.2	1	17	-4	2	17	-6			
TAKADA	5.46	213.1	1	27	6	2	35	12			
MITO	5.48	192.8	1	18	-3	2	17	-7			
KURILSK	5.53	48.9	1	21	-1	2	22	-3			
KAKIOKA	5.68	194.8	1	19	-5	2	51	22			
MAEBASI	5.79	203.9	1	27	1	2	33	2			
NAGANO	5.85	211.3	1	26	0	2	44	11			
KUMAGAYA	5.93	200.7	1	28	0	2	37	2			
MATUSIRO	5.96	210.6	1	23A	-5	2	28	-8			
OIWAKE	6.02	207.3	1	19	-10	2	44	7			
TYOSI	6.07	188.7	1	22	-7	2	44	6			
TITIBU	6.18	202.3	1	38	7	2	41	0			
TOYAMA	6.25	217.9	1	28	-4						
HONGO	6.26	196.7							2	6	
TOKYO C.M.O.	6.29	196.7	1	47	14	2	41	-3			
MATUMOTO	6.30	210.9	1	34	1						
YOKOHAMA	6.56	196.8				2	53	3	2	9	
KOHU	6.62	204.8	1	39	2	2	55	3			
KANAZAWA	6.64	220.2	1	29	-8						
HUNATU	6.71	202.9	1	41	3	2	49	-5			
IIDA	7.00	208.9	1	44	2	3	9	8			
MERA	7.01	194.6							2	10	
MISIMA	7.02	200.7	1	48	5						
AJIRO	7.05	199.6	1	34	-9	2	56	-6			
OSIMA	7.25	197.2				2	55	-13			
SHIZUOKA	7.32	203.7	2	9	22	3	15	6			
GIHU	7.53	214.4	1	50	0						
NAGOYA	7.64	212.5	1	51	0	3	21	4			
OMAESAKI	7.71	203.7	2	5	13						
HAMAMATU	7.76	206.9	2	4	11	3	19	-1			
HIKONE	7.86	216.6	1	53	-1	3	32	10			
KAMEYAMA	8.12	213.9	2	8	10	3	28	-1			
KYOTO	8.31	218.1	1	57	-3	3	26	-7			
ABUYAMA	8.50	218.3	2	0A	-3						
OSAKA	8.70	217.7	2	20	14	4	2	19			
YONAGO	9.23	229.8	2	14	1						
SUMOTO	9.25	219.3	2	20	7						
SIOMISAKI	9.62	212.7							4	32	
HUKUOKA	12.27	232.1	2	51	-3						
PETROPAVLOVK	15.92	39.2	3	43	2						
MAGADAN	18.66	14.1	4	14	-1						
PEKING	19.56	273.6	4	20	-5	7	48	-8			
ZO-SE	19.77	244.2	4	23	-4	7	56	-4			
NANKING	20.86	249.9	4	33	-5						
YAKUTSK	21.60	344.2	4	43A	-3	8	38	3			
PAOTOW	24.01	277.9	5	8	-1						
ULAN-BATOR	25.47	296.0	5	22	-1						
IRKUTSK	27.46	305.5	5	41	0						

LANCHOW	30.05	271.8	6	2	-3						
TIKSI	30.67	351.9	6	13	3						
BAGUIO CITY	31.23	222.5	6	17	2						
KUNMING	36.34	255.4	6	57	-2						
LHASA	42.53	270.4	7	52A	2	14	9	2			
SHILLONG	44.09	264.8	8	2	-1						
COLLEGE	44.93	34.7	8	10	0						
ALMATA-2	46.57	294.7	8	23A	0						
RABAUL	46.66	165.9	8	21	-2						
CHATRA	46.90	269.6	8	25A	0						
KHEYS	48.14	347.3	8	35	0						
DEHRA DUN	51.86	279.1	9	3	0						
MOULD BAY	51.92	17.5	9	3A	-1						
TASHKENT	52.85	295.5	9	10	-1						
NEW DELHI	53.40	277.7	9	13A	-2						
DUZHANBE	54.45	292.7	9	22	0						
ALERT	55.41	3.8	9	29A	0						
NORD	56.39	356.3	9	36	0						
RESOLUTE	57.95	15.2	9	46	-1						
APATITY	58.60	334.7	9	56	4						
YELLOWKNIFE	59.55	31.6	9	58	-1						
QUETTA	60.05	285.1	10	1	-1						
SODANKYLA	60.82	336.4	10	6	-1						
TROMSOE	61.42	340.5	10	11	0					10	33
CHARTERS TS.	61.64	175.4	10	10	-3						
VANNOVSKAYA	62.01	297.1	10	15	0						
KIRUNA	62.29	338.6	10	17	0						
KAJAANI	62.57	333.2	10	18	-1						
VICTORIA	62.91	48.1	10	18	-3						
MOSCOW	63.76	322.3	10	27	0						
PENTICTON	64.54	45.8	10	31	-1						
UMEA	65.18	335.4	10	35	-1						
EDMONTON	65.32	39.6	10	36A	-1						
NURMIJARVI	66.02	331.2	10	40	-1						
HELSINKI	66.14	330.9	10	42	0						
TEHERAN	67.70	298.4	10	52	0						
SKALSTUGAN	67.71	338.2	10	52	0						
SHASTA	67.98	54.7	10	54K	0						
KIROVOBAD	68.01	305.3	10	54A	0						
HUNGRY HORSE	68.08	44.2	10	54	0						
BLUE MTS.	68.46	48.7	10	57	0	19	59	8	11	15	11 23 PCP
MINERAL	68.67	54.6	10	57A	-1						
GORIS	68.70	304.3	10	59A	1						
UPPSALA	68.94	333.5	10	59	-1				11	17	
CALISTOGA	69.10	56.6	11	0A	-1						
BRISBANE	69.50	169.7	11	9	6						
BERKELEY	69.76	57.1								11	24
LICK	70.48	57.2	11	6K	-3						
SHIRAZ	70.57	292.6	11	9A	-1					12	45
KARLSKRONA	72.46	331.8	11	20A	-1						
GOTEBORG	72.47	334.4	11	20A	-1						
EUREKA	72.60	52.5	11	22A	0				11	38	
LWOW	73.85	323.4	11	29	0						
PASADENA	74.67	57.9	11	41	7						
FLAMING GRGE	75.43	47.9	11	38	0						
KRAKOW	75.46	325.6	11	39	1				11	49	
UZHGOROD	75.49	323.5	11	39	1						
BOULDER CITY	75.56	54.6	11	40	1				11	58	
UINTA BASIN	75.74	48.4	11	40A	0	21	19	5	12	0	14 33 PP
RAPID CITY	76.51	42.3	11	45	1						
GLEN CANYON	76.85	52.1	11	47	1						
COLLMBERG	77.25	330.0	11	49A	1					12	23
PRUHONICE	77.71	328.3	11	51	0					12	27
JENA	78.07	330.5	11	52	-1					12	12
GOLDEN	78.49	46.6	11	55	0						
KASPERSKE H.	78.77	328.3	11	57A	0						
TONTO FOREST	78.86	53.9	11	58	1				12	20	15 17 PP
TOOLANGI	79.00	177.2	11	57	-1					12	24
BENSBERG	79.62	332.9	12	2	1					12	36
TUCSON	80.52	55.2	12	6	0				12	24	
SCHEFFERVLLE	80.73	16.4	12	7A	0						
DOURBES	81.21	333.8	12	10	0						
ALBUQUERQUE	81.24	50.6	12	11	1						
KEW	81.54	337.2	12	11	0						
BESANCON	83.18	331.5	12	21	1					12	45
FOLINIERE	83.99	336.1	12	24	0						
GARCHY	84.16	333.3	12	25	0						
ROSELEND	84.27	330.3	12	25	0					13	19

ISOLA	85.39	329.3	12	32	1							
CLERMONT-FD.	85.46	332.5	12	33	2					13	20	
WICHITA MTS.	85.81	46.0	12	33	0			12	52	39	0	PKPPKP
TULSA	86.38	43.5	12	36A	0	23	41 37	12	56			
BREBEUF	87.51	24.2	12	41K	0							
MORGANTOWN	90.50	31.1	12	56K	1							
CUMBERLAND	91.58	37.0	13	0	0			13	21			
TOLEDO	93.10	334.5	13	9	2							

JULY 24 11.H 32.M 15.S EPICENTRE 24.66 122.09 DEPTH= 8.KM

A=-0.48337 B= 0.77086 C= 0.41488 D= 0.8472 E= 0.5312
G=-0.2204 H= 0.3515 K=-0.9099 HT= 3.5

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TAIPEI	0.64	305.7	0	15A	0	0	24	-2					
HWALIEN	0.81	212.1	0	16A	-1	0	29	-1					
HSINCHU	1.03	278.1	0	22	2	0	36	1					
TAICHUNG	1.38	248.8	0	27K	2	0	41	-3					
YUSHAN	1.57	221.8	0	27	-1	0	46	-3					
ALISHAN	1.63	226.4	0	28	-1	0	51	0					
HSINKONG	1.69	203.2	0	28	-2	0	47	-5					
TAITUNG	2.09	204.6	0	36	1	1	14	12					
TAINAN	2.38	226.4	0	44	4	1	17	8					
TAWU	2.54	205.7	0	43A	1	1	17	3					
PENGHU	2.58	244.7	0	12	-30	1	6	-9					
HENGCHUN	2.92	205.2	0	50	3	1	24	1					
ZO-SE	6.47	353.1	1	39A	1								
HONG KONG	7.64	253.7	1	51A	-3						2	14	
NANKING	7.93	339.2	1	57	-1								
CANTON	8.16	260.8	2	0A	-1								
BAGUIO CITY	8.32	190.1	2	1	-2	3	29	-10					
MANILA	9.98	185.6	2	25	-2	4	27	7					
PHU-LIEN	14.77	258.0	3	32	1						3	49	PPP
SIAN	14.92	312.9	3	33	0								
PEKING	16.12	343.4	3	52A	4	7	1	14					
CHENGTU	17.09	294.5	3	59A	-1	7	14	4					
NHATRANG	17.37	226.9	4	7	3	7	27	11					
KUNMING	17.56	275.6	4	5	-1	7	25	5					
PAOTOW	18.82	330.4	4	24A	2	8	5	16					
TUKUBASAN	19.30	49.1	4	27K	-1	8	3	3			9	9	SS
CHANGCHUN	19.31	7.1	4	28K	0	8	10	10					
LANCHOW	19.39	310.1	4	30A	1	8	14	12					
MIZUSAWA	21.61	43.6	4	57A	5	8	46	-1					
ULAN-BATOR	26.15	336.4	5	35	-1								
SHILLONG	27.35	278.4	5	45A	-2	10	25	0					
Y.-SAKHLINSK	27.73	31.2	5	49	-2						6	51	PPP
LHASA	28.02	287.1	5	53	0	10	42	6					
PORT BLAIR	30.67	250.4									7	27	
IRKUTSK	30.71	338.5	6	17	0						7	19	PP
CALCUTTA	30.93	273.1	6	29	10	11	39	16					
CHATRA	31.47	281.5	6	26	2	11	36	5			9	19	PCP
BOKARO	33.04	276.2	6	39A	1	11	58	2			8	12	PPP
TANGERANG	34.14	208.2	6	45A	-2								
VISHAKHAPTNM	36.73	266.8	7	11K	2	12	56	3					
DARWIN	37.79	166.0	7	17	-1								
DEHRA DUN	39.29	288.3	7	30	-1	13	32	1			9	0	PP
PETROPAVLOVK	39.45	34.5	7	37	5						9	42	PCP
NEW DELHI	40.15	285.7	7	36	-2	13	41	-3					
MAGADAN	40.23	22.3									9	26	PPP
RABAUL	40.97	130.3	7	45	0								
MADRAS	41.17	261.5	7	49	3	14	3	3			9	27	PP
PORT MORESBY	41.76	141.1	7	52A	1								
LAHORE	42.42	290.4	8	18	22	14	17	-1					
FRUNSE	42.82	307.1	8	0K	0	14	30	6			10	4	PCP
WARSAK DAM	44.66	294.1	8	15	0								
KHOROG	44.67	299.1	8	16	1	14	55	4					
POONA	45.09	272.0	8	18A	0	15	0	3					
BOMBAY	45.92	272.9	8	26	1	15	19	10			10	20	PP
TASHKENT	46.59	304.3	8	30A	0	15	17	-1			10	26	PP
TIKSI	47.16	2.9	8	33K	-1	15	23	-3			10	15	
QUETTA	48.86	289.4	8	48K	0	15	54	4					
HONIARA	50.12	127.9	8	59	2	16	8	0					
CHARTERS TS.	50.32	150.0	8	57	-2	16	13	2					

SVERDLOVSK	54.16	323.4	9	26K	-2	17	2	-1			20	51	SS
ASHKABAD	55.09	300.2	9	33	-1						11	45	PP
BRISBANE	59.61	148.3	10	6	0								
KOUMAC	60.86	133.9	10	16K	1								
TEHERAN	60.93	298.5	10	16	1	18	41	9			23	13	SS
SHIRAZ	61.27	291.5	10	16	-2	18	6	-30	10	34	12	33	PP
ADELAIDE	61.36	164.5	10	17	-1				10	31	25	27	
KHEYS	61.67	350.4	10	21	1						11	6	
GORIS	64.15	303.6	10	38K	1						19	21	PS
RIVERVIEW	64.40	153.4				19	23	7			19	50	PPS
TIFLIS	64.85	306.2	10	42	1	19	27	6			13	10	PP
TOOLANGI	65.69	159.7	10	46	-1						13	13	PPP
MOSCOW	66.93	322.3	10	55A	0	19	45	-2	11	1	13	18	PP
APATITY	66.97	335.3	10	53A	-2	19	39	-8					
COLLEGE	68.00	27.4	11	0	-2								
SODANKYLA	69.57	335.7	11	10	-1						13	41	PP
KAJAANI	69.99	332.2	11	12	-2						11	52	
TROMSOE	71.57	338.9	11	23	0								
SIMFEROPOL	71.64	311.6	11	25A	1						15	53	PPP
KIRUNA	71.70	337.0	11	23A	-1								
NORD	71.96	354.1	11	23A	-3								
HELSINKI	72.37	328.6	11	27	-1								
NURMIJARVI	72.40	329.0	11	26	-2						11	48	
HONOLULU	72.55	74.2				20	59	6					
KIPAPA	72.58	74.0				20	59	6					
MOULD BAY	72.63	12.7	11	27	-3								
ALERT	73.04	0.6	11	18	-14						11	33	
UMEA	73.20	333.0	11	32A	-1	20	57	-3					
KSARA	73.74	300.1	11	38	2	21	16	10			14	30	PP
JERUSALEM	74.94	298.3	11	43	0								
AFIAMALU	75.02	113.2				21	27	7			29	27	SS
UPPSALA	75.91	329.7	11	47A	-2	21	26	-4					
SITKA	76.17	33.3	11	53	3								
LWOW	76.50	318.7	11	55	3								
SKALSTUGAN	76.52	334.4	11	51	-1								
RESOLUTE	78.07	9.4	11	59	-2								
KARLSKRONA	78.50	326.8	12	3	0								
KRAKOW	78.84	320.0	12	3	-2						12	23	PCP
CHORZOW	79.28	320.5	12	10	3						12	45	
GOTEBORG	79.51	329.2	12	7	-1								
RACIBORZ	79.83	320.5	12	12	2						12	34	
KARAPIRO	79.95	139.8	12	14	3								
COPENHAGEN	80.29	327.2	12	16A	3								
BELGRADE	80.75	315.1	12	17	2						15	36	PP
CHATEAU	80.80	140.8	12	16	1								
ATHENS	81.40	307.7									22	29	
VIENNA-H.	81.73	319.4	12	20	0						12	24	PCP
WELLINGTON	81.77	142.7									23	39	SP
ROXBURGH	81.96	148.6	12	26	5								
PRUHONICE	81.96	321.6	12	22	1	22	35	1					
COLLMBERG	82.18	323.2	12	23	0						15	14	PP
HALLE	82.65	323.7	12	27	2	22	28	-13					
KASPERSKE H.	82.93	321.1	12	25	-1						15	23	
JENA	83.14	323.3	12	28	1	22	54	8			15	53	PP
LJUBLJANA	83.89	318.1	12	31	0						12	51	
TANANARIVE	84.50	246.4	12	37	3						13	9	
TRIESTE	84.56	318.0	12	37	2	23	0	0					
MUNSTER	84.68	325.6	12	37	2								
BENSBERG	85.47	324.9	12	36	-3						12	58	
HEIDELBERG	85.51	323.0	12	40	1								
STUTTGART	85.54	322.3	12	43	3	23	5	-5			13	6	
PADOVA	85.82	318.5									23	15	
ABERDEEN	86.02	333.1				23	17	2			29	2	SS
STRASBOURG	86.48	322.7	12	40	-4	23	8	-11			33	38	
VICTORIA	86.61	37.3	12	43	-2								
FLORENCE X.	87.04	317.3	12	42	-5						23	5	
MESSINA	87.05	310.9	12	48	1	23	24	-1			23	46	*SS
ROME	87.24	315.2	12	49	1	23	28	2					
DOURBES	87.31	325.1	12	50	2	23	31	4					
WELSCHBRUCH	87.36	323.1	12	49	1								
DURHAM	87.37	331.1				23	39	11			23	30	SKS
PAVIA	87.55	319.3									19	48	
SEATTLE	87.72	37.6	12	52	2						23	23	
PENTICTON	88.19	35.2	12	51	-1								
EDMONTON	88.68	29.6	12	55A	0								
ROSELEND	88.75	320.7	12	55	0								
BANFF	89.10	32.1	12	57	0								
PARIS	89.19	324.9	13	0	3								

ISOLA	89.37	319.3	13	0	2					16	31	PP
GARCHY	89.81	323.5	13	3	3							
CLERMONT-FD.	90.70	322.2	13	22	18							
SHASTA	91.64	43.3	13	8K	-1					13	31	
HUNGRY HORSE	91.68	33.6	13	9	0							
BLUE MTS.	92.17	37.8	13	11A	0					16	35	PP
MINERAL	92.33	43.3	13	12A	0							
CALISTOGA	92.69	45.1	13	14A	1							
BERKELEY	93.33	45.6	13	17A	1	24	27	6		25	33	PS
CHILEKA	93.86	254.6	13	33	14							
LWIRO	93.92	269.3	13	21	2							
BUTTE	93.98	34.7	13	20	-1							
LICK	94.04	45.8	13	20A	0							
SETIF	94.97	313.5	13	26	2							
BOZEMAN	94.99	34.3	13	27	3							
PRIEST	95.37	46.3	13	27A	1							
ALGIERS UNI.	96.16	315.1								23	59	PKS
EUREKA	96.30	41.4	13	32	2							
PASADENA	98.19	46.7	13	38	-1							
TOLEDO	98.51	321.1				24	17	0		17	5	PP
UINTA BASIN	99.45	37.4	13	43	-1	24	13	-9		17	55	PP
MALAGA	100.82	318.9								17	59	PP
TONTO FOREST	102.53	42.9	13	59	1					18	7	PP
TUCSON	104.15	44.2	14	8	3							
BREBEUF	108.73	11.6								45	15	SSS
WICHITA MTS.	109.46	34.7	14	39	777					19	6	PP
TULSA	109.92	32.0								34	34	SS
CUMBERLAND	114.61	24.6	18	40	-1					29	29	PS
BYRD STATION	118.95	169.9								20	15	
CARACAS	143.97	15.2	19	35A	-1					28	55	SKKS
TRINIDAD	144.74	5.9	19	37	0							
CHINCHINA	145.88	32.7	19	42	3							
FUQUENE	146.32	29.3	19	43	3							
BOGOTA	146.92	30.6	19	45	4							
HUANCAYO	159.28	55.9	20	5	7							
LA PAZ	167.46	51.6	20	10	4					21	17	PKP2

JULY 25 7.H 4.M 23.5 EPICENTRE 6.74 -72.95 DEPTH= 167.KM

A= 0.29116 B=-0.94955 C= 0.11658 D=-0.9561 E=-0.2932
G= 0.0342 H=-0.1115 K=-0.9932 HT= 6.9

DEPTH OF FOCUS= 0.021R

SE= 1.61

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
FUQUENE	1.48	211.5	0	30	-1								
BOGOTA	2.38	207.9	0	43A	2	1	12	-1					
CHINCHINA	3.18	236.6	0	49K	-2	1	23	-7					
GALERAZAMBA	4.62	330.5	1	14	5	2	1	-2					
BALBOA HTS.	6.91	289.1	1	35	-5								
CARACAS	7.03	57.5	1	41K	0						3	43	SG
TRINIDAD	12.06	70.4	2	46	-1								
SAN JUAN	13.35	29.3	3	3	-1								
FORT FRANCE	14.05	54.6	3	12	0	5	54	10					
ST. CLAUDE	14.38	49.1	3	18K	1	6	3	11					
ST. KITTS	14.52	42.6	3	17	-1								
HUANCAYO	18.82	187.2	4	11	2								
AREQUIPA	23.10	176.4	4	52	1								
LA PAZ	23.58	168.4	4	59	3	9	0	5					
BERMUDA	26.65	15.7	5	23	-2						6	10	PP
COLUMBIA	28.14	345.7	5	39	1						6	27	
CHAPEL HILL	29.58	349.9	5	47	-4								
CUMBERLAND	30.96	339.8	6	4A	1	10	59	5			12	23	SCP
WASHINGTON	32.23	354.0	6	15	1						6	48	
MORGANTOWN	33.35	350.1	6	25	1								
PENNSYLVANIA	34.20	353.4	6	32	1								
FAYETTEVILLE	35.10	329.3	6	38	-1								
FLORISSANT	35.59	336.3	6	43	0								
TULSA	35.79	327.4	6	44A	0	12	8	-1			14	48	PCS
WICHITA MTS.	36.52	323.2	6	50A	-1	12	17	-3	7	26	9	12	PCP
LONDON ONT.	36.87	349.9	6	55A	1								
SCARBOROUGH	37.24	352.5	6	58A	1								
LAWRENCE	37.87	331.2	7	1	-1								
HALIFAX	38.61	10.7	7	10A	2								

BREBEUF	38.62	359.2	7	9A	1				8	44 PP
SEVEN FALLS	40.27	2.2	7	24A	2					
ALBUQUERQUE	41.69	317.0	7	33	0					
TUCSON	43.43	310.8	7	48	1	14 5	3		13	11 SCP
GOLDEN	43.86	323.4	7	52	1					
TONTO FOREST	44.72	313.2	7	59A	1	14 24	3	8 32	9	39 PCP
LARAMIE	45.02	325.0	8	1	1					
RAPID CITY	45.64	329.5	8	4	-1					
GLEN CANYON	46.28	316.2	8	12	2					
UINTA BASIN	46.79	321.3	8	15A	1	14 51	1		9	43 PCP
FLAMING GRGE	47.04	322.1	8	16	0					
BOULDER CITY	48.09	313.3	8	25	1				10	25 PP
SCHEFFERVLLE	48.20	4.8	8	25	0					
SALT LAKE C.	48.48	320.4	8	27	0				9	41
DUGWAY	48.78	319.3	8	30A	0					
PASADENA	49.81	309.6	8	39	2	15 38	6	9 17	9	30 *SP
EUREKA	50.52	316.8	8	43K	0				13	41 SCP
BOZEMAN	50.86	326.1	8	46	1				9	25
BUTTE	51.92	325.6	8	54	1					
PRIEST	52.45	311.0	8	58A	1					
LICK	53.63	312.0	9	7A	1					
BLUE MTS.	54.05	322.1	9	8A	-1				11	12 PP
HUNGRY HORSE	54.11	327.2	9	9	0					
BERKELEY	54.29	312.4	9	11A	0					
MINERAL	54.78	315.4	9	13A	-1					
CALISTOGA	54.81	313.1	9	15A	1					
SHASTA	55.47	315.5	9	17A	-2				9	53
SPOKANE	55.58	325.1	9	20	0					
BANFF	56.57	329.3	9	24	-3					
CORVALLIS	57.69	319.4	9	35	0					
PENTICTON	57.71	325.7	9	35A	0					
SEATTLE	58.44	323.0	9	35A	-5					
VICTORIA	59.51	323.5	9	47A	0					
YELLOWKNIFE	63.40	339.8	10	13A	0					
RESOLUTE	69.07	353.9	10	49	0					
TOLEDO	69.54	50.0	10	46	-6				11	41
SITKA	69.55	328.9	10	52	0					
BAGNERES	73.09	47.1	11	12	-1				11	32
FOLINIERE	73.42	41.2	11	15	0					
MOULD BAY	73.90	349.6	11	18A	0					
ALERT	75.87	1.4	11	29A	0					
TAMANRASSET	76.82	68.2	11	37	3				12	19
COLLEGE	77.52	335.0	11	38	0				14	35 PP
ISOLA	78.17	46.4	11	42	0					
NORD	78.67	7.2	11	44A	-1					
STUTTGART	79.85	41.8	11	51	0					
JENA	81.36	39.6	11	58	-1				12	25
SKALSTUGAN	81.88	26.8	12	2	0					
COLLMBERG	82.26	39.2	12	4	0				15	51
KASPERSKE H.	82.68	41.4	12	6	0				12	47
PRUHONICE	83.28	40.5	12	9	0					
KARLSKRONA	83.64	34.2	12	12	1					
TROMSOE	84.39	20.6	12	15	1					
UPPSALA	84.52	30.5	12	15	0					
KIRUNA	85.09	22.4	12	19	1					
UMEA	85.41	26.4	12	20	1					
SODANKYLA	87.51	22.5	12	30	0					
NURMIJARVI	87.93	29.4	12	32	0					
KAJAANI	88.63	25.6	12	32A	-3					
BYRD STATION	89.75	187.3	12	41	1					
ATHENS	91.13	51.7							17	20
QUETTA	126.84	44.2	18	47A	3					
WARSAK DAM	127.36	37.4	18	47	2					
MATUSIRO	127.98	328.1	18	48	2					
PEKING	132.71	350.5	18	58	3					
TOOLANGI	133.54	223.0	18	54	-2					
NEW DELHI	134.60	37.9	19	0	2				22	17
RABAUL	135.02	270.8							22	17
LANCHOW	137.33	3.8	19	8	5				22	27 PP
SIAN	139.20	357.6	19	11	4				22	31 PP
CHARTERS TS.	139.74	246.8	19	2	-6					
LHASA	140.69	22.3	19	14	4					
CHENGTU	142.70	4.3	19	12	-1				22	41 PP
SHILLONG	144.66	24.1	19	18A	1					
KUNMING	148.06	7.4	19	26	4					
NHATRANG	161.04	353.5	19	44	5					

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

JULY 26 4.H 17.M 12.S EPICENTRE 42.04 21.38 DEPTH= 0.KM

A= 0.69362 B= 0.27159 C= 0.66719 D= 0.3646 E=-0.9312
G= 0.6213 H= 0.2433 K=-0.7449 HT= -2.4

SE= 2.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SKOPJE	0.08	149.5									0	0	PG
SOFIA	1.59	64.9									0	31	PG
TITOGRAD	1.62	284.5									0	33	PG
BELGRADE	2.86	346.6	0	48A	0						0	57	PG
TARANTO	3.49	244.6	0	59	2	1	46	7					
TIMISOARA	3.71	358.2	0	59	-1	2	0	15			1	22	PG
ATHENS	4.45	155.4	1	10A	0	2	3	-1			1	32	
ZAGREB	5.43	315.9	1	25A	1						1	48	PG
ISTANBUL UN.	5.80	97.4	1	28K	-1						3	18	SGSG
ISTANBUL KA.	5.85	97.0	1	27	-3								
MESSINA	5.89	231.3	1	29K	-2	2	34	-6			1	44	P*
REGGIO CALA.	5.90	230.0	1	29	-2	2	35	-5			2	13	
AQUILA	5.94	275.6	1	33	2	2	42	1			1	48	P*
HURBANOVO	6.25	339.9	1	40	4						2	4	PG
LJUBLJANA	6.36	311.3	1	38K	1	2	54	2			2	6	PG
TRIESTE	6.59	305.7	1	41K	0	2	54	-3			2	6	PG
ROME	6.64	271.7	1	42K	1	3	3	4			2	2	P*
BRATISLAVA	6.83	335.2	1	43	-1	2	34	-30					
VIENNA-H.	7.15	332.0	1	50	2	3	15	4			4	1	SG
SKALNATE PL.	7.18	354.0	1	52	3						2	37	PG
NIEDZIKA	7.42	354.6	1	52	0						3	39	SSS
FLORENCE X.	7.64	286.5	1	42	-13	3	3	-21					
PADOVA	7.67	299.2	1	59K	3	3	23	-1			2	21	P*
BOLOGNA	7.74	291.9	1	58	1	3	18	-8					
PRATO	7.76	287.1	1	58	1	2	25	-62					
LWOW	7.99	12.4	2	2	2	3	40	7					
KRAKOW	8.07	353.3	2	1	0						2	5	PP
RACIBORZ	8.34	345.7	2	5	0	3	44	3			2	11	PP
CHORZOW	8.41	349.5	2	8	2						2	13	PP
KASPERSKE H.	8.95	325.0	2	13A	-1								
PRUHONICE	9.25	331.5	2	17	-1								
PAVIA	9.40	293.6	2	19K	-1	4	8	1					
SIMFEROPOL	9.70	68.3	2	21K	-3	4	10	-5			4	52	
CHUR	9.74	303.6	2	25	0	4	18	2					
CUGLIERI	9.85	263.4									3	8	
RAVENSBURG	10.12	308.5	2	29	-1								
CHEB	10.18	325.2	2	32	1	4	24	-3					
WARSAW	10.20	358.7	2	29	-2	4	22	-5			2	42	PP
MONACO	10.38	284.0	2	32	-1	4	15	-17					
ISOLA	10.70	286.3	2	37	-1								
EBINGEN	10.70	309.2	2	38	0								
TUBINGEN	10.82	311.0	2	39A	0								
STUTTGART	10.84	312.5	2	39	-1						6	8	
COLLMBERG	10.90	331.0	2	39	-1	4	48	4					
FELDBERG	11.12	306.2	2	42	-1						6	11	
JENA	11.16	326.2	2	43	-1	4	48	-3			5	50	SG
ROSELEND	11.26	293.9	2	44A	-1	4	49	-4					
NEUCHATEL	11.43	300.6	2	48	0	5	29	32					
HALLE	11.45	328.9	2	48	0	5	2	4					
KARLSRUHE	11.45	311.9	2	49	1	4	58	0					
HEIDELBERG	11.50	314.1	2	46	-3								
STRASBOURG	11.59	308.9	2	49A	-1	4	58	-3			5	36	
WELSCHBRUCH	12.35	306.1	2	51	-9	5	5	-15					
BENSBERG	13.22	317.3	3	13A	1	5	30	-11			7	14	
MUNSTER	13.64	321.4	3	19	2								
CLERMONT-FD.	13.68	292.0	3	16	-2	5	48	-4					
SETIF	13.70	250.1	3	17	-1	5	52	0					
GARCHY	14.04	298.1	3	20K	-2								
KSARA	14.07	121.0	3	23A	0	6	5	4			3	35	PP
KARLSKRONA	14.62	347.1	3	27	-3								
UCCLE	14.62	312.6	3	32	2	6	10	-4					
WITTEVEEN	14.64	322.4	3	37	7								
COPENHAGEN	14.84	339.9	3	33	0	6	32	13					
PARIS	14.87	303.5	3	32K	-1								
DE BILT	14.90	318.0	3	37	3	6	21	0					
JERUSALEM	15.06	128.4	3	34	-2	6	0	-24					
ALGIERS UNI.	15.11	255.7	3	36K	-1	6	31	5					
BAGNERES	15.68	280.9	3	42	-2						4	16	
FOLINIERE	16.73	301.1	3	57	0								
GOTEBORG	16.78	342.3	3	59A	1								

ALICANTE	17.10	264.8	4	2K	0	7	23	11				4	23	PPP
MOSCOW	17.31	32.1	4	1A	-4	7	2	-15				4	19	PP
TIFLIS	17.44	83.2	4	8	2							4	33	PPP
KEW	17.55	309.9	4	7	-1	7	19	-3				4	20	PP
JERSEY	17.87	301.5	4	10	-2	7	30	1						
UPPSALA	17.98	353.9	4	10A	-3	7	32	0						
HELSINKI	18.29	5.7	4	14	-3									
PULKOVO	18.59	14.3	4	17	-4	7	33	-13				5	3	PP
NURMIJARVI	18.60	5.1	4	19	-2									
GORIS	19.05	89.3	4	26K	0							4	42	PP
ALMERIA	19.11	262.2	4	27K	0	8	5	7				4	47	PP
TOLEDO	19.31	272.1	4	28K	-1	8	7	5				4	49	PP
DURHAM	19.75	318.0	4	34A	0	8	12	0				4	57	PP
GRANADA	19.82	264.1	4	34A	-1	8	18	5				4	48	PP
MALAGA	20.59	263.6	4	42	-1	8	30	1						
BERGEN	20.85	337.3	4	48	2							5	33	
ABERDEEN	21.30	323.3	4	55A	4	8	51	8				9	50	SS
UMEA	21.83	358.6	4	54A	-2	8	54	1						
SKALSTUGAN	22.22	349.2	4	58	-2									
KAJAANI	22.38	7.3	5	1	0	8	39	-24				5	23	
TAMANRASSET	23.34	219.5	5	12K	1	9	19	-1				5	47	PP
LISBON	23.43	272.1	5	13A	1	9	25	3	5	22		5	50	PP
TEHERAN	24.11	95.2	5	20	2	9	43	9				13	52	
AVERROES	24.32	258.4	5	20K	0	9	41	4				5	58	PP
SODANKYLA	25.54	4.7	5	31	-1									
KIRUNA	25.85	359.2	5	34	-1	10	5	2						
APATITY	26.39	10.4	5	38	-2	10	7	-5				6	18	PP
SHIRAZ	27.95	106.2	5	53A	-1	10	30	-7	6	4		6	44	PP
ASHKABAD	28.47	85.8	5	59	0									
SVERDLOVSK	29.02	45.8	6	2	-2									
TASHKENT	35.41	74.7	7	1	1	12	38	3	7	10		8	25	PP
SCORESBY SD.	35.86	336.8	7	8	5	12	45	3						
PONTA DELGDA	36.01	279.2	7	5	0	12	46	2						
ADDIS ABABA	36.27	150.1	7	8	1	12	54	6						
QUETTA	38.25	93.0	7	22K	-2	13	13	-5						
KHOROG	38.37	79.7	7	27	2							13	29	PCS
FRUNSE	38.75	70.3	7	28K	0	13	33	7				9	0	PP
WARSAK DAM	39.85	84.7	7	35	-2									
SEMIPALATNSK	40.61	57.3	7	46	3	13	53	-1						
KHEYS	40.87	8.6	7	49	4							9	29	PP
NORD	41.74	352.2	7	52	0									
M.BOUR	43.05	241.7	8	2	-1	14	28	-2						
LAHORE	43.06	86.3	8	4	1	14	31	1						
LWIRO	44.60	169.4	8	16K	0	14	43	-9						
NEW DELHI	46.72	88.0	8	31K	-2	15	22	-1				10	28	PP
ALERT	47.78	349.8	8	40	-1									
BOMBAY	49.12	101.7	8	53	2	16	6	9						
LUANDA	51.19	190.4	9	9A	2							11	6	PP
IRKUTSK	54.36	48.6	9	33	2	17	10	2						
CHATRA	55.08	83.7	9	35K	-1									
TIKSI	55.82	21.4	9	44K	3	17	28	0				10	49	PCP
SCHEFFERVLLE	56.09	315.8	9	41	-2									
RESOLUTE	56.26	343.3	9	43K	-2									
LHASA	56.38	78.6	9	46	1	17	44	9						
BROKEN HILL	56.57	171.2	9	47K	0									
BANDEIRA	57.14	189.3	9	50K	-1							13	22	PPP
VISHAKHAPTNM	57.58	95.0	10	2	8	18	11	20						
ULAN-BATOR	57.80	52.4	9	54	-2									
KODAIKANAL	58.21	106.0	9	31	-27									
MADRAS	58.31	101.6	10	24	25	18	53	52				14	13	PPP
CALCUTTA	58.44	87.1	10	28	28									
CHILEKA	58.79	164.6	10	1K	-1									
HALIFAX	59.10	304.0	10	4K	-1									
SHILLONG	59.26	82.1	10	3	-3	18	13	0				22	16	SS
MOULD BAY	59.36	349.8	10	5K	-1									
YAKUTSK	61.46	30.6	9	58	-23	18	22	-19				19	33	SCS
LANCHOW	61.95	65.5	10	23	-1	18	53	5						
SEVEN FALLS	62.11	309.5	10	24A	-1									
BULAWAYO	62.23	172.3	10	25	-1									
BREBEUF	64.62	309.2	10	40K	-2	19	24	3				26	12	SSS
CHENGTU	65.11	70.4	10	44	-1	19	31	4						
TANANARIVE	65.30	152.6	10	48A	2									
BERMUDA	66.49	293.0	10	51	-3									
PALISADES	67.41	305.3	11	0	1	19	57	2						
KUNMING	67.47	76.0	10	58	-2	19	58	2						
FORDHAM	67.49	305.1	10	59	-1	19	57	1						
PEKING	67.69	55.8	11	0	-1	20	3	5						
SCARBOROUGH	68.90	310.2	11	9K	0									
PENNSYLVANIA	69.92	307.1	11	15	0									

YELLOWKNIFE	69.99	339.9	11	14A	-1					
LONDON ONT.	70.43	310.6	11	18K	0					
KIMBERLEY	70.51	176.8	11	18	-1					
GEORGETOWN	70.62	305.1	11	19	0					
WASHINGTON	70.62	305.1	11	19	0					
CHANGCHUN	70.69	48.1	11	19	-1	20	38	4		
CLEVELAND	71.63	309.5	11	26K	1	20	48	3		
MORGANTOWN	71.89	307.2	11	27K	0					
PHU-LIEN	72.95	77.2				20	59	-1		
COLLEGE	73.09	355.2	11	33	-1					
CHAPEL HILL	73.73	303.7	11	38	0					
BLACKSBURG	73.73	305.5	11	37	-1					
NANKING	74.28	61.0				21	14	-1		
ST. CLAUDE	74.37	277.6	11	47	6					
VLADIVOSTOK	74.74	45.3	11	48	4					
FORT FRANCE	74.80	276.2	11	45	1					
HERMANUS	76.12	181.8							23	54
COLUMBIA	76.21	303.3	11	52	0					
CANTON	76.31	71.3	11	53	0	21	43	6		
ZO-SE	76.46	60.4	11	52	-1					
Y.-SAKHLINSK	77.20	36.8	11	57K	-1	21	49	2		
HONG KONG	77.40	71.4	11	58	-1	21	53	4		
TRINIDAD	77.61	273.2	12	0	0					
CUMBERLAND	77.91	307.1	12	1	0	21	48	-6	26	38 SS
PETROPAVLOVK	78.40	24.7	12	9	5	22	6	6		
SITKA	79.35	347.3	12	13	4					
NHATRANG	80.33	82.3	12	17	2					
HUNGRY HORSE	81.77	331.8	12	22	0					
CARACAS	81.82	276.7	12	22K	0	22	36	1		
FAYETTEVILLE	82.48	312.5	12	26	0					
ABUYAMA	82.60	49.1	12	33K	7					
PENTICTON	82.78	335.5	12	26K	-1					
MATUSIRO	82.83	46.4	12	27	-1	22	51	5		
BOZEMAN	82.92	328.6	12	30	2					
BUTTE	83.21	329.7	12	30	0					
TULSA	83.49	313.4	12	32K	1	22	50	-2		
TUKUBASAN	84.08	45.5	12	38K	4	22	59	1	15	46 PP
SEATTLE	85.08	336.3	12	42	3	23	9	1		
GOLDEN	85.38	321.7	12	41	1	23	13	2		
BAGUIO CITY	85.80	71.8	12	42	-1					
WICHITA MTS.	85.89	314.3	12	43	0	23	12	-4	16	4 PP
BLUE MTS.	85.93	331.9	12	42K	-1	23	18	2	15	58 PP
FLAMING GRGE	86.17	324.9	12	44	0					
DALLAS	86.32	312.0	12	46	1					
UINTA BASIN	86.75	324.7	12	47K	0	23	20	-4	15	49 PP
HOUSTON	87.87	309.0	12	55	2					
DUGWAY	88.21	326.7	12	54K	0					
ALBUQUERQUE	89.71	319.6	13	1K	0					
EUREKA	90.09	328.4	13	3	0					
GLEN CANYON	90.41	324.1	13	5	0					
BOGOTA	90.98	277.1	13	8	1	24	7	4	25	12 PS
SHASTA	91.35	333.3	13	9A	0					
MINERAL	91.39	332.6	13	9K	0					
CHINCHINA	91.89	278.4	13	13	1					
TONTO FOREST	92.51	322.4	13	15	1				16	59 PP
BOULDER CITY	92.63	325.8	13	16	1				16	57 PP
CALISTOGA	93.26	332.5	13	19A	1					
BERKELEY	93.84	332.0	13	22A	2	24	6	-22	17	10 PP
TUCSON	94.00	321.0	13	21K	0					
LICK	94.09	331.3	13	21A	-1					
PRIEST	94.80	330.0	13	24K	-1					
PASADENA	95.58	327.3	13	32	4	24	6	2	17	24 PP
LA PAZ	100.50	257.3							17	50 PP
N-LAZARVSKYA	112.71	183.4	18	40	1				27	25 SKKS
KIPAPA	116.86	359.4							29	46
HONOLULU	116.98	359.5							29	42
CHARTERS TS.	128.91	82.3	19	12	2					
HONIARA	131.27	60.3							22	44 PP
TOOLANGI	137.47	103.3	19	27	1					
BRISBANE	138.01	85.6	19	26	-1					
RIVERVIEW	140.03	95.1							34	30 PPS
NOUMEA	144.81	67.0	19	44K	5					
AFIAMALU	149.73	26.0	19	54	7				48	0 SSS

JULY 26 23.H 48.M 27.S EPICENTRE -9.82 -78.48 DEPTH= 67.KM

A= 0.19678 B=-0.96570 C=-0.16941 D=-0.9799 E=-0.1997
G=-0.0338 H= 0.1660 K=-0.9855 HT= 6.6

DEPTH OF FOCUS= 0.005R

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NANA	2.69	143.4	0	42	0	1	10	-4					
HUANCAYO	3.81	125.9	1	0	2	1	50	8					
AREQUIPA	9.48	134.8	2	14	-2								
LA PAZ	12.07	124.5	2	50	-1	5	17	12					
CHINCHINA	14.96	11.1	3	30A	1	6	22	8					
BOGOTA	15.00	17.2	3	31K	1	6	24	10			3	37	PP
GALERAZAMBA	20.71	9.0				8	41	21			4	56	PP
CARACAS	23.23	30.0	5	5K	3	9	11	6					
TRINIDAD	26.50	40.3	5	34	1						10	43	
FORT FRANCE	29.83	35.4	6	3	0								
SAN JUAN	30.56	23.6	6	8	-2								
ST. CLAUDE	30.59	33.1	6	9	-1	11	8	2					
COLUMBIA	43.64	356.9	7	59	-1								
BERMUDA	43.98	16.9	8	1	-2	14	39	10					
CHAPEL HILL	45.49	359.4	8	14	-1								
CUMBERLAND	45.65	351.9	8	15	-1	14	57	4			14	11	SCP
BLACKSBURG	46.81	357.9	8	24	-1	15	9	0					
WICHITA MTS.	48.22	337.7	8	35	-1	15	31	2			18	14	SS
TULSA	48.32	341.1	8	37K	0	15	33	2					
MORGANTOWN	49.21	358.5	8	43	-1								
FLORISSANT	49.62	347.8	8	45	-2								
PENNSYLVANIA	50.37	0.6	8	52	-1								
PALISADES	50.75	4.5	8	41	-14	16	7	3			18	38	SCS
LAWRENCE	50.99	343.2	8	56	-1								
ALBUQUERQUE	51.80	330.6	9	3	0								
TUCSON	52.01	324.9	9	12	7								
TONTO FOREST	53.77	326.2	9	19	1	16	51	5	9	34	11	19	PP
OTTAWA	55.02	2.4	9	25K	-2								
GOLDEN	55.22	334.9	9	27	-2						17	15	
BREBEUF	55.23	4.2	9	27K	-2								
GLEN CANYON	55.96	328.1	9	32	-2								
ARGENTINE I.	56.23	172.9	9	51	15								
BOULDER CITY	56.99	325.0	9	43	2				9	58	10	8	*SP
SEVEN FALLS	57.09	6.2	9	41	-1								
UINTA BASIN	57.58	332.1	9	45	0	17	41	5	10	1	11	41	
FLAMING GRGE	57.98	332.7	9	48	0								
EUREKA	60.13	327.1	10	3	0								
PRIEST	60.55	321.4	10	4K	-2								
LICK	61.92	321.8	10	24K	9								
BERKELEY	62.64	321.9	10	41A	21	18	45	4					
CALISTOGA	63.32	322.4	10	24K	0								
SHASTA	64.54	324.3	10	47A	15								
BLUE MTS.	64.72	330.4	10	32	-2				10	48			
SCHEFFERVLLE	65.14	7.4	10	35K	-1								
M.BOUR	65.56	69.3	10	40	1								
PENTICTON	69.05	332.6	11	1	0								
VICTORIA	70.29	330.1	11	21	13								
YELLOWKNIFE	77.31	343.7	11	48A	-1								
AVERROES	79.90	53.6	12	5	2				12	27	13	0	
SOUTH POLE	80.25	180.0	12	5	0						12	32	PP
GRANADA	84.07	50.8	12	27K	2								
TOLEDO	84.53	48.1	12	29	2	22	53	6	12	45	15	45	PP
RESOLUTE	84.95	355.7	12	28	-1								
SCOTT BASE	85.52	191.1	12	31	-1								
CAPE HALLETT	87.03	196.6	12	40	1								
TAMANRASSET	88.29	66.7	12	47	2				13	2	16	8	PP
MOULD BAY	89.19	351.0	12	49K	-1								
COLLEGE	90.27	336.4	12	54	-1								
AFIAMALU	90.84	255.8									13	18	
GARCHY	91.46	42.4									13	26	
ISOLA	93.58	45.9	13	11	1								
LWIRO	106.62	95.3									18	8	
SHIRAZ	130.26	59.4	19	5K	2						22	23	SKP
QUETTA	141.95	52.9	19	28	3								
WARSAK DAM	143.48	44.2	19	26	-1								
LAHORE	146.79	45.4	19	35	2								
NEW DELHI	150.52	47.4	19	41A	2								
SHILLONG	161.85	29.1	19	56	3								

JULY 27 5.H 58.M 22.S EPICENTRE 43.56 8.13 DEPTH= 14.KM

A= 0.71962 B= 0.10285 C= 0.68671 D= 0.1415 E=-0.9899
G= 0.6798 H= 0.0972 K=-0.7269 HT= -3.0

SE= 3.03

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
MONACO	0.54	288.3									0	12	PG
ISOLA	1.00	308.6									0	20	PG
PAVIA	1.78	24.3	0	31	0	0	57	3					
PRATO	2.17	80.6	0	40	3	1	23	19					
FLORENCE X.	2.27	83.5	0	52	14	1	29	23					
ROSELEND	2.38	333.7	0	43	3								
PADOVA	3.25	54.1	1	0	8	1	43	12			1	11	PG
CHUR	3.43	16.2	0	56	1	1	44	8					
ROME	3.61	116.0	0	52K	-5	1	29	-11			1	39	S*
AQUILA	4.05	105.6	1	1	-2	1	49	-2			2	8	PG
FELDBERG	4.32	358.9	1	6	-1	1	56	-2					
RAVENSBURG	4.34	13.4	1	6A	-1	1	57	-2					
TRIESTE	4.52	60.6				2	6	3			2	34	SG
EBINGEN	4.65	6.9	1	11	-1	2	4	-3			1	32	PG
WELSCHBRUCH	5.00	346.2	1	14	-3	3	10	55					
TUBINGEN	5.01	7.1	1	15	-2	2	11	-5					
STRASBOURG	5.02	357.2	1	16	-1	2	16	0			1	35	PG
GARCHY	5.15	318.0	1	18K	-1								
LJUBLJANA	5.18	59.1	1	16A	-3	2	15	-5			1	40	PG
STUTTGART	5.27	8.3	1	18	-3	2	18	-4					
BAGNERES	5.85	267.9	1	26	-3								
HEIDELBERG	5.85	3.8	1	26	-3	2	32	-5					
ZAGREB	6.03	65.3	1	40	9	2	53	12			2	7	PG
PARIS	6.55	325.2									2	29	
KASPERSKE H.	6.72	32.2	1	38	-3								
DOURBES	6.97	340.9	1	45	0	3	9	4					
VIENNA-H.	7.41	47.9	1	48	-3						4	3	SG
BENSBERG	7.43	355.3	1	50A	-1	3	3	-13			4	21	SG
SETIF	7.65	196.9	1	53	-1	3	14	-8					
UCCLE	7.68	341.7	1	58	3						4	19	SG
JENA	7.73	16.4	1	53	-2	3	4	-20			2	36	PG
MESSINA	7.76	131.1	1	48	-8	3	9	-15					
PRUHONICE	7.78	32.2	1	53	-3						4	22	
PRAGUE	7.81	31.3	1	57	1						4	13	
ALGIERS UNI.	7.82	211.5	1	59	3	3	30	4					
FOLINIERE	7.93	314.1	1	56	-2	3	21	-8					
HALLE	8.35	16.7	1	59	-5						4	22	SG
COLLMBERG	8.41	21.3	2	2	-3						4	44	SG
MUNSTER	8.42	357.8	2	5	0								
BELGRADE	8.94	77.7	2	21	9						5	57	
RACIBORZ	9.49	43.1	2	23	3	4	14	7			4	44	S*
KEW	9.75	327.1	2	40	17								
TOLEDO	9.82	252.2	2	20K	-4						2	33	PP
CHORZOW	10.01	44.0									4	35	SS
NIEDZIKA	10.24	50.9	2	27	-3						4	51	SSS
KRAKOW	10.36	47.1									4	55	S*
GRANADA	10.98	238.5									3	19	
MALAGA	11.77	238.7	2	48	-3	4	54	-9					
ATHENS	13.06	110.0	2	52	-16								
AVERROES	15.90	235.1	3	52	7								
UPPSALA	17.31	16.3	4	3	0								
HELSINKI	19.51	25.7	4	28	-2								
NURMIJARVI	19.68	24.7	4	28	-4								
SKALSTUGAN	20.20	5.4	4	36K	-1								
TAMANRASSET	20.84	186.8				8	24	-7			5	0	PP
UMEA	21.45	14.7	4	48	-2								
KAJAANI	23.39	21.8	5	10	1								
JERUSALEM	24.34	109.8	5	25	6								
KIRUNA	25.19	10.9	5	26K	-1								
SODANKYLA	25.84	16.4	5	31A	-2								
TROMSOE	26.71	8.4	5	39	-2								
APATITY	27.57	20.8	5	47K	-2								
TEHERAN	33.90	88.4	6	44	-1								
SHIRAZ	37.80	96.5	7	14K	-4								
NORD	39.08	354.4	7	27	-2								
ALERT	44.55	349.8	8	12A	-1								
SCHEFFERVLLE	47.97	311.2	8	39A	-1								
LWIRO	49.24	152.3	8	54K	4								
HALIFAX	49.95	297.6	8	54K	-2								
RESOLUTE	51.80	340.8	9	9A	-1								

SEVEN FALLS	53.37	303.4	9	20K	-1						
MOULD BAY	55.89	346.7	9	38	-2						
OTTAWA	57.17	303.5	9	47A	-2						
PENNSYLVANIA	60.96	300.0	10	14	-1						
YELLOWKNIFE	64.81	334.4	10	40K	-1						
SHILLONG	68.51	74.8	11	1	-3						
CUMBERLAND	68.92	299.3	11	4	-3						
COLLEGE	70.28	349.3	11	13	-2						
BANFF	73.75	326.9	11	34	-2						
TULSA	74.99	305.3	11	41A	-2						
HUNGRY HORSE	75.32	324.3	11	44	-1						
PENTICTON	76.82	327.9	11	53A	0						
WICHITA MTS.	77.47	306.1	11	56	-1					12	32
FLAMING GRGE	78.84	316.8	12	3	-1						
VICTORIA	78.91	329.5	12	3	-2						
UINTA BASIN	79.39	316.5	12	7A	0						
BLUE MTS.	79.47	323.9	12	7A	-1					12	45
EUREKA	83.14	319.8	12	27A	0						
TONTO FOREST	84.86	313.6	12	36	0	12	44				
MINERAL	84.97	323.8	12	36A	0						
BRISBANE	147.29	72.2	19	43	2						
TOOLANGI	147.33	94.2	19	43	2						
AFIAMALU	150.45	359.8	19	53K	7						

JULY 28 7.H 12.M 12.S EPICENTRE -30.11-177.10 DEPTH= 0.KM

A=-0.86541 B=-0.04388 C=-0.49914 D=-0.0506 E= 0.9987
G= 0.4985 H= 0.0253 K=-0.8665 HT= 1.8

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
KARAPIRO	9.90	216.1	2	26	-1							
CHATEAU	10.90	211.8	2	45	4						4	37
WELLINGTON	12.95	208.4	3	18	9	5	21	-14				
NOUMEA	16.68	293.9	4	2K	5	7	18	15				
AFIAMALU	16.85	18.1	3	57	-2	7	53	-14				
PORT VILA	18.13	309.5	4	19K	4							
ROXBURGH	18.68	211.1	4	19	-3							
KOUMAC	19.31	295.2	4	32K	2							
BRISBANE	26.51	268.4	5	43	2	10	10	-5				
RIVERVIEW	27.13	253.8	5	49	2						11	36
HONIARA	29.71	309.1				10	48	-18				
TOOLANGI	31.80	246.4	6	29	0							
CHARTERS TS.	34.52	278.2	6	53	1	12	19	-2				
RABAUL	38.82	305.6				13	32	6				
CAPE HALLETT	42.80	185.7	8	4	2							
SCOTT BASE	48.39	184.5	8	48	2							
HONOLULU	54.28	22.0				17	12	4			19	34
KIPAPA	54.42	22.0				17	13	3			19	34
BYRD STATION	55.07	169.7	9	36	0							
WILKES	55.77	207.7	9	39	-2							
SOUTH POLE	60.06	180.0	10	11	-1	18	39	15			11	1 PP
MIRNY	62.74	206.8	10	28	-2							
MAWSON	72.85	200.3	11	32K	-1							
MATUSIRO	78.45	324.7	12	3	-2	22	5	4				
N-LAZARVSKYA	79.20	183.0	12	8K	-1							
PRIEST	84.57	42.7	12	39A	2							
PASADENA	84.72	45.5	12	38	0							
LICK	84.83	41.2	12	40A	2							
BERKELEY	84.85	40.5				23	12	6				
Y.-SAKHLINSK	84.90	333.7	12	39K	1							
CANTON	85.18	300.0	12	39	-1							
CALISTOGA	85.21	39.8	12	41A	1							
VLADIVOSTOK	86.60	325.2	12	48	1							
NANKING	86.71	310.1	12	47	0							
SHASTA	86.77	38.4	12	48A	0							
MINERAL	86.95	39.1	12	49A	0							
TONTO FOREST	89.21	49.1	13	0	1				13	11	30	50 PKKP
EUREKA	89.56	42.7	13	0	-1							
CHANGCHUN	90.48	322.3	13	5A	0							
GLEN CANYON	90.64	46.8	13	8	2							
SEATTLE	91.72	33.6	13	8	-3							
BLUE MTS.	92.33	38.0	13	14	0	24	22	6			25	32 SP
ALBUQUERQUE	92.79	50.9	13	16	0							
PEKING	93.26	315.0	13	18	0							

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UINTA BASIN	93.93	45.1	13	20	-1	24	39	9		26	5	PS
FLAMING GRGE	94.40	44.7	13	24	1							
CHENGTU	96.28	301.7	13	31	-1							
COLLEGE	97.39	12.2	13	35	-2					15	4	
WICHITA MTS.	98.09	54.6	13	39	-1	25	22	4		25	14	S
TULSA	100.67	54.7				24	32	1				
YAKUTSK	101.26	337.4	13	52	-3							
QUETTA	125.31	287.4	19	4	1							
KAJAANI	142.56	342.3	19	35	0							
KIROVOBAD	143.39	298.7	19	34	-3							
TIFLIS	144.47	300.7	19	39	0							
UMEA	144.51	346.8	19	36A	-3							
MOSCOW	144.53	326.3	19	37K	-2							
VIBORG	144.87	338.1	19	36	-3							
PULKOVO	145.06	336.0	19	37	-3							
SKALSTUGAN	145.98	352.5	19	41A	0							
NURMIJARVI	146.30	340.7	19	42	0					20	3	
HELSINKI	146.49	340.1	19	41	-1							
UPPSALA	148.64	345.7	19	48	2							
SIMFEROPOL	151.36	309.8	19	56	6					23	12	SKP
GOTEBORG	151.71	349.7	19	56A	6							
KARLSKRONA	152.46	344.6	19	56A	4							
COLLMBERG	157.53	343.3	20	14	16					20	41	PKP2
HALLE	157.60	345.1	20	21	23							
JENA	158.21	345.1	20	31	32					20	52	
PRUHONICE	158.29	339.4	20	35	36							
KASPERSKE H.	159.34	339.8	20	0	-1					20	39	PKP2
STUTTGART	160.74	347.1	20	3	1					20	44	PKP2
TOLEDO	168.71	28.4								21	22	PKP2
TAMANRASSET	172.33	198.4	20	11	0					25	24	PP

JULY 28 7.H 55.M 19.S EPICENTRE -11.28 112.05 DEPTH= 0.KM

A=-0.36828 B= 0.90918 C=-0.19434 D= 0.9268 E= 0.3754
G= 0.0730 H=-0.1801 K=-0.9809 HT= 6.4

SE= 2.29

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LEMBANG	6.22	314.9	1	31K	-5	2	40	-8			2	56	SS
DJAKARTA	7.23	314.0	1	51	1	3	3	-11			3	21	SS
DARWIN	18.41	95.3	3	44	-35						4	58	PP
MEDAN	19.87	317.2	4	34K	-2	8	21	7					
MUNDARING	20.95	170.1	4	45	-2	8	20	-17					
BAGUIO CITY	28.79	17.2	6	1	-1	10	49	-2					
PORT BLAIR	29.81	319.3				11	0	-7			8	23	
PHU-LIEN	32.32	350.5	6	41	8								
HONG KONG	33.44	3.6	6	45A	2	12	5	1			8	12	PPP
CHARTERS TS.	34.02	109.2	6	48	0	12	15	2					
CANTON	34.18	2.1	6	49	0								
PORT MORESBY	34.57	90.2	6	54	1								
KUNMING	37.30	346.0	7	18	2	13	5	1					
TOOLANGI	39.79	136.8	7	38	1				7	48	9	43	PCP
BRISBANE	41.42	118.7	7	51	1	13	52	-14					
SHILLONG	41.57	332.0	7	52	1	14	3	-5					
RIVERVIEW	42.15	128.5	7	57K	1	14	20	3			17	26	SS
CHENGTU	42.41	349.7	7	59	1	14	16	-4					
ZO-SE	43.04	11.5	8	3	0	14	23	-7					
BOKARO	43.32	323.8	8	7	2	14	32	-2			9	54	
NANKING	43.57	8.3	8	1	-7								
CHATRA	44.93	327.8	8	18	-1								
SIAN	45.37	356.4	8	22	0								
LHASA	45.45	334.0	8	24K	1	15	2	-2					
LANCHOW	47.71	351.0	8	42K	1	15	34	-3					
POONA	47.93	307.8									9	38	
KOUMAC	50.89	107.3	9	7A	2								
ABUYAMA	51.03	25.0	9	6A	0								
PEKING	51.19	4.1	9	6	-1	16	20	-5					
PAOTOW	51.63	358.0	9	10	-1	16	29	-2					
NEW DELHI	52.01	320.4	9	11K	-3	16	29	-8					
MATUSIRO	53.57	26.2	9	22	-3	16	51	-7					
LUGANVILLE	53.63	101.0	9	28K	2								
LAHORE	55.86	320.9	9	40	-2	17	20	-9					
CHANGCHUN	56.16	11.5	9	42	-2	17	26	-7					
MIRNY	56.69	189.0	9	47	-1	17	37	-3			10	12	PCP

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VLADIVOSTOK	57.10	17.2	9	49	-2	17	37	-8		
ULAN-BATOR	59.11	356.0	10	3	-2					
WARSAK DAM	59.24	321.1	10	5	-1	18	7	-6		
ROXBURGH	59.25	136.5	10	8	2					
QUETTA	59.84	314.8	10	8	-2	18	3	-18		
KHOROG	61.61	324.0	10	22K	0	18	38	-5		
KARAPIRO	62.28	126.9	10	27	1					
CHATEAU	62.45	128.3	10	27	0					
TANANARIVE	62.46	254.5							10	49
ALMATA-2	62.84	332.2	10	30K	0					
IRKUTSK	63.64	354.7	10	34K	-1					
FRUNSE	63.81	330.1	10	36K	0	19	10	-1		
Y.-SAKHLINSK	64.18	22.8	10	37K	-2	19	14	-2		
MAWSON	64.83	198.7	10	41	-2	19	22	-2	39	28 PKPPKP
TASHKENT	65.51	325.8	10	47K	0	19	26	-6		
CAPE HALLETT	69.93	163.9	11	16	1					
VANNOVSKAYA	70.29	317.2	11	17	0					
SHIRAZ	70.29	307.2	11	17K	0	20	25	-4	13	51 PP
SCOTT BASE	71.94	169.5	11	27	0					
TEHERAN	73.86	312.4	11	39	0	21	5	-5		
YAKUTSK	74.37	8.5	11	40K	-2					
CHILEKA	74.72	256.7	11	43	-1					
CHANGALANE	76.08	245.6	11	53K	2					
MAGADAN	77.15	19.1	11	57	0	21	41	-5		
GORIS	79.11	314.1	12	10K	2					
KIROVOBAD	79.58	315.2	12	11K	0					
BULAWAYO	80.11	251.4	12	14	1					
BROKEN HILL	81.12	257.0	12	20K	1					
BAKURIANI	81.96	315.3	12	25	2					
KIMBERLEY	82.30	242.3	12	26K	1					
N-LAZARVSKYA	82.78	199.2	12	27	0	22	45	0		
LWIRO	82.95	269.1	12	30	2					
TIKSI	83.49	5.3	12	30	-1	22	45	-7		
KSARA	84.98	305.8	12	42K	3					
BYRD STATION	85.12	172.1	12	40	1					
SIMFEROPOL	89.50	316.0	13	1K	0	23	51	1		
MOSCOW	90.64	327.0	13	7	1					
HONOLULU	93.89	69.2				24	49	20		
KIPAPA	93.98	69.1				24	45	15		
ATHENS	95.54	307.5							23	29
APATITY	96.03	337.8	13	32K	1	24	46	39	26	58 PS
VIBORG	96.46	330.6	13	33K	0					
KAJAANI	97.59	333.8	13	37K	-1					
HELSINKI	98.24	329.7	13	40	-1					
NURMIJARVI	98.44	330.0	13	42	0					
UMEA	100.83	333.2	13	52	0					
KIRUNA	100.97	337.3	13	53	0					
UPPSALA	101.88	329.0	13	57	0					
PRUHONICE	103.36	318.9							18	19 PP
KASPERSKE H.	103.97	318.0							18	21 PP
COLLMBERG	104.37	320.2	18	17	249				21	9
COLLEGE	104.44	25.7	14	6	-2					
HALLE	105.02	320.4							18	28 PP
JENA	105.27	319.8	18	29	777					
STRASBOURG	107.82	317.5	18	57	777					
ROSELEND	108.75	314.5	18	57	777					
TAMANRASSET	109.42	290.3							18	35 PP
MOULD BAY	109.59	11.5	18	33	777					
RESOLUTE	114.82	7.6	18	44	1					
MALAGA	117.83	305.6							20	1 PP
YELLOWKNIFE	118.99	22.7	18	52A	1					
PENTICTON	123.03	37.8	19	1	2					
SHASTA	124.05	48.3	19	3A	2					
CALISTOGA	124.44	50.7	19	5K	3					
BANFF	124.58	34.4	19	4	2					
EDMONTON	124.62	31.2	19	4K	2					
MINERAL	124.73	48.5	19	4A	2					
BERKELEY	124.87	51.6	19	5K	3				20	53
LICK	125.47	52.1	19	7K	3					
BLUE MTS.	126.23	42.0	19	7	2				28	43 PKKP
PRIEST	126.52	53.3	19	9K	3					
HUNGRY HORSE	126.77	36.9	19	7	1					
PASADENA	128.98	55.1	19	14	4					
EUREKA	129.11	47.9	18	58	-13				21	31 PP
BOZEMAN	129.85	38.6	19	15	3					
DUGWAY	131.11	45.8	19	7	-7					
FLAMING GRGE	133.16	43.4	19	9	-9					
GLEN CANYON	133.23	49.3	19	4	-14					
UINTA BASIN	133.31	44.3	18	58	-20				21	24 PP

TONTO FOREST	134.42	52.7	19	8	-13					21	58	PP
TUCSON	135.42	55.2	19	11	-11							
SCHEFFERVLLE	136.56	359.0	19	14	0							
ALBUQUERQUE	137.85	49.7	19	19	-8							
WICHITA MTS.	143.65	45.1	19	37	0					23	13	
SEVEN FALLS	144.20	3.4	19	23K	-15							
TULSA	144.85	41.2	19	40K	1							
BREBEUF	145.56	7.1	19	43K	3	19	47					
FAYETTEVILLE	145.75	39.5	19	34K	-7							
SCARBOROUGH	146.24	14.8	19	44	2							
LONDON ONT.	146.33	17.6	19	44	2							
HALIFAX	146.57	354.4	19	45A	3							
PENNSYLVANIA	149.32	14.9	19	48	1							
MORGANTOWN	149.82	18.6	19	54A	7							
PALISADES	149.93	9.0	19	55	8							
CUMBERLAND	151.00	30.6	19	51	2							
LA PAZ	152.40	179.6	19	54	3	20	4					
COLUMBIA	154.42	25.8	19	57	3							
HUANCAYO	155.69	162.2	20	1	5							

JULY 28 18.H 51.M 32.S EPICENTRE 46.59 153.25 DEPTH= 0.KM

A=-0.61586 B= 0.31045 C= 0.72411 D= 0.4501 E= 0.8930
G=-0.6466 H= 0.3259 K=-0.6897 HT= -4.1

SE= 1.92

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KURILSK	3.99	252.1	1	6A	3	1	52	0					
Y.-SAKHLINSK	7.24	277.2	1	54K	5						3	8	
PETROPAVLOVK	7.32	26.5	1	50	0	3	12	-3					
UGLEGORSK	7.92	292.4	2	4K	5						3	44	
OKHA	9.61	320.2	2	26	4						4	30	
MIZUSAWA	11.59	234.3	2	49	0	4	49	-12					
MAGADAN	13.07	354.5	3	11	2						5	45	
MATUSIRO	15.06	233.5	3	32	-3	6	23	-1					
VLADIVOSTOK	15.52	264.8	3	36	-5						6	48	
ABUYAMA	17.75	235.0	4	7A	-3								
YAKUTSK	20.49	327.5	4	41	-1	8	30	3					
PEKING	27.58	269.8	5	50A	0	10	32	1					
TIKSI	27.63	343.6	5	50	-1						6	45	PP
ZO-SE	29.13	249.3	6	5A	1	10	57	1					
NANKING	30.08	253.5	6	11	-2								
ULAN-BATOR	31.12	289.7	6	21	-1								
IRKUTSK	31.82	298.5	6	26	-2								
SIAN	35.48	265.8	7	1A	1								
COLLEGE	36.22	38.2	7	7	1								
LANCHOW	38.02	272.1	7	23A	2	13	13	-1					
CANTON	39.69	247.7	7	36A	1	13	41	2					
HONG KONG	39.73	246.0	7	36	0	13	11	-29			9	12	PP
BAGUIO CITY	40.48	232.9	7	41	-1	13	49	-2					
CHENGTU	40.94	265.0	7	46A	1	13	57	-1					
MOULD BAY	44.73	19.9	8	16A	0								
KHEYS	45.25	346.7	8	20	0						9	40	
KUNMING	45.31	259.8	8	22A	1	15	1	-1					
KIPAPA	46.63	105.5				15	26	5					
HONOLULU	46.66	105.7				15	28	7					
SEMIPALATNSK	46.73	302.8	8	31	-1								
ALERT	49.91	5.8	8	57A	0								
LHASA	50.49	273.4	9	4A	3	16	19	4					
RESOLUTE	50.96	18.5	9	4	-1								
YELLOWKNIFE	51.00	36.7	9	6K	1								
ALMATA-2	51.87	295.8	9	12	0								
SHILLONG	52.47	268.8	9	17A	1								
VICTORIA	53.55	55.2	9	27	3								
FRUNSE	53.81	296.7	9	26	0								
SVERDLOVSK	54.02	317.3	9	26K	-2								
CHATRA	54.90	273.3	9	36	2								
PENTICTON	55.24	52.7	9	35	-2								
EDMONTON	56.26	46.0	9	44A	0								
APATITY	57.53	336.7	9	48	-5	17	39	-11					
TASHKENT	57.94	297.9	9	56	0						18	4	PS
SHASTA	58.54	62.5	10	2K	2								
KHOROG	58.82	293.0	10	2A	0								
BLUE MTS.	59.09	56.0	10	3	-1	18	15	5			25	13	
MINERAL	59.23	62.4	10	7K	2								

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TROMSOE	59.37	343.1	10	5	-1					10	55 PCP
SODANKYLA	59.44	338.9	10	6	0						
CALISTOGA	59.66	64.5	10	10A	2						
BERKELEY	60.33	65.0	10	15A	2	18	34	8		10	39
KIRUNA	60.53	341.4	10	13A	-1						
NEW DELHI	60.60	281.6	10	14A	0						
LAHORE	60.65	286.0	10	15A	0						
WARSAK DAM	60.94	289.9	10	17	0						
LICK	61.04	65.2	10	19K	2						
KAJAANI	61.69	336.0	10	21	-1						
BOZEMAN	62.08	52.2	10	23	-1						
PRIEST	62.40	65.7	10	29A	2						
LUGANVILLE	63.07	165.0	10	32K	1						
EUREKA	63.18	60.1	10	31A	-1					10	51
UMEA	63.88	338.8	10	35A	-1	19	7	-4			
PULKOVO	64.22	331.9	10	37	-2						
DUGWAY	64.58	57.8	10	40A	-1						
MOSCOW	64.63	325.6	10	40	-1						
PASADENA	65.24	65.9	10	47	2						
NURMIJARVI	65.39	334.8	10	45	-1						
HELSINKI	65.57	334.5	10	46	-1						
SKALSTUGAN	65.92	342.0	10	48A	-2						
FLAMING GRGE	66.07	55.3	10	50	0						
UINTA BASIN	66.37	55.9	10	52A	0	19	44	2		23	58 SS
QUETTA	66.37	289.4	10	52	0						
CHARTERS TS.	66.66	187.2	10	53	-1					27	10
GLEN CANYON	67.42	59.8	10	59	0						
KOUMAC	67.57	168.8	11	2K	2						
UPPSALA	67.90	337.6	11	0A	-2						
TONTO FOREST	69.42	61.7	11	12	1	20	13	-5	11 24	13	49 PP
BERGEN	70.22	343.7	11	17	1						
TUCSON	71.08	63.0	11	21	-1						
GOTEBORG	71.22	339.2	11	21	-1						
TIFLIS	71.54	311.5	11	26	2						
KARLSKRONA	71.64	336.6	11	24A	-1						
ALBUQUERQUE	71.84	58.3	11	26	0						
TEHERAN	72.19	303.3	11	31A	3						
GORIS	72.33	309.0	11	30A	1	20	53	1			
WARSAW	73.39	331.6	11	35	0					11	47 PCP
SCHEFFERVLLE	73.45	22.8	11	38	2						
BRISBANE	73.63	180.4	11	54	17						
SIMFEROPOL	74.25	319.9	11	40A	0						
LWOW	74.38	328.6	11	41	0						
IASI	75.21	325.0	11	42	-4						
KRAKOW	75.61	331.0	11	49A	1					12	20
SHIRAZ	75.84	298.1	11	50A	1					13	32 PP
RACIBORZ	76.15	332.0	11	51	0					12	16
WICHITA MTS.	76.50	53.6	11	52	-1	21	38	-1		26	36
COLLMBERG	76.66	335.6	11	53A	-1					15	37
HALLE	76.78	336.3	11	54	-1					12	5 PCP
WITTEVEEN	76.93	339.9	11	57	1						
TULSA	77.14	51.0	11	56A	-1	21	41	-5		26	43 SS
PRAGUE	77.34	334.2	11	59	1						
PRUHONICE	77.38	334.1	11	58	0						
JENA	77.39	336.3	11	48	-10	21	37	-11		15	1 PP
FAYETTEVILLE	77.86	49.9	11	57A	-4						
DE BILT	77.94	340.5	11	58	-3						
BRATISLAVA	78.17	331.7	12	4	2						
VIENNA-H.	78.34	332.2	12	4	1					12	10 PCP
KASPERSKE H.	78.43	334.3	12	3A	-1					12	58
BENSBERG	78.52	338.9	12	4A	0						
BREBEUF	79.45	31.5	12	8	-1						
KEW	79.71	343.6	12	11	0						
DOURBES	79.94	340.1	12	13	1						
STUTTGART	79.98	336.7	12	11	-1						
STRASBOURG	80.56	337.6	12	16A	1					23	16
SOFIA	80.62	325.0	12	17	1					14	17
PENNSYLVANIA	81.80	36.7	12	21	-1						
KSARA	82.11	311.7	12	25	2						
BESANCON	82.25	338.2	12	25	1					13	7
FOLINIERE	82.31	342.8	12	24	0						
CUMBERLAND	82.62	44.7	12	25	-1	22	43	0		13	24
GARCHY	82.94	340.1	11	28A	-60						
ROSELEND	83.53	337.2	12	32	1						
BLACKSBURG	83.70	40.3	12	31	-1						
JERUSALEM	84.06	310.9	12	13	-20						
CLERMONT-FD.	84.34	339.5	12	36	1						
ATHENS	84.45	322.2	12	36	1						

MONACO	85.11	335.9	12	39	0						
ROME	85.24	331.7	12	40	1					22	52
COLUMBIA	86.07	42.5	12	44	1						
TOLEDO	91.56	342.7	13	14K	5						
SETIF	92.67	334.5	13	16	1						
TAMANRASSET	105.04	329.3	13	59	777					18	12 PP
BROKEN HILL	124.10	286.1	19	2	2						
BULAWAYO	128.04	281.0	19	9	1						
MAWSON	132.11	211.1	19	15	-1						
KIMBERLEY	136.32	275.4	19	20	-3						

JULY 29 6.H 10.M 27.S EPICENTRE 28.18 55.72 DEPTH= 51.KM

A= 0.49721 B= 0.72940 C= 0.46984 D= 0.8263 E=-0.5633
G= 0.2646 H= 0.3882 K=-0.8828 HT= 2.4

DEPTH OF FOCUS= 0.003R

SE= 2.05

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SHIRAZ	3.16	298.3	0	49A	1						12	4	PCS
TEHERAN	8.38	335.1	2	1A	0	3	35	0					
VANNOVSKAYA	9.94	11.0	2	23	0								
QUETTA	10.02	75.9	2	23	-1	4	5	-11					
KIROVOBAD	14.64	330.6	3	25K	0	6	13	6					
WARSAK DAM	14.74	62.9	3	16	-11								
TIFLIS	16.18	329.4	3	48	3								
MAKHACH-KALA	16.18	337.9	3	45K	0	6	50	8					
KHOROG	16.18	51.0	3	46	1	6	54	12					
TASHKENT	17.17	36.7	3	59K	2	7	19	14					
KSARA	17.90	293.2	4	5K	-1								
JERUSALEM	18.11	286.4	4	8	-1								
NEW DELHI	18.91	83.7	4	16A	-3						7	49	
POONA	19.20	116.1									5	45	
ALMATA	22.79	43.1	5	0K	1								
SIMFEROPOL	23.99	320.0	5	10A	0	9	30	9					
ISTANBUL UN.	25.35	307.4	5	24	1	10	8	24					
BOKARO	27.34	92.2	5	45K	3								
VISHAKHAPTNM	27.39	106.4	5	52	10	11	20	63					
CHATRA	27.89	85.3	5	50A	3						11	5	
SOFIA	29.89	307.6	6	5	0								
MOSCOW	30.44	339.7	6	10A	0	11	10	4					
LHASA	30.88	78.7	6	14	1	11	21	8					
SHILLONG	32.28	86.1	6	24	-2								
LWOW	32.38	320.6	6	26	-1	11	48	12					
BELGRADE	32.54	310.2	6	27	-1						9	29	PCP
UZHGOROD	32.82	317.6	6	31	1								
MESSINA	34.83	297.2	6	49K	1	12	15	1			8	5	PP
KRAKOW	34.84	318.7	6	47	-1						8	14	PP
WARSAW	35.23	322.6	6	51	0	12	26	6			8	34	PPP
ZAGREB	35.85	310.2	6	57	1								
RACIBORZ	35.86	318.0	6	56	0						8	20	PP
PULKOVO	36.03	338.3	6	57K	-1								
VIENNA-H.	36.32	314.3	7	1A	1						8	25	PP
LJUBLJANA	36.89	310.2	7	5A	0	12	53	7			8	30	PP
AQUILA	36.95	303.9	7	7	1								
VIBORG	37.24	338.4	7	8A	0								
TRIESTE	37.32	309.3	7	9	0	12	56	4			15	45	SS
ROME	37.56	303.0	7	5	-6						18	2	
PRUHONICE	38.02	316.4	7	14	-1						9	19	
PRAGUE	38.12	316.5	7	16	1								
HELSINKI	38.17	335.6	7	16	0								
KASPERSKE H.	38.35	314.7	7	17A	0						13	6	
NURMIJARVI	38.51	335.8	7	19	0								
PADOVA	38.56	308.5	7	24	5	13	23	12			8	54	PP
COLLMBERG	39.39	317.8	7	26A	0						10	36	
LWIRO	39.81	225.0	7	31	2								
KARLSKRONA	39.91	325.8	7	31A	1								
HALLE	40.07	317.8	7	31	-1	13	26	-8					
JENA	40.12	316.9	7	32	0						9	8	PPP
KAJAANI	40.13	341.3	7	33	1								
PAVIA	40.40	307.6									22	24	
RAVENSBURG	40.56	311.6	7	35A	-1								
UPPSALA	40.86	331.6	7	38A	0								
STUTTGART	40.99	313.0	7	37	-2						9	16	

EBINGEN	41.07	312.1	7 39	-1						
LANCHOW	41.16	66.4	7 41A	0	13	55	5			
COPENHAGEN	41.30	324.0	7 42A	0						
MONACO	41.46	305.2	7 42	-1						
HEIDELBERG	41.49	313.9	7 42A	-1						
APATITY	41.62	347.3	7 45K	1	14	6	9		9 26	PP
FELDBERG	41.64	311.5	7 43A	-2						
ISOLA	41.78	305.8	7 46	0					9 31	PP
CHENGTU	41.88	74.5	7 47	1						
STRASBOURG	41.93	312.4	7 46A	-1					9 54	PP
KUNMING	41.94	82.9	7 47	0	14	6	5			
ROSELEND	42.24	308.0	7 48	-1						
UMEA	42.27	337.5	7 49	-1					17 0	
GOTEBORG	42.37	326.6	7 50A	0					9 33	PP
BENSBERG	42.82	315.8	7 54A	0					9 31	PP
WELSCHBRUCH	42.83	311.9	7 47	-7						
BESANCON	42.90	310.2	7 54	-1					9 37	PP
SETIF	42.93	293.9	7 58	3						
SODANKYLA	42.97	344.0	7 55	0						
IRKUTSK	43.16	42.4	7 57	0	14	26	7			
DOURBES	44.25	314.1	8 8	2						
CLERMONT-FD.	44.70	307.8	8 10	1					8 43	
ALGIERS UNI.	44.77	295.0	8 9	-1	14	47	4			
GARCHY	44.87	309.9	8 10A	-1						
KIRUNA	44.91	341.9	8 11A	0						
SKALSTUGAN	45.01	334.2	8 11A	-1						
TAMANRASSET	45.38	275.0	8 14A	-1	14	34	-17		9 55	PP
SIAN	45.48	68.5	8 16A	0						
PAOTOW	45.84	59.6	8 19A	1						
TROMSOE	46.56	343.2	8 24	0						
BERGEN	46.60	328.2	8 24	0				8 35		
FOLINIERE	47.37	311.7	8 29	-1						
KEW	47.54	315.3	8 32A	0						
CHILEKA	48.01	207.3	8 35	0						
DURHAM	48.76	319.6	8 43A	2	15	20	-19			
ALMERIA	49.17	295.7	8 47	3						
BROKEN HILL	49.93	215.4	8 50A	0						
GRANADA	50.02	296.3	8 53K	2					12 32	
PEKING	50.56	59.9	8 55	0	16	12	8			
MALAGA	50.72	295.8	8 55	-1						
CANTON	51.79	81.8	9 5	1						
NHATRANG	52.25	96.4	9 3	-5					9 14	PP
NANKING	54.00	69.3	9 20A	-1	16	56	5			
LISBON	54.13	299.1	9 22K	0						
BULAWAYO	54.72	211.6	9 26A	0						
CHANGCHUN	56.84	54.1	9 38A	-3	17	25	-4			
YAKUTSK	58.06	32.3	9 48A	-2						
TIKSI	58.22	20.9	9 52	1	17	53	6			
BANDEIRA	59.33	229.3	10 13	14				9 59	10 39	PCP
BAGUIO CITY	60.53	86.3	10 7	0						
MANILA	61.68	87.9	10 30K	15						
KIMBERLEY	63.89	210.2	10 30K	1						
ALERT	65.74	352.7							11 21	
Y.-SAKHLINSK	68.02	47.5	10 55A	-1						
MATUSIRO	68.20	59.3	10 56	-1	19	56	4			
M.BOUR	68.25	275.1	10 57	0						
RESOLUTE	75.62	352.3	11 41	0						
MOULD BAY	75.79	358.8	11 42A	0						
SCHEFFERVLLE	83.76	330.6	12 25A	0						
COLLEGE	85.45	9.9	12 34	1						
YELLOWKNIFE	89.31	355.5	12 53K	1						
SEVEN FALLS	90.90	326.7	12 59	0						
BREBEUF	93.41	327.0	13 12	1						
MAWSON	95.64	177.2	13 20	-1						
EDMONTON	98.23	353.4	13 35A	3						
CHARTERS TS.	99.69	107.6	13 41	2						
COLUMBIA	105.82	323.7	18 28	777						
BLUE MTS.	107.04	354.8	14 25	777					18 39	PP
FLAMING GRGE	109.86	348.1	18 27	777						
UINTA BASIN	110.49	348.0	14 37	-229					19 2	PP
EUREKA	112.24	353.1	14 37	-233					19 14	PP
WICHITA MTS.	112.89	337.2	14 50	-221					19 26	PP
ALBUQUERQUE	114.99	343.9	18 36	1					29 12	PKKP
TONTO FOREST	116.66	348.0	18 41	3					19 49	PP
SOUTH POLE	118.02	180.0	18 42	1						
TUCSON	118.55	347.0	18 44	2					29 14	PKKP
CAPE HALLETT	124.01	160.4	18 54	2						
BYRD STATION	128.03	181.1	19 2	2						

JULY 29 20.H 14.M 22.S EPICENTRE -30.28-177.61 DEPTH= 155.KM

A=-0.86428 B=-0.03609 C=-0.50172 D=-0.0417 E= 0.9991
G= 0.5013 H= 0.0209 K=-0.8650 HT= 1.7

DEPTH OF FOCUS= 0.019R

SE= 2.73

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.06	345.2	0	4	-22								
KARAPIRO	9.51	214.8	2	5	-9						6	14	
CHATEAU	10.53	210.5	2	19	-8	4	23	0					
WELLINGTON	12.59	207.3	2	48	-6						5	1	
NOUMEA	16.35	295.3	3	41A	0	6	9	-28					
AFIAMALU	17.16	19.5	3	31	-20	6	4	-51					
PORT VILA	17.90	311.1	3	56A	-4	6	31	-40					
ROXBURGH	18.31	210.4	3	58	-6	6	29	-51					
KOUMAC	18.99	296.4	4	15A	4								
BRISBANE	26.07	269.0	5	22	2	9	15	-23					
RIVERVIEW	26.66	254.2	5	28A	2	10	2	14			6	10	PP
HONIARA	29.48	310.1	5	49A	-2								
MACQUARIE I.	29.49	208.1									8	22	
MOORLANDS	30.62	236.9	6	2	0						11	29	
TARRALEAH	31.12	237.4	6	9	3								
TOOLANGI	31.32	246.6	6	8	1				6	17	7	19	
CHARTERS TS.	34.11	278.8	6	32	1	11	57	12					
ADELAIDE	36.86	251.0	6	55A	1	12	48	21			8	26	PP
RABAUL	38.56	306.4	7	10	1								
PORT MORESBY	38.87	294.9	7	11K	0	13	36	39			8	51	PP
CAPE HALLETT	42.59	185.5	7	43	1								
SCOTT BASE	48.18	184.4	8	27	1	15	36	24					
DARWIN	50.78	278.9	8	44	-2								
HAWAII V.OB.	53.90	26.4	9	8	-1	15	36	-54					
HONOLULU	54.61	22.5	9	14	0	16	52	12			19	6	SCS
BYRD STATION	54.98	169.6	9	15	-2								
WILKES	55.41	207.8	9	18	-2	17	6	16	9	40			
MUNDARING	55.86	250.0	9	23	0	17	12	16					
PERTH	56.17	249.9	9	28	3	17	23	23			11	51	PP
SOUTH POLE	59.89	180.0	9	50	-1						10	42	PP
MIRNY	62.39	206.8	10	8	0				10	35			
ARGENTINE I.	71.89	156.0	11	5	-2								
MAWSON	72.54	200.5	11	10	-1	20	33	12			21	23	PPS
G. G. VIDELA	72.63	156.0	11	10	-2	20	38	16			13	40	PP
LEMBANG	73.45	271.7	11	12K	-5	20	43	11			14	6	PP
MANILA	74.00	298.0	11	19	-1	21	11	33					
TANGERANG	74.63	271.8	11	24K	1						14	11	PP
BAGUIO CITY	75.45	299.1	11	26	-2	21	15	21					
TUKUBASAN	77.16	326.1	11	35A	-3	21	27	15			14	31	PP
MATUSIRO	78.34	325.0	11	42A	-2	21	37	12					
ABUYAMA	78.39	322.3	11	43A	-1								
N-LAZARVSKYA	79.01	183.2	11	47A	-1	21	47	15			24	17	
NHATRANG	82.00	289.1	11	59	-5								
HONG KONG	83.80	300.1	12	14	1	22	24	3			15	58	PP
PARAISO	84.13	41.8	12	15	1								
ZO-SE	84.29	310.9	12	15A	0	22	50	24			22	41	SKS
Y.-SAKHLINSK	84.86	334.0	12	18A	0	22	39	8					
CANTON	84.89	300.3	12	19A	1	22	54	22			22	45	SKS
PRIEST	84.99	42.9	12	17A	-2								
PASADENA	85.16	45.8	12	17	-2	22	48	14					
BERKELEY	85.27	40.8	12	18K	-2	22	45	10			15	22	PP
PETROPAVLOVK	85.50	345.9	12	21K	0	22	53	16					
CALISTOGA	85.63	40.1	12	19A	-3								
SANTA LUCIA	86.33	126.7	12	24	-1	22	58	13					
NANKING	86.48	310.4	12	27A	1	22	55	8					
VLADIVOSTOK	86.49	325.5	12	26A	0						22	10	
SHASTA	87.18	38.7	12	27A	-2								
MINERAL	87.36	39.4	12	28A	-2								
TUCSON	88.71	51.2	12	35	-1								
CORVALLIS	89.44	35.5	12	54	14								
TONTO FOREST	89.65	49.3	12	49	8	23	36	20	12	59	16	20	PP
CHIHUAHUA	89.90	56.5				23	58	39			16	2	
TACUBAYA	90.09	67.6	12	44	1						16	24	
CHANGCHUN	90.34	322.6	12	43A	-1	23	42	19					
GLEN CANYON	91.08	47.0	12	46	-2								
ANTOFAGASTA	91.94	118.8	12	51	-1	23	23	-14			32	27	SS
PORT HARDY	91.99	29.2	12	51K	-1								
VICTORIA	92.19	32.7	12	51	-2								
DUGWAY	92.32	43.9	12	50	-3	23	29	-11					

VERA CRUZ	92.46	69.3				23	58	17			
BLUE MTS.	92.74	38.2	12	52	-3	23	59	15	16	19	PP
PEKING	93.07	315.3	12	57A	0	24	11	24	23	32	SKS
MAGADAN	93.24	344.5	12	57	0	24	6	18	23	35	SKS
ALBUQUERQUE	93.24	51.1	12	55	-2						
KUNMING	94.07	296.6	13	4A	3	23	42	-13	24	22	S
HUANCAYO	94.35	106.5	12	10	-53						
UINTA BASIN	94.36	45.3	12	59	-4	24	18	20	16	47	PP
SIAN	94.43	307.2	13	4A	1	23	42	-16	24	23	S
PENTICTON	94.55	33.8	13	1	-2						
PORT BLAIR	95.51	280.2				23	54	26	26	15	
CHENGTU	96.00	301.9	13	12A	2	23	50	20			
BUTTE	96.05	39.4	13	8	-2						
GOLDEN	96.64	47.7	13	12	-1	23	35	1			
HUNGRY HORSE	96.72	37.0	13	10	-3						
PAOTOW	97.21	313.0	13	16A	0	23	54	17	24	47	S
COLLEGE	97.65	12.4	13	15	-3						
WICHITA MTS.	98.55	54.9	13	17	-5	23	57	14	17	1	PP
LANCHOW	98.91	306.5	13	24	1	24	4	19	25	7	S
TULSA	101.13	55.0	13	36	3	24	10	14	25	10	S
YAKUTSK	101.25	337.5	13	32	-2						
CHINCHINA	102.84	91.7	13	41	0	24	24	20			
SHILLONG	102.85	292.1				24	24	20	26	52	PS
BOGOTA	104.00	92.8	13	48	2	24	24	15	18	10	PP
LHASA	105.34	295.5				24	36	20			
IRKUTSK	106.61	321.1				24	42	21			
MADRAS	106.89	275.4	18	2	777	24	46	24	18	55	PP
BOKARO	107.01	288.0							24	43	
CHATRA	107.19	291.3	18	26	777	24	45	21			
TIKSI	108.23	344.4	18	30	777	24	40	12	26	15	SKKS
CUMBERLAND	108.41	59.1	14	6	777	24	43	14	18	17	PP
MOULD BAY	112.22	12.7	18	16	0						
BLACKSBURG	112.86	59.3							18	59	PP
CARACAS	113.03	91.1							19	6	PP
HERMANUS	113.71	195.2							35	19	SSP
BOMBAY	115.84	277.6							22	55	
PENNSYLVANIA	115.95	56.3							19	11	PP
NEW DELHI	115.98	289.2	18	25	1						
RESOLUTE	117.03	17.2	18	24	-2						
KIMBERLEY	117.53	202.2	18	28	1						
PALISADES	118.88	57.1				25	26	17			
LAHORE	119.35	291.4							19	46	
FORT FRANCE	119.98	89.8							20	3	PP
BREBEUF	120.25	52.2							20	31	
ALMATA	120.73	305.0	18	27	-5						
FRUNSE	122.28	304.0	18	37	1				20	9	PP
ALERT	123.09	8.2	18	8	-30						
KHOROG	123.30	297.2							20	30	PP
BERMUDA	123.54	69.2	18	44	5				22	44	
BULAWAYO	123.88	210.0	18	42A	3						
CHILEKA	124.56	219.1	18	41	0						
QUETTA	124.94	287.5	18	44K	3						
KHEYS	125.10	350.5	18	41	-1				21	10	
TASHKENT	125.86	301.3	18	44	1				20	35	PP
SCHEFFERVLLE	125.96	41.9	18	43	0						
BROKEN HILL	128.92	213.2	18	52	3						
GODHAVN	129.91	22.6	18	53K	2						
SVERDLOVSK	132.02	321.0	18	55	0				21	16	PP
BANDEIRA	133.87	194.7	19	2	4						
SCORESBY SD.	137.51	11.8	19	11	6						
APATITY	138.41	342.6	19	4	-3				21	50	PP
TEHERAN	138.89	291.0	19	8	1				25	20	PPP
LWIRO	138.99	222.6	19	1	-7						
TROMSOE	139.49	351.2	19	8	-1						
SODANKYLA	140.16	345.6	19	2	-8						
KIRUNA	140.93	349.3	19	8	-3				22	49	PKS
KAJAANI	142.59	342.0	19	13	-1						
GORIS	143.11	296.6	19	14	-1	26	12	5	25	33	PPP
TIFLIS	144.17	300.4	19	18	1				21	50	
UMEA	144.58	346.4	19	16A	-2				41	15	SS
PULKOVO	145.03	335.6	19	17	-1				29	33	SKKS
SKALSTUGAN	146.09	352.1	19	20A	0						
NURMIJARVI	146.31	340.2	19	22	1				41	42	SS
HELSINKI	146.50	339.6	19	22	1						
UPPSALA	148.70	345.2	19	27A	2				42	4	SS
BERGEN	149.82	357.1							19	42	PKP2
SIMFEROPOL	151.13	309.3	19	30	2				23	10	PP
KSARA	151.47	285.9	19	39K	11				23	22	PP

GOTEBORG	151.79	349.1	19	31	2								
JERUSALEM	151.88	281.5	19	36	7								
KARLSKRONA	152.50	343.9	19	38	8								
ABERDEEN	152.94	5.4									27	48	
COPENHAGEN	153.63	347.1	19	31	-1								
WARSAW	154.13	333.2	19	23	-9						20	14	
LWOW	154.56	326.2	19	37	4	26	25	3			30	32	SKKS
DURHAM	155.36	5.5									19	59	
M.BOUR	156.16	127.4	19	45	10						22	47	PKS
KRAKOW	156.25	331.2									20	8	
CHORZOW	156.44	332.7	19	9	-26						19	38	
BUCHAREST	156.56	313.6									23	48	
RACIBORZ	156.92	333.4	19	36	0						20	8	
WITTEVEEN	157.26	353.3	19	53	17						22	38	
COLLMBERG	157.57	342.4	19	39K	2						26	2	PP
HALLE	157.64	344.2	19	39	2						20	13	PKP2
DE BILT	158.10	355.4	19	38	1						43	51	SS
PRAGUE	158.25	338.7	19	40	2						20	16	
JENA	158.26	344.2	19	39	1						22	44	PP
PRUHONICE	158.29	338.4	19	39	1						22	44	PP
TIMISOARA	158.67	321.6									20	19	
KEW	158.74	4.7	19	38	0						20	14	PKP2
BRATISLAVA	158.88	331.9									20	17	PKP2
BENSBERG	159.04	351.5	19	42	3						20	16	PKP2
VIENNA-H.	159.11	333.1				26	20	-7			20	19	PKP2
SOFIA	159.16	312.2	19	41	2						20	20	
KASPERSKE H.	159.34	338.8	19	39	0						20	18	PKP2
BELGRADE	159.68	320.6	19	58	19						27	54	PPP
DOURBES	160.13	355.8	19	42	2						22	55	PP
ATHENS	160.77	299.2	19	41A	1						20	24	
STUTTGART	160.80	346.0	19	42	2						44	20	SS
ZAGREB	161.20	329.3	19	46	5								
STRASBOURG	161.27	348.8	19	44A	3	26	36	7			24	8	PP
FOLINIERE	161.41	5.8									20	55	
PARIS	161.50	359.8	19	36	-5								
LJUBLJANA	161.63	332.3	19	42A	1						20	40	
TRIESTE	162.26	333.0	19	43A	1						52	28	SSS
BESANCON	162.83	351.7	19	45	3						23	6	PP
GARCHY	163.02	358.4	19	45	2								
PADOVA	163.16	336.4									24	48	
PAVIA	164.20	342.1	19	43A	-1						24	22	PP
ROSELEND	164.26	349.0									20	28	
CLERMONT-FD.	164.53	358.1	19	50	6						23	13	
AQUILA	165.06	326.7	19	46	1	26	38	6			24	28	PP
ISOLA	165.64	346.4	19	45	0						20	45	PKP2
ROME	165.84	327.7	19	46A	1	26	58	26			24	32	PP
MONACO	165.99	344.7	19	46	0						20	49	
MESSINA	166.56	309.5	19	43	-3	27	0	27			24	40	PP
BAGNERES	167.11	7.4	19	51	5								
LISBON	167.30	45.4	20	50	64								
TOLEDO	169.07	27.1	19	50K	3						24	50	PP
AVERROES	171.12	67.7	19	54K	5				20	11	20	58	PKP2
MALAGA	171.44	39.6	19	54	5						25	5	PP
GRANADA	171.50	34.3	20	5K	16	27	17	42			25	25	PP
ALICANTE	171.61	15.7	19	53A	4						25	4	PP
TAMANRASSET	172.02	201.3	19	52A	3						25	38	PP
ALMERIA	172.30	30.5	19	52	3						25	11	PP
ALGIERS UNI.	173.51	355.3	19	53	3						24	52	PP
SETIF	173.58	337.7	20	4	14						25	42	PP

JULY 29 20.H 16.M 45.S EPICENTRE -30.07-177.31 DEPTH= 106.KM

A=-0.86596 B=-0.04068 C=-0.49846 D=-0.0469 E= 0.9989
G= 0.4979 H= 0.0234 K=-0.8669 HT= 1.8

DEPTH OF FOCUS= 0.011R

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	
KARAPIRO	9.83	215.2	2	17	-3								
CHATEAU	10.84	210.9	2	37	3						4	18	
BRISBANE	26.33	268.4	5	28	0						9	2	
RIVERVIEW	26.97	253.8	5	34	0								
TOOLANGI	31.64	246.3	6	16	1				6	25	7	28	PP

CHARTERS TS.	34.33	278.3	6	40	1	12	2	5			
ADELAIDE	37.17	250.7	7	3	0	12	55	14			
CAPE HALLETT	42.83	185.6	7	51	2						
WILKES	55.72	207.7	9	24	-4	17	17	12	10	3	
MUNDARING	56.17	249.7	9	30	-1						
MAWSON	72.83	200.4	11	19	0	20	43	8			
LEMBANG	73.70	271.5	11	19	-5	21	0	15	14	18	PP
TANGERANG	74.88	271.6	11	34	3				14	29	PP
TUKUBASAN	77.12	325.8	11	44A	0	21	40	17	14	41	PP
MATUSIRO	78.31	324.8	11	48	-2	21	51	16			
NHATRANG	82.17	288.9	12	6	-5				12	11	PCP
HONG KONG	83.92	299.9	12	21	1	22	39	6			
ZO-SE	84.35	310.7	12	23	1	22	59	22	22	49	SKS
PASADENA	84.82	45.6	12	23	-1	22	51	9			
LICK	84.92	41.4	12	22K	-3						
CANTON	85.00	300.1	12	26	1	22	51	7			
SANTA LUCIA	86.25	126.6	12	31	0						
NANKING	86.54	310.2	12	35	2						
SHASTA	86.85	38.5	12	33	-1						
TUCSON	88.37	51.0	12	42	1						
TONTO FOREST	89.32	49.2	12	48	2	23	41	17	12	57	16 12 PP
CHIHUAHUA	89.56	56.3									24 7
CHANGCHUN	90.33	322.4	12	50A	-1	23	49	15			
GLEN CANYON	90.74	46.9	12	54	1						
ANTOFAGASTA	91.81	118.7	12	58	1						22 36
VICTORIA	91.87	32.5	12	57	-1						
BLUE MTS.	92.41	38.1	12	58	-2	24	4	12			30 13 PKKP
ALBUQUERQUE	92.90	51.0	13	2	-1						
PEKING	93.10	315.1	13	5	2	24	20	22			23 43 SKS
UINTA BASIN	94.02	45.2	13	7	-1	24	27	21			17 8 PP
HUANCAYO	94.17	106.4	13	11	3						
KUNMING	94.20	296.5	13	12	4	23	50	-17			24 31 S
SIAN	94.50	307.1	13	11A	1	23	50	-20			24 34 S
AREQUIPA	94.96	112.1	13	12	0						
PORT BLAIR	95.73	280.1									13 53
CHENGTU	96.10	301.8	13	19	2	23	56	14			
PAOTOW	97.25	312.9	13	24	2	24	54	66			
COLLEGE	97.38	12.2	13	20	-3						
LA PAZ	97.62	113.9	13	26	2						21 32
WICHITA MTS.	98.22	54.7	13	24	-3	24	15	22			17 42 PP
LANCHOW	98.99	306.4	13	32	2	24	13	16			25 8 S
TULSA	100.79	54.8				24	19	13			25 19 S
SHILLONG	103.00	292.0	13	51	3						
LHASA	105.48	295.4				24	43	15			
CUMBERLAND	108.08	59.0	14	12	777	24	50	11			18 38 PP
MOULD BAY	111.95	12.6	18	24	1						
HERMANUS	113.99	194.9									35 11 SS
NEW DELHI	116.16	289.2	18	32	1						
KIMBERLEY	117.83	201.9	18	26	-8						
OTTAWA	118.45	51.7	18	35	-1						
BULAWAYO	124.19	209.8	18	49	2						
CHILEKA	124.89	218.9	18	51	3						
QUETTA	125.12	287.5	18	51	3						
SCHEFFERVLLE	125.62	41.8	18	49	0						
HALIFAX	126.72	54.7	18	53	2						
BANDEIRA	134.14	194.4	19	8	2				19	18	
APATITY	138.28	342.8	19	17K	4						
TEHERAN	139.05	291.2	19	12	-3						22 57 PKS
TROMSOE	139.32	351.4	19	17	2						
SODANKYLA	140.02	345.9	19	8	-8						
ADDIS ABABA	140.33	245.7	19	21	4						
KIRUNA	140.76	349.5	19	16	-2						19 37
KAJAANI	142.47	342.2	19	19	-2						22 11
UMEA	144.43	346.7	19	22	-2						22 50 PP
SKALSTUGAN	145.91	352.4	19	26	-1						
NURMIJARVI	146.20	340.6	19	28	1						22 49 PP
HELSINKI	146.38	340.0	19	29	1						
UPPSALA	148.55	345.6	19	34	3						
GOTEBORG	151.63	349.5	19	37	1						
KSARA	151.66	286.3	19	48	12						23 39 PP
KARLSKRONA	152.36	344.4	19	45	8						
WARSAW	154.05	333.8	19	43	4						27 56
DURHAM	155.12	5.9	19	53K	13						
KRAKOW	156.18	331.8									21 37
CHORZOW	156.37	333.3	19	17	-25						19 46
RACIBORZ	156.84	334.0	19	48	5						27 29
HALLE	157.50	344.8	19	47	3						20 17 PKP2
JENA	158.12	344.8	19	50	6						23 57
PRAGUE	158.14	339.4	19	48	4						23 57

KEW	158.50	5.1				20	21	PKP2
BENSBERG	158.86	352.1	19	47	2	20	22	PKP2
SOFIA	159.21	312.9				20	27	
KASPERSKE H.	159.23	339.5	19	48	2	20	26	PKP2
STUTTGART	160.65	346.7	19	50	3	20	31	PKP2
STRASBOURG	161.11	349.5	19	52	4	24	13	PP
LJUBLJANA	161.56	333.2	19	51	3			
BESANCON	162.65	352.5	19	53	4			
GARCHY	162.81	359.1	19	52A	3			
ROSELEND	164.10	349.9	19	55	4	20	47	
CLERMONT-FD.	164.32	358.9				20	50	
BAGNERES	166.86	8.2	19	57	4			
TOLEDO	168.76	27.6	19	59	5	25	35	PP
AVERROES	170.80	66.9				22	8	
ALICANTE	171.33	16.8	20	UA	4	23	11	PP
TAMANRASSET	172.31	199.9	19	58	2	25	12	PP

JULY 30 5.H 45.M 53.S EPICENTRE -29.89-177.15 DEPTH= 33.KM

A=-0.86734 B=-0.04312 C=-0.49585 D=-0.0497 E= 0.9988
G= 0.4952 H= 0.0246 K=-0.8684 HT= 1.9

DEPTH OF FOCUS= 0.000R

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	0.92	313.6	0	17	0								
KARAPIRO	10.05	215.2	2	22	-3	4	37	19			2	49	
CHATEAU	11.06	211.0	2	36	-3	4	37	-5					
WELLINGTON	13.12	207.8	3	9	3	5	18	-14					
NOUMEA	16.54	293.4	3	55A	4	7	11	18					
AFIAMALU	16.66	18.5	3	45A	-7	6	47	-8					
PORT VILA	17.96	309.2	4	12K	3								
ROXBURGH	18.84	210.6	4	17	-2	7	41	-4					
KOUMAC	19.17	294.7	4	27A	4								
LUGANVILLE	20.33	311.3	4	39	3								
BRISBANE	26.47	268.0	5	37	1	10	31	26					
RIVERVIEW	27.15	253.4	5	44A	2	10	18	2			11	34	SS
TOOLANGI	31.84	246.1	6	24	0	11	25	-6			7	34	PP
CHARTERS TS.	34.44	277.9	6	46	0	12	10	-1					
ADELAIDE	37.36	250.4	7	11K	0	12	59	3			8	43	PP
RABAUL	38.65	305.4	7	19	-3						9	12	
PORT MORESBY	39.07	294.0	7	24	-1	13	12	-10			9	6	PP
CAPE HALLETT	43.01	185.6	8	1	3	14	32	11					
SCOTT BASE	48.60	184.5	8	44	2	15	54	13					
HAWAII V.OB.	53.38	26.0	9	19	1	17	3	17					
HONOLULU	54.10	22.1	9	24	0	17	5	9			19	25	SCS
KIPAPA	54.24	22.1	9	24	-1	17	5	7			19	25	SCS
BYRD STATION	55.30	169.7	9	32	0								
WILKES	55.94	207.7	9	35	-2	17	19	-2					
MUNDARING	56.36	249.6	9	38	-2	17	23	-4					
PERTH	56.68	249.5	9	44	2	17	42	11			13	18	PPP
SOUTH POLE	60.27	180.0	10	7	0						12	17	PP
MIRNY	62.91	206.7	10	23	-2	18	49	-2			12	20	
ARGENTINE I.	72.09	155.9	11	23	0								
G. G. VIDELA	72.82	155.9	11	30	3	20	46	-3					
MAWSON	73.04	200.3	11	28K	0								
MANILA	74.17	297.6	11	33	-2	21	47	42					
TANGERANG	75.01	271.5	11	39A	-1						14	36	PP
BAGUIO CITY	75.61	298.7	11	41	-2	21	27	6					
TUKUBASAN	77.06	325.7	11	49A	-2	21	46	10			14	38	PP
MATUSIRO	78.24	324.7	11	56	-2	21	42	-7					
ABUYAMA	78.33	321.9	11	57A	-1								
N-LAZARVSKYA	79.42	183.0	12	3K	-1	22	2	0			22	27	SCS
NHATRANG	82.25	288.8	12	17	-2								
PARAISO	83.57	41.6	12	30	4								
HONG KONG	83.95	299.8	12	29	1	22	54	6			15	39	PP
PRIEST	84.44	42.7	12	32A	2								
PASADENA	84.60	45.6	12	30	-1	23	0	6					
Y.-SAKHLINSK	84.68	333.7	12	32	0	22	30	-25					
LICK	84.70	41.3	12	32A	0								
BERKELEY	84.71	40.6	12	33K	1	22	59	3			15	49	PP
CANTON	85.03	300.0	12	33	0	23	10	11					
CALISTOGA	85.07	39.8	12	34K	0								
PETROPAVLOVK	85.22	345.6	12	32A	-2	23	0	0					

SANTA LUCIA	86.24	126.5	12	39	0	23	6	-4		28	53 SS
NANKING	86.53	310.1	12	41A	0	23	9	-4			
SHASTA	86.63	38.5	12	41K	0						
MEDAN	86.71	276.0	12	39	-3						
MINERAL	86.81	39.1	12	42A	0						
TUCSON	88.16	50.9	12	49	0					30	34
PHU-LIEN	88.94	294.7	12	55	3	23	26	-10			
TONTO FOREST	89.10	49.1	12	54	1					12	59 PCP
EUREKA	89.43	42.7	12	54	-1	23	42	2		23	10 SKS
CHANGCHUN	90.28	322.4	12	57A	-2						
GLEN CANYON	90.53	46.8	13	1	1						
PORT HARDY	91.46	29.0	13	4K	0						
SEATTLE	91.57	33.6	13	3K	-2						
VICTORIA	91.65	32.4	13	5	0						
DUGWAY	91.76	43.7	13	4	-2						
ANTOFAGASTA	91.78	118.6	13	9	3	23	38	-23		25	11 S
BLUE MTS.	92.19	38.0	13	6	-1	24	15	10		16	49 PP
ALBUQUERQUE	92.69	50.9	13	10	0						
SALT LAKE C.	92.69	43.7	13	10	0						
MAGADAN	92.97	344.3	13	12	1						
PEKING	93.08	315.1	13	11	-1	24	33	20		23	44 SKS
UINTA BASIN	93.81	45.1	13	15	0	24	34	15		17	4 PP
PENTICTON	94.01	33.6	13	15	-1						
HUANCAYO	94.08	106.3	13	20	4						
KUNMING	94.25	296.4	13	18	1	23	55	-28			
SIAN	94.51	307.0	13	18A	0	23	56	-29			
BUTTE	95.50	39.2	13	22	-1						
PORT BLAIR	95.83	280.0	14	18	54	24	3	7		18	43 PPP
CHENGTU	96.13	301.8	13	26	1	24	3	5			
HUNGRY HORSE	96.17	36.8	13	25	-1						
COLLEGE	97.19	12.2	13	29	-1						
LA PAZ	97.56	113.8	13	34	2				13	39	
WICHITA MTS.	98.01	54.6	13	33	-1	24	12	4		17	30 PP
LANCHOW	99.00	306.3	13	39	1	24	16	3		25	23 S
EDMONTON	99.62	33.0	13	40A	-1						
TULSA	100.58	54.7				24	27	6		32	25 SS
YAKUTSK	101.04	337.4	13	46	-2						
CHINCHINA	102.45	91.4	13	51	-3	24	38	8			
SHILLONG	103.07	292.0	13	57	0					18	11
BOGOTA	103.63	92.5	14	3	4	24	39	4		18	21 PP
LHASA	105.53	295.4				24	53	9			
MADRAS	107.24	275.3								18	54
BOKARO	107.26	287.9								28	13
CHATRA	107.42	291.3								25	3
CUMBERLAND	107.87	58.9				24	59	5		28	7 PS
TIKSI	107.96	344.4	14	18	777	24	58	4		18	42 PP
KODAIKANAL	108.31	271.4								37	38
MOULD BAY	111.75	12.6	18	30	-1						
CARACAS	112.64	90.7				25	18	4		19	23 PP
DEHRA DUN	116.16	291.3								29	35
BOMBAY	116.18	277.6								29	35
NEW DELHI	116.23	289.2								19	44
TRINIDAD	117.51	93.4								19	59 PP
KIMBERLEY	118.04	201.8	18	45	2						
PALISADES	118.34	56.8				25	22	-13			
BREBEUF	119.70	51.9				25	49	9		36	41 SS
FRUNSE	122.39	304.2	18	53	1					20	30 PP
WARSAK DAM	122.59	293.3	18	53	1						
ALERT	122.64	8.2	18	51	-1						
KHOROG	123.47	297.3	19	0	6						
BULAWAYO	124.41	209.7	18	57	1						
KHEYS	124.78	350.6	18	57	1					19	42
CHILEKA	125.11	218.8	18	58	1						
QUETTA	125.20	287.6	18	58	1	26	7	10			
SCHEFFERVLLE	125.40	41.7	18	55	-3						
TASHKENT	125.99	301.4	19	0	1					20	55 PP
HALIFAX	126.51	54.5	19	1	1						
GODHAVN	129.40	22.6	19	7	2						
BROKEN HILL	129.46	212.9	19	8	3						
ASHKABAD	133.83	295.4	19	17	3					22	49 SKP
BANDEIRA	134.34	194.2	19	17K	2					21	51 PP
SHIRAZ	137.16	282.6	19	21	1					22	53 SKP
APATITY	138.16	343.0	19	17	-5	26	15	-12		22	14 PP
TEHERAN	139.12	291.3	19	26	3					22	25 PP
TROMSOE	139.17	351.5	19	18	-5						
SODANKYLA	139.88	346.0	19	26	1						
KIRUNA	140.62	349.6	19	20	-6					40	56 SS
KAJAANI	142.34	342.4	19	26	-3						

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

GORIS	143.29	297.0	19	28	-3	26	23	-12	22	41	PP
UMEA	144.29	346.9	19	29A	-4				41	33	SS
TIFLIS	144.31	300.9	19	31	-2						
PULKOVO	144.84	336.1	19	31	-2				22	52	PP
SKALSTUGAN	145.76	352.5	19	34A	-1						
NURMIJARVI	146.08	340.8	19	35	-1				41	13	SS
HELSINKI	146.27	340.2	19	36	0						
UPPSALA	148.42	345.8	19	41A	2				42	24	SS
BERGEN	149.45	357.6	19	49	8				20	2	PKP2
SIMFEROPOL	151.19	310.1	19	45	1	26	45	-1	23	28	PP
GOTEBORG	151.48	349.7	19	49A	5						
KSARA	151.74	286.6	19	54	10				23	37	PP
KARLSKRONA	152.23	344.6	19	51A	6				23	30	PP
COPENHAGEN	153.33	347.8	19	45	-2						
WARSAW	153.96	334.1	19	48	0				23	41	PP
LWOW	154.46	327.1	19	49	1				20	13	PKP2
DURHAM	154.93	6.1	19	59	10				20	23	
M.BOUR	156.08	125.9	19	57	7				20	28	PKP2
KRAKOW	156.09	332.1	20	2	12				23	58	PP
RACIBORZ	156.74	334.4	20	5	14				24	2	PP
WITTEVEEN	156.92	354.1	20	7	15						
COLLMBERG	157.31	343.3	19	52	0						
HALLE	157.37	345.1	19	53	1				20	23	PKP2
DE BILT	157.75	356.2	19	52	-1						
JENA	157.99	345.1	19	53	0				24	4	PP
PRAGUE	158.03	339.8	19	59	6						
PRUHONICE	158.07	339.5	20	1	8				44	13	SS
KEW	158.32	5.4	19	51	-2				24	5	PP
BENSBERG	158.71	352.5	20	7	13				24	9	PP
BRATISLAVA	158.72	333.0							20	28	PKP2
VIENNA-H.	158.93	334.2	19	56	2				20	33	PKP2
KASPERSKE H.	159.12	339.9	19	53	-1				24	11	PP
SOFIA	159.19	313.4	19	57	3				20	36	
BELGRADE	159.62	321.8							20	47	PKP2
DOURBES	159.77	356.7	20	0	5	27	3	8			
STUTTGART	160.52	347.2	19	55	-1				20	40	PKP2
ATHENS	160.92	300.5	19	56A	0						
STRASBOURG	160.96	349.9	19	59A	3	27	4	8	24	22	PP
FOLINIERE	160.98	6.8							20	39	
PARIS	161.11	0.7	19	57	1				24	24	
WELSCHBRUCH	161.31	352.7							20	53	
LJUBLJANA	161.46	333.7	19	56	-1				20	43	PKP2
TRIESTE	162.09	334.4	19	58	1				20	45	PKP2
BESANCON	162.50	352.9	20	0	2				24	29	PP
GARCHY	162.64	359.5	19	58A	0						
PADOVA	162.96	337.8							20	47	PKP2
PAVIA	163.95	343.6	20	0	1				23	44	
ROSELEND	163.95	350.4							20	53	
CLERMONT-FD.	164.15	359.3	20	3	4				25	24	
FLORENCE X.	164.61	336.5	20	3	3				24	47	PP
AQUILA	164.94	328.5	20	58	58						
ISOLA	165.35	348.0							24	54	PP
ROME	165.71	329.6	20	4A	3				24	47	PP
MONACO	165.71	346.4	20	15	14						
MESSINA	166.61	311.6	20	3	1	26	57	-3	24	56	PP
TOLEDO	168.55	27.7	20	15	12				25	16	PP
AVERROES	170.61	66.2	20	9	5				31	49	PPP
MALAGA	170.89	39.8	20	5	1				30	16	PP
GRANADA	170.96	34.8	20	12K	8				25	6	PP
ALICANTE	171.13	17.2	20	7	3				25	30	
ALMERIA	171.76	31.2	20	7K	2				25	32	PP
TAMANRASSET	172.52	199.3	20	6	1				25	26	PP
ALGIERS UNI.	173.14	358.6	20	7	2				25	23	PP

JULY 30 6.H 52.M 18.S EPICENTRE 51.93 157.94 DEPTH= 0.KM

A=-0.57393 B= 0.23257 C= 0.78518 D= 0.3756 E= 0.9268
G=-0.7277 H= 0.2949 K=-0.6193 HT= -6.1

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	
MATUSIRO	20.79	230.0	4	45A	-1	8	40	6					
ABUYAMA	23.40	232.0	5	11A	-1								
COLLEGE	30.17	43.6	6	15	1						9	12	PCP
MOULD BAY	38.64	22.4	7	29A	2								

ALERT	44.26	7.0	8	15	2					
HONG KONG	44.74	245.5	8	19	2					
RESOLUTE	44.90	21.1	8	20	1					
YELLOWKNIFE	44.91	41.1	8	19	0					
BAGUIO CITY	46.13	233.9	8	27	-1					
PENTICTON	49.68	58.3	8	55A	-1					
EDMONTON	50.42	51.0	9	2A	0					
SHASTA	53.53	68.5	9	25A	0					
BLUE MTS.	53.69	61.5	9	26A	0				11	38 PP
MINERAL	54.21	68.3	9	29A	-1					
CALISTOGA	54.77	70.5	9	33A	-1					
TROMSOE	55.12	343.7	9	37	0					
BERKELEY	55.47	71.0	9	39A	0					
SODANKYLA	55.54	339.4	9	40	0					
NHATRANG	55.64	242.9	9	39	-1					
SHILLONG	55.67	268.5	9	40A	-1					
LICK	56.20	71.0	9	44A	0					
KIRUNA	56.42	342.1	9	47	1					
PARAISO	56.45	72.4	9	49	3					
PRIEST	57.59	71.5	9	53A	-1					
EUREKA	58.00	65.6	9	57	0				10 9	19 4
KAJAANI	58.03	336.7	9	58	1					
DUGWAY	59.27	63.0	10	6A	0					
SALT LAKE C.	59.40	61.9	10	7	0					
UMEA	59.97	339.8	10	11	0					
PASADENA	60.44	71.5	10	19	5					
FLAMING GRGE	60.62	60.3	10	14	-1					
UINTA BASIN	60.95	60.9	10	17A	-1					
SKALSTUGAN	61.74	343.4	10	22	-1					
NURMIJARVI	61.82	335.9	10	23	0					
HELSINKI	62.03	335.5	10	23	-2					
GLEN CANYON	62.22	64.9	10	26	0					
UPPSALA	64.07	339.0	10	38	0					
TONTO FOREST	64.33	66.7	10	40	0				10 53	11 18
BERGEN	65.89	345.5	10	51	1					
TUCSON	66.06	68.0	10	50	-1					
ALBUQUERQUE	66.54	63.0	10	53	-1					
GOTEBORG	67.24	341.0	10	59	0					
SCHEFFERVLLE	67.31	26.2	10	59A	0					
QUETTA	67.45	290.4	10	59	-1					
KARLSKRONA	67.88	338.4	11	3	0					
ABERDEEN	70.04	348.6							12	35
WICHITA MTS.	70.95	57.9	11	20	-2				11	40 PCP
TULSA	71.48	55.3	11	24	-1					
CHARTERS TS.	72.43	191.5	11	27	-3					
OTTAWA	72.62	36.5	11	30	-2					
COLLMBERG	72.97	337.8	11	34	0				14	19
BREBEUF	73.30	35.1	11	34A	-2					
JENA	73.64	338.6	11	38	0				12	0
PRUHONICE	73.82	336.4	11	38	-1				12	1
BENSBERG	74.55	341.3	11	43	0					
KASPERSKE H.	74.84	336.6	11	45A	0				12	12
KEW	75.36	346.1	11	47	0					
PENNSYLVANIA	75.71	40.4	11	48	-1					
MORGANTOWN	75.84	42.4	11	50K	0					
DOURBES	75.86	342.7	11	52	2	21	27	-6		
SHIRAZ	75.93	300.1	11	50A	-1					
STUTTGART	76.18	339.2	11	48A	-4					
STRASBOURG	76.69	340.2	11	56	1					
CUMBERLAND	76.71	48.6	11	54	-1					
BLACKSBURG	77.68	44.1	11	59	-1					
FOLINIERE	78.01	345.6	12	3	1					
BESANCON	78.32	340.9	12	4	0					
GARCHY	78.85	342.9	12	8A	1					
ROSELEND	79.68	340.0	12	13	2					
ISOLA	81.02	339.2	12	20	1					12 47
MONACO	81.37	338.8	12	21	1					
ATHENS	81.97	325.1								24 42
KARAPIRO	90.79	166.2	13	17	10					
CHILEKA	122.37	286.9	18	58	0					
LA PAZ	129.33	63.3	19	12	1					
KIMBERLEY	138.39	285.3	19	20	-8					

JULY 30 13.H 52.M 2.S EPICENTRE -55.94 -27.51 DEPTH= 73.KM

A= 0.49899 B=-0.25984 C=-0.82673 D=-0.4619 E=-0.8870
G=-0.7333 H= 0.3818 K=-0.5626 HT= -7.6

DEPTH OF FOCUS= 0.006R

SE= 1.24

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
ARGENTINE I.	20.01	227.4	4	30	1	8	14	9					
SOUTH POLE	34.24	180.0	6	41	3						7	36	
BYRD STATION	35.84	197.3	6	54	0								
SANTA LUCIA	37.18	288.9	7	5	-1	12	46	0	8	26			
MAWSON	40.35	143.7	7	32A	0						13	16	
GRAHAMSTOWN	43.25	81.7									8	35	
ANTOFAGASTA	44.92	297.9	8	8K	-1	14	40	-1			9	56	PP
KIMBERLEY	45.75	75.9	8	35A	19								
SCOTT BASE	46.17	184.1	8	20	1								
MIRNY	49.96	153.2	8	47	-2				9	28	14	28	
LA PAZ	49.98	305.4	8	50	1	15	56	3					
CAPE HALLETT	51.44	186.8	9	0	0								
BANDEIRA	51.47	53.9	8	59K	-1						10	41	
AREQUIPA	51.59	301.8	9	1	0								
CHANGALANE	51.75	80.7	9	1	-1	16	19	2					
WILKES	54.01	160.5	9	20	1	16	52	4	9	34			
BULAWAYO	54.71	72.9	9	23A	-1								
HUANCAYO	57.25	300.5	9	44	2								
NANA	58.04	299.0	9	48	0								
BROKEN HILL	59.34	69.0	9	56A	-1								
CHILEKA	61.81	75.8	10	13K	-1								
TANANARIVE	66.19	88.7	10	45	3						12	4	
LWIRO	69.87	62.3	12	6	61								
M.BOUR	70.61	10.8	11	9	0	20	19	3					
BOGOTA	71.37	310.2	11	14K	0	20	24	-1					
TRINIDAD	72.11	324.8	11	18	0								
CARACAS	73.88	319.4	11	28	-1						14	15	PP
FORT FRANCE	75.86	326.4	11	40	0								
ST. CLAUDE	77.26	326.4	11	48	0								
BALBOA HTS.	77.65	307.1	11	49	-1								
ROXBURGH	77.96	192.0	11	50	-2				12	6			
SAN JUAN	80.89	323.1	12	6K	-2						15	11	PP
WELLINGTON	81.32	196.8	12	10	0	22	58	45					
MOORLANDS	81.88	176.0	12	12	0								
TARRALEAH	81.99	175.5	12	13	0								
CHATEAU	83.21	197.8	12	20	0				12	36			
TAMANRASSET	83.28	30.4	12	21K	1	22	39	6			15	38	PP
KARAPIRO	84.45	198.1	12	25	-1				12	42			
TOOLANGI	86.66	174.4	12	36	-1						16	0	PP
MUNDARING	87.12	149.8	12	39	0								
ADELAIDE	88.69	168.7	12	47A	1				13	2	16	14	PP
AVERROES	90.53	16.7	12	56K	1								
RIVERVIEW	90.58	178.9	12	56A	1	23	46	4					
MALAGA	94.38	18.4	13	9	-4						26	40	
ALMERIA	94.86	19.9	13	16A	1						14	37	
GRANADA	94.97	19.0	13	19K	4								
ALGIERS UNI.	95.95	24.2	13	28	8	24	44	56			17	10	PP
BRISBANE	97.00	180.3	13	25	0						16	43	
TOLEDO	97.52	18.0	13	29K	2	24	2	5			24	54	S
MESSINA	100.68	33.2									18	10	
CUMBERLAND	103.68	314.6	13	54	-1	24	24	-3			18	8	PP
MORGANTOWN	105.09	320.6	17	4	777						18	22	PP
PENNSYLVANIA	105.41	322.7	17	7	777								
GARCHY	106.00	21.1	18	8	777								
BESANCON	106.59	23.1	18	50	777								
FOLINIERE	106.76	18.3	18	20	777								
TRIESTE	107.01	28.9	18	27	777						24	44	
LJUBLJANA	107.59	29.3	18	25	777								
BELGRADE	108.22	33.8	18	9	777						20	12	
STRASBOURG	108.25	23.8	18	45	777								
BREBEUF	108.26	327.7	18	33	777								
TULSA	108.29	307.4	17	44	777						18	26	PP
LONDON ONT.	108.53	321.5	18	45A	777								
WICHITA MTS.	108.57	304.7	14	16	777	24	45	-3			18	44	PP
SHIRAZ	108.79	64.9	18	35	777								
OTTAWA	108.82	326.3	18	45	777								
DOURBES	109.00	21.2	18	23	777								
KASPERSKE H.	110.17	27.4	18	30	7						16	57	
PRUHONICE	111.20	27.6									18	53	PP

JENA	111.33	25.4	18	23	-2						19	19	PP
HALLE	111.95	25.4	18	32	5						19	7	PP
COLLMBERG	112.02	26.1									19	6	PP
NIEDZIKA	112.30	31.5									19	9	
DURHAM	112.37	15.9									19	49	PP
KRAKOW	112.75	31.0									19	16	
TEHERAN	113.12	60.2									19	18	
TONTO FOREST	114.39	295.3	18	15	-16	25	12	0			19	31	PP
PORT MORESBY	114.75	174.2									19	40	
SCHEFFERVLLE	114.97	336.2	18	44	11								
GOLDEN	115.77	303.1	18	30	-4						15	11	
GLEN CANYON	116.65	297.0	18	37	1								
QUETTA	116.83	75.3	18	38	2								
PASADENA	117.86	290.3	18	39	1						20	6	PP
UINTA BASIN	118.26	300.7	18	39	0	25	26	0			19	48	PP
SALT LAKE C.	119.71	299.5	18	43	1								
DUGWAY	119.75	298.4	18	42	0								
PRIEST	120.70	290.0	18	46A	2								
EUREKA	120.79	295.8	18	46	2				19	1	20	17	PP
UPPSALA	120.89	24.6	18	43	-1								
PARAISO	121.75	288.9	18	47	1						19	3	
LICK	122.12	290.2	18	47A	1								
WARSAK DAM	122.26	76.0	18	59	12								
BERKELEY	122.84	290.2	18	49K	1						22	16	
HELSINKI	123.00	28.2	18	45	-3								
BOZEMAN	123.03	303.8	18	49	1				19	5			
DEHRA DUN	123.08	83.8	18	51	3								
SKALSTUGAN	123.09	20.0	18	48	0						20	25	
NURMIJARVI	123.21	27.8	18	48	0						22	16	SKP
CALISTOGA	123.58	290.6	18	50A	1								
MINERAL	124.32	292.6	18	51A	0								
UMEA	124.97	23.6	18	51	-1						20	37	
SHASTA	124.99	292.4	18	53A	1								
BLUE MTS.	125.43	299.2	18	53	0	25	49	0			20	30	PP
CHATRA	125.52	93.9	18	55	2								
KAJAANI	126.98	26.9	18	56	0						20	54	PP
SHILLONG	127.17	99.0	18	57K	1								
KIRUNA	128.45	21.1	18	58A	-1						22	11	
SODANKYLA	129.40	23.9	19	0	0						21	9	PP
EDMONTON	129.62	309.1	19	0K	-1								
TROMSOE	129.69	19.3	19	15	14								
PENTICTON	129.70	301.8	19	1K	0								
SEATTLE	129.86	298.6	19	1A	0								
VICTORIA	131.00	298.8	19	2U	17								
APATITY	131.17	26.5	19	20A	16						21	22	
BAGUIO CITY	133.68	135.5									22	30	PP
PORT HARDY	134.45	298.7	19	9	-1								
YELLOWKNIFE	135.97	318.1	19	13	0								
RESOLUTE	137.69	338.6	19	15	-1								
ALERT	139.35	353.4	19	10	-9								
LANCHOW	141.77	100.5	19	20	-3								
MOULD BAY	143.80	336.1	19	24K	-3								
NANKING	146.52	121.3	19	34A	2				19	50			
ZO-SE	146.85	125.4	19	34	2								
PAOTOW	148.41	101.0	19	38A	3								
COLLEGE	150.32	311.9	19	34	-3								
PEKING	151.36	108.4	19	46	7								
MATUSIRO	158.30	147.5	19	49	1						20	24	PKPZ
CHANGCHUN	158.86	113.5	19	49	0				20	5			

JULY 30 14.H 23.M 8.S EPICENTRE -29.86-177.04 DEPTH= 0.KM

A=-0.86754 B=-0.04479 C=-0.49534 D=-0.0516 E= 0.9987
G= 0.4947 H= 0.0255 K=-0.8687 HT= 1.9

SE= 2.97

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	0.97	308.3	0	22	1								
KARAPIRO	10.13	215.5	2	28	-2						2	59	PP
CHATEAU	11.14	211.3	2	41	-3						4	50	
WELLINGTON	13.19	208.1	3	20	8	5	23	-17					
AFIAMALU	16.60	18.2	3	50	-6	6	52	-9					
NOUMEA	16.62	293.1	4	2A	6								
PORT VILA	18.01	308.8	4	19K	5								

ROXBURGH	18.92	210.8	4	19	-6					
KOUMAC	19.25	294.5	4	32A	3					
LUGANVILLE	20.38	311.0	4	45	4					
BRISBANE	26.57	267.9	5	43	1	9	40	-35		
RIVERVIEW	27.25	253.4	5	55	7				10	40
TOOLANGI	31.94	246.0	6	30	0				9	23 PCP
CHARTERS TS.	34.53	277.8	6	53	0				7	33
ADELAIDE	37.46	250.4	7	17	0				9	34 PPP
CAPE HALLETT	43.06	185.7	8	6	2					
SCOTT BASE	48.64	184.5	8	50	2					
HONOLULU	54.03	22.0	9	32	3	17	20	16	23	24
KIPAPA	54.17	22.0	9	30	0	17	20	14	22	10
BYRD STATION	55.31	169.7	9	37	-1					
WILKES	56.01	207.6	9	41	-2					
MUNDARING	56.46	249.5	9	43	-3					
SOUTH POLE	60.31	180.0	10	13	0					
BAGUIO CITY	75.68	298.6	11	54	5					
MATUSIRO	78.27	324.6	12	3A	-1					
ABUYAMA	78.36	321.8	12	8A	4					
PARAISO	83.49	41.5	12	35	4					
PRIEST	84.35	42.6	12	36K	0					
PASADENA	84.51	45.5	12	36	-1					
LICK	84.61	41.2	12	38K	1					
BERKELEY	84.63	40.5	12	38K	1					
CALISTOGA	84.99	39.8	12	39K	0					
NANKING	86.58	310.0	12	47	0					
MINERAL	86.73	39.1	12	47A	-1					
TUCSON	88.06	50.9	12	55	1					
TONTO FOREST	89.01	49.0	12	57	-1				13 7	30 48 PKKP
EUREKA	89.34	42.6	12	59	-1					
CHANGCHUN	90.31	322.3	13	4K	-1					
GLEN CANYON	90.44	46.8	13	6	1					
PORT HARDY	91.38	28.9	13	10K	1					
BLUE MTS.	92.10	37.9	13	12	-1					30 40 PKKP
PEKING	93.12	315.0	13	17	0	24	28	6		23 50 SKS
UINTA BASIN	93.72	45.1	13	20	0					17 12 PP
PENTICTON	93.93	33.6	13	20K	-1					
COLLEGE	97.13	12.1	13	34	-2					
WICHITA MTS.	97.91	54.6	13	38	-1					
BULAWAYO	124.49	209.6	19	3	1					
QUETTA	125.28	287.6	19	4	1					
APATITY	138.15	343.0	19	26A	-2					
TEHERAN	139.19	291.3	19	35	5					
SODANKYLA	139.87	346.0	19	27	-4					
KIRUNA	140.60	349.7	19	33	1					
KAJAANI	142.34	342.5	19	30	-5					
UMEA	144.28	347.0	19	36	-2				20	0
SKALSTUGAN	145.74	352.6	19	40K	-1					
NURMIJARVI	146.08	340.9	19	41	0					
HELSINKI	146.27	340.3	19	42	0					
UPPSALA	148.41	345.9	19	48K	3					
GOTEBORG	151.47	349.8	19	56	6					
KARLSKRONA	152.23	344.8	20	0K	9					
DURHAM	154.89	6.2	20	24	29					
NIEDZICA	156.43	330.8	20	3	6					
COLLMBERG	157.31	343.5	19	58	0				20	42
JENA	157.98	345.3	20	29	30				21	32
PRUHONICE	158.07	339.7	20	11	12				20	33 PKP2
BENSBERG	158.69	352.7							20	36
VIENNA-H.	158.94	334.4	20	7	7					
KASPERSKE H.	159.12	340.1	20	0	0				20	38 PKP2
DOURBES	159.74	356.9							20	38
STUTTGART	160.50	347.4	20	13	11					
FOLINIERE	160.93	7.0							20	45
STRASBOURG	160.94	350.2	20	15	13				20	47 PKP2
BESANCON	162.48	353.1							20	52 PKP2
ISOLA	165.34	348.3							21	7 PKP2
TOLEDO	168.47	28.0	20	5	-4				21	19 PKP2
MALAGA	170.80	40.0							21	29
TAMANRASSET	172.58	198.7	20	12	1				25	19 PP

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JULY 30 15.H 4.M 33.S EPICENTRE -30.06-176.95 DEPTH= 21.KM

A=-0.86576 B=-0.04614 C=-0.49833 D=-0.0532 E= 0.9986
G= 0.4976 H= 0.0265 K=-0.8670 HT= 1.8

SE= 2.51

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.17	313.4	0	22	1								
KARAPIRO	10.02	216.4	2	22	-4						2	44	
CHATEAU	11.02	212.1	2	39	0	4	42	-1					
WELLINGTON	13.06	208.7	3	10	3	5	18	-15					
AFIAMALU	16.76	17.7	3	49	-6								
NOUMEA	16.77	293.5	3	59K	4	7	22	22					
PORT VILA	18.20	309.1	4	15A	2								
ROXBURGH	18.79	211.2	4	14	-6								
KOUMAC	19.40	294.8	4	28A	1								
LUGANVILLE	20.57	311.2	4	39	-1								
BRISBANE	26.64	268.2	5	40	1	10	23	12					
RIVERVIEW	27.27	253.7	5	43	-2				5	59	11	50	SSS
HONIARA	29.78	308.8	6	5	-2						7	6	
TOOLANGI	31.93	246.3	6	25	-1						15	39	SSS
ADELAIDE	37.47	250.6	7	13K	-1						16	15	
RABAUL	38.89	305.4	7	24	-2								
CAPE HALLETT	42.87	185.7	8	1	3	14	30	8					
SCOTT BASE	48.45	184.6	8	44	1	15	57	16					
HONOLULU	54.19	21.8				17	7	7			22	43	
KIPAPA	54.32	21.8				17	7	5			22	46	
BYRD STATION	55.10	169.7	9	32	-1								
WILKES	55.88	207.7	9	36	-2	17	27	4					
MUNDARING	56.47	249.6	9	39	-4	17	27	-4					
SOUTH POLE	60.11	180.0	10	8	0						10	45	
BAGUIO CITY	75.84	298.6	11	43	-3								
MATUSIRO	78.48	324.6	11	59	-2	22	6	11					
ABUYAMA	78.57	321.8	12	0A	-2								
N-LAZARVSKYA	79.26	183.0	12	5	0	22	2	-1					
KURILSK	81.48	335.7	12	16	-1								
HONG KONG	84.19	299.7				22	59	6					
PRIEST	84.44	42.6	12	33A	1								
ZO-SE	84.58	310.5	12	31	-2	23	1	4			22	56	SKS
PASADENA	84.59	45.4	12	32	-1								
LICK	84.70	41.2	12	33A	-1								
BERKELEY	84.72	40.4	12	35A	1	22	55	-4			13	3	
Y.-SAKHLINSK	84.91	333.6	12	33A	-2								
CALISTOGA	85.09	39.7	12	36K	1								
CANTON	85.27	299.9	12	34A	-2	23	4	0					
PETROPAVLOVK	85.42	345.5	12	27	-10								
SANTA LUCIA	86.00	126.4				22	48	-23					
SHASTA	86.64	38.4	12	42A	-1								
NANKING	86.77	310.0	12	44A	0	23	29	10			23	11	SKS
MINERAL	86.83	39.0	12	43A	-1								
TUCSON	88.12	50.8	12	51	1								
TONTO FOREST	89.07	49.0	12	55	0						14	21	
EUREKA	89.43	42.6	12	56	0								
GLEN CANYON	90.51	46.7	13	2	0								
CHANGCHUN	90.51	322.3	13	0A	-2	23	59	6			23	29	SKS
BLUE MTS.	92.21	37.9	13	8	-1	24	13	5	13	25	26	2	PPS
PEKING	93.32	315.0	13	14A	0	24	27	9			23	48	SKS
UINTA BASIN	93.80	45.0	13	16	-1						13	49	
FLAMING GRGE	94.27	44.6									23	19	
KUNMING	94.48	296.3	13	21	1	23	59	-29			24	41	S
SIAN	94.75	306.9	13	21A	0	23	59	-31			24	41	S
CHENGTU	96.36	301.7	13	28	0	24	6	4			24	52	S
LA PAZ	97.33	113.7	13	35	2	24	15	7					
WICHITA MTS.	97.96	54.6	13	35	-1								
YAKUTSK	101.26	337.3									17	48	PP
TIKSI	108.16	344.3									18	47	PP
QUETTA	125.42	287.4	18	59	-1								
APATITY	138.36	343.0	19	18	-6								
KIRUNA	140.81	349.7									40	57	SS
GORIS	143.52	296.9	19	31	-2								
UMEA	144.49	347.0	19	31A	-4								
TIFLIS	144.55	300.7	19	33	-2								
VIBORG	144.87	338.2	19	29	-6								
PULKOVO	145.06	336.1	19	33	-3								
BAKURIANI	145.50	300.9	19	37A	0								
SKALSTUGAN	145.95	352.6	19	36A	-1								
NURMIJARVI	146.29	340.8	19	38	0								

HELSINKI	146.48	340.2	19	38	0			
UPPSALA	148.62	345.9	19	44A	2			
SIMFEROPOL	151.43	310.0	19	52	6			
GOTEBORG	151.68	349.9	19	52A	6			
KSARA	151.96	286.3	19	53	6	23	41	PP
JERUSALEM	152.40	281.8	19	55	8			
KARLSKRONA	152.44	344.8	19	58	11			
WARSAW	154.18	334.2	20	11	21			
LWOW	154.69	327.1	20	10	20			
M.BOUR	155.84	125.9				20	24	PKP2
UZHGOROD	156.33	327.0	19	33	-20			
RACIBORZ	156.97	334.5	20	6	12	21	2	
COLLMBERG	157.52	343.5				20	26	PKP2
HALLE	157.58	345.3				20	25	PKP2
JENA	158.19	345.4	19	54	-1	24	0	PP
PRAGUE	158.24	339.9				20	29	PKP2
PRUHONICE	158.29	339.6				20	29	PKP2
KEW	158.46	5.7				20	29	PKP2
BENSBERG	158.89	352.8				20	34	
VIENNA-H.	159.16	334.4				20	34	PKP2
KASPERSKE H.	159.33	340.1	19	55	-1	20	35	PKP2
BELGRADE	159.86	321.8				20	47	PKP2
STUTTGART	160.72	347.4				20	40	PKP2
FOLINIERE	161.12	7.2				20	41	
STRASBOURG	161.15	350.3	19	59	1	24	21	PP
PARIS	161.27	1.2				20	43	
LJUBLJANA	161.69	333.8	19	59	0	20	41	
TRIESTE	162.32	334.6	19	59	-1	38	14	SPP
BESANCON	162.68	353.3	20	1	1	20	48	PKP2
GARCHY	162.80	360.0	20	0	0			
PAVIA	164.15	344.0	20	13	12	27	32	
CLERMONT-FD.	164.31	359.8				20	47	
AQUILA	165.17	328.6	20	3	1			
ISOLA	165.55	348.4				21	0	PKP2
ROME	165.94	329.8				20	27	
MESSINA	166.85	311.4				21	7	
TOLEDO	168.61	28.8	20	7	2	25	8	PP
AVERROES	170.51	67.4	20	7	1			
MALAGA	170.90	41.2	20	9	3	25	18	PP
GRANADA	170.99	36.2	20	8A	2	26	8	PP
ALICANTE	171.23	18.5	20	6A	0	25	22	PP
ALMERIA	171.81	32.8	20	8A	1	20	51	
TAMANRASSET	172.42	197.6	20	8A	1	25	30	PP
ALGIERS UNI.	173.31	0.0	20	8	1	25	27	PP

JULY 31 1.H 44.M 19.5 EPICENTRE -29.99-176.99 DEPTH= 56.KM

A=-0.86641 B=-0.04556 C=-0.49726 D=-0.0525 E= 0.9986
G= 0.4966 H= 0.0261 K=-0.8676 HT= 1.8

DEPTH OF FOCUS= 0.004R

SE= 3.19

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.09	311.9	0	17	-2								
AFIAMALU	16.71	17.9	3	41	-10	6	41	-13					
NOUMEA	16.71	293.4	3	57K	6						4	33	
PORT VILA	18.12	309.0	4	12A	3								
KOUMAC	19.34	294.7	4	24	1								
LUGANVILLE	20.50	311.1	4	39	4								
BRISBANE	26.61	268.1	5	36	2	10	10	7					
RIVERVIEW	27.26	253.6									6	26	PP
HONIARA	29.71	308.8	5	59	-3						7	4	
TOOLANGI	31.93	246.2	6	21	-1				6	38	9	12	PCP
CHARTERS TS.	34.60	277.9	6	46	1	12	9	0					
ADELAIDE	37.46	250.5	7	6	-3						15	59	SSS
RABAUL	38.82	305.4	7	16	-4								
PORT MORESBY	39.24	294.0	7	16	-8								
SCOTT BASE	48.52	184.5	8	40	1								
HONOLULU	54.13	21.9				17	4	12			9	52	
BYRD STATION	55.18	169.7	9	27	-2								
WILKES	55.92	207.7	9	35	1	17	23	7					
SOUTH POLE	60.18	180.0	10	3	-1						10	37	
MIRNY	62.89	206.7	10	23	1	18	51	5	10	42			
MAWSON	73.00	200.3	11	25	0								

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MATUSIRO	78.40	324.6	11	54A	-2	21	51	5						
PRIEST	84.41	42.6	12	28K	1									
ZO-SE	84.50	310.6	12	29	1	22	56	8						
PASADENA	84.57	45.5	12	31	3									
LICK	84.67	41.2	12	29A	1									
BERKELEY	84.69	40.5	12	27K	-1	22	59	9						
CALISTOGA	85.05	39.7	12	26A	-4									
CANTON	85.20	299.9	12	30	-1	22	56	1						
SHASTA	86.61	38.4	12	37A	-1									
NANKING	86.70	310.0	12	39	1	23	8	-1						
MINERAL	86.79	39.0	12	39K	0									
TUCSON	88.10	50.8	12	45	0									
TONTO FOREST	89.05	49.0	12	50	0				13	0	14	35		
EUREKA	89.40	42.6	12	50	-1									
CHANGCHUN	90.44	322.3	12	56A	0									
GLEN CANYON	90.49	46.7	12	57	1									
BLUE MTS.	92.17	37.9	13	3	-1	24	11	12	13	19	25	26	SP	
ALBUQUERQUE	92.64	50.8	13	6	0									
PEKING	93.24	315.0	13	9	0	23	45	-24			24	25	S	
UINTA BASIN	93.77	45.0	13	11	0	24	26	13			17	4	PP	
FLAMING GRGE	94.24	44.6	13	23	9									
AREQUIPA	94.73	111.9	13	17	1									
GOLDEN	96.04	47.4	13	31	9									
LA PAZ	97.39	113.7	13	23	-5	24	8	9						
WICHITA MTS.	97.95	54.6	13	29	-1	24	13	11			25	0	S	
LANCHOW	99.17	306.3				25	18	70						
TULSA	100.52	54.7				24	21	6			25	21	S	
CUMBERLAND	107.80	58.8	18	33	777						28	27		
PALISADES	118.27	56.8				25	36	7						
QUETTA	125.36	287.5	18	57	3									
SHIRAZ	137.32	282.4	19	28	11						22	58	SKP	
KAJAANI	142.47	342.5	19	17	-9						19	39		
UMEA	144.41	347.0	19	27	-2						32	52		
SKALSTUGAN	145.87	352.6	19	34A	2									
NURMIJARVI	146.21	340.8	19	33	0						22	47	PP	
HELSINKI	146.40	340.3	19	34	1									
UPPSALA	148.54	345.9	19	39	3									
GOTEBORG	151.60	349.9	19	49	8									
KSARA	151.90	286.4	19	50	9						20	10	PKP2	
JERUSALEM	152.35	282.0	19	48	6									
KARLSKRONA	152.36	344.8	19	50	8									
KRAKOW	156.24	332.2	19	59	12									
NIEDZIKA	156.56	330.8	20	4	16									
COLLMBERG	157.44	343.5	20	5	16						24	11		
HALLE	157.50	345.3	20	15	26						20	37		
JENA	158.12	345.3	19	51	1						24	6	PP	
PRAGUE	158.17	339.9									20	34	PKP2	
PRUHONICE	158.21	339.6	19	56	6									
BENSBERG	158.82	352.7									20	29		
VIENNA-H.	159.08	334.4									20	31		
KASPERSKE H.	159.25	340.1	19	53	2						20	29	PKP2	
SOFIA	159.35	313.4									20	26		
BELGRADE	159.78	321.9									20	16		
DOURBES	159.87	357.0	20	12	20									
STUTTGART	160.64	347.4	19	59	6						20	37	PKP2	
FOLINIERE	161.05	7.1									20	37		
STRASBOURG	161.08	350.2									20	47	PKP2	
LJUBLJANA	161.61	333.9	20	24	30									
TRIESTE	162.24	334.6	20	27	33									
GARCHY	162.73	359.9	20	12	17									
ROSELEND	164.07	350.7									20	53	PKP2	
CLERMONT-FD.	164.24	359.7									21	8		
ISOLA	165.47	348.3									21	0		
MONACO	165.84	346.8									21	10	PKP2	
ROME	165.86	329.8									26	41		
MESSINA	166.78	311.6									24	13		
TOLEDO	168.56	28.5	20	5	6						25	5	PP	
MALAGA	170.86	40.7	20	5	4						21	31		
GRANADA	170.95	35.8									21	27	PKP2	
ALICANTE	171.17	18.2	19	36	-25						25	45		
ALMERIA	171.77	32.3	20	5	4						25	49		
ALGIERS UNI.	173.23	359.7	20	3	1						25	28	PP	

JULY 31 11.H 29.M 23.S EPICENTRE 42.00 142.46 DEPTH= 58.KM

A=-0.59107 B= 0.45412 C= 0.66664 D= 0.6092 E= 0.7930
G=-0.5286 H= 0.4061 K=-0.7454 HT= -2.4

DEPTH OF FOCUS= 0.004R

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
URAKAWA	0.28	57.3	0	9A	-3	0	17	-3				
HIROO	0.69	66.0	0	13	-3	0	24	-4				
TOMAKOMAI	0.91	314.1	0	19	1	0	35	3				
OBIHIRO	1.07	30.4	0	21A	1	0	40	5				
MURORAN	1.15	286.6	0	20	-1	0	37	0				
HAKODATE	1.29	262.1	0	21A	-2	0	38	-2				
SAPPORO	1.35	322.8	0	25K	1	0	45	3				
MORI	1.41	274.7	0	25A	0	0	43	0				
HATINOHE	1.63	205.9	0	21A	-7	0	40	-8				
AOMORI	1.73	227.6	0	27	-2	0	45	-6				
KUSIRO	1.73	55.0	0	28	-1	0	51	0				
ASAHIGAWA	1.78	357.8	0	32	2							
SUTTSU	1.84	296.5	0	30	-1	0	59	6				
RUMOE	2.05	342.6	0	35	2	1	6	8				
MIYAKO	2.38	189.3	0	32	-6	0	58	-8				
ABASHIRI	2.42	32.8	0	40A	1	1	11	4				
MORIOKA	2.50	203.6	0	36	-4	1	2	-7				
NEMURO	2.65	58.9	0	41	-1	1	13	0				
AKITA	2.90	219.0	0	48	3	1	19	-1				
MIZUSAWA	3.04	200.0	0	45	-2	1	18	-5				
WAKKANAI	3.47	350.8	0	54	1	1	42	8				
ISINOMAKI	3.67	194.2	0	52	-4	1	33	-6				
SAKATA	3.69	213.9	0	57	0							
SENDAI	3.91	198.4	0	54	-6	1	39	-6				
YAMAGATA	4.08	204.1	0	58	-4	1	41	-8				
HUKUSIMA	4.51	200.5	1	2	-6	2	0	0				
NIIGATA	4.85	213.9	1	11	-2							
SHIRAKAWA	5.17	200.3	1	12	-5	2	15	-1				
ONAHAMA	5.19	194.0				2	22	5			1	43
UTUNOMIYA	5.80	201.1	1	18	-8	2	22	-10				
MITO	5.82	196.1	1	20	-6	2	23	-10				
TAKADA	5.88	215.0	1	41	14							
KAKIOKA	6.03	197.9	1	32	3							
NAGANO	6.26	213.2	1	40	8							
KUMAGAYA	6.31	203.3	1	30	-3	2	55	10				
MATUSIRO	6.37	212.6	1	30K	-4	2	40	-6				
TOKYO C.M.O.	6.66	199.4				3	0	7			2	46
YOKOHAMA	6.92	199.4				2	53	-6				
KOHU	7.02	207.0	1	43	0							
MISIMA	7.40	203.0	2	3	15							
IIDA	7.41	210.7	1	45	-3							
AJIRO	7.42	201.9	1	40	-9	3	0	-12				
GIHU	7.95	215.9	2	51	55							
NAGOYA	8.06	214.0	1	57	0							
ABUYAMA	8.94	219.4	2	6A	-3							
CHANGCHUN	12.71	284.0	4	3	63							
PEKING	19.92	273.1	4	26	-4							
ZO-SE	20.21	244.3	4	29	-4							
YAKUTSK	21.45	343.5	4	42	-4							
ULAN-BATOR	25.69	295.5	5	27	0							
LANCHOW	30.41	271.7	6	8	-1							
LHASA	42.89	270.4	7	56	1							
SHILLONG	44.48	264.9	8	7K	-1							
COLLEGE	44.51	34.8	8	8	0							
ALMATA	47.08	294.8	8	27A	-1							
CHATRA	47.27	269.6	8	34	4							
FRUNSE	48.83	295.2	8	43	1							
MOULD BAY	51.56	17.6	9	5	2							
SVERDLOVSK	52.04	316.4	9	6K	0							
NEW DELHI	53.73	277.8	9	17A	-2							
RESOLUTE	57.60	15.4	9	45	-2							
APATITY	58.52	334.8	9	52K	-1							
QUETTA	60.34	285.2	10	5K	-1							
SODANKYLA	60.73	336.5	10	8K	0							
TROMSOE	61.30	340.6	10	11	-1							
KIRUNA	62.18	338.7	10	18	0							
KAJAANI	62.51	333.3	10	19	-1							
MOSCOW	63.78	322.4	10	28	-1							
PENTICTON	64.09	46.1	10	30	-1							

EDMONTON	64.88	39.9	10	36K	0								
UMEA	65.09	335.6	10	37	0								
NURMIJARVI	65.97	331.4	10	39	-4								
HELSINKI	66.09	331.0	10	43	-1								
SHASTA	67.53	55.0	10	52A	-1								
SKALSTUGAN	67.60	338.3	10	52	-1								
BLUE MTS.	68.01	49.0	10	56	0							11	32 PCP
MINERAL	68.22	54.9	10	57A	0								
UPPSALA	68.87	333.6	10	59	-2								
BAKURIANI	69.19	307.7	11	5K	2								
BRISBANE	69.70	170.2	11	5	-1								
SHIRAZ	70.81	292.8	11	12A	-1								
EUREKA	72.15	52.8	11	21	0								
GOTEBORG	72.39	334.6	11	21	-1								
FLAMING GRGE	74.98	48.2	11	38	1								
UINTA BASIN	75.29	48.8	11	40	1								
KRAKOW	75.45	325.8	11	41K	1								
NIEDZIKA	75.77	325.2	11	43	1								
LARAMIE	76.79	45.9	11	48	0								
COLLMBERG	77.21	330.2	11	50K	0								
PRUHONICE	77.68	328.6	11	54	2								
TONTO FOREST	78.41	54.2	11	58	2							12	8 PCP
KASPERSKE H.	78.74	328.6	11	59	1								
TUCSON	80.07	55.5	12	6	1								
STUTTGART	80.65	330.7	12	10	1								
ALBUQUERQUE	80.79	50.9	12	10	1								
ISOLA	85.35	329.6	12	34	2								
WICHITA MTS.	85.37	46.3	12	33	0							12	55
TAMANRASSET	104.24	319.5										18	2 PP

AUGUST 2 9.H 7.M 18.S EPICENTRE 56.18 -34.43 DEPTH= 36.KM

A= 0.46124 B=-0.31622 C= 0.82901 D=-0.5655 E=-0.8248
G= 0.6838 H=-0.4688 K=-0.5592 HT= -7.6

DEPTH OF FOCUS= 0.000R

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	
ABERDEEN	17.71	73.3									9	19	
SCHEFFERVLLE	18.29	279.3	4	11	-1								
DURHAM	18.58	80.6	4	16A	0								
BERGEN	21.07	62.0	4	45	2								
HALIFAX	21.71	250.2	4	48K	-1								
FOLINIERE	21.79	95.5	4	51	1								
DE BILT	23.33	83.3	5	7	2								
PARIS	23.43	92.7	5	6A	Q								
WITTEVEEN	23.85	80.7	5	11	1								
DOURBES	23.94	88.1	5	13	2								
SKALSTUGAN	24.08	52.9	5	13A	0								
GARCHY	24.60	95.3	5	19	1								
BENSBERG	24.96	84.4	5	22	1						6	22	
GOTEBORG	24.99	67.0	5	22	1								
CLERMONT-FD.	25.53	98.1	5	28	1						6	31	
TOLEDO	25.75	116.4	5	30A	1						6	11	PP
BESANCON	26.24	92.7	5	33	0								
STRASBOURG	26.50	88.7	5	36	0						5	58	
BREBEUF	26.60	263.0	5	36	0								
STUTTGART	27.24	87.1	5	42	0								
MALLE	27.35	80.1	5	41	-2								
JENA	27.42	81.4	5	44	0						6	55	
UMEA	27.57	51.4	5	42	-3								
OTTAWA	27.82	264.8	5	49	1								
COLLMBERG	28.02	79.8	5	48	-1						6	41	PP
MALAGA	28.05	121.2	5	41	-9						12	54	
KASPERSKE H.	29.45	83.3	6	2	0						6	40	
SODANKYLA	29.64	43.2	6	3	-1								
NURMIJARVI	30.40	57.0	6	9	-2								
KAJAANI	30.74	49.5	6	16	2								
TRIESTE	31.53	88.8	6	21	0								
LJUBLJANA	31.72	87.6	6	22	0								
APATITY	32.18	41.9	6	25A	-1	11	45	9					
MOULD BAY	35.23	335.6	6	53	0								
MESSINA	37.45	97.1				12	28	-29			8	38	PP

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CUMBERLAND	39.98	261.0	7	33	1	13	47	12			9	5 PP
EDMONTON	43.28	300.9	8	1	2							
TAMANRASSET	44.37	122.1	8	10A	2	14	41	1			8	41
TULSA	45.44	270.3	8	17K	0	14	54	-1			9	56 PCP
HUNGRY HORSE	46.77	295.8	8	21	-6							
WICHITA MTS.	47.87	271.5	8	36	0	15	42	12			10	4
GOLDEN	48.06	281.4	8	39	1							
PENTICTON	48.88	300.1	8	47	3							
COLLEGE	49.09	328.8	8	46	1							
FLAMING GRGE	49.38	285.4	8	49	1							
UINTA BASIN	49.91	285.0	8	52	0	16	8	10				
TRINIDAD	50.05	215.6	8	54	1							
BLUE MTS.	50.80	294.4	8	58	-1	16	16	6			10	14
KSARA	51.97	84.4	8	46	-21							
ALBUQUERQUE	52.08	277.9	9	5	-3							
CARACAS	52.12	222.0	9	8	0	16	34	5				
EUREKA	53.94	288.7	9	24	2							
TONTO FOREST	55.23	281.0	9	33	2				9	43	11	36 PP
TUCSON	56.52	279.1	9	40	-1							
WOODY	58.28	287.8	9	54	1							
SHIRAZ	64.29	74.8	10	32A	-2							
NEW DELHI	77.69	56.8	11	54A	0							
LA PAZ	77.74	213.0	11	57	2							
SOUTH POLE	146.00	180.0	19	36	1						26	4

AUGUST 2 9.H 13.M 41.S EPICENTRE 56.23 -34.60 DEPTH= 0.KM

A= 0.45965 B=-0.31713 C= 0.82955 D=-0.5679 E=-0.8231
G= 0.6828 H=-0.4711 K=-0.5584 HT= -7.7

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
SCHEFFERVLLE	18.18	279.0	4	14	-2							
DURHAM	18.67	80.6	4	22A	0							
BERGEN	21.13	62.1	4	49	0							
HALIFAX	21.64	249.8	4	53	-1							
DE BILT	23.42	83.3	5	12	0							
PARIS	23.52	92.6	5	13	0							
WITTEVEEN	23.93	80.7	5	17	0							
DOURBES	24.03	88.1	5	18	0							
SKALSTUGAN	24.12	53.0	5	19	0							
GARCHY	24.70	95.2	5	24	0							
BENSBERG	25.05	84.4	5	30	3							
GOTEBORG	25.05	67.1	5	30	2							
CLERMONT-FD.	25.63	98.0	5	34	1							
TOLEDO	25.86	116.3	5	36K	1	9	54	-10				
BESANCON	26.34	92.6	5	38	-2							
BREBEUF	26.51	262.8	5	41	0							
STRASBOURG	26.60	88.7	5	42	0							
KIRUNA	27.26	42.8	5	48	0							
UPPSALA	27.28	60.5	6	2	14							
STUTTGART	27.34	87.1	5	48	-1							
JENA	27.50	81.4	5	48	-2						6	57
UMEA	27.61	51.5	5	51	0							
COLLMBERG	28.11	79.8	5	56	0						6	22
MALAGA	28.16	121.1	5	58	2							
PAVIA	29.35	93.4									10	33
KASPERSKE H.	29.53	83.3	6	7	-2							
SODANKYLA	29.67	43.3	6	8	-2							
NURMIJARVI	30.45	57.1	6	18	1							
KAJAANI	30.78	49.5	6	19	-1							
TRIESTE	31.62	88.8	6	27	0							
LJUBLJANA	31.81	87.5	6	27	-2							
APATITY	32.20	41.9	6	30	-2							
KRAKOW	32.54	77.5									11	59
ROME	33.30	95.2	6	39	-3	11	59	-3			7	59 PP
MOULD BAY	35.15	335.5	6	59	1							
CUMBERLAND	39.89	260.8	7	39	2						9	13 PP
ATHENS	42.27	90.2									17	39
ISTANBUL UN.	43.08	82.8	8	4	0							
TAMANRASSET	44.48	121.9	8	14	-1	14	48	-3				
TULSA	45.34	270.1	8	21	-1	14	51	-12			10	0 PCP
WICHITA MTS.	47.77	271.3	8	40	-1	15	47	9			9	28
COLLEGE	49.00	328.7	8	51	0							
FLAMING GRGE	49.28	285.3	8	49	-4							

UINTA BASIN	49.80	284.8	8	57	0	16	13	7				10	19	
BLUE MTS.	50.69	294.2	9	5	1	16	25	7				10	19	
ALBUQUERQUE	51.98	277.8	9	14	1									
KSARA	52.06	84.3	9	23	9	16	39	2				12	19	PPP
EUREKA	53.83	288.6	9	30	3									
TONTO FOREST	55.12	280.9	9	36	-1				9	47				
TUCSON	56.41	278.9	9	45	-1									
WOODY	58.17	287.6	10	2	4									
SHIRAZ	64.36	74.7	10	38K	-2							11	17	
NEW DELHI	77.74	56.7	11	59	-2									
BRISBANE	150.69	346.5	19	5	6									

AUGUST 3 3.H 48.M 6.S EPICENTRE -7.64 156.86 DEPTH= 394.KM

A=-0.91151 B= 0.38952 C=-0.13202 D= 0.3930 E= 0.9196
G= 0.1214 H=-0.0519 K=-0.9912 HT= 6.8

DEPTH OF FOCUS= 0.057R

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	
HONIARA	3.54	120.5	1	9	1	2	1	0					
RABAUL	5.78	305.9	1	30	-1						2	37	
PORT MORESBY	9.76	259.0	2	18A	2	4	10	6					
LUGANVILLE	12.75	128.8	2	49	-2								
KOUMAC	14.72	151.6	3	9A	-3	5	59	13					
CHARTERS TS.	16.09	218.6	3	27	1	6	17	5					
NOUMEA	17.26	148.7	3	38	0	6	37	3					
BRISBANE	20.02	190.7	4	6	1	7	26	2					
DARWIN	26.06	257.5	5	1	0								
RIVERVIEW	26.59	190.7	5	6	0	9	12	1	6	29	11	22	*SS
CANBERRA	28.48	193.6	5	22K	-1				6	26	6	34	PP
AFIAMALU	31.41	104.1	5	48	0	10	24	-3					
TOOLANGI	31.53	197.4	5	48K	-1				7	8	8	30	PCP
ADELAIDE	31.90	208.9	5	52K	0								
KARAPIRO	34.58	153.5	6	15	0								
CHATEAU	35.63	154.7	6	25	1								
ROXBURGH	39.21	166.1	7	16	23								
BAGUIO CITY	43.13	303.8	7	24	-1								
MUNDARING	44.87	231.7	7	38	-1	13	42	-4					
MATUSIRO	47.30	339.5	7	56K	-1	14	18	-2					
LEMBANG	48.84	267.6	8	7	-2								
Y.-SAKHLINSK	55.85	348.3	9	1	1								
PETROPAVLOVK	60.44	1.2	9	29	-2								
CAPE HALLETT	65.13	175.5	10	2	0								
ULAN-BATOR	70.66	326.9	10	36K	0								
SHILLONG	71.23	300.2	10	39K	0								
YAKUTSK	72.57	347.0	10	46K	-1								
MIRNY	72.80	202.1	10	47	-1						12	15	
IRKUTSK	74.55	329.6	10	57K	-1								
CHATRA	75.63	300.1	11	6K	2								
TIKSI	81.24	351.3	11	33K	-1								
BYRD STATION	81.42	169.9	11	35	0						13	5	
SOUTH POLE	82.41	180.0	11	40	0						11	52	PP
COLLEGE	83.02	20.7	11	41	-2				13	12			
DEHRA DUN	84.26	301.5	11	49K	-1								
SITKA	84.61	30.6	11	52	1				13	26			
NEW DELHI	84.63	299.7	11	50K	-1								
PORT HARDY	86.88	38.1							13	39			
PARAISO	87.10	52.9	12	8	5								
BERKELEY	87.50	51.5	12	7A	2						13	40	
LICK	87.88	52.1	12	9A	2								
ALMATA	87.90	314.0	12	6K	-1								
SHASTA	87.97	48.7	12	8	1						13	44	
MINERAL	88.49	49.1	12	46A	36								
VICTORIA	88.91	40.9	12	10	-2				13	48			
PASADENA	90.10	55.7	12	17	0	22	57	23	13	53			
WARSAK DAM	90.35	304.1	12	33	15								
PENTICTON	91.53	40.6	12	23K	-1				14	0			
BLUE MTS.	92.38	45.2	12	28A	0	22	44	-10	14	0	24	18	SP
EUREKA	92.62	50.7	12	29	0						28	52	PKKP
BOULDER CITY	93.07	54.3	12	32	1				14	4			
TASHKENT	93.17	311.1	12	30K	-2								
QUETTA	93.71	299.8	12	33	-1				14	6			
HUNGRY HORSE	95.05	42.0	12	39	-1				14	16			

TONTO FOREST	95.79	56.3	12	45	2	22	44	4	14	23	29	33 PKKP
EDMONTON	95.93	37.0	12	43K	-1							
UINTA BASIN	97.60	50.3	12	53	1				14	29	29	27 PKKP
FLAMING GRGE	97.77	49.7	12	53	0				14	29		
SVERDLOVSK	99.75	326.3	12	59	-2							
WICHITA MTS.	106.26	56.2	13	33	777				15	9	17	39 PKP
TULSA	108.48	54.8									26	54 SP
SODANKYLA	111.68	341.5	17	47	-1							
KAJAANI	113.18	338.2	17	51	0							
KIRUNA	113.25	343.5	17	51	0							
UMEA	115.97	340.2	17	56	-1							
NURMIJARVI	116.37	335.9	17	57	0						37	4 *SSS
HELSINKI	116.44	335.4	17	57	-1							
CUMBERLAND	116.77	54.0	17	58	0						28	27 PKKP
SKALSTUGAN	118.65	342.8	18	2	0							
UPPSALA	119.53	337.7	18	2	-2							
JERUSALEM	120.80	302.4	18	13	7							
OTTAWA	121.20	40.9	18	1	-6							
BULAWAYO	122.10	240.6	18	10K	2							
BREBEUF	122.51	40.0	18	9A	0							
KARLSKRONA	122.82	335.4	18	11K	1							
GOTEBORG	123.14	338.4	18	10K	0							
UZHGOROD	124.07	325.2	19	14	62							
BROKEN HILL	124.31	246.8	18	14K	1							
AREQUIPA	126.51	116.9	18	20	3							
COLLMBERG	127.25	332.3	18	18	0						20	24 PP
PRUHONICE	127.39	330.2	18	19	0						20	45
VIENNA-H.	127.54	327.6	18	20	1							
JENA	128.16	332.7	18	19	-1						20	1
KASPERSKE H.	128.42	329.9	18	21K	0						19	58
LA PAZ	129.44	118.6	18	25	2						20	9
LJUBLJANA	129.89	326.3	18	23	0							
BENSBERG	130.05	335.4	18	24	0							
STUTTGART	130.74	332.1	18	26	1							
DOURBES	131.76	336.3	18	28	1							
GARCHY	134.61	335.0	18	33	1							
FOLINIERE	134.76	339.0	18	33	0							
CARACAS	136.69	82.8	18	27	-9						21	33 PP
BANDEIRA	137.49	238.2	18	32	-6				20	18		
TRINIDAD	142.12	82.5	18	43	-4							
ALICANTE	143.21	329.6	18	46K	-2							
TOLEDO	143.62	334.9	18	48K	-1							
ALMERIA	145.36	330.1	18	50K	-2						22	12 PP
MALAGA	146.39	332.2	18	56	2							
TAMANRASSET	148.61	301.8	18	58K	1				20	39	22	43 PP

AUGUST 3 10.H 21.M 31.S EPICENTRE 7.48 -35.81 DEPTH= 0.KM

A= 0.80411 B=-0.58022 C= 0.12939 D=-0.5851 E=-0.8109
G= 0.1049 H=-0.0757 K=-0.9916 HT= 6.8

SE= 1.99

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
M.BOUR	19.72	68.1	4	33	0	7	54	-17				
TRINIDAD	25.46	279.0	5	31	0							
FORT FRANCE	25.87	288.4	5	35	0	10	11	8				
ST. CLAUDE	26.70	290.9	5	43	1	10	21	4				
CARACAS	30.87	277.9	6	20A	0	11	26	2				
SAN JUAN	31.41	293.1	6	25	0							
PONTA DELGDA	31.48	15.5	6	26A	1	11	11	-22	6	35		
ANGRA DO HO.	31.98	12.7				11	50	9				
AVERROES	36.75	41.7	7	10	-1	13	1	6			8	33 PP
BOGOTA	38.14	268.0	7	23A	1	13	15	-1				
GALERAZAMBA	39.08	277.9	7	29	-1	13	33	3				
LISBON	39.30	33.7	7	34A	2	13	35	1			9	6 PP
CHINCHINA	39.64	268.8	7	37	2	13	41	2				
LA PAZ	39.88	233.1	7	38	1	13	40	-2				
MALAGA	40.80	39.9	7	46	2	13	59	3				
HOPE	41.18	288.7	7	52	4							
GRANADA	41.59	39.9	7	50K	-1	14	14	6			9	39 PP
ALMERIA	42.12	41.1	7	56A	1	14	21	5			9	46 PP
TAMANRASSET	42.52	64.4	7	59A	0	14	17	-5			9	42 PP
TOLEDO	43.00	36.4	8	3A	1	14	21	-8			9	42 PP
BALBOA HTS.	43.30	275.1	8	5	0	14	36	3				

HUANCAYO	43.82	244.0	8	9	0							
HALIFAX	44.19	331.5	8	13K	1							
ALICANTE	44.28	40.6	8	13A	0	14	51	4			10 2	PP
NANA	45.15	245.0	8	18	-2	14	45	-15				
ALGIERS UNI.	45.81	44.6	8	26A	1	15	16	7			10 17	PP
ANTOFAGASTA	45.86	226.5	8	23A	-2	14	58	-12			13 12	PP
SETIF	47.20	46.6	8	37	1	15	36	7			10 30	PP
PALISADES	47.54	329.7	8	39	0	15	37	3				
BARCELONA	47.67	38.7	8	40	0	15	38	2				
PHILADELPHIA	47.77	318.8	8	43	3	15	40	3			10 44	PP
COPIAPO	48.13	222.6	8	43	0						15 41	
WASHINGTON	48.50	316.6	8	44	-2	15	56	9				
COLUMBIA	49.28	308.9	8	52K	0	16	1	3				
PENNSYLVANIA	49.97	318.4	8	59	1							
BREBEUF	49.99	325.7	8	57K	-1	16	7	-1	9	7	18 40	SCS
CLERMONT-FD.	50.78	34.6	9	5	1	16	23	4				
FOLINIERE	50.79	29.6	9	4	0							
MORGANTOWN	50.82	316.1	9	5	1							
OTTAWA	51.12	324.5	9	7	1							
CUGLIERI	51.24	43.4				17	24	59				
LUANDA	51.50	107.5	9	8A	-1	16	26	-3			11 9	PP
GARCHY	51.66	33.0	9	10A	0	16	28	-3				
ISOLA	52.21	38.3	9	15	1	16	41	2				
MONACO	52.21	38.9	9	14	0	16	49	10				
PARIS	52.30	31.2	9	16A	1	16	55	15				
SCARBOROUGH	52.31	321.0	9	15K	0							
SANTA LUCIA	52.44	217.0	9	14A	-2	16	43	1			11 14	PP
KEW	52.70	27.2	9	18A	0	16	40	-5			11 14	PP
SAN SALVADOR	52.75	281.4	9	30	11							
ROSELEND	52.76	36.5	9	19	0						10 41	
LONDON ONT.	53.22	319.4	9	21K	-1							
BESANCON	53.25	34.5	9	22	0	16	53	0			11 31	
CUMBERLAND	53.34	309.1	9	23K	0	16	56	2			11 11	PP
BANDEIRA	53.53	114.6	9	25A	1	16	41	-16			11 13	PP
MERIDA	53.61	290.4	9	20	-5	16	59	1				
PAVIA	54.02	38.2	9	19A	-9						11 34	PP
WELSCHBRUCH	54.11	33.5	9	34	5							
DOURBES	54.18	31.0	9	28	-1	16	55	-11				
DURHAM	54.51	23.6	9	30K	-2	17	7	-3			11 3	PP
PRATO	54.61	40.4	9	33	1	17	22	11				
ROME	54.65	43.1	9	33A	0	17	19	7	9	41	11 39	PP
FELDBERG	54.74	34.8	9	33A	0							
STRASBOURG	54.99	34.0	9	35A	0	17	19	3			12 8	
MESSINA	55.42	48.4	9	37	-1	17	20	-2	9	50	11 40	PP
EBINGEN	55.45	34.9	9	38A	0							
AQUILA	55.46	43.0	9	39	1	17	29	6	9	49	11 46	PP
REGGIO CALA.	55.47	48.5	9	37A	-1	17	27	4				
KARLSRUHE	55.58	33.8	9	39	0	17	29	5				
RAVENSBURG	55.61	35.6	9	39A	0							
CONCEPCION	55.63	215.1	9	15	-25							
COMITAN	55.65	284.5	9	41	1	17	31	6			23 29	
TUBINGEN	55.69	34.6	9	40A	0							
DE BILT	55.70	29.3	9	40A	0	17	28	2				
PADOVA	55.80	39.0	9	41A	0	17	30	3	9	50	11 54	PP
STUTTGART	55.93	34.4	9	41	-1	17	30	1	9	49	12 53	PPP
HEIDELBERG	55.96	33.6	9	41A	-1							
BENSBERG	56.01	31.3	9	42A	0	17	37	7			11 48	PP
ABERDEEN	56.09	21.4	9	44A	1	17	33	2			18 11	PS
MUNSTER	56.83	30.5	9	42	-6							
WITTEVEEN	56.86	29.3	9	49	0							
TRIESTE	57.09	39.5	9	50A	0	17	50	6				
TARANTO	57.44	46.3	9	52	-1	17	42	-7				
LJUBLJANA	57.75	39.3	9	55	0	17	56	3			11 57	PP
JENA	58.33	33.2	9	58	-1	17	57	-4			12 11	PP
CHEB	58.34	34.3	9	59	0	17	55	-6				
KASPERSKE H.	58.57	35.8	9	59A	-1							
ZAGREB	58.57	40.1	9	59A	-2	18	6	2				
HALLE	58.83	32.7	10	1	-1	18	8	1				
COLLMBERG	59.29	33.3	10	4	-2	18	15	2				
PRAGUE	59.50	35.1	10	7	0	18	15	-1			12 30	PP
TITOGRAD	59.52	44.8	10	7	0	18	23	7			12 18	PP
PRUHONICE	59.52	35.2	10	5	-2	18	16	0				
VERA CRUZ	59.58	287.8	10	5	-3						17 57	
VIENNA-H.	59.83	37.6	10	9A	0	18	22	2			12 20	PP
HOUSTON	59.97	299.9	10	11	1							
PATRAS	60.08	50.1	10	12	1							
OAXACA	60.12	285.3	10	17	6	18	29	5			25 17	
BRATISLAVA	60.24	38.0	10	10	-2	18	25	0				
SKOPJE	60.91	45.9	10	20	3	18	35	1				

BERGEN	61.10	21.9	10	16	-2	18	37	1			10	43	
BELGRADE	61.13	42.5	10	18A	0	18	41	4			12	34	PP
TULSA	61.42	306.8	10	18K	-2	18	33	-7			14	11	PP
ATHENS	61.53	50.8	10	21A	0	18	48	6			12	32	PP
RACIBORZ	61.68	36.3	10	22	0	18	47	3			12	35	PP
LAWRENCE	61.70	310.3	10	20	-2								
TIMISOARA	61.95	41.7	10	23	-1	18	50	3					
GOTEBORG	62.17	26.7	10	24A	-1								
CHORZOW	62.23	36.3	10	26A	0	18	55	4	10	35	12	39	PP
KONGSBERG	62.30	24.1	10	26A	0	18	54	2			12	44	PP
SOFIA	62.46	45.5	10	28	1	18	45	-9			12	44	PP
TACUBAYA	62.48	287.9	10	26	-1	18	49	-5			12	49	
SKALNATE PL.	62.55	37.8	10	23	-5	19	6	11			14	35	PPP
KRAKOW	62.69	36.8	10	29	0	19	1	4			19	7	PS
KARLSKRONA	63.04	29.4	10	33A	2						39	29	PKPPKP
WICHITA MTS.	63.45	305.0	10	31K	-3	19	3	-3			12	47	PP
WARSAW	64.17	34.9	10	39A	1	19	8	-7			13	1	PP
CAMPULUNG	64.36	43.2	10	39	-1								
BUCHAREST	64.86	44.3	10	44	1	19	29	5			20	46	
LWOW	65.09	38.1	10	44	0	19	28	2					
SKALSTUGAN	65.67	21.4	10	48A	0						39	32	PKPPKP
UPPSALA	65.81	26.4	10	47A	-2	19	34	-1					
FOCSANI	65.94	43.2	10	59	9								
BACAU	65.96	42.2	10	52	2	19	29	-8					
ISTANBUL UN.	66.17	48.4	10	50	-1	19	32	-8					
GUADALAJARA	66.38	289.2	10	51	-2						19	57	
HERMANUS	66.62	132.4	10	56	2	19	48	3			15	44	PCS
MANZANILLO	67.33	287.5									31	17	
BROKEN HILL	67.37	109.0	10	59A	0								
UMEA	68.80	23.2	11	7A	-1	20	1	-10			13	33	PP
BULAWAYO	69.03	114.8	11	7A	-2								
CHIHUAHUA	69.15	297.7	11	33	23	20	41	26					
NURMIJARVI	69.25	27.4	11	9A	-2	20	13	-3			13	53	PP
HELSINKI	69.27	27.8	11	10	-1								
GOLDEN	69.54	309.5	11	12	0								
ALBUQUERQUE	69.90	304.4	11	14	0								
LARAMIE	69.91	311.2	11	16	1								
JERUSALEM	69.98	59.0	11	16	1								
SIMFEROPOL	70.57	45.0	11	18A	-1	20	34	2			13	56	PP
KSARA	70.67	56.9	11	20A	1	20	23	-10			13	52	PP
KIRUNA	70.80	19.5	11	19A	-1	20	36	1					
TROMSOE	71.24	17.6	11	22	-1				11	32	11	37	PP
PULKOVO	71.66	29.2	11	25A	0	20	46	1					
KAJAANI	71.91	24.4	11	26A	-1	20	47	0			14	4	PP
FLAMING GRGE	72.73	310.4	11	31	-1								
SODANKYLA	72.73	21.1	11	31A	-1	20	59	2			14	6	PP
UINTA BASIN	72.81	309.8	11	32K	0	20	59	1			14	20	PP
TUCSON	73.39	301.3	11	35	0								
PRICE	73.71	309.0	11	38A	1								
CHILEKA	73.77	108.7	11	37K	-1								
TONTO FOREST	73.82	303.4	11	39	1	21	17	8	11	51	11	57	PCP
CHANGALANE	73.95	120.0	11	38A	-1	21	12	1	11	49	12	3	PCP
GLEN CANYON	74.18	306.2	11	41	1								
BOZEMAN	74.37	315.2	11	41	0	20	50	-25					
MOSCOW	74.54	34.2	11	42	0	21	20	3			14	22	PP
SALT LAKE C.	74.58	310.1	11	43	1	21	18	0					
RESOLUTE	74.92	346.3	11	44K	0								
APATITY	75.26	21.8	11	46A	0	21	28	3			14	47	PP
DUGWAY	75.28	309.5	11	47	1								
BUTTE	75.46	315.5	11	47	0	21	27	0					
ARGENTINE I.	75.54	192.0	11	47	-1								
EDMONTON	76.61	323.0	11	53K	-1								
HUNGRY HORSE	76.62	317.8	11	53	-1	21	37	-3					
BOULDER CITY	76.77	305.1	11	56	1						14	50	PP
EUREKA	77.69	308.7	12	1	1						39	20	PKPPKP
BANFF	77.77	320.7	11	59	-1								
TIFLIS	78.06	49.0	12	3	1	22	1	5			12	20	PCP
BLUE MTS.	78.74	314.2	12	5K	-1	22	6	3			14	56	PP
GORIS	79.23	51.3	12	10	2	22	15	7					
PASADENA	79.53	303.3	12	10	0	22	15	4			15	11	PP
PENTICTON	80.34	318.7	12	14K	0								
MOULD BAY	81.23	346.1	12	20A	1								
PRIEST	81.49	305.4	12	25K	5								
MINERAL	82.00	309.7	12	23K	0								
SEATTLE	82.16	317.1	12	22	-2	22	35	-4					
LICK	82.20	306.6	12	25K	1								
SHASTA	82.58	310.1	12	25	-1								
BERKELEY	82.66	307.2	12	27K	1	22	47	3			15	37	PP
PARAISO	82.85	305.7	12	24	-3								

CALISTOGA	82.86	308.0	12	29A	2					
VICTORIA	82.87	318.0	12	27K	0					
KHEYS	83.30	9.5	12	31K	1				15	54 PP
UKIAH	83.33	308.5	12	32	2					
TEHERAN	83.42	54.9	12	32A	2	22	59	8	15	44 PP
N-LAZARVSKYA	84.30	165.8	12	34A	-1	22	56	-4	17	33 PPP
SHIRAZ	84.91	60.9	12	39A	1	23	5	-1	15	56 PP
PORT HARDY	85.34	320.4	12	41K	1					
TANANARIVE	86.17	109.5	12	49	5	23	41	23		
SVERDLOVSK	87.31	33.2	12	52K	2	23	25	-4		
ASHKABAD	88.72	52.1	12	57	1	23	42	0		
SITKA	88.92	327.4	12	59	2	23	29	-15	23	49 S
COLLEGE	92.39	336.7	13	12	-1	23	45	-30	16	54 PP
TASHKENT	96.28	47.0	13	32A	1				19	20 PPP
QUETTA	97.18	58.3	13	37	2	25	5	53		
SOUTH POLE	97.43	180.0	13	36	0				19	54
KHOROG	99.02	50.3	13	44	0					
FRUNSE	99.61	44.4	13	47A	1	25	16	51	26	51 PS
WARSAK DAM	100.01	53.6	13	49	1					
MAWSON	100.19	157.4	13	50	1	24	27	-1	17	54 PP
SEMIPALATNSK	100.33	35.8	13	50	0				17	56 PP
TIKSI	100.40	4.9				25	19	50	17	48 PP
LAHORE	102.95	55.3	14	2	1					
BOMBAY	104.97	68.2							18	36 PP
POONA	106.00	68.4	15	45	777				27	21
NEW DELHI	106.22	57.5	14	17A	777	24	53	-3	18	41 PP
DEHRA DUN	106.37	55.5	17	50	777				27	55
SCOTT BASE	108.69	184.9	17	57	777				18	45
HYDERABAD	110.52	68.3							20	23
KODAIKANAL	111.28	76.0							19	20
IRKUTSK	111.45	25.0	14	40	-236				19	3 PP
MIRNY	111.55	160.4	18	48	12				19	17 PP
MADRAS	113.24	72.5							19	20
CAPE HALLET	113.30	188.4							19	29
HAWAII V.OB.	114.67	295.3							19	55 PP
VISHAKHAPTNM	114.88	66.6							19	37
BOKARO	115.09	59.4	19	48A	65				29	20
CHATRA	115.10	55.9	19	30	47	26	1	29	20	8 PP
ULAN-BATOR	115.78	26.9	18	48	4					
KIPAPA	116.45	298.3				25	45	8	19	55 PP
HONOLULU	116.56	298.2				25	46	9	19	54 PP
CALCUTTA	117.76	59.8							20	3
PETROPAVLOVK	118.49	350.1	18	52	3					
SHILLONG	119.47	55.2	18	52	1				19	45
CHITTAGONG	120.77	58.6							20	20
PORT BLAIR	125.39	70.0							20	57
Y.-SAKHLINSK	125.72	1.2	19	5	2				21	0 PP
MATUSIRO	135.85	6.9	19	18	-5	26	11	-21		
AFIAMALU	136.32	257.8							21	25 PP
ROXBURGH	136.35	205.7							40	35 SS
TUKUBASAN	136.36	4.8	19	23A	-1				22	1 PP
WELLINGTON	136.76	214.0	19	21	-3				22	5 PP
ABUYAMA	137.10	10.4	19	27A	2					
CHATEAU	137.68	216.9	19	27	1					
HONG KONG	138.27	44.1	19	16	-11	27	39	63	22	15 PP
KARAPIRO	138.49	218.4	19	29	2					
TANGERANG	142.69	90.4	19	32K	-3					
DJAKARTA	142.89	90.4	19	31	-4				22	59
LEMBANG	143.72	91.4	19	35K	-2				28	20
MUNDARING	144.34	136.9	19	37	-1					
BAGUIO CITY	146.69	44.4	19	43	1					
TOOLANGI	150.03	182.1	19	51	4				42	47 SS
CANBERRA	151.95	188.4	19	53	3					
ADELAIDE	152.19	170.3	19	58K	8				43	57 SS
RIVERVIEW	153.00	192.8	19	54	2				23	44 PP
KOUMAC	156.61	234.2	20	7	11					
BRISBANE	158.59	201.3	20	1	2				30	8
HONIARA	164.29	261.8	20	5	0				25	17 PP
CHARTERS TS.	167.31	188.9	20	10	3					
RABAUL	171.42	291.9	20	11	1					
PORT MORESBY	176.51	236.8	20	13	1				21	58 PP

AUGUST 3 20.H 25.M 58.S EPICENTRE -30.80-177.86 DEPTH= 0.KM

A=-0.85985 B=-0.03209 C=-0.50954 D=-0.0373 E= 0.9993
G= 0.5092 H= 0.0190 K=-0.8604 HT= 1.6

SE= 2.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
RAOUL ISLAND	1.55	358.1	0	31	2								
KARAPIRO	8.96	215.7	2	16	2								
CHATEAU	9.97	211.0	2	37	9	4	19	-3					
WELLINGTON	12.03	207.6	3	52	56	4	58	-14					
NOUMEA	16.38	297.4	4	0	7	7	10	14					
AFIAMALU	17.72	19.8	4	5	-5	7	10	-16					
ROXBURGH	17.75	210.8	4	8	-3								
PORT VILA	18.09	312.8	4	45	30								
KOUMAC	19.03	298.2	4	28	2								
BRISBANE	25.84	270.1	5	36	1	11	18	75					
RIVERVIEW	26.31	255.2	5	41A	1						10	35	
CANBERRA	28.06	251.9	5	56A	0								
TOOLANGI	30.92	247.4	6	21	0								
CHARTERS TS.	33.98	279.7	6	48	0	12	14	1					
ADELAIDE	36.49	251.7	7	9K	0								
PORT MORESBY	38.90	295.7	7	28	-1	13	58	30					
DARWIN	50.65	279.5	9	1	-2								
HAWAII V.OB.	54.46	26.5	9	32	0								
BYRD STATION	54.51	169.5	9	33	1								
HONOLULU	55.17	22.6				17	22	2					
KIPAPA	55.31	22.6	9	39	1	17	22	1					
MUNDARING	55.47	250.4	9	36	-3								
SOUTH POLE	59.37	180.0	10	7	0	18	24	9			10	44	SP
MAWSON	71.97	200.6	11	26A	-2								
LEMBANG	73.25	272.0	11	33K	-2						14	23	PP
TANGERANG	74.42	272.1	11	40K	-2								
BAGUIO CITY	75.51	299.4	11	45	-3								
MATUSIRO	78.64	325.3	12	3	-3	22	44	41					
ABUYAMA	78.67	322.5	12	4A	-2								
PARAISO	84.66	41.9	12	42	5								
PRIEST	85.52	43.0	12	42A	0								
PASADENA	85.68	45.9	12	43	1								
LICK	85.78	41.6	12	44A	1								
BERKELEY	85.80	40.9	12	45K	2	23	12	-4					
CALISTOGA	86.16	40.2	12	46A	1								
SHASTA	87.72	38.8	12	51	-1								
MINERAL	87.90	39.5	12	46	-7								
BOULDER CITY	88.94	46.3	13	0	2								
TUCSON	89.20	51.3	13	0	1						30	36	PKKP
TONTO FOREST	90.16	49.4	13	6	2						30	35	PKKP
EUREKA	90.51	43.1	13	6	0						30	29	PKKP
GLEN CANYON	91.59	47.2	13	12	1								
SEATTLE	92.66	33.9	13	14	-1								
BLUE MTS.	93.28	38.3	13	18	0						17	13	PP
ALBUQUERQUE	93.74	51.3	13	21	1								
UINTA BASIN	94.88	45.5	13	26	0						17	26	PP
PENTICTON	95.10	34.0	13	27	0								
FLAMING GRGE	95.35	45.1	13	28	0								
GOLDEN	97.15	47.9	13	37	1								
COLLEGE	98.20	12.5	13	39	-2								
WICHITA MTS.	99.03	55.0	13	44	0								
MORGANTOWN	114.53	57.2									20	23	
RESOLUTE	117.59	17.3	18	47A	-2								
BREBEUF	120.74	52.5	18	54	-1								
CHILEKA	124.02	219.1	19	1	0								
QUETTA	124.89	287.2	19	4K	1								
SCHEFFERVLLE	126.49	42.2	19	5K	-1								
HALIFAX	127.53	55.2	19	8K	0								
BROKEN HILL	128.37	213.2	19	12K	3								
SHIRAZ	136.75	281.8	19	25K	0						22	55	SKP
LWIRO	138.46	222.5	19	30	2								
APATITY	138.84	342.4	19	22	-7								
TEHERAN	138.87	290.4	19	22	-7								
TROMSOE	139.97	351.0	19	30	-1								
SODANKYLA	140.61	345.4	19	25	-7								
KIRUNA	141.40	349.0	19	27	-6								
KAJAANI	143.02	341.6	19	31	-5						23	13	SKP
UMEA	145.03	346.1	19	37A	-3						23	16	PP
SKALSTUGAN	146.58	351.8	19	43A	1								
NURMIJARVI	146.73	339.8	19	41	-2						23	20	SKP

HELSINKI	146.90	339.2	19	42	-1						
UPPSALA	149.14	344.8	19	44	-3						
BERGEN	150.32	356.8	19	54	6						
KONGSBERG	150.71	352.2	19	54A	5						
KSARA	151.40	285.0	19	57	7						
JERUSALEM	151.77	280.6	19	59	8						
GOTEBORG	152.26	348.6	19	57A	6						
KARLSKRONA	152.94	343.4	19	58A	6						
COPENHAGEN	154.08	346.6	20	2	8				24	17	PP
DURHAM	155.90	5.3	20	23	27						
KRAKOW	156.59	330.3	19	58	1				20	26	PKP2
COLLMBERG	157.99	341.6	19	59	0				20	32	PKP2
HALLE	158.08	343.4	19	59	0				20	32	PKP2
PRAGUE	158.65	337.9	20	21	21						
PRUHONICE	158.69	337.5	19	59	-1				20	35	
JENA	158.70	343.4	19	58	-2				20	33	PKP2
KEW	159.27	4.3	20	38	38						
VIENNA-H.	159.47	332.1	20	2	1						
BENSBERG	159.52	350.9	19	57	-4				20	37	
KASPERSKE H.	159.75	337.9	20	0A	-1				24	17	PP
DOURBES	160.63	355.2	20	4	2				20	45	PKP2
STUTTGART	161.25	345.2	20	2	-1				20	47	PKP2
FOLINIERE	161.94	5.6	20	4	1						
LJUBLJANA	161.98	331.1	20	4	1						
TRIESTE	162.62	331.8	20	8	4						
GARCHY	163.53	357.8	20	5	0				20	57	
ROSELEND	164.73	348.0	20	59	53				21	57	
ISOLA	166.99	345.1							21	8	PKP2
TOLEDO	169.63	27.4	20	12K	3				21	24	PKP2
TAMANRASSET	171.46	201.5	20	12A	1				25	16	PP

AUGUST 4 7.H 8.M 45.S EPICENTRE -9.01 114.42 DEPTH= 91.KM

A=-0.40836 B= 0.89946 C=-0.15564 D= 0.9106 E= 0.4134
G= 0.0643 H=-0.1417 K=-0.9878 HT= 6.7

DEPTH OF FOCUS= 0.009R

SE= 2.30

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LEMBANG	7.07	287.4	1	42A	-1	3	9	7			3	21	SS
DJAKARTA	8.03	290.0	1	56	0	3	33	7			3	53	SS
TANGERANG	8.22	289.6	1	58A	0	3	36	6			3	56	
DARWIN	16.47	103.2	3	50	3						4	5	
MUNDARING	22.90	176.1	4	55	-1	8	54	-1					
MANILA	24.44	15.7	5	3	-8						5	20	
BAGUIO CITY	25.99	13.6	5	26	0								
HONG KONG	31.12	359.6				11	18	8					
PORT MORESBY	32.31	93.3	6	21	-1								
CHARTERS TS.	32.66	113.2	6	26	1	11	20	-14					
ADELAIDE	34.09	142.9	6	35	-3								
TOOLANGI	39.93	140.3	7	27	0								
BRISBANE	40.54	121.9	7	31	-1						17	30	
CANBERRA	41.00	135.0	7	36	1								
RIVERVIEW	41.82	131.7	7	45A	3						16	57	SS
MATUSIRO	50.53	24.9	8	54	3						18	33	
NEW DELHI	51.85	317.4	9	0A	-1								
DEHRA DUN	52.44	319.7	9	5	0								
WARSAK DAM	59.01	318.8	9	52	0								
MIRNY	59.29	189.8	9	51	-3								
QUETTA	59.97	312.5	9	58	-1	18	18	16					
KHOROG	61.22	321.8	10	8	1	18	17	-1					
KARAPIRO	61.80	128.2	10	13	2				10	35			
CHATEAU	62.05	129.6	10	28	15						11	14	
ALMATA	62.20	329.8	10	13A	-1								
FRUNSE	63.07	328.1	10	20A	0	18	44	2					
TANANARIVE	65.32	253.3	10	38K	4								
VANNOVSKAYA	70.26	315.7	11	7	2								
SHIRAZ	70.83	305.6	11	9A	0	20	2	-13			21	12	SKS
YAKUTSK	71.81	7.5	11	13	-1								
KIZYL-ARVAT	72.12	316.1	11	18A	2								
SCOTT BASE	73.74	169.9	11	26	0								
TEHERAN	74.10	311.1	11	28	0	20	56	4					
CHILEKA	77.51	255.9	11	48A	1								
SVERDLOVSK	79.00	333.1	11	56K	1	21	47	2					

CHANGALANE	79.14	244.9	11	56	0			12	18	11	58 PCP
GORIS	79.24	313.1	12	0	3	21	51 3				
SOUTH POLE	81.05	180.0	12	1	-5					18	18
TIFLIS	81.12	314.7	12	9	2	22	11 4				
BULAWAYO	83.04	250.7	12	18K	1						
KSARA	85.57	305.1	12	25	-4			12	50		
N-LAZARVSKYA	85.67	198.9	12	31K	1						
BYRD STATION	87.03	171.9	12	34	-2						
MOSCOW	90.04	326.6	12	52	1					13	38
KAJAANI	96.60	333.8	13	23	2						
HELSINKI	97.47	329.7	13	23	-2						
NURMIJARVI	97.65	330.1	13	26	1	23	55 2			31	23 SS
COLLEGE	101.40	25.6	13	42	0					14	50
PRUHONICE	103.19	319.2								17	32 PP
KASPERSKE H.	103.85	318.4								17	35 PP
TAMANRASSET	110.81	290.9								18	43 PP
EDMONTON	121.48	31.4	18	46	3						
MINERAL	121.49	48.0	18	45K	2						
BLUE MTS.	123.00	41.7	18	49	3	25	45 8			37	37 SS
HUNGRY HORSE	123.58	36.8	18	51	4						
BUTTE	125.53	38.8	18	55	4			19	14		
PASADENA	125.78	54.3	18	56	5			19	5		
EUREKA	125.87	47.4	18	55	4						
BOZEMAN	126.64	38.5	18	55	2						
BOULDER CITY	127.88	51.1	18	58	3			19	20		
UINTA BASIN	130.07	43.9	19	4	5					22	19 SKP
TONTO FOREST	131.19	51.9	19	0	-1			19	25	22	24 SKP
TUCSON	132.22	54.3	18	58	-5					22	27 SKP
GOLDEN	133.21	42.6	19	8	3						
SCHEFFERVLLE	134.31	1.0								22	34
ALBUQUERQUE	134.61	49.0	19	13	5			19	34	22	36 SKP
LAWRENCE	140.05	36.9	19	20	2						
WICHITA MTS.	140.41	44.8	19	17	-1					22	47 SKP
TULSA	141.62	41.1	19	19	-2			19	44	22	55
FAYETTEVILLE	142.53	39.6	19	20	-2					22	57 PKS
OTTAWA	142.71	11.8								22	58
BREBEUF	142.99	9.4	19	23	0					22	58
HALIFAX	144.49	357.6	19	27	1						
PENNSYLVANIA	146.52	17.0	19	34	5						
PALISADES	147.29	11.7	19	37	7						
CUMBERLAND	147.87	31.6	19	36	5					23	7 SKP
BLACKSBURG	148.88	23.3	19	40	7						
COLUMBIA	151.36	27.5	19	43	6						
LA PAZ	154.53	174.3	19	48	7					20	17
HUANCAYO	156.94	155.0	19	52	8						

AUGUST 4 11.H 43.M 16.S EPICENTRE 35.51 140.49 DEPTH= 39.KM

A=-0.62943 B= 0.51900 C= 0.57832 D= 0.6362 E= 0.7715
G=-0.4462 H= 0.3679 K=-0.8158 HT= -0.1

DEPTH OF FOCUS= 0.001R

SE= 3.76

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
TYOSI	0.36	54.8	0	9A	-2	0	17	-1				
HONGO	0.62	288.5	0	10K	-4	0	20	-4			0	12 PP
TOKYO C.M.O.	0.63	285.5	0	10K	-4	0	19	-5				
YOKOHAMA	0.69	263.2	0	11K	-4	0	20	-5				
KAKIOKA	0.76	340.5	0	14K	-2	0	20	-7				
MERA	0.80	222.6	0	12K	-4	0	22	-6				
MITO	0.86	358.8	0	16K	-1	0	34	5				
KUMAGAYA	1.10	305.4	0	19K	-1	0	40	6				
UTUNOMIYA	1.15	334.1	0	19	-2	0	36	1				
OSIMA	1.18	231.1	0	16K	-5	0	27	-9				
AJIRO	1.23	248.3	0	17A	-5	0	32	-5				
TITIBU	1.24	292.4	0	21	-1	0	40	2				
MISIMA	1.32	253.1	0	19A	-4	0	35	-5				
HUNATU	1.41	269.9	0	22	-2	0	41	-1				
MAEBASI	1.45	307.8	0	24K	-1							
ONAHAMA	1.47	12.8	0	26	1	0	51	8				
KOHU	1.58	276.2	0	24A	-3	0	44	-2				
SHIRAKAWA	1.62	352.3	0	26	-1	0	52	5				
OIWAKE	1.77	297.9	0	29	0	0	58	7				
SHIZUOKA	1.80	253.0	0	27	-3	0	47	-5				

OMAESAKI	2.08	244.6	0	32	-2	0	56	-3			
MATUSIRO	2.11	299.6	0	33A	-1	0	59	-1			
IIDA	2.17	270.9	0	33	-2	1	6	5			
MATUMOTO	2.18	290.4	0	35	0	1	4	3			
NAGANO	2.19	302.5	0	35	0	1	14	13			
HUKUSIMA	2.23	359.5	0	38	2	1	14	12			
TAKADA	2.40	311.8	0	35	-3	1	4	-3			
HAMAMATU	2.41	251.6	0	35	-3	0	59	-8			
HATIDYOZIMA	2.48	193.8	0	30K	-9	0	56	-13			
NIIGATA	2.67	334.7	0	52	10	1	29	15			
TAKAYAMA	2.71	284.5	0	46	3	1	22	7			
YAMAGATA	2.73	357.6	0	44K	1	1	24	9			
SENDAI	2.77	6.7	0	44	1	1	21	5			
NAGOYA	2.90	264.2	0	44	-1	1	19	0			
TOYAMA	2.92	294.9	0	45	-1	1	28	8			
ISINOMAKI	2.98	12.6	0	45K	-2	1	27	5			
GIHU	3.04	268.9	0	48	1	1	32	9			
AIKAWA	3.08	324.9	0	49	1						
KANAZAWA	3.28	289.1	0	59	8	1	45	16			
TU	3.36	257.1	1	2	10						
KAMEYAMA	3.36	259.8	0	58	6	1	49	18			
SAKATA	3.42	351.3	1	4	11						
WAZIMA	3.44	303.8	0	54	1						
HIKONE	3.47	267.2	0	53	0	1	34	0			
HUKUI	3.51	280.0	1	6	12	1	53	18			
TSURUGA	3.61	273.4	0	53	-2	1	42	5			
MIZUSAWA	3.64	7.8	1	0	4	1	51	13			
OWASE	3.82	249.0	1	5	7	2	1	18			
NARA	3.91	259.1	1	1	1	1	50	5			
KYOTO	3.93	264.2	1	0	0	1	44	-1			
ABUYAMA	4.08	262.4	0	58A	-4						
OSAKA	4.16	259.5	1	10	7	1	59	8			
MAIZURU	4.16	270.9	1	11	8						
AKITA	4.21	355.9	1	10	6	2	6	13			
MORIOKA	4.21	7.1	1	7	3	2	2	9			
MIYAKO	4.29	15.4	1	7	2						
SIOMISAKI	4.41	243.5	1	13	6	2	24	26			
KOBE	4.43	260.7	1	21	14	2	14	16			
TOYOOKA	4.63	271.8	1	15	5	2	13	10			
SUMOTO	4.73	257.3	1	24	13	2	14	8			
HATINOHE	5.07	9.0	1	17	1	2	20	6			
TOTTORI	5.15	271.8	1	30	13	2	43	27			
AOMORI	5.30	2.4	1	26	7						
TAKAMATU	5.43	259.2	1	26	5	2	36	13			
MUROTO	5.69	248.4	1	34	9	2	7	-23			
YONAGO	5.83	271.2	1	47	20	2	54	21			
SAIGO	5.86	278.8							1	49	
MATSUE	6.06	271.5	1	44	14	3	25	46			
HAKODATE	6.29	1.8	1	34	1	2	56	11			
MATUYAMA	6.57	257.5	1	47	10	3	6	14			
MORI	6.58	0.5							1	49	
HIROSIMA	6.72	262.5	1	39	0						
URAKAWA	6.86	14.4	1	41	0	2	59	0			
HAMADA	6.92	267.3				3	22	22	2	18	
UWAZIMA	6.95	253.1							3	32	
HIROO	7.11	17.2	1	41	-4						
SAPPORO	7.57	4.8	2	9	18	3	35	18			
OOITA	7.68	255.3				3	58	39	2	25	
OBIHIRO	7.69	15.0	1	52	-1						
SIMONOSEKI	8.03	261.5	1	54	-3						
KUSIRO	8.05	20.9	1	54	-4	3	22	-6			
ASAHIGAWA	8.38	9.4	1	59	-3						
KUMAMOTO	8.55	254.5	2	8	3	3	47	6			
HUKUOKA	8.56	259.9	1	39	-26	3	25	-16			
SAGA	8.72	257.9							4	15	
NEMURO	8.74	25.2	2	15	8	3	39	-7			
NAGASAKI	9.23	255.5	2	13	-1	4	21	23			
Y.-SAKHLINSK	11.62	7.6	2	44A	-3						
PETROPAVLOVK	21.70	30.6	4	52	2						
YAKUTSK	27.38	349.0	5	42	-2						
DEHRA DUN	51.91	283.1	9	7	0						
NEW DELHI	53.30	281.5	9	14A	-4						
CHARTERS TS.	55.57	173.4	9	2	-32						
WARSAK DAM	55.57	290.0	9	32	-2						
SVERDLOVSK	55.80	319.1	9	34K	-2						
MOULD BAY	58.20	16.1	9	52A	-1						
QUETTA	60.70	287.8	10	7	-3						
BRISBANE	63.63	167.8	10	26	-4						
APATITY	63.77	335.8	10	29K	-2	19	11	10	26	38	SSS

RESOLUTE	64.26	14.1	10	33	-1						
SODANKYLA	66.08	337.2	10	44A	-2						
TROMSOE	66.91	341.1	10	49	-2						
KAJAANI	67.63	334.0	10	54A	-1						
KIRUNA	67.67	339.2	10	54A	-2						
PENTICTON	69.78	43.4	11	9	0						
UMEA	70.37	336.0	11	10	-2						
EDMONTON	70.90	37.5	11	15A	0						
NURMIJARVI	70.93	331.9	11	14A	-2						
HELSINKI	71.03	331.5	11	14	-2						
SHIRAZ	71.96	293.8	11	20A	-2	20	33	-6			
BAKURIANI	71.98	308.6	11	21	-1						
SHASTA	72.61	52.2	12	26	60						
HUNGRY HORSE	73.40	42.1	11	31	1						
BLUE MTS.	73.51	46.5	11	32A	1						
UPPSALA	73.99	333.8	11	32	-2						
BUTTE	75.57	43.5	11	44	1						
EUREKA	77.38	50.4	11	54	1						
PASADENA	79.04	55.9	12	4	2						
KRAKOW	79.94	325.7	12	6A	-1					12	17 PCP
KARAPIRO	79.97	152.5	12	6	-1						
BOULDER CITY	80.18	52.8	12	10	2						
FLAMING GRGE	80.51	46.2	12	6	-4						
UINTA BASIN	80.79	46.7	12	13	1						
COLLMBERG	82.04	329.8	12	17K	-1					15	21 PP
PRUHONICE	82.39	328.2	12	18	-2					15	28
LARAMIE	82.47	44.0	12	21	1						
JENA	82.91	330.3	12	21	-1					13	8
KASPERSKE H.	83.44	328.1	12	24A	-1					15	18 PP
TONTO FOREST	83.52	52.3	12	27	1						
GOLDEN	83.65	45.1	12	28	2						
TUCSON	85.08	53.7	12	34	1						
LJUBLJANA	85.34	325.6	12	34	-1						
STUTTGART	85.52	330.1	12	35	-1						
ALBUQUERQUE	86.13	49.3	12	40	1						
WICHITA MTS.	91.00	45.0	13	2	0					13	22
TULSA	91.72	42.5	13	6	1						
CUMBERLAND	97.26	36.3	13	31	1						
LA PAZ	148.24	60.8	19	46	7						

AUGUST 4 12.H 7.M 26.S EPICENTRE -4.25 -81.13 DEPTH= 57.KM

A= 0.15370 B=-0.98538 C=-0.07353 D=-0.9881 E=-0.1541
G=-0.0113 H= 0.0727 K=-0.9973 HT= 7.1

DEPTH OF FOCUS= 0.004R

SE= 3.36

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	#PP M	#PP S	SUPP. M	SUPP. S
NANA	8.79	151.3	2	6	-1	3	49	4				
HUANCAYO	9.65	143.8	2	19	0							
CHINCHINA	10.68	31.1	2	42	9	4	45	13				
BOGOTA	11.29	38.8	2	43	2	4	56	10				
BALBOA HTS.	13.21	6.8	3	5	-1							
AREQUIPA	15.40	142.7	3	35	0							
LA PAZ	17.64	134.6	4	4	1	7	28	13				
CARACAS	20.36	43.9	4	29K	-5	8	14	0				
ANTOFAGASTA	21.93	152.9	4	42A	-8							
TRINIDAD	24.60	52.9	5	14	-2							
SAN JUAN	26.92	32.9	5	36	-2							
COLUMBIA	38.04	0.1	7	14	0							
BERMUDA	39.64	22.1	7	26	-2							
CUMBERLAND	39.84	354.4	7	28	-1	13	31	2	7	48	9	4
BLACKSBURG	41.25	0.9	7	39	-2							
FAYETTEVILLE	41.95	344.1	7	47A	0							
WICHITA MTS.	42.10	338.4	7	48	0						9	41 PP
TULSA	42.24	342.2	7	40A	-9	14	9	4				
LAWRENCE	44.94	344.4	8	11	0							
PALISADES	45.52	7.7	8	17	2	15	18	26				
ALBUQUERQUE	45.69	330.6	8	19	2							
TUCSON	45.97	324.3	8	19	0				8	29		
TONTO FOREST	47.71	325.8	8	35	2				8	44	10	3 PCP
GOLDEN	49.09	335.2	8	44	1							
OTTAWA	49.66	5.0	8	45	-3							

GLEN CANYON	49.87	327.9	8	52	3					9	9			
BREBEUF	49.98	6.9	8	48A	-2									
LARAMIE	50.54	336.2	8	55	1									
BOULDER CITY	50.95	324.6	9	0	2									
UINTA BASIN	51.45	332.3	9	3	2	16	24	8				20	6	
PASADENA	51.75	320.5	9	14	10									
FLAMING GRGE	51.86	332.9	9	5	1									
SALT LAKE C.	52.89	330.9	9	12	0									
EUREKA	54.06	326.9	9	22	1									
PRIEST	54.58	320.8	9	19A	-6									
PARAISO	55.79	319.9	9	31	-2									
LICK	55.95	321.3	9	28K	-6									
BOZEMAN	56.38	335.2	9	39	1									
BERKELEY	56.66	321.5	9	48K	8	17	40	14				21	58	SS
CALISTOGA	57.34	322.0	9	37A	-7									
MINERAL	57.83	324.1	9	47K	-1									
SHASTA	58.52	324.0	10	0K	7									
BLUE MTS.	58.60	330.5	9	53	0							12	16	PP
SCHEFFERVLLE	60.05	9.5	10	1A	-2									
BANFF	62.55	336.4	10	20	0									
PENTICTON	62.92	332.8	10	23A	0									
SEATTLE	63.03	330.0	10	19	-4									
EDMONTON	63.48	339.1	10	24A	-2									
BYRD STATION	77.95	186.4	11	56	3									
AVERROES	78.81	55.0	12	0A	2									
VALENTIA	81.69	36.2	12	14	1									
MALAGA	81.95	52.2	12	17	2							23	26	PS
GRANADA	82.66	51.8	12	19K	1									
TOLEDO	82.84	49.1	12	20A	1							29	16	SS
MOULD BAY	83.32	351.4	12	22	0									
COLLEGE	84.14	336.8	12	26	0									
SOUTH POLE	85.78	180.0	12	37	3							13	7	
FOLINIERE	87.02	40.8	12	41	1									
DURHAM	87.43	34.8	12	43A	1									
KEW	87.58	38.2	12	44A	1	23	23	5						
TAMANRASSET	88.54	67.2	12	48A	1							16	5	PP
CLERMONT-FD.	89.00	44.2	12	50	0							13	13	
DOURBES	90.49	40.0	12	57	0									
BENSBERG	92.19	39.2	13	5	1									
STUTTGART	93.43	41.5	13	11	1									
JENA	94.98	39.4	13	18	1							17	37	
HALLE	95.22	38.8	13	21	3									
COLLMBERG	95.88	39.0	13	22	1							17	23	PP
AQUILA	96.19	48.0										27	34	
KASPERSKE H.	96.27	41.2	13	24	1							16	44	
PRUHONICE	96.89	40.3	13	26	0							17	0	
CHARTERS TS.	127.55	240.8	19	3	4									
SHIRAZ	129.46	54.7	19	5A	3							22	25	SKP
QUETTA	140.34	45.8	19	20	-3									
MUNDARING	140.38	203.4	19	26	3									
WARSAK DAM	140.99	37.3	19	27	3									
DEHRA DUN	147.46	34.8	19	40	5									
NEW DELHI	148.23	38.1	19	39K	3									
CHATRA	154.91	25.3	19	50	4									

AUGUST 4 23.H 54.M 15.S EPICENTRE -17.66-178.93 DEPTH= 517.KM

A=-0.95328 B=-0.01777 C=-0.30158 D=-0.0186 E= 0.9998
G= 0.3015 H= 0.0056 K=-0.9534 HT= 5.2

DEPTH OF FOCUS= 0.076R

SE= 1.08

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
AFIAMALU	7.83	62.5	1	54	-2	3	23	-5				
PORT VILA	12.15	267.8	2	42	2	4	55	5				
LUGANVILLE	13.53	277.0	2	56	1							
NOUMEA	14.49	249.1	3	6	2	5	36	3				
KOUMAC	16.13	257.0	3	22	1	6	10	7				
KARAPIRO	20.76	192.4	4	6	1							
CHATEAU	21.99	191.5	4	15	-1							
HONIARA	22.08	289.0	4	16	-1							
WELLINGTON	24.15	191.7	4	35	-1	8	13	-5			6	45
BRISBANE	27.81	244.6	5	7	-1	9	12	-3				
ROXBURGH	29.42	197.0	5	21	-1							

RIVERVIEW	31.24	233.2	5	38A	0	10	7	-1	7	7	12	56	SS
RABAUL	31.30	291.9	5	36	-2								
PORT MORESBY	33.94	279.5	6	0A	0	10	48	-2					
TOOLANGI	36.94	230.3	6	26	1	11	37	2			8	3	PP
ADELAIDE	41.34	236.9	7	1A	0	12	35	-4					
HONOLULU	43.77	28.6	7	21	1	13	15	2			11	39	*SPP
KIPAPA	43.92	28.7	7	21	0								
CAPE HALLETT	55.01	184.0	8	45	1								
SCOTT BASE	60.63	183.4	9	23	1								
WILKES	66.17	204.6	9	56	-1	18	4	-1	11	49			
BYRD STATION	67.57	170.7	10	5	-1								
BAGUIO CITY	68.53	296.2	10	10	-1								
LEMBANG	72.22	268.4	10	32	-1								
SOUTH POLE	72.45	180.0	10	34	0						12	26	PP
MIRNY	73.19	204.7	10	38	-1	19	24	-1	12	33			
HONG KONG	76.54	298.9	10	58A	1						14	9	PP
BERKELEY	76.69	42.8	10	59A	1						24	21	
PASADENA	77.43	47.9	11	2	0	20	14	4					
MINERAL	78.53	41.0	11	8K	0								
BOULDER CITY	80.71	47.7	11	21	2				13	16	14	31	PP
EUREKA	81.69	44.2	11	24	0	20	57	3	13	19	14	39	PP
TUCSON	81.89	52.6	11	27	2				13	22			
TONTO FOREST	82.48	50.6	11	30	2				13	24	37	57	PKPPKP
BLUE MTS.	83.66	39.0	11	34	0	21	7	-6	13	29	29	43	PKKP
PENTICTON	84.82	34.4	11	40	0								
COLLEGE	85.65	12.8	11	42	-2	21	28	-4	13	39			
ALBUQUERQUE	86.34	51.7	11	48	1				13	43			
UINTA BASIN	86.41	45.8	11	48	0	21	27	-12	13	44	15	17	PP
FLAMING GRGE	86.81	45.3	11	50	0				13	47			
BUTTE	87.13	39.7	11	51	0				13	53			
HUNGRY HORSE	87.41	37.2	11	52	0						38	26	PKPPKP
BANFF	88.02	34.3	11	56	1								
EDMONTON	90.30	33.1	12	4A	-2								
WICHITA MTS.	92.25	54.4	12	15	0	22	37	6	14	11	15	59	PP
TULSA	94.80	54.0	12	27	1				14	29	29	25	SS
SHILLONG	96.74	294.6	12	35A	0								
MOULD BAY	100.21	12.1	12	49	-2								
CHATRA	101.15	294.7	17	4	249								
CUMBERLAND	102.73	56.5				22	49	-2	14	49	17	21	PP
LA PAZ	103.87	112.5									18	32	
MORGANTOWN	107.85	53.3	18	32A	777								
NEW DELHI	110.15	294.6	17	32A	0								
PALISADES	112.59	52.3									27	32	
QUETTA	119.22	295.1	17	51	2						19	16	
TRINIDAD	119.25	87.5	17	51	1								
SVERDLOVSK	121.16	326.4	17	53K	0								
APATITY	126.00	345.3	18	2A	-1								
VANNOVSKAYA	126.50	304.4	18	4	1								
CHANGALANE	126.86	215.4	18	6	2								
TROMSOE	126.89	352.3	18	4	0								
SODANKYLA	127.66	347.8	18	5K	-1						20	37	SKP
KIRUNA	128.35	350.8	18	6	-1						21	30	PKS
KAJAANI	130.20	345.0	17	55	-16						20	47	SKP
SHIRAZ	131.73	294.2	18	14	0						20	31	PP
UMEA	132.05	348.7	18	13	-1						20	51	SKP
TEHERAN	132.11	302.4	18	15	1				20	41	20	53	PP
PULKOVO	132.93	340.3	18	15	-1						21	46	PKS
CHILEKA	132.94	227.2	18	16	0								
MOSCOW	132.99	332.6	18	17	1						21	49	PKS
SKALSTUGAN	133.48	353.1	18	16	-1						20	55	SKP
BULAWAYO	133.72	217.0	18	4	-13						18	19	
NURMIJARVI	133.98	344.0	18	9	-9	24	45	7			21	47	PKS
HELSINKI	134.19	343.6	18	6	-12						20	59	SKP
GORIS	135.26	308.7	18	20	0								
TIFLIS	135.70	312.2	18	21	0						21	1	PP
UPPSALA	136.19	348.0	18	9	-13						21	5	SKP
BAKURIANI	136.60	312.7	18	14	-9								
KONGSBERG	137.61	353.6	18	15	-9								
GOTEBORG	139.21	351.0	18	29	2								
WARSAW	142.09	340.0	18	30	-3								
DURHAM	142.91	2.5	18	32A	-3								
KRAKOW	144.31	339.1	18	36	-1						19	25	
CHORZOW	144.42	340.2	18	37	0						19	4	
UZHGOROD	144.61	335.5	18	37	0								
WITTEVEEN	144.64	354.1	18	38	1								
VALENTIA	144.66	12.1	18	37	0								
RACIBORZ	144.85	340.8	18	38	0						19	50	
KSARA	144.96	304.1	18	37	-1				20	47	22	0	PP
COLLMBERG	145.12	346.9	18	39	1						22	6	PP

HALLE	145.15	348.1	18 39	1			21 58	PP
BANDEIRA	145.46	201.2	18 40K	1	20 48		18 42	PKP2
DE BILT	145.49	355.5	18 41	2				
JENA	145.77	348.2	18 39	0	20 47		22 3	PP
PRUHONICE	145.98	344.4	18 40	1			20 46	
KEW	146.25	1.6	18 40	0				
LWIRO	146.26	236.8	18 41	1				
CHEB	146.41	346.8	18 41	1				
BENSBERG	146.43	353.0	18 40	0	20 48		20 1	
BRATISLAVA	146.87	340.2	18 40	-1				
KASPERSKE H.	147.01	344.8	18 41A	0	20 50		19 5	
VIENNA-H.	147.03	341.1	18 42	1			19 27	
DOURBES	147.52	355.8	18 44	3			18 48	PKP2
HEIDELBERG	147.74	350.6	18 42	0				
KARLSRUHE	148.17	350.8	18 49	7			21 4	
STUTTGART	148.26	349.7	18 43	0	20 49			
BELGRADE	148.43	333.2	18 44	1			25 53	PPP
TUBINGEN	148.53	349.8	18 44	1				
SOFIA	148.68	327.5	18 45	2			18 50	PKP2
STRASBOURG	148.68	351.4	18 45K	2	20 56		19 17	
EBINGEN	148.89	349.7	18 45	2				
FOLINIERE	148.95	2.0					20 54	
RAVENSBURG	149.16	348.7	18 44	0				
ZAGREB	149.30	339.4	18 52	8				
FELDBERG	149.33	350.8	18 45	1				
LJUBLJANA	149.57	341.3	18 45	0			18 51	PKP2
TRIESTE	150.16	342.0	18 46	1			18 52	PKP2
BESANCON	150.22	353.3	18 47	1	20 58		19 18	
PADOVA	150.90	344.2	19 0	13			19 25	PKP2
ATHENS	151.66	320.1	18 55A	7				
ROSELEND	151.67	351.8	18 49	1			19 51	
CLERMONT-FD.	151.92	356.9	18 51	3			21 5	
ISOLA	153.09	350.5	18 59	9				
TOLEDO	157.42	10.3	18 58K	2			23 10	PP
MALAGA	160.41	13.2	19 0	1	25 57 43			
ALMERIA	160.63	8.6	18 48	-11			23 1	
AVERROES	162.66	24.5	19 3K	2			21 57	*SPKP
TAMANRASSET	173.41	321.3	19 11A	3			24 8	PP

AUGUST 5 15.H 39.M 5.S EPICENTRE -60.65 154.02 DEPTH= 13.KM

A=-0.44282 B= 0.21576 C=-0.87026 D= 0.4380 E= 0.8990
G= 0.7823 H=-0.3812 K=-0.4926 HT= -9.1

SE= 2.96

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
CAPE HALLETT	13.29	158.2	3 8	-3	5 35	-5		
MONOWAI	16.92	34.4	3 59	1				
ROXBURGH	17.69	37.7	4 9	2	7 29	7		
SCOTT BASE	17.77	171.2	4 6	-2				
MOORLANDS	18.71	344.1	4 20	0				
TARRALEAH	18.95	342.5	4 34	11				
WILKES	19.87	234.8	4 32	-2	8 11	-1		5 6 PP
WELLINGTON	23.20	42.7	5 8A	1	9 25	10		
TOOLANGI	23.73	343.0	5 13	1	9 33	9		5 50 PP
CHATEAU	25.33	41.8	5 28	0				
KARAPIRO	26.48	40.6	5 38	-1				
MIRNY	26.74	231.1	5 48	7	10 23	8	6 13	
RIVERVIEW	26.90	354.7	5 40	-2				6 39 PPP
ADELAIDE	27.53	332.0	5 46	-2	10 35	8		11 39 SS
SOUTH POLE	29.51	180.0	6 8	2				12 32
BYRD STATION	30.43	159.9	6 15	1				
BRISBANE	33.27	358.0	6 38	-1	12 2	4		
MAWSON	36.87	219.7	7 10A	0	12 55	1		
MUNDARING	37.88	301.9	7 15	-3	13 11	2		
NOUMEA	39.30	18.3	7 32	2				
KOUMAC	40.71	14.8	7 43K	1				
CHARTERS TS.	40.90	348.8	7 42	-1	13 54	0		
HONIARA	51.31	7.5	9 5A	-1	16 25	2		
PORT MORESBY	51.41	351.3	9 3	-3	16 12	-13		
AFIAMALU	52.88	43.2			16 49	4		
RABAUL	56.33	357.8	9 43	0				
LEMBANG	63.89	306.8	10 36	2				
SANTA LUCIA	79.38	143.3	12 4	-3	22 13	7		
BAGUIO CITY	81.37	327.7	12 15	-3	22 27	0		

KIMBERLEY	81.79	223.4	12	22K	2						
HONG KONG	88.75	323.6				24	47	68			
CHILEKA	89.81	237.4	12	58	-1						
HONOLULU	90.35	43.8				23	43	-11	29	22	SS
KIPAPA	90.49	43.8				23	45	-10	29	35	SS
BOGOTA	113.43	126.1							29	14	PS
WOODY	119.04	68.4	18	57	9						
BERKELEY	119.30	64.4							30	19	SP
SHIRAZ	120.92	276.1	19	13	21						
TONTO FOREST	121.43	75.3	19	0	7				29	5	PKKP
CARACAS	121.56	130.8	19	31	38				32	40	PPS
EUREKA	123.45	68.1	19	7	10						
UINTA BASIN	127.08	72.2	19	2	-2				21	8	PP
BLUE MTS.	127.12	63.1	19	4	0				38	17	SS
WICHITA MTS.	127.93	85.3	19	8	2				19	56	
GOLDEN	128.58	75.9	19	16	9						
TULSA	130.25	86.7							22	35	SKP
HUNGRY HORSE	131.26	62.5	19	13	1						
KSARA	132.50	264.6	19	17	3	26	58	36	21	40	PP
COLLEGE	132.53	29.5	19	13	-1						
LAWRENCE	132.92	84.6	19	24	9						
TAMANRASSET	136.28	224.2	19	18	-3				22	4	PP
MORGANTOWN	140.95	97.5	19	50	20						
ATHENS	141.72	256.6							20	55	
SOFIA	145.57	261.3	19	39	1						
MESSINA	145.74	248.1	19	49	11				22	1	
MOULD BAY	146.93	26.0	19	37	-3						
SETIF	148.42	233.5	19	55	12						
AQUILA	150.04	250.3	19	57	12				50	11	SSS
AVERROES	150.07	212.3	19	47	2						
ROME	150.11	248.7	20	15	30				37	15	
LJUBLJANA	152.30	256.6	20	3	15						
TRIESTE	152.37	255.2	20	4	15				43	15	
RESOLUTE	152.38	32.4	19	59	10						
MALAGA	152.39	219.6	20	2	13				21	15	PP
KRAKOW	152.41	268.3	19	56	7				20	9	PKP2
GRANADA	152.56	221.3	20	16K	27						
KASPERSKE H.	154.91	260.6	20	19	27				20	41	
PRUHONICE	155.00	263.1	20	21	29				43	25	SS
PRAGUE	155.12	263.1	20	25	33						
TOLEDO	155.15	223.1	20	5	13				23	53	PP
HELSINKI	155.35	291.4	19	58	5						
KAJAANI	155.49	301.4	20	18	25				21	7	
NURMIJARVI	155.62	292.1	19	59	6				24	0	PP
COLLMBERG	156.61	264.0							20	29	PKP2
SODANKYLA	156.67	309.1	20	29	35						
STUTTGART	156.74	255.2							20	29	PKP2
JENA	157.07	261.9	20	23	28				21	11	
BESANCON	157.19	248.4							20	41	PKP2
STRASBOURG	157.32	253.1	20	28	33				33	55	PP
SCHEFFERVLLE	157.74	86.9	19	59	3						
UMEA	158.61	298.6							44	16	SS
KIRUNA	159.08	309.7	20	38	41				44	18	SS
DOURBES	159.87	252.1	20	19	21						
DURHAM	165.75	256.4	19	50	-14						

AUGUST 6 13.H 36.M 33.S EPICENTRE 57.09 -33.77 DEPTH= 13.KM

A= 0.45378 B=-0.30345 C= 0.83786 D=-0.5559 E=-0.8313
G= 0.6965 H=-0.4657 K=-0.5459 HT= -7.9

SE= 2.67

	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	
SCORESBY SD.	14.37	16.1	3	44	19								
GODHAVN	15.00	332.3	3	31A	-2								
ABERDEEN	17.12	76.4	4	0A	-1						7	25	
DURHAM	18.09	83.7	4	13	0	7	42	10			4	34	PP
SCHEFFERVLLE	18.52	277.0	4	17A	-1								
KEW	20.18	91.9	4	35	-2	8	24	6					
BERGEN	20.33	64.3	4	36	-3								
JERSEY	20.43	99.2	5	0A	20								
FOLINIERE	21.54	98.5	4	50	-1								
HALIFAX	22.38	248.9	4	58	-1								
KONGSBERG	22.60	65.2	5	3	1	9	14	10					

DE BILT	22.88	85.9	5	2	-2	9	17	8			
PARIS	23.13	95.4	5	3	-4						
SKALSTUGAN	23.24	54.7	5	8	0						
WITTEVEEN	23.36	83.2	5	10	1						
DOURBES	23.57	90.8	5	9	-2	9	28	7			
GOTEBORG	24.31	69.1	5	17	-1						
GARCHY	24.34	97.9	5	17	-2						
LISBON	24.47	128.1	5	24A	4						
BENSBERG	24.52	86.9	5	21	1	9	44	6	10	54	
WELSCHBRUCH	25.45	92.6	5	37	5						
TROMSOE	25.76	39.9	5	32	0						
TOLEDO	25.86	119.0	5	33K	0	9	32	-28	6	2	PP
BESANCON	25.94	95.1	5	33	-1				6	3	
STRASBOURG	26.13	91.1	5	37A	1	10	12	7	7	12	PP
HEIDELBERG	26.19	88.7	5	37	1						
KIRUNA	26.32	44.0	5	36A	-1	10	14	6			
UPPSALA	26.47	62.3	5	44A	5	10	11	1			
FELDBERG	26.67	92.2	5	42	2						
UMEA	26.72	53.0	5	41	0	10	18	4			
HALLE	26.85	82.3	5	41	-1	10	16	0			
STUTTGART	26.85	89.5	5	44	2	10	22	5			
JENA	26.94	83.7	5	42	-1	10	17	-1	6	32	PP
BREBEUF	27.08	261.9	5	46	2						
ROSELEND	27.26	97.3	5	52	6						
COLLMBERG	27.51	82.0	5	47	-1	10	30	3			
RAVENSBURG	27.61	90.9	5	47	-2						
GRANADA	28.22	121.9	6	UK	5				8	27	
MALAGA	28.23	123.6	5	54	-1	10	51	12			
KEVO	28.57	39.4	5	49	-9	10	43	-1	12	13	SS
RESOLUTE	28.62	330.9	5	58A	0						
SODANKYLA	28.73	44.4	5	58	-1						
PRAGUE	28.94	83.2	6	3	2						
PAVIA	28.96	95.7	6	3	2	11	33	42			
KASPERSKE H.	28.99	85.4	6	1A	-1						
PRUHONICE	29.05	83.2	6	1	-1	10	55	3			
NURMIJARVI	29.60	58.6	6	6	-1	11	3	2	6	57	PP
AVERROES	29.83	131.6	6	9	0				7	8	PP
KAJAANI	29.87	50.8	6	10	1				7	11	PP
PALISADES	30.29	255.3	6	15	2	11	17	5			
RACIBORZ	30.97	80.5	6	17	-2						
TRIESTE	31.16	90.9	6	21A	0	11	34	9	8	22	
APATITY	31.26	43.0	6	22A	0	11	33	6	13	23	SS
WARSAW	31.33	75.1	6	29	7	11	32	4	7	29	PP
LJUBLJANA	31.33	89.6	6	21	-1				9	15	PCP
BRATISLAVA	31.46	84.3	6	22	-1						
ALGIERS UNI.	31.76	113.9	6	26	0	11	40	5	7	22	
KRAKOW	31.91	79.4	6	27	0	11	37	0			
PENNSYLVANIA	32.55	259.1	6	35	2						
ROME	32.94	97.3	6	36	0	11	40	-13	7	42	PP
AQUILA	33.13	95.9	6	38	0	11	58	2	13	57	SS
SETIF	33.39	111.8	6	44	4						
WASHINGTON	33.49	255.9	6	39	-2						
UZHGOROD	34.00	79.9	6	45	-1						
KHEYS	34.55	16.8	6	50	0						
MOULD BAY	34.55	335.1	6	51A	1						
BELGRADE	35.34	86.5	6	57K	0				13	0	PCP
MESSINA	37.22	99.0	6	44	-29	12	31	-28	8	6	PP
MOSCOW	37.87	60.9	7	18	0	13	10	1			
COLUMBIA	39.27	254.6	7	30	0						
CUMBERLAND	40.48	260.6	7	40	0	13	56	7	9	12	PP
ATHENS	41.82	91.8	7	51A	0						
ISTANBUL UN.	42.52	84.3	7	58	1						
EDMONTON	43.12	300.5	8	2K	0						
TAMANRASSET	44.56	123.6	8	12	-1	14	50	2	10	0	PP
FAYETTEVILLE	44.79	268.8	8	12	-3	14	40	-12			
BANFF	45.56	299.2	8	20	-1						
TULSA	45.80	270.0	8	22	-1	15	10	4			
HUNGRY HORSE	46.70	295.4	8	30	0						
BOZEMAN	47.03	290.8	8	34	1						
SVERDLOVSK	47.40	48.1	8	36	0						
WICHITA MTS.	48.21	271.2	8	42	0	15	46	6	9	45	
GOLDEN	48.24	281.1	8	42	0						
COLLEGE	48.50	328.6	8	44	0						
PENTICTON	48.74	299.8	8	46K	0						
FLAMING GRGE	49.49	285.1	8	52	0						
BAKURIANI	49.80	72.9	8	55A	1						
UINTA BASIN	50.03	284.7	8	56	0	16	11	5	10	54	PCP
TIFLIS	50.47	72.1	9	0	0	16	20	8			
BLUE MTS.	50.76	294.1	9	1	-1	16	21	5	11	0	PP

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SALT LAKE C.	50.90	286.7	9	2	-1							
TIKSI	50.99	7.0	9	11K	7	16	37	18				
TRINIDAD	51.00	215.9	8	52	-12							
PRICE	51.20	285.0	12	15A	190							
KSARA	51.52	85.6	9	6	-2	16	34	8			11	7 PP
KIROVOBAD	52.04	71.9	9	9	-2	16	41	8				
ALBUQUERQUE	52.32	277.7	9	14	0						11	8 PP
GORIS	52.89	72.9	9	18A	0	16	55	10				
CARACAS	53.05	222.3	9	26	7	16	53	6				
EUREKA	53.99	288.6	9	26	0							
TONTO FOREST	55.41	280.9	9	36	0				9	45	11	34 PP
BOULDER CITY	56.02	284.9	9	41	0							
MINERAL	56.21	293.2	9	41A	-1							
SHASTA	56.34	294.1	9	36	-7							
TUCSON	56.73	279.0	9	45	-1							
CALISTOGA	58.00	292.6	9	59K	4							
TEHERAN	58.35	72.2	9	57	0	18	6	8				
BERKELEY	58.43	291.8	9	58A	0	18	7	8			12	5 PP
LICK	58.52	290.9	9	59A	1							
PRIEST	58.94	289.3	10	6A	5							
PASADENA	59.18	286.0	10	7	4	18	15	6				
PARAISO	59.67	290.7	10	1	-5							
SHIRAZ	63.70	75.7	10	33A	0						11	40
IRKUTSK	65.71	26.8	10	44	-2							
PETROPAVLOVK	69.78	352.0	11	9	-3							
ULAN-BATOR	70.37	26.9	11	16	0							
QUETTA	70.66	64.4	11	16	-1							
Y.-SAKHLINSK	76.22	2.5	11	50A	0							
NEW DELHI	76.88	57.5	11	53A	-1							
HUANCAYO	76.95	221.8	11	55	1							
LA PAZ	78.71	213.5	12	3	-1							
CHATRA	82.80	50.6	12	28A	3							
SHILLONG	85.85	47.4	12	41	0							
MATUSIRO	86.48	6.5	12	36	-8							
KIPAPA	88.97	309.6									25	3
HONOLULU	89.11	309.6									24	47
MAWSON	142.95	140.8	19	29	-4							
BYRD STATION	144.88	197.6	19	36	-1							
SOUTH POLE	146.91	180.0	19	41	1							
MUNDARING	147.48	52.3	19	43	2							
MIRNY	153.98	133.1	19	59	8							

AUGUST 7 4.H 33.M 41.S EPICENTRE 53.99 142.25 DEPTH= 21.KM

A=-0.46691 B= 0.36154 C= 0.80702 D= 0.6122 E= 0.7907
G=-0.6381 H= 0.4941 K=-0.5905 HT= -6.9

SE= 1.56

	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
OKHA	0.60	137.2	0	11	-3	0	17	-7				
UGLEGORSK	4.92	181.4	1	13	-2						2	53
Y.-SAKHLINSK	6.99	177.3	1	42	-2							
PETROPAVLOVK	9.82	89.0	2	22	-1							
YAKUTSK	10.42	325.6	2	30	-2							
MATUSIRO	17.67	190.8	4	6	-1							
TIKSI	18.64	346.7	4	18A	-1						7	54
IRKUTSK	22.65	281.2	5	2	1							
ULAN-BATOR	22.91	269.1	4	32	-32							
COLLEGE	35.29	44.0	6	55	-1							
KHEYS	36.30	344.0	7	4	0						8	41 PPP
SEMIPALATNSK	37.10	290.5	7	10	-1							
MOULD BAY	40.29	21.5	7	38	1							
ALMATA-2	42.75	293.0	7	58A	0							
ALERT	43.17	4.6	8	2	1							
SVERDLOVSK	43.82	308.2	8	5K	-1							
FRUNSE	44.60	284.3	8	13	0							
RESOLUTE	46.15	18.0	8	25A	0							
SHILLONG	46.64	253.1	8	28A	-1							
APATITY	47.78	330.6	8	37K	-1							
KEVO	48.01	334.9	8	38	-2							
CHATRA	48.37	258.6	8	42A	0							
TASHKENT	48.62	286.3	8	45	1							
SODANKYLA	49.81	332.8	8	53	-1						10	13 PCP
KHOROG	49.90	281.0	8	55	1							

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TROMSOE	50.03	337.6	8	54	-1		9 21	
KIRUNA	51.06	335.5	9	2A	-1			
KAJAANI	51.89	329.5	9	9	0		10 20	PCP
WARSAK DAM	52.31	277.8	9	12	-1			
NEW DELHI	52.90	268.7	9	14A	-3			
UMEA	54.24	332.4	9	26A	-1		10 28	PCP
MOSCOW	54.47	317.7	9	27A	-1			
KIPAPA	55.23	101.6	8	59	-35		15 53	
HONOLULU	55.27	101.7	9	4	-30		15 53	
NURMIJARVI	55.53	327.9	9	34	-2			
HELSINKI	55.69	327.5	9	37	0			
EDMONTON	56.06	44.4	9	40	0			
PENTICTON	56.25	51.2	9	41	0			
SKALSTUGAN	56.49	335.7	9	40	-3			
QUETTA	57.76	278.0	9	50	-2			
UPPSALA	58.18	330.7	9	54A	-1			
HUNGRY HORSE	59.48	48.8	9	46	-18			
FROBISHER	60.21	15.2	10	7A	-2			
BLUE MTS.	60.59	53.4	10	11	-1		39 25	PKPPKP
SHASTA	61.17	59.8	10	15A	-1			
TIFLIS	61.46	302.3	10	12	-6			
GOTEBORG	61.58	332.2	10	17A	-1			
MINERAL	61.83	59.5	10	18A	-2			
KARLSKRONA	61.86	329.4	10	20A	0			
TEHERAN	62.48	293.5	10	25	1			
CALISTOGA	62.60	61.5	10	25A	0			
LICK	64.07	61.8	10	31A	-4			
LWOW	64.28	320.7	10	36	0			
PARAISO	64.45	63.0	10	41	4			
EUREKA	65.31	56.5	10	43	0			
PRIEST	65.49	62.0	10	45K	1			
KRAKOW	65.58	323.3	10	44A	-1		10 51	12 22
SHIRAZ	66.44	288.3	10	48	-2		10 56	11 1 *SP
WOODY	66.76	61.1	10	51	-1			
COLLMBERG	66.82	328.1	10	52	0			
HALLE	66.97	328.8	10	53	0			
FLAMING GRGE	67.31	51.2	10	56	0			
PRUHONICE	67.47	326.4	10	56	-1			
DURHAM	67.57	338.3	11	36	39			
JENA	67.58	328.7	10	57	0			12 13
UINTA BASIN	67.71	51.7	10	58	0			13 27 PP
VIENNA-H.	68.35	324.4	11	2	0			
KASPERSKE H.	68.52	326.6	11	3A	0			12 27
LARAMIE	68.73	48.5	11	5	1			
BENSBERG	68.86	331.4	11	5	0			12 20
SCHEFFERVLLE	68.94	17.5	11	4A	-2			
GOLDEN	70.13	49.3	11	13	0			
STUTTGART	70.19	329.0	11	13	0			
KEW	70.35	336.2	11	14	0			
DOURBES	70.35	332.6	11	16	2			
STRASBOURG	70.82	329.9	11	17	0			12 31
LJUBLJANA	70.89	324.3	11	24	6			12 31
TONTO FOREST	71.71	56.7	11	23	0			14 10 PP
PARIS	72.09	333.3	11	25	0			
BESANCON	72.54	330.4	11	27	0			
FOLINIERE	72.89	335.2	11	29	-1			
GARCHY	73.33	332.3	11	32A	0			
ALBUQUERQUE	73.50	53.0	11	33	0			
TUCSON	73.57	57.7	11	33	-1			
ROSELEND	73.76	329.3	11	35	0			
CHARTERS TS.	73.85	176.1	11	34	-1			
AQUILA	74.51	323.2	11	40	1			
OTTAWA	75.84	26.6	11	45	-2			
WICHITA MTS.	77.26	47.5	11	54	-1			12 53
TULSA	77.44	44.9	11	55A	-1	20 49 -55		25 14 SS
PENNSYLVANIA	79.49	29.8	12	6	-1			
CUMBERLAND	81.70	37.6	12	18	-1			
MALAGA	85.18	333.7	12	33	-3			
TOOLANGI	91.23	177.4	13	5	0			
TAMANRASSET	94.94	320.6	13	21	-1			17 6 PP
LA PAZ	135.77	44.1	19	23	4			
BYRD STATION	144.04	162.9	19	31	-3			
N-LAZARVSKYA	152.66	213.3	19	54K	6			

AUGUST 8 2.H 14.M 55.S EPICENTRE 54.28 168.23 DEPTH= 38.KM

A=-0.57406 B= 0.11965 C= 0.81002 D= 0.2040 E= 0.9790
G=-0.7930 H= 0.1653 K=-0.5864 HT= -7.0

DEPTH OF FOCUS= 0.001R

SE= 2.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	5.83	261.4	1	25A	-1						2	23	
MAGADAN	10.87	306.0	2	37	1	4	37	0					
OKHA	14.90	277.5	3	30	1						6	33	
KURILSK	15.92	243.7	3	41A	-1						3	57	PPP
UGLEGORSK	16.98	262.9									7	11	
Y.-SAKHLINSK	17.66	256.2	4	9A	5						7	32	
YAKUTSK	21.46	306.6	4	46A	-1	7	42	-55					
MIZUSAWA	23.77	241.5	5	12	3	9	30	11					
COLLEGE	24.12	46.5	5	13	0	9	29	4					
TIKSI	24.22	330.6	5	16	2	9	32	5			5	49	PP
MATUSIRO	27.24	241.7	5	42A	0	10	21	4					
MOULD BAY	34.02	24.1	6	43A	1								
IRKUTSK	37.11	293.8	7	8K	0	12	44	-7			8	37	PP
ULAN-BATOR	37.94	286.3	7	45A	30								
PORT HARDY	38.08	68.2	7	18K	2								
KHEYS	40.02	346.1	7	34A	2	13	38	3			9	3	PP
RESOLUTE	40.34	24.1	7	36K	1								
ALERT	41.07	8.9	7	42	1								
VICTORIA	41.51	68.8	7	46K	1								
KIPAPA	41.55	128.7	7	46	1				7	56			
HONOLULU	41.62	128.9	7	47	1	14	5	6					
SEATTLE	42.62	69.2	8	1	7						14	19	
PENTICTON	43.10	65.7	7	58K	0								
CORVALLIS	43.91	73.4	8	6	2								
EDMONTON	44.01	57.6	8	7K	2								
BANFF	44.18	61.3	8	6	-1								
HAWAII V.OB.	44.55	126.8	8	10	1								
HUNGRY HORSE	46.65	63.7	8	27	1	15	13	1					
SHASTA	46.91	77.0	8	29	1								
BLUE MTS.	47.07	69.4	8	30K	0	15	22	4			10	6	PP
MINERAL	47.59	76.8	9	1K	27								
CALISTOGA	48.18	79.2	8	39K	1								
BERKELEY	48.88	79.7	8	44K	0	15	49	5			10	33	PP
BUTTE	48.89	65.3	8	32	-12								
LICK	49.61	79.8	8	49K	0								
PARAISO	49.88	81.3	8	56	5								
SEMIPALATNSK	50.53	304.1	8	55A	-1						10	53	PP
PRIEST	51.00	80.2	9	0A	0								
HONG KONG	51.36	253.7	9	3A	0	16	22	4			11	9	PP
EUREKA	51.37	73.8	9	3	0	16	42	24			39	31	PKPPKP
DUGWAY	52.64	71.0	9	12K	0	16	39	4					
BAGUIO CITY	52.65	243.2	9	12	0	16	39	4					
SALT LAKE C.	52.78	69.9	9	14	1								
GODHAVN	53.06	17.3	9	15A	0								
KEVO	53.11	344.2	9	15	-1	16	36	-6			11	20	PP
PASADENA	53.85	80.2	9	20	-1	16	56	4					
MANILA	53.85	241.5	9	22	1								
APATITY	53.90	340.3	9	21A	0	16	54	2			11	33	PP
FLAMING GRGE	54.02	68.1	9	22	0								
PRICE	54.16	70.2	9	24K	1								
UINTA BASIN	54.35	68.8	9	26K	1	17	1	3			11	39	PP
TROMSOE	54.39	347.3	9	25	0				9	38			
BOULDER CITY	54.46	76.2	9	27	1						11	34	PP
SVERDLOVSK	54.61	320.0	9	27K	0	17	5	3			11	29	PP
SODANKYLA	55.31	343.0	9	32A	0	17	13	2			10	32	PCP
SCORESBY SD.	55.33	4.1	9	33	1	17	17	5					
GLEN CANYON	55.59	73.0	9	35	1								
LARAMIE	55.80	65.3	9	36	1								
KIRUNA	55.87	345.9	9	36A	0	17	16	-3	9	48	13	5	
ALMATA-2	56.85	299.3	9	44A	1	17	36	4					
TONTO FOREST	57.70	75.0	9	50	1	17	50	7			11	59	PP
KAJAANI	58.08	340.8	9	52A	1	17	50	2			11	59	PP
FRUNSE	58.56	300.6	9	55A	0						13	31	PPP
TUCSON	59.44	76.3	10	1	0								
UMEA	59.64	344.2	10	2A	0	18	9	1	10	15	13	47	
RABAUL	59.79	198.6	10	7	4								
ALBUQUERQUE	59.91	71.1	10	5	1								
SKALSTUGAN	60.99	348.0	10	11A	-1	18	27	1	10	25			
PULKOVO	61.41	337.3	10	15	1	18	33	2			12	32	PP

NURMIJARVI	61.93	340.5	10	18A	0	18	38	0			12	27 PP
HELSINKI	62.19	340.2	10	19	-1						10	58 PCP
SCHEFFERVLLE	62.23	32.4	10	20A	0							
TASHKENT	62.35	302.9	10	20	-1	18	43	0			12	39 PP
MOSCOW	63.12	331.2	10	26A	0	18	56	4			12	42 PP
CHATRA	63.57	279.7	10	29A	0	19	1	3				
UPPSALA	63.81	344.0	10	30A	0	19	2	1	10	43		
HONIARA	63.85	189.1	10	29	-2	18	58	-4				
KHOROG	64.13	298.6	10	33A	1	19	7	2				
WICHITA MTS.	64.38	65.8	10	34K	0	19	12	4			24	5 SS
BERGEN	64.86	350.7	10	37	0							
TULSA	64.95	63.0	10	37K	-1	19	17	2				
KONGSBERG	65.13	348.2	10	40A	1	19	23	6	10	53	13	15 PP
FAYETTEVILLE	65.65	61.8									10	41 PP
PORT MORESBY	65.89	202.9	10	44A	0							
LONDON ONT.	66.44	48.5	10	47	0							
GOTEBORG	66.72	346.4	10	49A	0				11	3		
WARSAK DAM	66.78	296.1	10	46	-3	19	40	3				
OTTAWA	66.84	43.5	10	48	-2							
LAHORE	67.19	292.5	10	51	-1							
BREBEUF	67.59	42.1	10	54A	0	19	47	0			13	28 PP
KARLSKRONA	67.66	343.9	10	56A	1				11	9		
NEW DELHI	67.90	288.4	9	55A	-61							
COPENHAGEN	68.61	345.5	11	1	0	20	5	6				
ABERDEEN	68.63	354.4				20	8	9				
LUGANVILLE	69.53	181.1	11	7	1							
PENNSYLVANIA	69.70	47.7	11	7	0							
AFIAMALU	70.02	159.3				20	19	3				
ASHKABAD	70.22	307.8	11	8	-3							
CUMBERLAND	70.37	56.2	11	11	-1	20	21	1			24	59 SS
WARSAW	70.40	339.3	11	13	1	20	24	4			13	50 PP
DURHAM	70.99	353.8	11	16K	1	20	33	6			13	53 PP
PALISADES	71.21	45.0	11	16	-1	20	28	-2				
FORDHAM	71.36	45.0	10	58	-19							
WASHINGTON	71.62	48.3	11	21	2							
LWOW	72.00	336.5	11	23	2	20	42	3			14	2 PP
HALIFAX	72.05	36.2	11	22K	0							
PORT BLAIR	72.15	265.1	11	23K	1	21	19	38			32	39
WITTEVEEN	72.17	348.4	11	23	1							
QUETTA	72.19	296.9	11	23	1	20	42	1				
KRAKOW	72.69	339.2	11	27	2						11	40 PCP
HALLE	72.74	344.7	11	25	-1	20	48	1				
COLLMBERG	72.77	344.0	11	25	-1	21	4	16				
TIFLIS	72.83	319.2	11	27	1	20	52	4			14	10 PP
RACIBORZ	73.01	340.3	11	29	2						14	16 PP
DE BILT	73.05	349.2	11	27	-1	20	56	5				
JENA	73.35	344.8	11	30	1	20	50	-4			14	14 PP
SIMFEROPOL	73.71	327.9	11	32A	1						14	17 PP
PRAGUE	73.72	342.8	11	36	5	21	5	7			14	14 PP
PRUHONICE	73.78	342.7	11	33	1	21	1	2				
COLUMBIA	73.84	54.0	11	34	2	21	3	3				
BENSBERG	73.94	347.7	11	33A	0						12	34
CHEB	74.05	344.1	11	35	2						14	30
GORIS	74.13	316.9	11	34A	0						14	21 PP
KEW	74.19	352.6	11	34	0	21	6	2			25	46 SS
KOUMAC	74.61	183.8	11	36	-1							
KASPERSKE H.	74.77	343.1	11	39A	1	20	52	-18			14	26 PP
BRATISLAVA	75.05	340.5	11	40	1	21	21	8				
DOURBES	75.09	349.2	11	41	2	21	17	3				
VIENNA-H.	75.11	341.0	11	42A	2	21	20	6				
TEHERAN	75.19	311.3	11	42A	2	21	20	5			14	30 PP
HEIDELBERG	75.26	346.3	11	41	1							
KARLSRUHE	75.69	346.4	11	44	1							
STUTTGART	75.80	345.8	11	14A	-29	21	25	4			11	57
TUBINGEN	76.06	345.9	11	47	2							
STRASBOURG	76.19	346.8	11	47A	1	21	31	5			14	39 PP
NOUMEA	76.28	181.7	11	47	1							
EBINGEN	76.42	345.9	11	48	1							
CHARTERS TS.	76.43	201.2	11	48	1	21	30	2				
WELSCHBRUCH	76.54	347.7	11	49	1							
PARIS	76.58	350.4	11	49	1							
FELDBERG	76.85	346.5	11	50	1							
FOLINIERE	76.88	352.4	11	51	1							
ZAGREB	77.52	340.5	11	55	2							
BELGRADE	77.53	337.1	11	55K	2	21	47	7			15	0 PP
LJUBLJANA	77.58	341.6	11	54	1						14	51 PP
POONA	77.68	284.5									13	40
BESANCON	77.73	347.7	11	53	-1							

GARCHY	78.04	349.7	11	57A	1						
TRIESTE	78.10	342.0	11	57	1	21	47	1	14	56	PP
MADRAS	78.43	276.1	12	1	3	22	14	24	15	6	PP
ISTANBUL UN.	78.82	329.8	12	6	6	22	4	10			
SOFIA	78.83	334.4	12	3	3	21	59	5	15	5	PP
ROSELEND	79.18	347.0	12	4	2						
PAVIA	79.32	345.1	12	9	6				22	12	PS
CLERMONT-FD.	79.52	349.5	12	7	3	22	9	8			
SHIRAZ	79.79	307.2	12	6A	0	22	0	-4	15	3	PP
ISOLA	80.61	346.4	12	12	2						
AQUILA	81.36	341.4	12	23	9	22	35	14	15	32	PP
ROME	81.96	342.0	12	19A	2	22	36	9	15	14	PP
TARANTO	82.39	338.1							21	21	
BRISBANE	82.42	193.8	12	21	2	22	37	6			
KSARA	83.11	321.7	12	23A	0	22	42	4	15	34	PP
ATHENS	83.17	332.5	12	24A	1						
MESSINA	84.93	338.7							22	58	PS
JERUSALEM	85.19	321.3	12	38	5						
TOLEDO	85.98	354.0	12	39A	2	23	12	5	15	53	PP
ALICANTE	87.23	351.1	12	46K	3	23	25	6			
ALGIERS UNI.	88.42	348.1	12	49	0	23	34	4	15	58	PP
GRANADA	88.64	353.5	13	14	24				23	38	
SETIF	88.67	346.2	12	51	1						
ALMERIA	88.88	352.5	12	53K	2	23	36	2			
RIVERVIEW	88.98	194.2	12	54A	2	23	42	7	29	17	SS
MALAGA	89.14	354.1	12	34	-18	23	41	5			
CANBERRA	90.77	195.6	13	2	2	23	25	-26			
KARAPIRO	92.06	174.2	13	6	0						
ADELAIDE	92.47	203.9							41	59	
AVERROES	92.70	356.4	13	11	2						
TOOLANGI	93.56	197.9	12	59	-14				24	24	SCS
SAN JUAN	94.05	50.7	13	17	2						
CARACAS	100.54	55.2				24	21	2	14	1	PP
BOGOTA	101.94	64.4				24	29	3	25	33	SKKS
CHILEKA	127.20	298.3	19	2	2						
BROKEN HILL	129.38	305.9	19	7	3						
SCOTT BASE	131.87	180.4	19	5	-4				22	33	
MIRNY	133.04	212.0							21	40	PP
BULAWAYO	134.18	301.9	19	17	4						
BYRD STATION	140.03	165.0	19	17	-7						
KIMBERLEY	143.25	299.1	19	25	-5						
MAWSON	143.87	218.8	19	29A	-2				23	8	SKP
SOUTH POLE	144.10	180.0	19	28	-3				20	6	
N-LAZARVSKYA	160.44	203.3	19	56	1				24	21	PP

AUGUST 8 11.H 16.M 11.S EPICENTRE -5.60 150.73 DEPTH= 44.KM

A=-0.86819 B= 0.48666 C=-0.09695 D= 0.4890 E= 0.8723
G= 0.0846 H=-0.0474 K=-0.9953 HT= 7.0

DEPTH OF FOCUS= 0.002R

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	2.00	46.0	0	33	1								
PORT MORESBY	5.18	223.0	1	18K	1	2	18	2					
HONIARA	9.90	113.1	2	17	-6	3	57	-16					
CHARTERS TS.	15.04	196.4	3	30	-1	6	11	-6					
GUAM	19.85	342.6	4	30	0	8	19	13					
KOUMAC	19.86	139.7	4	31	1								
DARWIN	20.76	249.7	4	44	5								
BRISBANE	21.76	175.1	4	48	-1	8	44	2					
NOUMEA	22.51	139.0	5	2	5								
RIVERVIEW	28.09	179.3	5	52	2	10	30	0	6	1	6	38	PP
CANBERRA	29.62	182.9	6	3	0	10	49	-5			11	11	*SS
ADELAIDE	31.26	199.2	6	15	-3	11	29	9			12	55	SCP
TOOLANGI	32.18	187.8	6	23	-3						6	45	*SP
MANILA	35.63	304.7	6	59	4	12	53	25					
BAGUIO CITY	36.99	306.8	7	10	3	12	53	4					
AFIAMALU	37.82	105.4	7	11	-3	12	57	-4					
KARAPIRO	39.31	148.4	7	33	7								
CHATEAU	40.27	149.7	7	34	0								
WELLINGTON	41.51	152.4									17	13	SS
MUNDARING	41.58	226.5	7	46	1	14	0	2					

TUKUBASAN	42.78	347.3	7	58	3					14	34
MATUSIRO	43.53	345.3	8	2	1	14	45	19			
NHATRANG	44.91	293.4	8	17	5						
HONG KONG	45.27	309.1	8	20K	5	15	2	11		10	4 PP
KURILSK	50.67	357.4								10	21
Y.-SAKHLINSK	52.87	353.1								12	13
HONOLULU	56.85	60.2	9	42	0	17	35	4		14	45
KIPAPA	56.96	60.1	9	42	-1	17	35	3			
SHILLONG	64.96	301.4	10	40	3						
ULAN-BATOR	65.72	329.3	10	43	1						
CAPE HALLETT	67.72	173.7	10	54	-1						
YAKUTSK	69.35	349.6	11	4	-1						
MIRNY	72.45	200.8	11	22	-2	20	44	1	11 49		
SCOTT BASE	72.70	176.5	11	25	0						
NEW DELHI	78.34	300.6	11	58	1	21	57	9			
TIKSI	78.41	353.1	11	59	1	21	53	4			
ALMATA	82.13	314.9	12	22	5						
COLLEGE	83.37	22.2	12	21	-3						
FRUNSE	83.68	314.1	12	27A	2	22	48	5			
MAWSON	84.04	202.6	12	26A	-1	22	46	-1			
WARSAK DAM	84.19	304.9	12	29	1						
SOUTH POLE	84.44	180.0	12	28	-1						
BYRD STATION	84.48	169.9	12	28	-1						
KHOROG	84.86	308.3	12	22	-9						
QUETTA	87.43	300.5	12	44	0						
PARAISO	90.79	53.7	13	4	4						
CALISTOGA	90.88	51.4	13	0A	0						
BERKELEY	91.04	52.2	13	1A	0	23	49	-4		16	37 PP
SHASTA	91.25	49.4	13	1	-1						
LICK	91.48	52.8	13	3A	0						
MINERAL	91.81	49.8	13	10A	6						
PRIEST	92.14	54.1	13	7A	1						
PENTICTON	93.98	41.0	13	14	0						
PASADENA	94.02	56.2	13	16	2	24	30	12		24	7 SKS
BLUE MTS.	95.30	45.6	13	20	0	23	56	5		17	3 PP
MOULD BAY	95.39	13.9	13	19	-2						
EUREKA	96.07	51.0	13	24	0					17	21 PP
BANFF	96.67	39.2	13	26	-1						
BOULDER CITY	96.85	54.5	13	29	2					17	21 PP
HUNGRY HORSE	97.64	42.1	13	24	-7						
EDMONTON	97.99	37.0	13	32	-1						
TONTO FOREST	99.74	56.3	13	42	2				13 56	17	43 PP
TUCSON	100.10	58.4	13	42	0						
UINTA BASIN	101.00	50.2	13	46	0	25	23	63		17	55 PP
FLAMING GRGE	101.11	49.5	13	47	0						
ALBUQUERQUE	103.69	55.5	13	53	-5					18	13 PP
KIROVOBAD	104.55	310.4								18	23 PSP
APATITY	105.36	339.3								36	5
TIFLIS	105.59	311.6								18	24 PSP
KEVO	106.45	342.4								18	33 PP
KIRUNA	109.51	342.1								19	1 PP
WICHITA MTS.	110.15	55.2	14	27	-240					18	54 PP
UMEA	111.92	338.7	18	31	1					19	18 PP
NURMIJARVI	111.97	334.5	14	35	-235	25	9	0		19	9 PP
TULSA	112.25	53.6				26	36	86		19	14 PP
CUMBERLAND	120.42	51.8	18	49	2					20	10 PP
ATHENS	122.20	311.8								20	11
PRUHONICE	122.52	328.0	18	52	1						
KASPERSKE H.	123.53	327.6	18	53	0					22	28
BLACKSBURG	123.84	48.5	18	55	2						
LJUBLJANA	124.75	324.1	18	56	1						
TRIESTE	125.42	324.0								20	54 PP
STUTTGART	125.99	329.4	18	59	2					20	55 PP
DURHAM	126.13	340.5	19	8K	10	26	8	10		37	58 SS
PALISADES	126.82	41.6	19	54	55						
STRASBOURG	126.87	330.0	19	4	5					21	1 PP
DOURBES	127.33	333.2								21	7 PP
AQUILA	127.41	320.8								21	7 PP
MESSINA	128.02	315.2								35	1
PARIS	129.21	333.3								21	19
GARCHY	130.06	331.6	19	7K	2					22	28
LA PAZ	135.74	120.4	19	20	4					39	43 SS
TOLEDO	139.01	330.0	19	17	-5	26	18	-8		22	21 PP
MALAGA	141.56	327.1	19	19	-7					22	33 PP
TAMANRASSET	142.34	300.5	19	30	2					22	41 PP
CARACAS	142.42	80.1	19	29	1					35	9 PPS
AVERROES	145.75	326.4	19	36K	2					22	30
ST. CLAUDE	146.56	69.3	19	40	5						
FORT FRANCE	147.38	71.4	19	41	4						

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AUGUST 8 13.H 53.M 43.S EPICENTRE 18.2º 145.24 DEPTH= 429.KM

A=-0.78050 B= 0.54173 C= 0.31200 D= 0.5702 E= 0.8215
G=-0.2563 H= 0.1779 K=-0.9501 HT= 5.1

DEPTH OF FOCUS= 0.062R

SE= 1.70

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GUAM	4.83	185.7	1	21	-1	2	24	-3				
ABUYAMA	18.62	334.4	3	51K	2							
MATUSIRO	19.20	342.6	3	55	0	7	11	6				
BAGUIO CITY	23.60	269.3	4	39	3							
Y.-SAKHLINSK	28.72	356.4	5	21K	-1							
NHATRANG	35.23	265.3	6	20	3							
PETROPAVLOVK	36.20	13.7	6	26K	1							
CHARTERS TS.	38.16	178.4	6	42K	0						15	14
ULAN-BATOR	42.93	322.2	7	21K	1							
YAKUTSK	45.02	349.7	7	36	-1							
BRISBANE	46.00	170.7									8	32
SHILLONG	49.76	288.3	8	13K	0							
RIVERVIEW	52.14	173.8									11	47
ADELAIDE	53.33	186.7	8	38	-1						10	12
CANBERRA	53.44	176.2	8	39	-1							
TIKSI	54.20	353.7	8	43K	-2							
TOOLANGI	55.56	179.8	8	54	-1				10	21		
MUNDARING	57.20	209.4	9	5	-1							
ALMATA	61.98	309.8	9	38K	0							
NEW DELHI	62.55	293.2	9	42K	0							
COLLEGE	63.83	26.0	9	48	-2							
KHOROG	66.35	303.5	10	7	1	18	23	2				
WARSAK DAM	66.71	299.8	10	11	3							
TASHKENT	67.74	307.9	10	15K	1	18	38	1				
QUETTA	71.15	296.4	10	36	1							
KHEYS	71.61	350.1	10	37	-1							
SVERDLOVSK	71.96	324.9	10	40A	0							
MOULD BAY	73.66	14.4	10	49	-1							
PORT HARDY	74.35	41.3	10	54K	1							
VICTORIA	77.39	42.9	11	10K	0							
KIZYL-ARVAT	77.89	307.4	11	3	-10							
PENTICTON	79.62	41.5	11	22K	0							
RESOLUTE	79.92	13.5	11	23A	-1							
SHASTA	80.05	50.5	11	24K	0							
CALISTOGA	80.46	52.5	11	27K	0							
MINERAL	80.73	50.6	11	28K	0							
BERKELEY	80.92	53.2	11	29K	0							
APATITY	81.23	338.8	11	30K	0							
PARAISO	81.26	54.7	11	35	4							
LICK	81.54	53.6	11	32A	0							
EDMONTON	82.10	36.4	11	35K	0							
KEVO	82.18	342.0	11	34K	-1							
BLUE MTS.	82.44	45.4	11	37K	0	21	17	1	13	23	33 39	SKKP
TEHERAN	82.55	305.1	11	39	2							
PRIEST	82.64	54.5	11	38K	0							
HUNGRY HORSE	83.43	41.3	11	42	0				13	0		
SHIRAZ	83.43	298.9	11	42K	0				11	50	26 49	
SODANKYLA	83.59	340.0	11	42K	0						12 13	
TROMSOE	84.53	343.5	11	46	-1							
MOSCOW	84.56	327.2	11	47	0							
KIROVOBAD	84.81	311.0	11	48	0							
KAJAANI	84.99	337.0	11	48K	-1							
EUREKA	85.11	50.1	11	50	0							
PASADENA	85.19	55.8	11	50	0							
GORIS	85.19	309.9	11	50K	0							
KIRUNA	85.25	341.8	11	50K	-1							
TIFLIS	85.53	312.4	11	52	0							
DUGWAY	87.14	48.6	12	0	0							
BOULDER CITY	87.16	53.1	12	1	1				13	44		
UMEA	87.83	338.7	12	1K	-2							
NURMIJARVI	88.17	334.8	12	3K	-1						15	23 PP
HELSINKI	88.24	334.4	12	4	-1							
GLEN CANYON	89.23	51.3	12	11	2							
FLAMING GRGE	89.27	46.9	12	10	0							
UINTA BASIN	89.39	47.6	12	11	1	22	21	0	13	48	15 48	PP
TONTO FOREST	90.49	53.6	12	17	2				13	55	14 45	
SKALSTUGAN	90.61	340.9	12	14	-2						15 45	PP
UPPSALA	91.34	336.4	12	17K	-2							
TUCSON	91.61	55.4	12	21	1				14	1		

GOLDEN	92.57	46.8	12	26	1					24	14	
ALBUQUERQUE	93.85	51.4	12	31	0					17	8	PP
SOFIA	99.17	320.7								17	2	
WICHITA MTS.	99.69	48.6	12	57	0					23	13	
KASPERSKE H.	100.34	330.1								17	56	
ATHENS	101.62	316.5										
FOLINIERE	106.58	337.1								29	40	
TAMANRASSET	123.28	314.5	18	9K	2			19	56			
ARGENTINE I.	129.13	164.5										
AREQUIPA	144.94	92.8	18	50	3							
LA PAZ	148.13	92.0	18	55	3							

AUGUST 9 6.H 5.M 31.5 EPICENTRE 44.45 11.94 DEPTH= 26.KM

A= 0.70066 B= 0.14822 C= 0.69792 D= 0.2070 E=-0.9783
G= 0.6828 H= 0.1444 K=-0.7162 HT= -3.3

SE= 2.79

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BOLOGNA	0.44	276.2									0	10	PG
PRATO	0.84	226.9									0	13	PG
PADOVA	0.96	356.9									0	19	PG
TRIESTE	1.75	46.3	0	28	-1	0	57	6					
PAVIA	2.10	291.2	0	37	3	1	4	4			0	42	PG
AQUILA	2.36	152.7	0	37	-1	1	3	-3			0	39	PG
LJUBLJANA	2.42	47.8	0	38A	0						0	45	PG
ROME	2.58	171.1	0	39K	-2	1	10	-2			0	45	PG
CHUR	2.93	325.6	0	47	1	1	25	4					
ZAGREB	3.17	63.0	0	47A	-2						0	58	PG
MONACO	3.33	259.0	0	52	1	1	33	2					
ISOLA	3.52	267.2	0	54	0								
RAVENSBURG	3.70	334.9	0	57A	0	1	43	3					
ROSELEND	3.96	290.0	1	1	1								
EBINGEN	4.26	332.1	1	4A	-1	1	53	-1			1	23	PG
NEUCHATEL	4.33	307.8	1	5	-1	1	56	0					
FELDBERG	4.38	322.8	1	6A	0	1	56	-1			1	26	PG
TUBINGEN	4.53	335.1	1	8A	-1						2	35	SG
STUTTGART	4.69	337.9	1	10A	-1						1	34	PG
KASPERSKE H.	4.81	12.9	1	11A	-1								
VIENNA-H.	4.88	37.3	1	12A	-1	2	7	-3			2	40	SG
STRASBOURG	5.03	326.6	1	16A	0	2	20	6			1	36	PG
KARLSRUHE	5.16	333.2	1	17	0						2	51	SG
HEIDELBERG	5.42	337.1	1	20A	-1	2	18	-5			2	57	SG
HURBANOVO	5.53	49.6				2	18	-8			3	20	
WELSCHBRUCH	5.53	317.6	1	15	-8								
TARANTO	5.59	133.6	1	20	-3	2	59	31					
CHEB	5.64	2.9	1	23	-1						3	13	SG
TITOGRAD	5.70	108.3	1	29	4	2	41	11			2	32	P*
PRUHONICE	5.81	16.9	1	24	-2						3	19	SG
PRAGUE	5.87	15.9	1	25	-2	2	17	-18			1	53	PG
BELGRADE	6.08	83.6	1	29	-1						1	52	PG
CLERMONT-FD.	6.38	285.0	1	38	3						3	27	SG
JENA	6.48	358.0	1	33	-3	3	3	13			2	19	PG
TIMISOARA	6.69	75.6	2	5	26						4	0	
GARCHY	6.81	297.6	1	38A	-3	3	3	5					
MESSINA	6.81	155.3	1	46	5	2	58	0			4	4	
COLLMBERG	6.89	5.5	1	39	-3						3	42	SG
HALLE	7.05	0.0	1	42	-2						3	34	SG
RACIBORZ	7.05	34.9	1	44	0						3	22	SS
BENSBERG	7.26	335.4	1	46K	-1	3	8	-1			2	24	PG
SKOPJE	7.37	106.4	1	47	-1						4	57	
DOURBES	7.54	321.1	1	51	0						4	3	SG
CHORZOW	7.54	36.8	1	51	0						2	10	PPP
NIEDZIKA	7.58	46.1	1	50	-1						2	5	PP
KRAKOW	7.80	41.3	1	55	1	3	31	8			2	8	P*
PARIS	7.83	307.1	2	22	27	3	29	5					
UCCLE	8.16	323.8	2	4	5								
UZHGOROD	8.27	56.0	2	0	-1								
SOFIA	8.45	98.0	2	1	-2	4	41	62			3	9	
DE BILT	8.88	331.9									3	59	
WITTEVEEN	9.07	339.3	2	5	-7						2	29	
FOLINIERE	9.58	301.2	2	16	-3	3	59	-8					
SETIF	9.64	213.4	2	19	-1								
LWOW	9.83	52.6	2	23	1								

WARSAW	9.84	34.6							4	36 SS
BUCHAREST	10.13	85.2							5	55
ALGIERS UNI.	10.22	224.4	2	24	-4	4	14	-9		
JERSEY	10.72	301.1							6	46
KFW	10.80	314.9	2	42	6					
ATHENS	10.98	122.1	2	53A	15					
ALICANTE	11.14	241.1	2	39	-1				2	58 PPP
KARLSKRONA	11.95	9.9	2	53	2					
TOLEDO	12.71	254.5	3	2	0	4	52	-31	3	15 PP
ISTANBUL UN.	12.98	99.3	3	13	8	6	5	35		
GOTEBORG	13.26	0.1	3	19	10					
ALMERIA	13.31	240.2	3	10	0				3	27 PP
DURHAM	13.52	324.6	3	16K	4	5	52	9		
GRANADA	13.82	243.6	3	26K	10	6	17	27		
MALAGA	14.61	243.7	3	26	-1	5	19	-50		
KONGSBERG	15.29	355.5	2	40	-55					
ABERDEEN	15.48	330.3				7	1	32		
SIMFEROPOL	15.77	80.4	3	44K	2					
UPPSALA	15.80	10.6	3	42	0	6	48	11	5	23
BERGEN	16.46	348.3	3	51	1					
VALENTIA	16.54	304.7	3	52	1					
HELSINKI	17.58	21.9	3	58	-7				6	41
NURMIJARVI	17.79	20.9	4	5K	-2	7	23	1	4	25 PP
AVERROES	18.70	240.0	4	9	-9				4	24 PP
SKALSTUGAN	19.17	0.5	4	22A	-2					
MOSCOW	19.84	46.2	4	28	-3					
UMEA	19.97	10.8	4	30A	-3	8	13	2	6	8
KSARA	21.31	111.7	4	43	-4	8	30	-7	5	1 PP
KAJAANI	21.59	18.9	4	48	-2	8	57	15	11	45
TAMANRASSET	22.26	195.8	4	54K	-2	9	2	7	5	29 PPP
BAKURIANI	23.15	85.6	5	5A	0					
KIRUNA	23.86	8.0	5	12	0					
SODANKYLA	24.27	13.8	5	16	0				7	15
GROZNY	24.30	80.7	5	17	1					
TROMSOE	25.49	5.7	5	26	-2					
APATITY	25.80	18.9	5	27K	-3	9	50	-6	10	37 SS
GORIS	25.92	88.9	5	32	1					
KEVO	26.50	11.7	5	37	0	10	17	10	6	16
SVERDLOVSK	32.55	50.1	6	28	-3					
VANNOVSKAYA	34.96	84.4	6	51	-1					
SHIRAZ	35.21	100.9	6	52	-2				11	6
ALERT	44.17	349.5	8	7	-1					
ALMATA	45.76	67.5	8	21A	0					
MOULD BAY	55.64	347.4	9	34A	-2					
CHATRA	61.54	79.4	10	16	-1				11	18
ULAN-BATOR	61.65	49.6	10	18	0					
BOKARO	62.44	82.9							12	9
YELLOWKNIFE	65.16	335.7	10	40K	-1					
SHILLONG	65.62	77.5	9	51K	-53					
COLUMBIA	69.05	297.3	11	3	-2					
COLLEGE	69.87	350.9	11	9	-1					
CUMBERLAND	70.85	301.2	11	14	-2					
EDMONTON	71.89	329.0	11	22	0					
BANFF	74.46	328.8	11	37	-1					
HUNGRY HORSE	76.15	326.2	11	47	0					
TULSA	76.68	307.4	11	49A	-1					
PENTICTON	77.48	329.9	11	54	-1					
LARAMIE	77.90	316.9	11	58	1					
WICHITA MTS.	79.12	308.2	12	3	-1				15	5 PP
FLAMING GRGE	80.02	318.9	12	9	0					
BLUE MTS.	80.32	326.0	12	10A	0	22	19	6	13	48
UINTA BASIN	80.58	318.6	12	12A	1	22	24	9		
DUGWAY	82.18	320.6	12	19	-1					
ALBUQUERQUE	83.21	313.3	12	26	1					
EUREKA	84.18	322.1	12	31	1					
GLEN CANYON	84.20	317.5	12	31	1					
MINERAL	85.81	326.3	12	38A	0					
TONTO FOREST	86.18	316.0	12	41	1				12	49 38 58 PKPPKP
BOULDER CITY	86.53	319.4	12	44	2					
TUCSON	87.59	314.5	12	47	0					
TOOLANGI	144.67	95.2	19	33	-1				19	42 20 8
CANBERRA	146.14	89.4	19	38	1					
CAPE HALLETT	150.22	166.8	19	48	5					

AUGUST 9 14.H 36.M 44.S EPICENTRE -15.07-175.33 DEPTH= 33.KM

A=-0.96283 B=-0.07863 C=-0.25841 D=-0.0814 E= 0.9967
G= 0.2576 H= 0.0210 K=-0.9660 HT= 5.7

DEPTH OF FOCUS= 0.000R

SE= 3.27

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AFIAMALU	3.63	71.9	0	54	-2	1	38	0					
PORT VILA	15.91	258.2	3	45A	2	7	5	27					
LUGANVILLE	16.93	266.2	3	57A	1								
NOUMEA	18.69	244.7	4	18	0	7	54	12					
KOUMAC	20.16	251.3	4	35	1								
GISBORNE	24.21	192.8	5	18	3								
HONIARA	24.79	280.2	5	19	-1								
WELLINGTON	27.49	196.3				10	16	-6			6	44	PP
BRISBANE	32.05	242.3	6	25	-1	11	29	-6					
RABAUL	33.76	285.3	6	39	-2								
RIVERVIEW	35.55	232.2	6	57K	1	12	26	-3			8	19	PP
CHARTERS TS.	36.90	256.6	7	7	-1	12	47	-3					
PORT MORESBY	37.06	274.3	7	9A	0								
CANBERRA	37.77	231.1	7	14	-1	13	1	-2					
HONOLULU	39.91	25.5	7	38	5	13	52	17			9	18	PP
TOOLANGI	41.24	229.6	7	42	-2	13	54	-1			17	19	SSS
ADELAIDE	45.65	235.6	8	19	-1	14	56	-3			18	52	
DARWIN	52.27	265.9	9	10	-1								
CAPE HALLETT	57.86	185.2	9	52	1								
SCOTT BASE	63.43	184.2	10	30	1								
MUNDARING	64.05	241.5	10	28	-5								
TUKUBASAN	66.14	321.6	10	46A	-1						13	14	PP
MATUSIRO	67.49	320.8	10	55	0	20	14	26					
KURILSK	68.67	333.0	11	4A	2	20	28	26					
MANILA	69.46	292.2	11	8	1						32	36	
BYRD STATION	69.57	171.1	11	8	0								
WILKES	69.95	204.4	11	10	0	20	19	2					
BAGUIO CITY	70.58	293.7	11	14	0						20	34	
PETROPAVLOVK	71.43	343.8	11	20	1	20	38	4					
PARAISO	71.49	42.8	11	28	8								
Y.-SAKHLINSK	72.35	331.3	11	26A	1	20	54	9					
BERKELEY	72.46	41.6	11	30K	5	20	58	12			11	56	
PRIEST	72.51	43.8	11	31K	5								
LICK	72.55	42.3	11	31K	5								
UKIAH	72.60	40.0	11	31	5								
CALISTOGA	72.71	40.8	11	31K	4								
PASADENA	73.14	46.7	11	33	4	21	10	17					
SHASTA	74.05	39.1	11	38	3								
MINERAL	74.33	39.8	11	40K	4								
SOUTH POLE	75.02	180.0	11	41	1						12	0	PP
LEMBANG	75.79	266.7	11	45K	0						14	28	PP
BOULDER CITY	76.43	46.6	11	54	6								
TANGERANG	76.90	267.1	11	49	-2								
MIRNY	76.96	204.2	11	51	0	21	36	0					
EUREKA	77.44	43.0	11	58	4	21	58	17			18	3	PPP
TUCSON	77.58	51.6	12	0	5								
PORT HARDY	77.72	28.8	12	0	5								
TONTO FOREST	78.17	49.5	12	3	5	22	6	17			16	32	PPP
VICTORIA	78.28	32.3	12	0	1								
SEATTLE	78.32	33.5	12	0	1	22	2	12					
HONG KONG	78.39	297.0	12	1	2	21	59	8			15	0	PP
GLEN CANYON	79.19	47.0	12	9	5								
BLUE MTS.	79.50	37.9	12	9K	4	22	17	14			15	21	PP
DUGWAY	79.91	43.6	12	12K	5	22	23	16					
PENTICTON	80.75	33.2	12	17	5								
SALT LAKE C.	80.82	43.5	12	17	5								
UINTA BASIN	82.14	44.7	12	24	5	22	49	19			23	31	PS
COLLEGE	82.40	11.5	12	23	3	22	42	9			15	34	PP
FLAMING GRGE	82.54	44.2	12	27	6								
HUNGRY HORSE	83.28	36.1	12	28	3								
BOZEMAN	83.70	39.5	12	32	5								
BANFF	83.96	33.2	12	33	5								
GOLDEN	84.78	46.7	12	37	4								
EDMONTON	86.26	32.0	12	43A	3								
MAWSON	87.50	199.0	12	46	0	23	25	2					
WICHITA MTS.	87.94	53.4	12	52	4	23	26	-1			16	15	PP
YAKUTSK	88.06	337.3	12	48	-1								
HOUSTON	88.89	58.9	13	5	13								
TULSA	90.49	53.0	13	14A	14	23	43	-7			29	52	SS

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YELLOWKNIFE	90.54	23.9	13	3	3						
CONCEPCION	91.37	128.6	13	3	-1						
ULAN-BATOR	93.07	318.8	13	14	2						
TIKSI	94.18	344.8	13	17A	0					25	53 PS
N-LAZARVSKYA	94.23	182.4								17	3 PP
MOULD BAY	96.98	11.5	13	32	2						
CUMBERLAND	98.42	55.5	13	38	2					17	39 PP
LA PAZ	101.60	110.7	13	56	5	24	40	14			
PENNSYLVANIA	105.27	51.3	13	57	777						
PALISADES	108.28	51.4				25	9	13			
BREBEUF	108.76	46.7	18	48	777					34	36 SS
CARACAS	110.29	84.2				27	0	115		34	50 SS
TASHKENT	118.81	309.0	18	48	3						
QUETTA	121.22	296.3	18	54	4						
KEVO	123.59	350.9								37	20 SS
APATITY	124.32	347.1								36	40 SS
SODANKYLA	125.80	349.7	19	3	4						
KIRUNA	126.29	352.7								38	6 SS
VANNOVSKAYA	127.82	306.5	19	7	4						
KIZYL-ARVAT	128.97	308.4								21	16 PP
UMEA	130.12	351.0	19	16	9					38	45 SS
SKALSTUGAN	131.26	355.5	19	19	10						
MOSCOW	132.19	335.5	19	13	2					22	41 SKP
NURMIJARVI	132.36	346.8	19	10	-1					21	28 PP
TEHERAN	133.55	305.2	19	18	4					22	51
SHIRAZ	133.75	296.7	19	17	3					21	46 PP
UPPSALA	134.29	350.9								22	44 PKS
KIROVOBAD	135.79	313.5	19	21	3						
GORIS	136.23	312.0	19	23	4					23	2 PKS
TIFLIS	136.41	315.6	19	21	2						
DURHAM	140.09	5.6								22	19 PP
WARSAW	140.71	344.1	19	29	2				19 39	22	39 PP
KRAKOW	142.97	343.6	19	42	11					25	44 PPP
DE BILT	143.06	359.5	19	40	9					42	16 SS
HALLE	143.20	352.4	19	33	2					23	19 PKS
COLLMBERG	143.25	351.3	19	37	6					23	2 PKS
KEW	143.47	5.2	19	35	3						
UZHGOROD	143.53	340.2	19	32	0						
JENA	143.80	352.6	19	32	0					22	49 PP
BENSBERG	144.15	357.3	19	35	2					22	56 PP
PRAGUE	144.20	349.2	19	35	2						
PRUHONICE	144.27	349.1	19	35	2					31	32 SS
KASPERSKE H.	145.26	349.7	19	38A	3						
BRATISLAVA	145.44	345.3	19	38	3					24	50 PP
VIENNA-H.	145.53	346.1	19	40	5					20	30
HEIDELBERG	145.61	355.3	19	40	5						
FOLINIERE	146.13	6.1	19	41	5						
STUTTGART	146.18	354.5	19	40	4						
KSARA	146.20	309.1	19	39	3					26	34 PPP
PARIS	146.31	2.6	19	41A	5						
STRASBOURG	146.49	356.3	19	43A	6					22	52 PP
BELGRADE	147.47	338.9	19	44K	6					23	33 PP
JERUSALEM	147.56	306.2	19	45	6						
GARCHY	147.86	2.0	19	46A	7					22	38
ZAGREB	147.90	345.0	19	52	13						
LJUBLJANA	148.03	347.0	19	45	6					20	6
SOFIA	148.14	333.5	20	48	69						
TRIESTE	148.57	347.7	19	49	9					21	31
BANDEIRA	149.02	196.4	19	46	5				19 55		
CLERMONT-FD.	149.37	2.1	19	52	11						
PAVIA	149.75	353.7				27	24	39		19	56 PKP2
ISOLA	150.92	356.5	20	1	17						
ATHENS	151.64	327.1	19	48	3						
AQUILA	151.79	346.2	19	56	11					42	46 SS
ROME	152.43	347.3	19	56	10	27	36	48		43	46 SS
TOLEDO	154.13	15.5	20	0K	12	27	2	12		23	58 PP
MESSINA	155.04	339.4	20	17	28	26	25	-26		24	17 PP
ALICANTE	156.37	10.1	19	56	5					24	10 PP
GRANADA	156.79	16.9	20	31A	39					24	19 PP
MALAGA	156.98	18.9	19	59	7					24	4 PP
ALMERIA	157.40	15.0	20	4	11					20	35 PKP2
ALGIERS UNI.	158.34	3.5	19	58	4					24	11 PP
AVERROES	158.80	29.0	20	2	8					24	34 PP
SETIF	158.95	358.4	19	59	4					24	15 PP
TAMANRASSET	172.29	354.1	20	10A	5					25	22 PP

AUGUST 11 7.H 37.M 22.S EPICENTRE 38.95 141.08 DEPTH= 48.KM

A=-0.60666 B= 0.48989 C= 0.62608 D= 0.6283 E= 0.7780
G=-0.4871 H= 0.3933 K=-0.7798 HT= -1.3

DEPTH OF FOCUS= 0.002R

SE= 3.15

	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
MIZUSAWA	0.18	12.6	0	3	-6	0	9	-7				
ISINOMAKI	0.55	159.9	0	2K	-11	0	5	-18				
SENDAI	0.69	191.7	0	4K	-11	0	11	-15				
MORIOKA	0.75	5.4	0	13	-2	0	26	-1				
YAMAGATA	0.90	219.4	0	9A	-8	0	20	-10				
SAKATA	0.98	267.4	0	15K	-3	0	29	-2				
MIYAKO	0.98	44.4	0	16A	-2	0	32	1				
AKITA	1.08	315.7	0	20K	1	0	38	5				
HUKUSIMA	1.29	201.9	0	15K	-7	0	30	-9				
HATINOHE	1.62	12.3	0	26A	0	0	51	4				
AOMORI	1.88	353.1	0	34	4	1	4	11				
NIIGATA	1.90	237.8	0	27K	-3	0	56	3				
SHIRAKAWA	1.95	200.6	0	27	-4	0	51	-4				
ONAHAMA	2.00	184.1	0	27A	-5	0	51	-5				
AIKAWA	2.41	248.2	0	35	-3	1	10	4				
UTUNOMIYA	2.58	202.2	0	45	5	1	20	9				
MITO	2.61	190.8	0	38	-2	1	10	-1				
KAKIOKA	2.81	195.0	0	38	-5	1	13	-3				
HAKODATE	2.87	355.2	0	45	1	1	24	6				
TAKADA	2.90	231.3	0	44	-1	1	22	3				
MAEBASI	3.00	212.7	0	45K	-1	1	20	-1				
KUMAGAYA	3.10	206.3	0	45	-2	1	22	-2				
MORI	3.17	353.1	0	53	5	1	34	9				
NAGANO	3.22	225.9	0	57	8	1	35	8				
TYOSI	3.23	183.3	0	48	-1	1	27	0				
OIWAKE	3.30	218.3	0	50	0	1	37	8				
MATUSIRO	3.31	224.3	0	46A	-4	1	26	-3				
TITIBU	3.36	208.8	0	51	0	1	24	-6				
MURORAN	3.37	358.8	0	53A	2	1	37	7				
HONGO	3.40	198.3	0	53	1						1	43
TOKYO C.M.O.	3.43	198.4	0	56	4	1	38	6				
URAKAWA	3.45	21.5	0	55A	3	1	39	7				
WAZIMA	3.65	245.8	0	56	1							
MATUMOTO	3.65	223.4	0	55	0	1	50	12				
YOKOHAMA	3.69	198.4	0	59	3	1	42	3				
TOMAKOMAI	3.70	5.8	1	11	15							
HIROO	3.74	26.4	0	57	1							
TOYAMA	3.80	235.0	1	5	8	2	2	21				
KOHU	3.84	212.3	0	58	0	1	41	-1				
SUTTSU	3.90	350.8	1	3	4	2	12	28				
HUNATU	3.91	208.8	1	7	8	1	45	1				
SAPPORO	4.12	2.8	1	3	1	1	55	6				
MERA	4.15	194.3	1	8	6							
MISIMA	4.19	204.7	1	6	3	1	51	0				
AJIRO	4.20	202.7	0	58	-5	1	47	-4				
OBIHIRO	4.28	21.4	1	5	1							
IIDA	4.29	218.1	1	6	2	2	0	6				
OSIMA	4.39	198.6	1	7	1							
SHIZUOKA	4.51	209.2	1	7	0	1	56	-3				
KUSIRO	4.75	30.9	1	8	-3	2	7	2				
OMAESAKI	4.91	208.7	1	14	1	2	27	18				
ASAHIGAWA	4.92	11.0	1	13A	0	2	25	15				
GIHU	4.94	225.5	1	13	0							
NAGOYA	5.00	222.3	1	14	0	2	12	0				
HAMAMATU	5.01	213.6	1	19	5	2	22	10				
TSURUGA	5.18	232.0	1	18	1							
HIKONE	5.33	227.9	1	20	1	2	24	4				
KAMEYAMA	5.51	223.5	1	30	9	2	39	15				
NEMURO	5.54	36.4	1	26	4							
KYOTO	5.81	229.1	1	25	0	2	33	1				
HATIDYOZIMA	5.93	190.5	2	26	59							
NARA	5.99	226.3	1	28	0							
ABUYAMA	6.00	229.0	1	27K	-1							
TOYOOKA	6.05	237.6	1	32	3							
OSAKA	6.18	227.7									3	10
WAKKANAI	6.48	3.8	1	43	8	3	0	12				
MUROTO	7.97	226.6									2	43
Y.-SAKHLINSK	8.15	7.9	1	57K	-1	3	34	4				
YAKUTSK	24.13	346.9	5	10A	-2	9	21	-3				

ULAN-BATOR	26.21	301.2	5	8	-24		
BAGUIO CITY	28.73	224.4	5	50	-5		
SHILLONG	43.21	267.1	7	55A	-3		
SEMIPALATNSK	43.59	305.9	8	1	0		
CHATRA	46.25	271.6	8	22	0		
ALMATA	47.46	296.9	8	30A	-1		
COLLEGE	47.63	33.2	8	33	0		
KHEYS	50.72	347.9	8	56	-1		
NEW DELHI	53.14	279.3	9	12A	-3		
TASHKENT	53.47	297.1	9	15A	-2		
SVERDLOVSK	53.55	317.6	9	17K	-1		
MOULD BAY	54.78	16.8	9	26A	-1		
WARSAK DAM	54.90	287.9	10	4	36		
DUZHANBE	54.94	294.2	9	27	-1		
CHARTERS TS.	58.93	174.3	9	56	0		
QUETTA	60.14	286.2	10	4	-1		
RESOLUTE	60.82	14.6	10	8K	-1		
APATITY	60.84	335.2	10	8K	-1		
ASHKABAD	62.52	297.9	10	13	-8		
VANNOVSKAYA	62.69	298.0	10	21	-1		
SODANKYLA	63.10	336.7	10	23	-2		
KIRUNA	64.64	338.8	10	33	-2		
KAJAANI	64.76	333.5	10	35A	0		
VICTORIA	65.29	46.8	10	39	0		
MOSCOW	65.56	322.8	10	40	-1		
VIBORG	66.43	330.2	10	44	-2		
PENTICTON	66.99	44.6	10	49	-1		
UMEA	67.43	335.6	10	51	-1		
EDMONTON	67.91	38.5	10	55A	0		
BANFF	68.11	41.3	10	56	-1		
NURMIJARVI	68.14	331.5	10	55	-2		
HELSINKI	68.24	331.1	10	55	-2		
KIROVOBAD	69.07	305.7	11	2A	-1		
TIFLIS	69.44	307.4	11	3	-2		
SKALSTUGAN	70.04	338.2	11	7A	-1		
SHASTA	70.17	53.4	11	9	0		
BAKURIANI	70.22	308.0	11	10A	0		
HUNGRY HORSE	70.56	43.1	11	12	0		
BLUE MTS.	70.83	47.5	11	14A	1	12	1
MINERAL	70.86	53.4	11	13A	0		
SHIRAZ	71.02	293.0	11	14A	0		
UPPSALA	71.13	333.6	11	14A	-1		
CALISTOGA	71.22	55.3	11	16A	0		
BERKELEY	71.87	55.8	11	20A	1		
LICK	72.58	56.0	11	24A	0		
PARAISO	72.70	57.2	11	29	5		
BOZEMAN	73.82	44.0	11	33	2		
PRIEST	73.92	56.5	11	32A	0		
EUREKA	74.86	51.4	11	38	1		
TOOLANGI	76.25	176.4	11	43	-2		
DUGWAY	76.30	49.2	11	46K	1		
PASADENA	76.75	56.8	11	47	-1		
UZHGOROD	77.33	323.4	11	52	1		
BOULDER CITY	77.75	53.6	11	55	2		
FLAMING GRGE	77.82	46.9	11	55	1		
UINTA BASIN	78.11	47.5	11	56A	1		
COLLMBERG	79.32	329.8	12	1	-1	14	50
LARAMIE	79.69	44.7	12	4	0		
PRUHONICE	79.72	328.2	11	58	-6	13	51
KASPERSKE H.	80.78	328.1	11	10	-60	11	30
GOLDEN	80.91	45.7	12	11	1		
TONTO FOREST	81.06	53.0	12	12	1	12	21 PCP
TUCSON	82.69	54.3	12	19	-1		
STUTTGART	82.78	330.2	12	20	0		
ALBUQUERQUE	83.55	49.8	12	25	1	12	51
SCHEFFERVLLE	83.59	15.8	12	24	0		
FOLINIERE	86.25	335.7	12	38	1		
WICHITA MTS.	88.25	45.3	12	47	0		
TULSA	88.88	42.8	12	51K	1		
FAYETTEVILLE	89.58	41.7	12	54A	1		
BREBEUF	90.33	23.6	12	58	1		
CUMBERLAND	94.22	36.5	13	15	0		
TAMANRASSET	105.83	317.8				18	28 PP
LA PAZ	146.06	57.0	19	37	4		

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AUGUST 12 18.H 29.M 36.S EPICENTRE 25.35 62.70 DEPTH= 0.KM

A= 0.41507 B= 0.80404 C= 0.42572 D= 0.8886 E=-0.4587
G= 0.1953 H= 0.3783 K=-0.9049 HT= 3.3

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KARACHI	3.97	96.5	1	5	2								
QUETTA	6.11	37.1	1	35A	2	2	53	8					
SHIRAZ	10.00	297.7	2	24A	-3						3	6	
BOMBAY	11.36	122.4	2	46	0						5	57	
WARSAK DAM	11.55	39.7	2	47	-2								
LAHORE	11.95	56.2	2	51	-3	4	57	-12					
ASHKABAD	13.10	344.7	3	9	0								
VANNOVSKAYA	13.16	343.8	3	3	-7								
NEW DELHI	13.33	72.8	3	9A	-4	5	28	-15					
DUZHANBE	14.15	19.8	3	24	1								
TEHERAN	14.21	319.5	3	23	-1	6	13	9			8	15	PCP
KHOROG	14.24	29.8	3	26A	1								
DEHRA DUN	14.46	66.5	3	25K	-2	6	2	-8					
KIZYL-ARVAT	14.84	340.1	3	32	0								
TASHKENT	16.85	17.3	3	56A	-2								
ANDIJAN	17.35	25.3	4	5A	0								
GORIS	19.70	319.7	4	34A	1	8	19	9					
FRUNSE	20.01	26.4	4	37	0								
KIROVOBAD	20.47	322.2	4	40A	-1								
BOKARO	21.06	89.2	4	50	2								
ALMATA	21.35	29.6	4	53A	3								
CHATRA	22.03	80.8	4	55A	-2						8	57	
TIFLIS	22.05	322.2	4	59	2	9	6	9					
BAKURIANI	22.78	320.6	5	7	2	9	22	12					
KSARA	24.75	296.2	5	30	6	10	7	23					
JERUSALEM	24.93	291.2	5	28	2								
SHILLONG	26.32	83.2	5	38A	-1								
ADDIS ABABA	27.95	238.7	5	52	-2								
SEMIPALATNSK	28.45	23.9	5	59A	1								
SIMFEROPOL	30.23	317.6	6	13	-1	11	13	0					
ISTANBUL UN.	32.02	307.7	6	36	6								
ATHENS	35.24	300.5									8	16	
MOSCOW	35.44	335.6	7	0K	1								
UZHGOROD	39.13	317.1	7	31	1								
PULKOVO	41.07	335.6	7	46A	0								
KRAKOW	41.09	318.2	7	47	0				7	54	8	29	
IRKUTSK	41.28	38.2	7	49	1	14	6	3					
ULAN-BATOR	41.29	45.3	7	49	1								
MESSINA	41.66	299.7				14	8	-1					
VIBORG	42.27	335.9	7	56	0								
LWIRO	42.79	235.1									16	52	
HELSINKI	43.41	333.6	8	5	0								
LJUBLJANA	43.47	311.0	8	5	-1						10	4	
AQUILA	43.68	305.5	8	8	0	14	44	6			9	54	PP
NURMIJARVI	43.73	333.8	8	7	-1	14	34	-5			9	46	PP
TRIESTE	43.92	310.3				14	37	-5			19	5	
ROME	44.32	304.8				14	54	7					
PRUHONICE	44.37	316.6	8	12	-1								
KASPERSKE H.	44.76	315.2	8	15A	-1						8	44	
KAJAANI	44.91	339.1	8	17	-1						10	1	PP
FLORENCE X.	45.41	307.3									14	54	
COLLMBERG	45.67	318.0	8	23	-1								
APATITY	45.87	344.8	8	25K	0	15	13	3			10	13	PP
UPPSALA	46.36	330.4	8	35A	6	15	30	13					
JENA	46.44	317.2	8	29	-1	15	6	-12			18	36	SS
HONG KONG	46.96	82.5	8	41	7								
COPENHAGEN	47.27	323.6	8	37	1								
UMEA	47.34	336.0	8	35	-2						10	30	PP
STUTTGART	47.47	313.9	8	36	-2								
SODANKYLA	47.50	342.0	8	38	0								
ISOLA	48.47	307.5	8	45	-1						10	13	PCP
ROSELEND	48.88	309.5	8	47	-2						9	33	
CHILEKA	48.91	216.5	8	49	0								
KEVO	49.09	344.4	8	51	0	16	16	21			10	40	PP
KIRUNA	49.61	340.4	8	54	0								
SKALSTUGAN	50.31	333.4	8	58A	-2								
DOURBES	50.68	315.0	9	3	0	16	20	3					
TROMSOE	51.13	341.9	9	4	-2				9	14			
CLERMONT-FD.	51.33	309.4	9	7	-1								
GARCHY	51.44	311.3	9	6A	-2								

			P		O-C	S			U-C	*PP		SUPP.		
BROKEN HILL	51.74	223.9	9	8	-3									
PARIS	51.93	313.2	9	12	0									
BAGUIO CITY	54.46	87.4	9	33	2									
DURHAM	54.93	320.4	9	21	-13									
KHEYS	55.40	359.1	9	38	0									
TOLEDO	56.85	302.4	9	55	7	17	37		-4			19	56	SCS
YAKUTSK	57.18	31.1	9	48A	-3									
MALAGA	57.56	298.7	10	0K	7	16	48		-62					
TIKSI	58.69	19.8	10	0A	-1									
CHANGALANE	59.18	212.1								10	15			
BANDEIRA	62.57	235.8	10	24A	-4					10	33			
PIETERMZBURG	62.83	211.5										11	15	PCP
MATUSIRO	64.24	60.0	10	43	4							24	1	SS
KIMBERLEY	64.97	216.6	10	40	-3									
DARWIN	76.20	111.0	11	50	-1									
MOULD BAY	78.66	0.5	12	4A	-1									
PALISADES	102.67	327.8				24	43		4					
PENNSYLVANIA	104.68	330.1										26	19	
BLUE MTS.	110.15	0.0	18	35	2							19	5	PP
UINTA BASIN	114.28	353.5	18	50	9							29	30	PKKP
EUREKA	115.50	358.9	18	52	8							19	33	PP
WICHITA MTS.	117.68	342.6	18	48	0									
TONTO FOREST	120.42	354.2	19	3	10							29	8	PKKP
TUCSON	122.40	353.5	19	7	10									
LA PAZ	133.45	270.9										22	1	

AUGUST 13 3.H 26.M 45.S EPICENTRE 54.99-156.41 DEPTH= 30.KM

A=-0.52817 B=-0.23068 C= 0.81720 D=-0.4002 E= 0.9164
G=-0.7489 H=-0.3271 K=-0.5764 HT= -7.2

SE= 2.21

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	U-C S	*PP M	S	SUPP. M	S	
COLLEGE	10.79	19.9	2	33	-2								
PORT HARDY	17.90	91.8	4	8	0								
SEATTLE	22.37	95.0	5	6	9	9	31	35					
YELLOWKNIFE	22.59	53.7	5	0	1								
PENTICTON	23.07	88.9	5	2	-2								
BANFF	24.59	81.9	5	19	1								
EDMONTON	24.95	75.8	5	24K	2								
MOULD BAY	25.37	19.7	5	28K	2	9	54	6					
SHASTA	26.61	108.3	5	37	0								
HUNGRY HORSE	26.77	86.6	5	39	0								
BLUE MTS.	26.80	95.9	5	39K	0	10	27	15			8	59	PCP
MINERAL	27.29	107.9	5	43K	-1								
CALISTOGA	27.98	111.7	6	49K	59								
BERKELEY	28.71	112.4	5	57A	1	10	51	9					
BUTTE	28.86	89.7	5	57	-1								
LICK	29.44	112.4	6	5K	2								
RESOLUTE	30.58	27.3	6	13K	0								
PRIEST	30.85	112.8	6	22K	6								
EUREKA	31.02	103.1	6	16	-1						9	11	PCP
DUGWAY	32.32	98.9	6	28K	0								
FLAMING GRGE	33.79	94.7	6	41	0								
UINTA BASIN	34.09	95.7	6	44	0						9	19	PCP
BOULDER CITY	34.14	106.4	6	45	1						9	20	PCP
GLEN CANYON	35.24	101.9	6	53	-1								
LARAMIE	35.74	91.0	6	58	0								
ALERT	36.41	12.8	7	5K	2								
GOLDEN	36.91	92.8	7	8	0								
TONTO FOREST	37.35	104.7	7	12	1					7	23	8	39 PP
TUCSON	39.12	106.4	7	26	0							9	34 PCP
ALBUQUERQUE	39.58	99.3	7	30	0							9	36 PCP
WICHITA MTS.	44.26	92.6	8	7	-1	14	50	10				9	49 PCP
TULSA	45.03	89.1	8	14K	0								
FAYETTEVILLE	45.82	87.6	8	20K	-1					8	27		
MATUSIRO	47.33	275.3	8	31	-2								
SCHEFFERVLLE	48.04	51.1	8	38K	0								
OTTAWA	49.79	65.6	8	50	-2								
SCORESBY SD.	50.66	18.1	9	0	2								
BREBEUF	50.81	64.2	8	58K	-2								
CUMBERLAND	51.12	81.5	9	0	-2	16	35	19			11	1	PP
PENNSYLVANIA	51.77	71.3	9	5	-2								
PALISADES	53.76	68.5	9	19	-3	16	59	7					
COLUMBIA	54.85	79.5	9	27	-3								

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KEVO	55.54	358.6	9	35	0	17	21	5				
KIRUNA	57.48	1.4	9	48	0							
SODANKYLA	57.94	358.6	9	52	0						10	41 PCP
KAJAANI	61.22	357.9	10	14	0						10	55 PCP
SKALSTUGAN	61.44	5.7	10	16	0							
UMEA	61.50	1.7	10	19	3	18	38	4				
NURMIJARVI	64.85	359.4	10	38A	0	19	20	4				
KONGSBERG	65.17	7.8	10	41	1				10	53		
HELSINKI	65.19	359.2	10	40	0							
UPPSALA	65.41	3.3	10	47	5							
GOTEBORG	67.28	6.7	11	6	12							
COLLMBERG	73.72	6.9	11	33A	0						12	1
JENA	73.98	7.9	11	33	-1							
DOURBES	74.08	12.6	11	36	1							
FOLINIERE	74.65	16.3	11	38	0							
PARIS	75.07	14.3	11	42	2							
PRUHONICE	75.13	6.0	11	41	0							
KASPERSKE H.	75.92	6.8	11	45K	0						12	45
STUTTGART	75.92	9.7	11	46	1							
GARCHY	76.64	14.2	11	50	1							
ISOLA	80.21	12.0	12	10	1						12	52
SHILLONG	80.90	301.8	12	12	-1							
CHATRA	82.09	306.1	12	21	2							
TOLEDO	82.59	21.1	12	23K	2	22	42	7			12	33 PCP
TRINIDAD	84.23	79.8	12	28	-2							
NEW DELHI	84.94	314.7	12	32K	-1							
MALAGA	85.55	22.2	12	31	-5	23	13	9				
TEHERAN	86.54	337.7	12	43	2							
QUETTA	87.37	323.5	12	53	8							
CHARTERS TS.	89.24	232.3	12	53	-1							
SHIRAZ	92.11	335.1	12	15	-52							
BROKEN HILL	139.37	352.7									15	46
SOUTH POLE	144.81	180.0	19	29	-5							
BULAWAYO	145.00	351.8	19	34	0							

AUGUST 13 7.H 3.M 50.S EPICENTRE 36.54 71.12 DEPTH= 245.KM

A= 0.26056 B= 0.76201 C= 0.59283 D= 0.9462 E=-0.3236
G= 0.1918 H= 0.5609 K=-0.8053 HT= -0.4

DEPTH OF FOCUS= 0.033R

SE= 1.74

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
KHOROG	0.99	19.1	0	36A	2	1	3	2					
KULYAB	1.74	321.5	0	40A	0						1	9	
GARM	2.54	345.4	0	47A	-1	1	22	-3					
WARSAK DAM	2.56	172.0	0	46	-2	1	19	-6					
DZERGETAL	2.67	1.8	0	49	0	1	26	-1					
DUZHANBE	2.75	318.0	0	49A	-1	1	26	-3					
FERGANA	3.87	7.5	1	3K	0	1	49	-2					
ANDIJAN	4.31	12.7	1	9K	1	1	59	-2					
NAMANGAN	4.45	5.4	1	10	1	2	2	-2					
SAMARKAND	4.52	315.0	1	10	0	2	2	-3					
TASHKENT	4.98	343.8	1	16K	0	2	17	2			1	46	
LAHORE	5.65	151.0	1	25	1	2	22	-8					
TCHIMKENT	5.87	348.9	1	27	0						2	19	*SP
NARYN	6.18	36.4	1	28	-3						2	33	
FRUNSE	6.83	22.2	1	39A	0	2	52	-5					
RYBACHE	7.08	32.0	1	45	3						2	57	
QUETTA	7.24	210.0	1	44	0	3	7	1					
FABRICHNAYA	7.74	30.2	1	50	-1								
ALMATA	8.07	31.9	1	55A	0	3	26	1			3	13	
ALMATA-2	8.26	33.6	1	56A	-1						3	31	
DEHRA DUN	8.48	135.0	2	1A	1						3	40	
CHILIK	8.97	36.3	2	5	-2						4	2	
NEW DELHI	9.45	145.4	2	11K	-1	3	52	-4					
ASHKABAD	10.28	281.7	2	22	-1	4	13	-2					
VANNOVSKAYA	10.48	281.6	2	24	-1	4	21	1					
KIZYL-ARVAT	12.03	287.2	2	44A	-1	4	49	-6					
SEMIPALATNSK	15.34	22.6	3	24	-1	6	6	-3					
TEHERAN	15.96	273.0	3	34K	1	6	33	11			8	35	PCP
CHATRA	16.72	120.9	3	33A	-8	6	38	0					
SHIRAZ	17.02	251.5	3	45K	0	6	48	3			4	50	*SP

BOKARO	17.90	131.0	3	56	2	7	17	15						
GORIS	19.74	286.1	4	13	1							5	24	*SP
KIROVOBAD	19.79	289.5	4	13K	0							5	23	*SP
GROZNY	20.56	297.0	4	23	2							5	33	*SP
SHILLONG	20.83	115.9	4	25A	2	8	3	7						
TIFLIS	21.03	292.3	4	27	2							5	40	*SP
SVERDLOVSK	21.48	344.1	4	31A	1									
VISHAKHAPTNM	21.62	146.9				8	12	2				5	55	
CHITTAGONG	22.84	122.5	4	48	5	8	44	13						
IRKUTSK	28.14	45.5	5	31A	0									
ULAN-BATOR	28.58	55.3	5	36A	1									
KSARA	28.84	275.1	5	43	5									
SIMFEROPOL	29.06	298.4							6	31				
MOSCOW	29.68	320.9	5	44	-1				6	41				
LWOW	36.22	306.6	6	41	0							7	58	*SP
ATHENS	37.44	286.9	6	50	-1									
HELSINKI	37.60	323.8	6	53	1				7	49				
APATITY	37.62	337.4	6	53	0	12	24	0						
NURMIJARVI	37.85	324.2	6	54K	-1	12	19	-8	7	48		8	5	*SP
KAJAANI	37.85	330.5	6	55K	0				7	47		8	14	PP
WARSAW	38.27	310.4	7	54	56									
KRAKOW	38.87	306.8	7	3K	0				7	55		8	23	
SODANKYLA	39.74	334.9	7	11	1									
KEVO	40.80	338.2	7	19	0	13	14	3				9	2	PP
UMEA	40.83	328.2	7	19K	0									
UPPSALA	41.10	321.9	7	21	0									
KARLSKRONA	41.72	316.1	7	25	-1				8	19				
KIRUNA	42.09	334.0	7	29K	0				8	33				
PRUHONICE	42.34	306.9	7	32	1							9	53	
KASPERSKE H.	43.04	305.7	7	37	0							8	17	
COLLMBERG	43.24	308.9	7	39	0							8	0	
TROMSOE	43.27	336.2	7	38	-1							9	15	PP
GOTEBORG	43.79	318.2	7	43	0				8	36				
JENA	44.16	308.5	7	46	0				8	28				
SKALSTUGAN	44.23	326.7	7	46K	0							9	8	*SP
KHEYS	44.48	357.0	7	49	1							9	8	*SP
KONGSBERG	45.10	320.9	7	54A	1				8	43		9	38	PP
TIKSI	45.69	22.0	7	58A	0	14	21	0	8	51		9	18	*SP
STUTTGART	45.90	305.7	8	0	0									
STRASBOURG	46.91	305.6	8	8	1							10	10	
ROSELEND	48.25	302.0	8	17	-1							10	24	
ISOLA	48.31	299.9	8	19	1									
DOURBES	48.69	308.2	8	23	2									
GARCHY	50.27	304.8	8	11	-22							8	29	
CLERMONT-FD.	50.61	302.9	8	29	-7									
KEW	51.47	310.7	8	42A	0									
FOLINIERE	52.22	307.4	8	47	-1									
TOLEDO	57.51	298.1	9	25K	0	16	54	-8	10	21		12	15	PP
MALAGA	59.02	294.9	9	34	-2									
TANANARIVE	59.49	206.1	9	40	1							10	28	
CHILEKA	62.15	220.0	9	56A	-1									
MOULD BAY	67.30	2.7	10	29	-1				11	27				
BULAWAYO	69.21	222.8	10	41K	-1									
CHANGALANE	72.47	216.3	11	1A	0									
DARWIN	74.30	118.8	11	12	0									
COLLEGE	74.42	16.2	11	13	0				12	11				
YELLOWKNIFE	81.20	2.7	11	49	-1				12	49				
SCHEFFERVLLE	82.09	336.9	11	54	0									
EDMONTON	90.36	2.7	12	36	2									
CHARTERS TS.	90.47	114.7	12	34	-1									
PENTICTON	93.98	7.0	12	52	1									
TONTO FOREST	109.50	2.1										29	6	PKKP

AUGUST 13 21.H 52.M 46.S EPICENTRE -19.43-173.95 DEPTH= 102.KM

A=-0.93846 B=-0.09954 C=-0.33073 D=-0.1055 E= 0.9944
G= 0.3289 H= 0.0349 K=-0.9437 HT= 4.8

DEPTH OF FOCUS= 0.011R

SE= 2.63

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
AFIAMALU	5.87	21.0	1	10	-16	2	10	-23				
RAOUL ISLAND	10.42	199.5				4	12	-11				
PORT VILA	16.90	272.9	3	54	3							

LUGANVILLE	18.46	279.2	4	10K	0						
NOUMEA	18.54	257.7	4	12	1						
KOUMAC	20.49	263.2	4	35	3						
KARAPIRO	20.58	204.2	4	31	-2						
CHATEAU	21.69	202.6	4	44	0						
WELLINGTON	23.81	201.4	5	3	-1						
HONIARA	27.13	287.8	5	36	1	10	24	20			
BRISBANE	31.47	249.1	6	13	-1	11	32	19			
RIVERVIEW	34.15	238.0	6	36	-1	12	0	5	12	19	
CANBERRA	36.27	236.4	6	54	-1						
RABAUL	36.35	290.3	6	54	-2						
CHARTERS TS.	37.40	262.1	7	3	-2	12	56	11			
PORT MORESBY	38.89	279.2	7	16K	-1	13	50	43			
TOOLANGI	39.60	234.2	7	22	-1				7	34	*SP
HONOLULU	43.35	21.8	8	0	6	14	22	9			
KIPAPA	43.49	21.8	7	59	4						
ADELAIDE	44.44	239.6	8	4A	2				18	20	
DARWIN	53.39	268.8	9	11	0						
CAPE HALLETT	53.67	185.9	9	14	1						
SCOTT BASE	59.21	184.7	9	53	0						
MUNDARING	63.22	243.4	10	20	0						
BYRD STATION	65.08	171.0	10	31	-1						
WILKES	66.56	205.2	10	39	-2				11	42	
MATUSIRO	71.70	321.0	11	13	0	20	33	10			
MIRNY	73.56	204.6	11	24	0	20	56	12			
PARAISO	73.83	41.2	11	28	3						
PRIEST	74.78	42.3	11	28K	-3						
BERKELEY	74.88	40.0	11	27A	-4	21	10	12	14	44	PP
LICK	74.92	40.8	11	31A	0						
CALISTOGA	75.18	39.3	11	31K	-2						
PASADENA	75.20	45.2	11	37	4	21	15	13			
SHASTA	76.63	37.7	11	40	-1						
Y.-SAKHLINSK	76.79	331.2	11	42A	0	21	33	14			
LEMBANG	76.88	267.3	11	42A	0						
BOULDER CITY	78.49	45.3	11	51	0						
TUCSON	79.28	50.3	11	55	-1						
EUREKA	79.75	41.8	11	56	-2						
TONTO FOREST	80.03	48.3	11	58	-2	22	5	11	12	6	PCP
PORT HARDY	80.91	27.8	12	4	0						
SEATTLE	81.24	32.4	12	3	-3	22	12	6			
HONG KONG	81.55	297.1	12	10	2	22	22	13	22	45	SCS
BLUE MTS.	82.14	36.9	12	9	-2	22	28	12	15	21	PP
DUGWAY	82.17	42.6	12	16A	5	22	26	10			
SALT LAKE C.	83.09	42.5	12	16	0						
PENTICTON	83.68	32.3	12	18A	-1						
ALBUQUERQUE	83.79	49.8	12	19	0						
MAGADAN	83.81	342.8	12	18	-1	22	42	10			
MAWSON	83.83	198.8	12	19	0						
UINTA BASIN	84.32	43.9	12	21	-1	22	53	16	15	28	PP
FLAMING GRGE	84.76	43.4	12	24	0						
COLLEGE	86.40	10.9	12	31	-1	23	6	9			
BANFF	86.89	32.5	12	33	-1						
CONCEPCION	87.63	128.2	12	45	7						
EDMONTON	89.26	31.5	12	44	-2						
WICHITA MTS.	89.48	52.8	12	45	-2	23	18	-8	24	53	PS
N-LAZARVSKYA	89.95	181.9	12	49A	0	23	41	11			
TULSA	92.06	52.7	13	10	11	24	4	15	23	31	SKS
YAKUTSK	92.57	336.9	12	59	-2						
FAYETTEVILLE	93.33	53.0	13	8	4						
TIKSI	98.71	344.4	13	28A	-1						
CUMBERLAND	99.78	55.8	13	40	6	24	2	1	26	27	SP
CARACAS	109.36	85.4							18	46	PP
PALISADES	109.92	52.4				25	0	13			
BREBEUF	110.74	47.7							28	38	PS
ALMATA	116.84	309.3	18	31	-1						
QUETTA	124.26	293.7	18	50	3						
SVERDLOVSK	125.24	326.7	18	50K	1						
KEVO	128.08	350.9							22	18	PKS
APATITY	128.85	346.9	18	58	2				22	25	SKP
KIRUNA	130.76	352.9							22	23	PKS
ASHKABAD	131.21	303.8							22	29	SKP
VANNOVSKAYA	131.41	303.8	19	4	3						
KAJAANI	133.04	347.2	19	5	1						
UMEA	134.61	351.2	19	7A	0				21	39	PP
PULKOVO	136.10	342.5							21	43	PP
MOSCOW	136.68	334.4	19	14	4				21	51	PP
NURMIJARVI	136.88	346.6	19	4	-7				21	52	PP
HELSINKI	137.12	346.2	19	4	-7						

UPPSALA	138.78	351.2					22 48	PKS
KIROVOBAD	139.68	310.5	19 16	0				
TIFLIS	140.38	312.7	19 20	3			23 0	PKS
BAKURIANI	141.26	313.3	19 16	-3				
VALENTIA	145.14	17.7	19 26	0				
BANDEIRA	145.14	192.3	19 29A	3				
WARSAW	145.24	343.8	18 28	-58	18 39		18 47	*SPKP
SIMFEROPOL	145.51	323.8	19 29A	3				
LWOW	146.45	338.8	19 32	4				
WITTEVEEN	146.68	359.3	19 32	4				
ADDIS ABABA	146.71	256.5	19 35	7				
DE BILT	147.39	1.0	19 36	7				
KRAKOW	147.51	343.3	19 34A	4			19 59	
CHORZOW	147.53	344.5	19 36	6			20 1	
KEW	147.64	7.5	19 34	4			19 55	
HALLE	147.67	353.1	19 34	4			23 33	PKS
COLLMBERG	147.73	351.8	19 35	5				
RACIBORZ	147.92	345.2	19 36	6			20 17	PKP2
UZHGOROD	148.06	339.5	19 37	7				
SKALNATE PL.	148.20	342.2	19 33	2				
JENA	148.27	353.3	19 32	1			22 37	PP
BENSBERG	148.53	358.6	19 37A	6			20 12	
UCCLE	148.67	2.1	19 38	7				
PRUHONICE	148.78	349.4	19 38	6				
LWIRO	148.96	228.5	19 40	8				
DOURBES	149.38	1.8	19 35	3			19 42	PKP2
JERSEY	149.61	10.6	19 45	12				
KASPERSKE H.	149.76	350.2	19 40	7				
KSARA	149.86	304.4	19 33	0			23 15	PP
BRATISLAVA	149.97	345.2	19 36	3				
HEIDELBERG	150.03	356.5	19 41A	8				
FOLINIERE	150.26	8.7	19 41	7				
KARLSRUHE	150.43	356.9					19 54	
PARIS	150.55	4.8	19 42A	8				
STUTTGART	150.62	355.6	19 36	2				
STRASBOURG	150.89	357.7	19 43	8			20 2	PKP2
ISTANBUL UN.	150.90	322.7	19 43	8				
JERUSALEM	151.06	300.9	19 45	10				
BELGRADE	151.99	337.9	19 46	10			20 27	
GARCHY	152.12	4.3	19 45A	9				
LJUBLJANA	152.55	347.1	19 39	2			20 14	
TRIESTE	153.09	348.0	19 48	10				
CLERMONT-FD.	153.62	4.6	19 50	11				
ROSELEND	153.81	359.1	19 50	11			20 21	
ISOLA	155.31	358.3	20 10	29			20 25	
FLORENCE X.	155.34	351.0	19 44	3				
ATHENS	155.97	323.9	19 44	2				
AQUILA	156.32	346.3	19 44	2	26 39	3	23 44	PP
ROME	156.95	347.7	19 44	1			24 14	PP
TOLEDO	157.84	21.0	19 46	2			24 4	PP
MESSINA	159.56	338.2					20 13	PKP2
MALAGA	160.49	25.9	19 50A	3			24 18	PP
AVERROES	161.68	38.4	19 49	1	20 0			
ALGIERS UNI.	162.53	8.1	20 12	23			24 28	PP
TAMANRASSET	176.63	8.4	20 1A	3			25 36	PP

AUGUST 13 23.H 0.M 30.S EPICENTRE 27.38 140.16 DEPTH= 490.KM

A=-0.68276 B= 0.56969 C= 0.45749 D= 0.6407 E= 0.7678

G=-0.3513 H= 0.2931 K=-0.8892 HT= 2.6

DEPTH OF FOCUS= 0.072R

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
TORISIMA	3.09	2.3	1	8A	-3	2	2	-6				
HATIDYOZIMA	5.71	356.9	1	10	-24	2	19	-29				
OSIMA	7.39	355.0				3	15	-4				
MERA	7.52	357.9				3	18	-2				
HAMAMATU	7.61	344.6				3	22	0				
AJIRO	7.70	353.5	1	51	-3	3	21	-3				
MISIMA	7.78	352.7				3	18	-7			2	49
YOKOHAMA	8.03	357.0				3	28	-3				
KAMEYAMA	8.09	337.9	1	59A	1	3	34	2				
NARA	8.17	334.0	2	0	1							

HUNATU	8.18	352.0	1	59	0	3	33	0			
NAGOYA	8.23	341.4	1	59	0	3	36	2			
OSAKA	8.26	332.4	2	1	1	3	38	3			
SUMOTO	8.27	328.3	2	1A	1	3	39	4			
TOKYO C.M.O.	8.28	357.7	2	2	2	3	33	-2			
TYOSI	8.33	3.9	1	59	-1	3	37	1			
IIDA	8.35	346.8	2	0	-1				2	31	
KOHU	8.37	351.0	2	3	2	3	35	-2			
ABUYAMA	8.43	333.4	2	2K	0	3	42	4			
GIHU	8.50	340.9	2	3	1						
KYOTO	8.50	334.6	2	3	1	3	41	1			
HIKONE	8.54	337.9	2	4	1	3	43	3			
TITIBU	8.62	354.2	2	4	1						
KUMAGAYA	8.77	355.9	2	3A	-2	3	42	-3			
KAKIOKA	8.82	0.1	2	5	-1	3	40	-6			
MIYAZAKI	8.84	302.8							3	53	
MITO	8.97	1.6	1	51	-16				2	6	
OIWAKE	9.02	351.7	2	7	-1	4	10	20			
MATUMOTO	9.03	348.7	2	8	0	3	50	0			
MAEBASI	9.04	354.4							3	36	
UTUNOMIYA	9.14	358.5	2	7	-2	3	48	-4			
MATUSIRO	9.28	350.2	2	8K	-2	3	50	-5			
TOYOOKA	9.31	332.0	2	12	1	3	59	4			
OOITA	9.40	310.4	2	15	3	4	3	6			
NAGANO	9.41	350.3	2	11	-1						
ONAHAMA	9.56	3.6	2	12	-1	3	59	-1			
SHIRAKAWA	9.71	0.3	2	13	-2	4	1	-2			
KUMAMOTO	9.82	305.8	2	18	2	4	11	6			
HAMADA	10.20	319.2	2	18	-2	4	13	0			
SAGA	10.33	306.9	2	25	3	4	20	5			
HUKUSIMA	10.34	1.4	2	21K	-1	4	17	2			
NAGASAKI	10.38	303.4	2	22	0	4	19	3			
HUKUOKA	10.45	308.6	2	23	0	4	22	5			
NIIGATA	10.55	355.2							4	11	
YAMAGATA	10.84	0.8	2	26K	-1	4	26	1			
SENDAI	10.87	3.1	2	26	-1	4	27	1			
ISINOMAKI	11.06	4.8	2	28K	-1	4	30	1			
SAKATA	11.49	358.7	2	36	2						
MIZUSAWA	11.74	3.7	2	37	0	4	45	2			
AKITA	12.30	359.8	2	46	4	4	56	3			
MORIOKA	12.31	3.7				5	35	41			
AOMORI	13.41	2.0	2	55	1	5	14	0			
HAKODATE	14.40	1.8	3	4	0	5	39	6			
URAKAWA	14.89	7.6	3	11	2	5	51	9			
SAPPORO	15.68	3.2							5	41	
OBIHIRO	15.70	8.3							5	5	
NEMURO	16.51	14.0							6	19	
Y.-SAKHLINSK	19.71	5.2	3	56K	0						
HONG KONG	24.10	263.6	4	38	1	8	19	0	6	46	*SP
MAGADAN	32.98	9.9	5	54	0						
YAKUTSK	35.33	351.5	6	13	-1						
PORT MORESBY	37.19	168.5	6	36	7				6	58	
SHILLONG	43.05	279.0	7	16K	0						
TIKSI	44.73	354.9	7	29	-1						
CHARTERS TS.	47.56	172.2	7	48	-3				9	16	
ALMATA	52.76	305.0	8	29K	-1						
FRUNSE	54.50	304.7	8	42K	0						
NEW DELHI	55.02	287.1	8	44K	-2						
BRISBANE	55.79	166.4	8	48	-3				10	19	
KHOROG	57.66	298.7	9	5	1	16	29	5			
COLLEGE	57.93	28.6	9	5	-1						
WARSAK DAM	58.39	294.7	9	7	-2						
TASHKENT	58.65	303.6	9	9K	-2	16	48	11			
KHEYS	61.88	349.4	9	32	0						
SVERDLOVSK	61.90	322.2	9	31A	-1						
QUETTA	63.17	291.7	9	40K	0						
MOULD BAY	66.09	14.9	9	58K	-1						
ASHKABAD	67.65	302.2	10	8	0						
VANNOVSKAYA	67.83	302.3	10	10	1						
KIZYL-ARVAT	68.81	304.0	10	15K	0						
ALERT	69.80	3.1	10	22K	1						
APATITY	71.09	337.1	10	29K	0						
KEVO	72.11	340.4	10	35K	0						
YELLOWKNIFE	72.74	28.0	10	38K	0						
KARAPIRO	72.95	151.4	10	38	-2						
SODANKYLA	73.47	338.3	10	42K	-1						
TEHERAN	73.65	302.0	10	43	-1						
MOSCOW	74.45	325.0	10	48K	0						
TROMSOE	74.51	341.9	10	48	0						

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KAJAANI	74.83	335.1	10	50K	0							
SHIRAZ	75.10	295.8	10	51K	-1	19	49	-1			13	40 PP
KIRUNA	75.17	340.1	10	52K	0							
GORIS	75.88	307.2	10	56K	0							
PENTICTON	75.95	41.6	10	56	0							
BAKURIANI	76.91	310.2	11	3K	1							
EDMONTON	77.57	36.0	11	6K	1							
UMEA	77.69	336.8	11	5K	-1				13	0	13	38 *SP
NURMIJARVI	77.99	332.8	11	7K	-1						13	45 PP
HELSINKI	78.05	332.5	11	8	0							
BLUE MTS.	79.38	44.9	11	16K	1				12	58	11	52
SKALSTUGAN	80.51	339.0	11	20K	-1						14	30 PP
UPPSALA	81.17	334.5	11	23K	-1						13	50 *SP
SIMFEROPOL	81.51	316.4	11	26K	0							
BUTTE	81.71	42.3	11	28	1				13	10		
EUREKA	82.84	49.2	11	34	1				13	14		
PASADENA	83.89	54.8	11	38	0							
KONGSBERG	84.22	337.2	11	39	0							
KARLSKRONA	84.44	332.4	11	44	3							
DUGWAY	84.57	47.4	11	42	1							
GOTEBORG	84.79	334.9	11	40K	-2							
SALT LAKE C.	84.89	46.5	11	43	0							
BERGEN	85.08	339.3	11	44	0							
BOULDER CITY	85.37	51.8	11	47	2							
KSARA	85.94	306.0	11	46	-2						14	32
UZHGOROD	86.18	324.0	12	2	13							
FLAMING GRGE	86.38	45.3	11	51	1							
UINTA BASIN	86.60	45.9	11	52	1				13	31		
TONTO FOREST	88.74	51.7	12	2	1				13	48		
COLLMBERG	88.92	330.0	12	1	-1						15	38 PP
PRUHONICE	89.13	328.3	12	3	0						15	42
GOLDEN	89.61	44.6	12	7	2							
JENA	89.81	330.3	12	4	-2						15	44 PP
CHEB	90.06	329.4	12	9	2							
TUCSON	90.14	53.2	12	8	0							
KASPERSKE H.	90.18	328.2	12	7K	-1						15	45
ALBUQUERQUE	91.66	49.0	12	16	1				14	2		
STUTTGART	92.41	330.0	12	18	0							
KARLSRUHE	92.61	330.5	11	44	-35							
ROSELEND	95.91	329.3	12	34	0							
FOLINIERE	96.42	335.0	12	35	-1							
TAMANRASSET	113.61	314.2	17	42	1						18	43
HUANCAYO	143.43	72.4	18	39	1							
LA PAZ	151.68	73.4	18	51	1						20	51

AUGUST 14 3.H 32.M 33.S EPICENTRE -4.94 152.36 DEPTH= 59.KM

A=-0.88264 B= 0.46221 C=-0.08546 D= 0.4639 E= 0.8859
G= 0.0757 H=-0.0396 K=-0.9963 HT= 7.0

DEPTH OF FOCUS= 0.004R

SE= 1.00

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
RABAUL	0.75	345.4	0	17	0							
PORT MORESBY	6.81	229.1	1	40K	0	2	51	-6				
HONIARA	8.75	121.1	2	6	-1	3	42	-3				
CHARTERS TS.	16.19	201.0	3	46	1	6	48	5				
LUGANVILLE	17.92	127.0	4	7K	0							
KOUMAC	19.38	144.3	4	22	-2							
GUAM	19.78	337.6	4	29	1							
PORT VILA	20.14	136.4	4	32	0							
NOUMEA	22.00	143.0	4	51K	0	8	53	8				
BRISBANE	22.33	179.0	4	54	0	8	58	7				
DARWIN	22.52	249.4	4	58	2							
RIVERVIEW	28.77	182.1	5	55A	0	10	46	7			11	39
CANBERRA	30.39	185.4	6	9K	0	11	4	0				
ADELAIDE	32.44	201.2	6	26K	-1						15	27
TOOLANGI	33.08	190.0	6	32	-1							
AFIAMALU	36.44	106.7	7	0	-1	12	31	-7				
MOORLANDS	37.63	186.3	7	12	1							
BAGUIO CITY	37.92	304.7	7	36	22							
KARAPIRO	39.05	150.4	7	24K	1							
CHATEAU	40.05	151.6	7	33K	2							

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WELLINGTON	41.38	154.2	7	43	1						17	31	SS
MUNDARING	43.21	227.1	7	56	-1	14	8	-11					
MATUSIRO	43.33	343.3	7	58	0								
LEMBANG	44.53	265.3	8	7	-1								
HONG KONG	46.13	307.4	8	21A	0	15	1	0	8	38	18	25	SS
ULAN-BATOR	65.99	328.3	10	45	2								
SHILLONG	66.01	300.6	10	42A	-1								
CAPE HALLETT	68.20	174.2	10	57	0								
YAKUTSK	69.00	348.8	10	59	-3								
MIRNY	73.65	201.0	11	29	0	20	47	-7			11	43	PCP
TIKSI	77.95	352.6	12	21	27						22	33	
NEW DELHI	79.41	300.1	12	0K	-2								
COLLEGE	82.15	21.9	12	15	-1								
ALMATA	82.82	314.6	12	19A	-1								
BYRD STATION	84.85	169.9	12	31	1								
SOUTH POLE	85.10	180.0	12	31	0						13	2	
WARSAK DAM	85.15	304.6	12	31	0								
MAWSON	85.27	202.6	12	32A	0	22	55	-1					
TASHKENT	88.04	311.6	12	46A	1	23	25	3					
QUETTA	88.49	300.3	12	47	-1								
BERKELEY	89.35	52.1									40	39	
SHASTA	89.59	49.3	12	53	0								
MINERAL	90.14	49.7	12	55A	0								
SEATTLE	90.47	42.4	12	58	1								
PASADENA	92.30	56.1	13	7	2						14	1	
PENTICTON	92.41	40.9	13	6	0								
BLUE MTS.	93.68	45.5	13	12	0						30	18	PKKP
MOULD BAY	94.35	13.9	13	14K	-1								
EUREKA	94.39	50.9	13	16	1						16	40	PP
SVERDLOVSK	95.04	326.5	13	16	-2								
BANFF	95.13	39.2	13	19	1								
BOULDER CITY	95.14	54.4	13	21	3						13	55	
HUNGRY HORSE	96.06	42.0	13	19	-3								
EDMONTON	96.48	37.0	13	25	1								
TONTO FOREST	98.02	56.2	13	34	3						14	42	
TUCSON	98.37	58.3	13	36	3								
UINTA BASIN	99.32	50.1	13	38	1						17	31	PP
UMEA	111.90	339.2									19	10	PP
KSARA	114.66	304.9									19	31	PP
CUMBERLAND	118.73	52.0	18	44	2								
UZHGOROD	119.30	324.4	18	49	6								
BROKEN HILL	121.13	250.0	18	49	2								
COLLMBERG	122.76	330.9	18	51	1								
PRUHONICE	122.81	328.9	18	51	1								
LWIRO	123.16	264.1									19	37	PP
JENA	123.69	331.3	18	52	0						21	18	PP
KASPERSKE H.	123.83	328.6	18	53	1								
STUTTGART	126.23	330.5	18	58	2								
DOURBES	127.45	334.4	19	3	4								
AQUILA	127.91	321.9									32	57	PPS
PAVIA	128.65	327.1									42	40	SSS
PARIS	129.33	334.6	19	4	2								
GARCHY	130.23	332.9	19	4	0						22	27	
ISOLA	130.45	327.4	19	7	2						22	16	SKP
FOLINIERE	130.58	336.6	19	7	2								
LA PAZ	134.65	118.9	19	19	7								
TOLEDO	139.22	331.9				25	39	-44			22	21	PP
CARACAS	140.70	79.5	19	18	-6								
TAMANRASSET	143.39	302.2	19	26A	-2						22	36	PP
ST. CLAUDE	144.80	69.1	19	33	2								
FORT FRANCE	145.63	71.1	19	45	13								
AVERROES	146.07	328.8	19	33A	0				19	52	20	24	*SPKP
TRINIDAD	146.09	78.3	19	36	3								
M.BOUR	165.91	312.5	20	3	5						25	1	PP

AUGUST 14 18.H 43.M 53.S EPICENTRE -3.42 135.47 DEPTH= 11.KM

A=-0.71159 B= 0.70010 C=-0.05919 D= 0.7013 E= 0.7128
G= 0.0422 H=-0.0415 K=-0.9982 HT= 7.1

SE= 1.87

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT MORESBY	13.04	117.7	3	7A	-1	5	45	11			3	26	PP
RABAUL	16.69	93.2	3	55	0								
GUAM	19.13	28.6	4	28	3								

CHARTERS TS.	19.63	148.4	4	31	0	8	12	5				
MANILA	22.94	321.9				9	15	4				
BAGUIO CITY	24.60	323.7	5	23	2	9	27	-12				
HONIARA	25.04	105.0	5	26	1	9	53	6				
LEMBANG	27.94	261.9	5	43K	-9				6	51	PPP	
TANGERANG	28.86	263.5	6	3K	2							
BRISBANE	29.02	146.9	6	1	-1	10	55	3				
ADELAIDE	31.54	174.9	6	24A	0				19	47		
KOUMAC	32.83	123.6	6	35A	-1							
HONG KONG	32.96	321.8	6	38	1	11	50	-4				
LUGANVILLE	33.40	113.2	6	41	0							
RIVERVIEW	33.61	156.0	6	44	2				6	59	*SP	
MUNDARING	33.68	210.4	6	43	0				6	53		
CANBERRA	34.13	160.1	6	46A	-1							
PORT VILA	35.20	116.2	6	57A	1							
TOOLANGI	35.21	166.1	6	55	-1				8	19	PP	
NOUMEA	35.42	124.7	6	57A	-1							
ABUYAMA	38.08	0.1	7	20A	0							
MATUSIRO	39.83	3.5	7	33	-2	13	33	-6				
KARAPIRO	50.19	138.5	8	59K	1							
Y.-SAKHLINSK	50.63	6.4	9	0A	-1	16	9	-5				
CHATEAU	50.89	139.9	9	4	1							
SHILLONG	51.13	306.9	9	4A	-1							
ROXBURGH	51.29	149.9	9	6	0							
AFIAMALU	53.07	104.8	9	20	1							
CHATRA	55.47	305.9	9	38A	1							
ULAN-BATOR	56.91	337.4	9	47A	0							
PETROPAVLOVK	59.52	16.0	10	5K	-1							
IRKUTSK	61.42	338.8	10	18A	-1	18	39	1				
MAGADAN	63.93	8.6	10	34	-1	19	8	-1				
DEHRA DUN	64.21	306.0	10	38A	1							
NEW DELHI	64.30	303.9	10	36A	-2							
WILKES	65.20	190.8	10	44	1							
LAHORE	67.63	306.0	10	59	0	19	52	-2				
HONOLULU	69.46	65.9	11	11	1							
KIPAPA	69.56	65.8	11	12	1							
MIRNY	69.58	196.8	11	10	-1				11	26	12	24
WARSAK DAM	70.63	307.7	11	18	1							
SEMIPALATNSK	71.40	326.3	11	21A	-1							
FRUNSE	71.48	317.3	11	23A	1							
KHOROG	71.76	311.2	11	25	1	20	43	0				
QUETTA	73.32	302.7	11	34A	1	20	59	-2				
TASHKENT	74.65	314.4	11	42A	1							
TIKSI	75.03	357.8	11	38A	-5	21	12	-8				
SCOTT BASE	76.20	173.5	11	50	0							
MAWSON	80.26	201.8	12	12A	0							
ASHKABAD	81.97	308.9	12	21	0	22	44	10				
VANNOVSKAYA	82.16	308.9	12	28	6							
KIZYL-ARVAT	83.79	309.8	12	32A	1	22	52	0				
SVERDLOVSK	84.60	327.8	12	34K	-1	22	55	-5				
SHIRAZ	85.55	299.9	12	39A	0	23	15	5	12	52	15	10 PP
TANANARIVE	86.94	151.3	12	49	3							
TEHERAN	87.17	305.9	12	48A	1							
COLLEGE	87.45	24.6	12	48	-1							
BYRD STATION	89.25	170.3	12	58	1							
GORIS	91.48	309.3	13	7A	-1	24	3	-2				
KIROVOBAD	91.54	310.4	13	7	-1							
TIFLIS	92.75	311.5	13	12	-1							
BAKURIANI	93.71	311.4	13	17A	-1							
MOULD BAY	96.90	13.5	13	30A	-2							
MOSCOW	97.23	325.6	13	32A	-2							
APATITY	97.74	337.7	13	34K	-2	24	54	42				
KEVO	99.52	340.4	13	43	-1				18	1	PP	
SODANKYLA	100.33	338.1	13	46	-2				30	4	PKKP	
ALERT	100.59	2.4	13	48	-1							
KAJAANI	100.78	334.8	13	48	-2				17	59	PP	
VIBORG	101.09	331.3	13	51A	0							
SHASTA	101.43	49.3	13	53A	0							
TROMSOE	102.22	341.3	13	54	-2							
KIRUNA	102.42	339.4	13	55A	-2							
HELSINKI	103.06	331.3	13	59	-1							
NURMIJARVI	103.11	331.6	13	59K	-1	24	33	-6	18	16	PP	
UMEA	103.99	335.6	14	2	-2				18	21	PKP	
BLUE MTS.	104.59	44.6	14	7	0				27	46		
WOODY	104.71	54.1	14	8	1				18	23		
EUREKA	106.47	49.9	14	17	777				29	47	PKKP	
UPPSALA	106.64	332.2	14	14A	777				20	14		
SKALSTUGAN	107.30	336.9	18	27	777				14	18	P	

TONTO FOREST	111.08	54.6	18	36	3	19 12	PP
UINTA BASIN	111.12	48.0	18	35	2	29 32	PKKP
TUCSON	111.81	56.7	18	37	2		
PRUHONICE	112.11	323.3				19 19	PP
COLLMBERG	112.49	325.0	18	37	1	19 25	PP
HALLE	113.00	325.5				19 48	PP
KASPERSKE H.	113.02	322.7	18	38	1	19 31	
LJUBLJANA	113.58	319.3	18	40	2	19 39	
ALBUQUERQUE	114.81	53.0	18	43	2	29 18	PKKP
AQUILA	115.63	315.8				40 7	
STUTTGART	115.74	323.6	18	43	0		
DOURBES	117.77	326.6	18	48	2		
ROSELEND	118.75	321.5	18	50	2	20 7	PP
ISOLA	119.17	319.8	18	50	1	20 12	PP
PARIS	119.62	326.2				20 15	PP
GARCHY	120.11	324.5	18	52	1	20 16	PP
CLERMONT-FD.	120.86	322.9				20 24	PP
WICHITA MTS.	121.08	51.1	18	54	1	30 17	PS
FOLINIERE	121.27	327.4	18	54	1		
TULSA	122.80	48.9	18	57A	1		
SCHEFFERVLLE	125.66	15.6	19	3K	1		
TAMANRASSET	127.90	296.3	19	9K	3	21 9	PP
TOLEDO	128.47	320.4	19	9	2	21 15	PP
CUMBERLAND	130.39	44.6	19	11	0	21 25	PP
MALAGA	130.43	317.1				21 28	PP
NANA	144.42	116.0	19	37	1		
BALBOA HTS.	144.76	79.4	19	37	0		
BERMUDA	'45.54	31.0	19	38	0		
HUANCAYO	ı45.75	117.1	19	44	5		
CHINCHINA	148.96	86.1	19	45A	1		
LA PAZ	149.42	131.0	19	51	6		
BOGOTA	150.51	86.7	19	50	4		
M.BOUR	150.71	293.6	19	55	8	20 1	PKP2
CARACAS	156.70	71.3	19	58K	3	23 59	PP
TRINIDAD	161.79	65.9	20	4	3		

AUGUST 15 2.H 17.M 20.S EPICENTRE 28.00 139.76 DEPTH= 503.KM
A=-0.67498 B= 0.57129 C= 0.46694 D= 0.6460 E= 0.7633
G=-0.3564 H= 0.3017 K=-0.8843 HT= 2.5

DEPTH OF FOCUS= 0.074R

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
TORISIMA	2.52	10.7	1	8K	-1	1	59	-5				
HATIDYOZIMA	5.09	0.3	1	28	-1	2	35	-4				
OSIMA	6.76	357.4				3	4	-4				
MERA	6.90	0.5	1	46	-1	3	6	-5				
HAMAMATU	6.93	346.0	1	46A	-1	3	10	-1				
SHIZUOKA	7.05	350.9				3	14	0				
AJIRO	7.06	355.6	1	46	-2	3	10	-4				
MISIMA	7.14	354.7	1	47	-2	3	25	10				
TU	7.23	338.3	1	52	2	3	17	0				
KAMEYAMA	7.39	338.5	1	53	1	3	22	2				
YOKOHAMA	7.41	359.3				3	17	-3				
NARA	7.46	334.2	1	54	2							
HUNATU	7.53	353.8	2	44	51	3	20	-3				
NAGOYA	7.54	342.3	1	54	1	3	24	1				
OSAKA	7.55	332.5	1	54	1	3	27	4				
TOKYO C.M.O.	7.66	360.0				3	23	-2				
IIDA	7.68	348.2	1	53	-2	3	25	0				
KOHU	7.72	352.7	1	54	-1	3	23	-3				
ABUYAMA	7.73	333.5	1	55K	0							
TYOSI	7.76	6.6	1	55	0	3	26	-1				
KYOTO	7.80	334.9	1	57	1	3	25	-3				
GIHU	7.81	341.7	1	56	0							
HIKONE	7.84	338.5	1	58	2	3	30	2				
TAKAMATU	7.98	323.6	1	58	0	3	32	1				
TITIBU	7.98	356.0	1	56	-2							
KUMAGAYA	8.14	357.9	1	57A	-2	3	31	-3				
KAKIOKA	8.22	2.4	1	48	-12	3	32	-3				
MIYAZAKI	8.22	300.4									3	15
MATUYAMA	8.35	315.9	2	2	0	3	38	0				
MATUMOTO	8.37	350.0	2	1	-1	3	39	1				

OIWAKE	8.37	353.3	2	1	-1	3	37	-1			
MITO	8.38	4.0	2	0K	-2	3	37	-2			
MAEBASI	8.40	356.2							3	1	
UTUNOMIYA	8.53	0.6	2	1	-2	3	36	-5			
HUKUI	8.57	340.5				3	42	-1			
TOYOOKA	8.60	332.0	2	6	2						
MATUSIRO	8.62	351.7	2	2A	-2	3	31	-12			
OOITA	8.74	308.7	2	9	3	3	51	6			
NAGANO	8.75	351.7	2	4	-2	3	45	-1			
TOYAMA	8.94	346.7							3	41	
ONAHAMA	8.98	5.9	2	7A	-1	3	47	-3			
SHIRAKAWA	9.11	2.3	2	8	-2	3	48	-4			
KUMAMOTO	9.18	303.8	2	15	5	3	59	5			
HUKUSIMA	9.75	3.3	2	15A	-1	4	3	-2			
HUKUOKA	9.80	306.9	2	26	9	4	8	2			
NIIGATA	9.91	356.8				4	8	0			
YAMAGATA	10.24	2.6	2	21A	0	4	12	-2			
SENDAI	10.29	5.0	2	21A	-1	4	13	-2			
ISINOMAKI	10.49	6.8	2	23A	-1	4	19	0			
SAKATA	10.88	0.3	2	29	1	4	31	5			
MIZUSAWA	11.16	5.5	2	32	1	4	33	1			
AKITA	11.70	1.3	2	39	2	4	46	4			
MORIOKA	11.73	5.4	2	37A	0	4	44	1			
MIYAKO	11.77	8.4	2	37A	0	4	46	2			
HATINOHE	12.59	6.2				5	0	1			
AOMORI	12.82	3.5	2	47	-1	5	19	16			
HAKODATE	13.81	3.1	2	59A	1	5	23	1			
URAKAWA	14.34	9.1	3	5A	1	5	46	14			
KUSIRO	15.42	12.9	3	16	1	6	12	20			
NEMURO	16.01	15.6	3	15	-6	6	30	27			
Y.-SAKHLINSK	19.13	6.2	3	51A	0	6	58	1			
PETROPAVLOVK	28.65	24.1	5	27A	10						
MAGADAN	32.45	10.5	5	49	0	10	28	-1			
YAKUTSK	34.67	351.7	6	8A	0						
PORT MORESBY	37.86	168.1	6	34K	0						
TIKSI	44.10	355.1	7	24	0	13	20	0			
CHATRA	46.39	281.4	7	43K	1						
CHARTERS TS.	48.21	171.8	7	55	-1				9	14	
ALMATA	52.11	304.6	8	23K	-2						
DEHRA DUN	53.35	288.4	8	33K	-1						
FRUNSE	53.86	304.3	8	37K	0						
NEW DELHI	54.50	286.5	8	39K	-3						
BRISBANE	56.47	166.1	8	55	-1	16	6	-2			
KHOROG	57.05	298.3	9	0	0	16	19	4			
COLLEGE	57.57	28.8	9	3	0						
TASHKENT	58.01	303.2	9	5K	-1	16	27	0			
SVERDLOVSK	61.20	322.0	9	26	-1						
RIVERVIEW	62.43	169.3	9	35A	0						
QUETTA	62.62	291.3	9	35	-1	17	34	9			
ADELAIDE	62.63	181.0	9	35K	-2						
CANBERRA	63.58	171.6	9	42K	-1						
SITKA	64.29	37.2	9	48	1						
TOOLANGI	65.44	175.0	9	54K	0						
MOULD BAY	65.59	15.0	9	55A	0				11	28	
ASHKABAD	67.02	301.9	10	3	-1						
VANNOVSKAYA	67.21	302.0	10	5	0						
KIZYL-ARVAT	68.17	303.7	10	10K	-1	18	33	2			
ALERT	69.21	3.0	10	18A	1						
APATITY	70.39	337.0	10	23K	-1						
PORT HARDY	70.52	42.3	10	25A	0						
KEVO	71.41	340.2	10	30	0				12	29	*SP
RESOLUTE	71.69	13.2	10	32A	0						
YELLOWKNIFE	72.37	28.0	10	36A	0						
SODANKYLA	72.77	338.1	10	38K	0				12	28	
TEHERAN	73.02	301.8	10	40	0						
KARAPIRO	73.65	151.2	10	44K	1						
MOSCOW	73.74	324.8	10	43K	-1	19	30	-4			
VICTORIA	73.80	43.4	10	45	1						
TROMSOE	73.82	341.8	10	43	-1						
KAJAANI	74.12	334.9	10	45K	-1						
KIRUNA	74.48	339.9	10	47K	-1						
SHIRAZ	74.52	295.5	10	47K	-1	19	40	-2	13	36	PP
CHATEAU	74.72	151.9	10	49A	0						
KIROVOBAD	74.76	308.1	10	49K	-1	19	43	-2			
GORIS	75.23	307.0	10	51K	-1	19	50	0			
TIFLIS	75.38	309.6	10	52	-1						
VIBORG	75.45	331.7	10	53K	0						
PENTICTON	75.74	41.6	10	56A	1						
UMEA	76.98	336.7	11	1K	-1			12 52			

BANFF	77.20	38.6	11	1	-2								
NURMIJARVI	77.28	332.7	11	2	-1	20	8	-4	12	24	13	3	*SP
HELSINKI	77.35	332.3	10	58	-6								
SHASTA	77.79	50.4	11	7	1				12	56			
ROXBURGH	77.92	159.2	11	6	-1								
MINERAL	78.49	50.5	11	10A	0								
CALISTOGA	78.58	52.4	11	8K	-2								
BERKELEY	79.15	52.9	11	15K	2								
BLUE MTS.	79.20	44.9	11	15A	1	20	34	2	12	58	15	25	
HUNGRY HORSE	79.45	40.7	11	16	1				13	2			
PARAISO	79.77	54.4	11	19	3								
SKALSTUGAN	79.81	338.9	11	15K	-2								
LICK	79.83	53.2	11	14K	-3								
UPPSALA	80.46	334.3	11	18K	-2								
SIMFEROPOL	80.82	316.2	11	21K	-1								
PRIEST	81.08	53.9	11	21A	-2								
BUTTE	81.50	42.2	11	31	6				13	17			
BOZEMAN	82.59	41.9	11	32	1								
EUREKA	82.71	49.1	11	33	1				13	18			
KARLSKRONA	83.73	332.2	11	40	3								
PASADENA	83.83	54.7	11	38	1				13	29			
GOTEBORG	84.08	334.7	11	37	-1								
BERGEN	84.38	339.1	11	43	3								
BOULDER CITY	85.27	51.7	11	47	3				13	29			
KSARA	85.29	305.8	11	45	1								
UZHGOROD	85.48	323.8	11	45	0								
FLAMING GRGE	86.20	45.2	11	50	1				13	36			
UINTA BASIN	86.43	45.8	11	51	1	21	45	3	13	37	29	36	PKKP
JERUSALEM	86.81	304.3	11	51	0								
COLLMBERG	88.21	329.8	11	57	-1						14	17	
TONTO FOREST	88.64	51.6	12	2	2				13	55	15	36	PP
JENA	89.10	330.2	12	0	-2								
KASPERSKE H.	89.47	328.0	12	3K	-1						14	1	
ALBUQUERQUE	91.53	48.8	12	17	4				14	8	29	36	PKKP
STUTTGART	91.70	329.8	12	14	0								
MAWSON	110.75	203.5	17	35A	0								
SOUTH POLE	117.84	180.0	17	48	-1								
BYRD STATION	119.24	168.7	17	52	0								
HUANCAYO	143.58	71.3	18	39	1								

AUGUST 15 6.H 11.M 33.S EPICENTRE 37.82 141.76 DEPTH= 49.KM

A=-0.62200 B= 0.49025 C= 0.61055 D= 0.6190 E= 0.7854
G=-0.4795 H= 0.3779 K=-0.7920 HT= -0.9

DEPTH OF FOCUS= 0.003R

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
ISINOMAKI	0.70	330.9	0	15K	0	0	26	-1				
SENDAI	0.81	304.1	0	17K	0	0	28	-1				
HUKUSIMA	1.02	266.7	0	19K	0	0	33	0				
ONAHAMA	1.10	218.5	0	18K	-2	0	31	-4				
YAMAGATA	1.19	291.8	0	22K	1	0	37	0				
MIZUSAWA	1.40	339.7	0	26	2							
SHIRAKAWA	1.41	240.8	0	24K	0	0	41	-1				
MITO	1.76	216.0	0	28K	-1	0	47	-4				
MIYAKO	1.84	5.2	0	30K	0	0	52	-1				
SAKATA	1.86	306.2	0	33K	2	0	55	2				
MORIOKA	1.94	346.5	0	33K	1	0	59	4				
UTUNOMIYA	1.97	230.6	0	30K	-2	0	54	-2				
KAKIOKA	2.02	219.0	0	32K	-1	0	53	-4				
TUKUBASAN	2.07	220.2	0	31A	-3	0	56	-2				
NIIGATA	2.14	273.6	0	36K	1	1	1	1				
TYOSI	2.21	199.4	0	35	-1	0	56	-6				
AKITA	2.30	326.3	0	39	2	1	9	5				
KUMAGAYA	2.53	229.6	0	39K	-1	1	7	-3				
MAEBASI	2.57	237.5	0	41A	0	1	1	-10				
HONGO	2.64	217.8	0	38	-4						0	58
TOKYO C.M.O.	2.67	217.7	0	41K	-1	1	12	-2				
HATINOHE	2.72	356.4	0	43K	0	1	15	0				
AIKAWA	2.78	275.3	0	43	-1	1	23	7				
TITIBU	2.82	230.3	0	43	-1	1	24	7				
TAKADA	2.88	256.7	0	42	-3	1	16	-3				

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YOKOHAMA	2.92	216.1	0	47A	1	1	22	2			
OIWAKE	2.96	240.9	0	46K	0	1	29	8			
NAGANO	3.06	249.1	0	49K	1	1	6	-17			
AOMORI	3.09	346.2	0	50K	2	1	29	5			
MATUSIRO	3.10	246.9	0	48K	0	1	25	0			
MERA	3.28	208.8	0	50K	-1	1	27	-2			
HUNATU	3.33	227.0	0	51	0	1	36	6			
KOHU	3.34	231.1	0	52K	0	1	37	6			
MATUMOTO	3.41	243.8	0	53K	1	1	41	9			
AJIRO	3.49	218.6	0	52A	-2	1	33	-1			
MISIMA	3.51	220.9	0	51K	-3	1	33	-2			
OSIMA	3.59	213.0	0	55	0	1	34	-3			
TOYAMA	3.80	254.3	1	1	3	1	42	0			
WAZIMA	3.88	265.0	0	59	0	1	43	-1			
IIDA	3.90	235.2	1	0	1	1	35	-10			
SHIZUOKA	3.92	224.6	1	0	0	1	53	8			
TAKAYAMA	3.97	246.6	1	2	2	1	51	5			
NAGATURO	3.98	217.1	0	59	-1	1	42	-4			
HAKODATE	4.06	349.4	1	3A	1	1	51	2			
KANAZAWA	4.27	254.1	1	8A	3	2	0	6			
OMAESAKI	4.30	222.7	1	7A	2	1	58	3			
MORI	4.37	348.4	1	7A	1	1	57	1			
URAKAWA	4.40	10.0	1	7K	1	1	59	2			
HANAMATU	4.49	227.7	1	8A	0	2	0	1			
MURORAN	4.54	352.7	1	8	0	2	1	0			
HIROO	4.62	14.6	1	8	-1	2	0	-3			
NAGOYA	4.67	237.0	1	10K	0	2	1	-3			
GIHU	4.68	240.5	1	12K	2	2	8	4			
HUKUI	4.76	250.0	1	13	1	2	13	7			
TOMAKOMAI	4.81	358.5	1	14	2	2	8	1			
TSURUGA	5.05	246.4	1	16K	0	2	18	5			
HIKONE	5.11	241.8	1	16	0	2	15	0			
SUTTSU	5.11	347.3	1	21	5	2	21	6			
KAMEYAMA	5.19	236.8	1	18A	0	2	17	0			
OBIHIRO	5.22	11.8	1	19	1	2	30	12			
TU	5.25	235.3	1	21	3				1	29	
SAPPORO	5.26	356.8	1	16	-2	2	20	1			
KUSIRO	5.54	20.5	1	20A	-2	2	17	-9			
KYOTO	5.60	241.9	1	23A	0	2	24	-3			
MAIZURU	5.63	247.3	1	25	1	2	37	9			
NARA	5.72	238.6	1	25	0	2	31	1			
ABUYAMA	5.79	241.4	1	25K	-1						
OWASE	5.85	232.0	1	27A	0	2	27	-6			
OSAKA	5.94	239.7	1	29A	1	2	40	4			
ASAHIGAWA	5.98	4.3	1	28	0	2	41	4			
TOYOOKA	6.02	249.8	1	31K	2	2	41	3			
RUMOE	6.13	359.1	1	31	0	2	43	3			
KOBE	6.17	241.5	1	32	1	2	48	7			
NEMURO	6.23	26.7	1	29K	-3	2	34	-9			
WAKAYAMA	6.42	238.1	1	35	0	3	0	12			
ABASHIRI	6.49	16.3	1	34K	-2	2	46	-3	3	9	
TOTTORI	6.51	251.6	1	36K	0	3	8	18			
SIOMISAKI	6.54	230.0	1	34	-2	2	43	-7			
SUMOTO	6.54	240.0	1	36A	0	2	56	6			
HIMEJI	6.81	243.1	1	36	-4	2	58	1			
SAIGO	6.93	259.1	1	45	3	3	6	6			
OKAYAMA	7.06	246.1	1	43	-1	3	4	1			
TAKAMATU	7.15	243.1	1	45	0	3	35	29			
YONAGO	7.17	253.1	1	47	2	3	15	9			
MATSUE	7.37	253.9	1	51	3	3	17	6			
TORISIMA	7.42	189.8	1	46	-3	3	3	-9			
TSURUGISAN	7.43	240.1	1	46	-3	3	34	21			
WAKKANAI	7.60	359.6	1	46	-5	3	14	-3			
MUROTO	7.67	235.8	1	51	-1	3	29	10			
KOTI	7.93	240.0	1	59A	3	3	22	-3			
HIROSIMA	8.29	248.3	2	1A	0	3	34	0			
MATUYAMA	8.30	244.1	2	1	0	3	40	6			
KURILSK	8.71	29.8	2	4	-2	3	39	-5			
ASHIZURI	8.78	237.2	2	6	-1	3	58	12			
UWAZIMA	8.79	241.4	2	9	2	3	51	5			
Y.-SAKHLINSK	9.23	4.1	2	10A	-4	3	53	-4			
OOITA	9.44	244.0	2	19A	3	4	7	5			
SIMONOSEKI	9.59	249.5	2	21	2	4	21	15			
ASOSAN	10.01	243.8	2	23	-1				4	52	
HUKUOKA	10.17	248.9	2	27A	1	4	23	3			
KUMAMOTO	10.31	244.4	2	34	6	4	37	13			
MIYAZAKI	10.32	238.3	2	30	1				5	21	
SAGA	10.38	247.4	2	32K	3				6	8	
ITUHARA	10.73	254.1	2	34	0	4	36	2			

NAGASAKI	10.95	245.9	2	37A	0	4	49	10			5	13
KAGOSIMA	11.13	239.3	2	41	2	4	55	12				
HUKUE	11.73	248.1	2	51	3	5	18	20				
YAKUSIMA	11.86	235.1	2	48	-1	5	14	13				
TAIPEI	21.41	239.3	4	51	5	8	36	1				
MAGADAN	22.51	12.1	4	54	-3							
GUAM	24.40	173.0	5	23	8	9	56	27				
YAKUTSK	25.35	346.7	5	23	-1	9	43	-2			5	49 PP
HONG KONG	28.31	244.7	5	51A	0	10	31	-2				
BAGUIO CITY	28.32	226.9	5	49	-3	10	31	-2				
MANILA	29.45	224.0	6	0	-2	10	51	0				
IRKUTSK	29.76	311.2	6	4	0	10	52	-4				
TIKSI	34.53	352.8	6	45	-1	12	10	0			7	52 PP
RABAUL	42.91	164.6	7	55	-1							
SHILLONG	43.70	268.7	8	1A	-1	14	27	-1			9	50 PCP
SEMIPALATNSK	44.69	306.9	8	9	-1	14	42	-1				
CHITTAGONG	45.35	264.8	8	16	1							
CHATRA	46.83	273.1	8	28A	1	15	14	1			10	11 PP
PORT MORESBY	47.24	172.7	8	28	-2	15	14	-5				
CALCUTTA	47.98	267.3	8	34	-2	15	27	-2			10	21 PP
COLLEGE	48.29	32.6	8	39	0	15	36	2				
BOKARO	49.36	270.4	8	47A	0	15	59	10			10	40 PP
HONIARA	49.99	156.3	8	50K	-2	15	54	-3				
FRUNSE	50.21	298.1	8	53	0	16	1	0			10	52 PP
PORT BLAIR	50.85	252.5	8	59K	1	16	12	3			10	53 PP
KHEYS	51.94	348.0	9	5A	-1	16	22	-2			11	7 PP
MEDAN	52.03	239.8	8	56A	-11						11	6 PP
DEHRA DUN	52.41	281.9	9	8A	-2	16	30	-1			11	10 PP
NEW DELHI	53.86	280.4	9	19A	-2	16	41	-9			11	11 PP
HONOLULU	53.98	89.8	9	22	0	16	53	1			10	43 PP
KIPAPA	53.98	89.6	9	22	0	16	53	1				
KHOROG	54.33	292.9									17	7 PS
TASHKENT	54.46	298.0	9	24	-1	17	1	2			10	24 PCP
DJAKARTA	54.53	224.3	9	25	-1	16	57	-2			11	31 PP
VISHAKHAPTNM	54.58	265.4	9	26K	0	17	5	5			11	24 PP
TANGERANG	54.63	224.6	9	24A	-2	16	55	-6			11	30 PP
LEMBANG	54.63	223.1	9	25	-1	17	3	2			11	33 PP
LAHORE	54.73	285.1	9	26A	-1	17	0	-2				
SVERDLOVSK	54.75	318.3	9	26K	-1	17	4	2				
SITKA	55.62	41.1	9	34	1							
MOULD BAY	55.71	16.6	9	33A	-1	17	16	1				
SEHORE	56.59	274.8	9	39	-1							
HAWAII V.OB.	57.21	90.0	9	45	0							
HYDERABAD	58.57	268.2	9	54A	0	17	54	1			11	55 PP
ALERT	59.33	3.6	9	59A	-1							
MADRAS	59.74	262.9	10	2K	0	18	25	17			12	15 PP
QUETTA	60.98	287.1	10	10	-1	18	26	2				
POONA	61.61	272.1									12	3
RESOLUTE	61.78	14.6	10	15A	-1							
KOUMAC	61.81	156.0	10	23	7	18	43	9				
APATITY	62.09	335.6	10	17A	-1	18	39	1	10	42	12	33 PP
BOMBAY	62.22	273.1	10	17	-2	18	34	-6			10	56 PCP
PORT HARDY	62.30	45.9	10	18	-2							
KEVO	62.81	339.2	10	22A	-1	18	47	0			12	39 PP
YELLOWKNIFE	63.00	30.4	10	23A	-1							
KODAIKANAL	63.51	262.2	10	26A	-2	19	8	12			20	38
ASHKABAD	63.53	298.7	10	27	-1	18	59	3			12	45 PP
NOUMEA	64.15	154.5	10	35K	3	20	8	64				
SODANKYLA	64.35	337.1	10	32A	-1	19	7	1			19	30 PS
TROMSOE	65.07	341.1	10	37	-1						12	6 PCP
BRISBANE	65.68	169.2	10	39	-3	19	24	2				
VICTORIA	65.68	46.6	10	42	0							
KIRUNA	65.88	339.2	10	42A	-1	19	26	1	10	55	39	20 PKPPKP
KAJAANI	66.01	333.9	10	43A	-1	19	26	0			19	47 PS
SEATTLE	66.77	47.0	10	49	0	19	48	12				
MOSCOW	66.79	323.4	10	48A	-1	19	37	1			11	13 PCP
PENTICTON	67.42	44.5	10	52A	-1							
AFIAMALU	67.43	130.3	10	57	4							
PULKOVO	67.66	329.4	10	53	-1	19	45	-1			13	14 PP
BANFF	68.61	41.3	10	59	-1							
UMEA	68.68	336.0	11	0A	-1	19	59	0			13	15 PP
NURMIJARVI	69.38	331.9	11	4A	-1	20	7	0			13	37 PP
TEHERAN	69.46	299.7	11	6A	1	20	9	1			13	37 PP
HELSINKI	69.49	331.5	11	5	-1							
SHASTA	70.42	53.4	11	11	0							
TIFLIS	70.55	308.0	11	12A	0	20	21	1			11	36 PCP
GORIS	70.80	305.4	11	13A	-1	20	26	3			13	49 PP
HUNGRY HORSE	71.03	43.1	11	15	0							

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MINERAL	71.11	53.4	11	34K	19							
BLUE MTS.	71.20	47.5	11	16A	0	20	31	3			13	51 PP
SKALSTUGAN	71.29	338.6	11	15A	-2						13	54 PP
SCORESBY SD.	71.37	354.3	11	17	0	20	34	4				
CALISTOGA	71.43	55.3	11	18A	1							
RIVERVIEW	71.81	171.8	11	20K	0	20	39	4	11	30	20	58 *SS
SHIRAZ	71.96	293.7	11	20A	0	20	35	-2	11	35	14	4 PP
BERKELEY	72.07	55.8	11	21A	0	20	41	3			21	59 SCS
UPPSALA	72.38	334.0	11	22A	-1	20	38	-4			14	4 PP
ADELAIDE	72.47	182.6	11	18	-6	20	47	4			29	7 SSS
PARAISO	72.86	57.2	11	30	4							
CANBERRA	73.08	173.8	11	27	0	20	49	-1			11	37 PCP
BUTTE	73.21	44.5	11	27	-1	20	52	1	11	35		
MUNDARING	73.40	202.5	11	28	-1							
PRIEST	74.11	56.5	11	34A	1							
SIMFEROPOL	74.96	315.5	11	38A	0	21	11	0			14	28 PP
TOOLANGI	75.09	176.9	11	38	-1	21	14	2			11	51 PCP
EUREKA	75.15	51.5	11	38	-1	20	47	-26			14	28 PP
KONGSBERG	75.16	337.1	11	40A	1	21	12	-1	11	52	21	57 PS
BERGEN	75.82	339.3	11	43	0				11	56		
KARLSKRONA	75.84	332.2	11	47A	4				12	0		
GOTEBORG	75.94	334.8	11	43A	-1						14	33 PP
FROBISHER	75.98	13.3	11	43	-1	21	21	-1				
WARSAW	76.56	327.1	11	48	1	21	30	2			11	58 PCP
SALT LAKE C.	76.86	48.4	11	49	0						13	2
LWOW	76.91	323.9	11	48	-1	21	33	1			14	43 PP
PASADENA	76.92	57.0	11	49	0	21	33	1	12	0		
BOULDER CITY	77.99	53.8	11	57	2							
FLAMING GRGE	78.20	47.1	11	56	0							
PRICE	78.21	48.8	11	57A	1							
UINTA BASIN	78.49	47.7	11	59A	1	21	49	0			22	16 PS
KRAKOW	78.61	326.0	11	59A	1	21	51	1			14	56 PP
SKALNATE PL.	79.10	325.3	12	4	3						15	5 PP
RACIBORZ	79.34	326.9	12	3	1	22	1	3	12	19	15	5 PP
GLEN CANYON	79.41	51.3	12	3	0							
BUCHAREST	79.62	319.0	12	5	1	22	3	2			22	27 PS
LARAMIE	80.12	44.9	12	9	2							
COLLMBERG	80.56	330.2	12	8	-1	22	0	-11				
ABERDEEN	80.58	341.0	12	11	2	22	13	2			15	12 PP
HALLE	80.81	330.9	12	10	0	22	13	0				
KSARA	80.92	305.8	12	10A	-1	22	14	0			15	17 PP
PRAGUE	80.94	328.7	12	10	-1	22	14	-1			15	11
PRUHONICE	80.96	328.6	12	11	0	22	17	2				
HURBANOVO	80.99	325.4	12	11	0						22	46 PS
TIMISOARA	81.13	322.4	12	14	2	22	18	1			23	4
TONTO FOREST	81.32	53.2	12	14A	1	22	23	5	12	26	15	31 PP
GOLDEN	81.32	46.0	12	14	1							
JENA	81.41	330.7	12	13	0	22	19	0	12	48	15	36 PP
VIENNA-H.	81.51	326.6	12	15A	1	22	26	6	12	32	15	25 PP
KARAPIRO	81.56	153.6	12	17	3							
WITTEVEEN	81.67	334.3	12	13	-2							
CHEB	81.76	329.8	12	16	1						22	10
KASPERSKE H.	82.02	328.6	12	17A	0						15	13
BELGRADE	82.18	322.1	12	17A	0	22	57	30			12	33 PCP
SOFIA	82.26	319.1	12	20	2	23	4	36			15	49 PP
DURHAM	82.56	339.6	12	23K	4	22	36	5	12	38	15	37 PP
CHATEAU	82.69	154.2	12	23	3							
DE BILT	82.78	334.7	12	21A	0	22	33	0			15	29 PP
TUCSON	82.91	54.6	12	22	1				12	32		
BENSBERG	83.03	333.0	12	22A	0	22	32	-4	12	38	15	47 PP
ZAGREB	83.53	325.2	12	22	-2	22	40	-1			12	45
HEIDELBERG	83.73	331.3	12	26A	1							
SKOPJE	83.76	319.6	12	27	1	23	8	25				
ALBUQUERQUE	83.87	50.1	12	27	1							
LJUBLJANA	84.01	326.1	12	27A	0	22	52	6			15	44 PP
STUTTGART	84.03	330.6	12	27A	0	22	47	1	12	47	15	43 PP
UCCLE	84.15	334.4	12	26	-1	22	46	-1				
KARLSRUHE	84.17	331.2	12	27	-1	22	52	5				
WELLINGTON	84.30	155.6	12	37	9	22	45	-4			28	21 SS
TUBINGEN	84.31	330.6	12	29	1						13	4
TITOGRAD	84.53	321.1	12	29	0	22	56	5			15	49 PP
SCHEFFERVLLE	84.54	16.1	12	30A	1							
EBINGEN	84.63	330.4	12	27A	-3							
DOURBES	84.66	333.9	12	31	1							
TRIESTE	84.66	326.3	12	29A	-1	22	53	1			15	49 PP
STRASBOURG	84.77	331.3				22	51	-2			28	51 SS
KEW	85.09	337.3	12	32A	0	22	58	2	12	48	15	51 PP
FELDBERG	85.25	330.8	12	33A	0							

ATHENS	85.42	315.6	12	33A	-1	22	41	-19		15	49 PP
PADOVA	85.66	327.2	12	34	-1	23	20	18		22	56
PARIS	86.48	334.4	12	40A	1	23	4	-6			
ROXBURGH	86.56	161.0				22	59	-11		24	15 PS
TARANTO	86.99	321.0	12	52	11	23	27	12		36	27
FLORENCE X.	87.23	326.5	12	49	6	23	30	13		16	22 PP
LAWRENCE	87.35	40.9	12	42	-1						
AQUILA	87.39	324.4	12	43	0	23	27	9	13 23	16	17 PP
FOLINIERE	87.50	336.1	12	44	0						
GARCHY	87.59	333.3	12	44A	0	23	35	15			
ROSELEND	87.59	330.3	12	44	0					15	51
ROME	88.17	324.7	12	47	0	23	29	3		16	19 PP
CHIHUAHUA	88.37	54.5	12	27	-21	23	13	-15			
WICHITA MTS.	88.66	45.7	12	50	1	23	32	2		16	14 PP
ISOLA	88.67	329.2	12	33	-17	23	33	3			
CLERMONT-FD.	88.85	332.4	12	52	2	23	38	6			
TULSA	89.34	43.2	12	53A	0	23	17	-20		14	22 PP
MESSINA	89.57	320.5	12	52A	-2	23	38	-1		16	24 PP
FAYETTEVILLE	90.07	42.1	12	55A	-1	23	22	-21			
OTTAWA	90.55	25.4	12	57	-1						
LONDON ONT.	90.57	30.0	12	59A	1						
SCARBOROUGH	90.74	28.4	13	1A	2						
BREBEUF	91.15	24.0	13	2A	1	24	11	18		16	39 PP
BAGNERES	92.26	332.9	13	7	1	23	2	-61			
PENNSYLVANIA	93.77	29.0	13	13	0						
MORGANTOWN	93.94	31.0	13	15A	1					17	2 PP
HOUSTON	94.16	47.1	13	17	2						
CUMBERLAND	94.81	37.0	13	18	0	24	34	9	13 31	17	5 PP
PALISADES	95.04	26.3	13	20	1	23	50	1			
FORDHAM	95.19	26.3	13	20	0						
BLACKSBURG	95.79	32.6	13	23	1						
ALGIERS UNI.	96.54	327.8	13	24	-2	24	19	22		17	2 PP
TOLEDO	96.56	334.2	13	25A	-1	24	25	28		17	23 PP
GRANADA	98.80	332.6								17	40 PP
LISBON	99.27	337.3	13	40K	2	24	3	-8		17	42 PP
TACUBAYA	99.29	56.7	13	27	-11					13	47
MALAGA	99.50	333.0	13	39	0	25	9	57			
VERA CRUZ	101.44	54.8								24	35
AVERROES	103.65	333.8	12	59A	-59					17	14 PP
TANANARIVE	104.58	257.3								18	22
BERMUDA	105.94	23.1	14	6	777						
WILKES	106.58	192.6				24	49	4		18	39 PP
TAMANRASSET	107.03	318.1	14	13	777	24	55	8		18	36 PP
LWIRO	109.42	282.7	14	26	777						
MIRNY	110.52	198.7	18	22	-5					25	58 SKKS
CAPE HALLETT	111.62	171.0	19	22	53						
CHILEKA	112.59	267.3								19	17
SCOTT BASE	116.40	174.3	18	39	0						
BROKEN HILL	117.05	272.4	18	43	3						
BULAWAYO	120.10	267.0	18	46	0						
MAWSON	120.35	205.8	18	46A	0						
CHANGALANE	120.47	258.9	18	46	-1						
FORT FRANCE	123.48	26.8	18	56	4						
M.BOUR	124.37	334.8	18	55	1					20	33 PP
CARACAS	124.94	35.2	18	56A	1					20	47 PP
CHINCHINA	125.06	47.6	19	0K	5					20	55 PP
BOGOTA	126.24	46.3	19	1	3					20	57 PP
TRINIDAD	127.14	29.0	19	3	4						
SOUTH POLE	127.63	180.0	19	0	0						
BYRD STATION	128.47	167.3	19	2	0						
BANDEIRA	129.20	282.3	19	4A	1					21	15 PP
NANA	137.03	63.6	19	20	2						
N-LAZARVSKYA	138.11	202.4								22	8 PP
HUANCAYO	138.13	62.1	19	17	-3						
LA PAZ	146.21	59.3	19	41	7						
ANTOFAGASTA	149.15	72.2	19	41A	2					22	42 PP
G. G. VIDELA	149.30	159.6	19	38	-1					23	29 PKS

AUGUST 15 17.H 25.M 11.5 EPICENTRE -13.78 -69.26 DEPTH= 593.KM

A= 0.34407 B=-0.90864 C=-0.23663 D=-0.9352 E=-0.3541
G=-0.0838 H= 0.2213 K=-0.9716 HT= 6.0

DEPTH OF FOCUS= 0.088R

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	
LA PAZ	2.92	158.2	1	19	1								
HUANCAYO	6.16	285.5	1	38	-4								
NANA	7.60	282.7	1	59	4								
ANTOFAGASTA	9.93	186.2	2	12A	-6								
COPIAPO	13.54	184.1	2	49	-5	5	13	0					
BOGOTA	18.89	345.0	3	44	-1								
SANTA LUCIA	19.61	183.4	3	49A	-2								
CHINCHINA	19.67	340.9	3	52A	0	6	58	0	4	6	7	16	*SS
CONCEPCION	23.09	185.7									5	55	
CARACAS	24.23	5.6	4	31	-2	7	23	-49					
BALBOA HTS.	24.79	335.1	4	36	-2	8	49	28					
GALERAZAMBA	25.11	346.0	4	45	4	8	33	7	4	59			
TRINIDAD	25.49	18.2	4	44	0						6	30	
FORT FRANCE	29.44	16.1	5	17	-1	9	34	1					
ST. CLAUDE	30.54	14.4	5	26	-2	9	56	6					
ST. KITTS	31.58	12.0	5	34	-2								
SAN JUAN	32.10	5.6	5	37	-4	10	11	-3			8	59	*SP
HOPE	32.43	346.6	5	40	-3								
SAN SALVADOR	33.68	323.3	5	50	-4	10	43	5					
COMITAN	37.43	322.1	6	25	0	11	33	0			6	40	PP
MERIDA	39.89	329.5	7	1	16	12	22	13			7	16	PP
OAXACA	40.92	317.6	6	53	0	12	25	1			7	5	PP
VERA CRUZ	42.12	320.4	7	9	7	12	49	8					
PUEBLA	43.31	318.1									8	35	
TACUBAYA	44.23	317.5	7	19	0	13	26	15			7	33	PP
BERMUDA	46.10	5.4	7	31	-2								
GUADALAJARA	47.89	315.0	7	49	2	14	5	4					
COLUMBIA	48.81	347.0	7	49	-5						10	9	
DECEPCION I.	49.51	174.9	7	41	-18	15	24	61					
HOUSTON	50.06	330.0	8	2	-1								
CHAPEL HILL	50.29	349.7	8	3	-1								
G. G. VIDELA	51.17	176.5	8	9	-2	15	9	23					
CUMBERLAND	51.47	343.0	8	9	-4	15	29	39			38	48	PKPPKP
ARGENTINE I.	51.53	177.3	8	11	-2	14	55	5					
MAZATLAN	51.67	314.9									11	9	
BLACKSBURG	51.79	348.7	8	15	0								
WASHINGTON	52.91	352.4	8	22	-1								
PHILADELPHIA	53.73	354.4	8	31	2						13	41	
MORGANTOWN	54.06	349.8	8	31	0								
FORDHAM	54.52	355.7	8	32	-3								
PALISADES	54.68	355.7	8	35	-1	15	42	10			9	39	PCP
FAYETTEVILLE	54.91	335.3	8	33	-4	15	42	7					
OCHIHUAHUA	55.18	320.1									11	5	
TERRE HAUTE	55.50	343.0	8	49	8								
WICHITA MTS.	55.70	330.8	8	40	-3						9	42	PCP
CLEVELAND	56.13	348.9	8	47K	1	15	50	-1	10	32			
ANN ARBOR	57.35	347.4	8	52	-2								
LONDON ONT.	57.58	349.7	8	54K	-2								
LAWRENCE	57.82	336.2	8	55	-2								
SCARBOROUGH	57.94	351.5	9	1K	3								
HALIFAX	58.34	4.7	8	59A	-2								
M.BOUR	58.83	63.6	8	58	-6						11	28	PP
BREBEUF	59.13	356.4	9	4A	-2	16	29	0	11	9			
OTTAWA	59.19	354.7	9	5	-1								
ALBUQUERQUE	59.95	325.0	9	10	-1								
TUCSON	60.64	319.8	9	15	-1								
TONTO FOREST	62.29	321.3	9	25	-2	17	11	3			12	1	PP
GOLDEN	62.93	329.3	9	30	-1								
LARAMIE	64.27	330.3	9	45	6								
GLEN CANYON	64.31	323.2	9	40	1								
HORTA	64.43	34.5	9	58	18	17	56	22					
ANGRA DO HO.	65.30	35.2	9	53	7	18	13	29					
UINTA BASIN	65.55	327.1	9	46	-1	17	50	3			38	34	PKPPKP
BOULDER CITY	65.59	320.5	9	48	1	18	3	16	12	0	38	36	PKPPKP
PRICE	65.70	325.8	9	47A	-1	17	51	2			10	4	PCP
FLAMING GRGE	65.89	327.7	9	48	-1								
PASADENA	66.59	317.1	9	54	0	18	4	5	11	58	12	41	PP
SALT LAKE C.	67.09	326.1	9	56	-1	18	21	16	11	52			
DUGWAY	67.22	325.1	9	57A	0								
SCHEFFERVLLE	68.36	1.5	10	2A	-2								
EUREKA	68.55	322.8	10	5	0								
PRIEST	69.41	317.5	10	11A	0	18	45	13			38	16	PKPPKP
BYRD STATION	70.04	188.2	10	13	-1						12	29	
BOZEMAN	70.17	330.2	10	16	1	18	43	3			10	30	PCP
LICK	70.74	318.0	10	19A	1	18	54	7			38	14	PKPPKP
BUTTE	71.16	329.7	10	21	0						10	36	PCP

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BERKELEY	71.45	318.2	10	23K	1	18	57	3			12	30 PP
CALISTOGA	72.10	318.7	10	27K	1							
MINERAL	72.48	320.6	10	28K	0							
UKIAH	72.79	318.8	10	31	1	19	28	19	12	39	10	45 PCP
BLUE MTS.	72.80	326.4	10	30A	0	19	18	9			12	28 PP
SHASTA	73.17	320.5	10	30	-2							
HUNGRY HORSE	73.51	330.7	10	32	-2	19	30	13				
N-LAZARVSKYA	74.15	160.1	10	37K	-1						12	36
AVERROES	75.24	49.8	10	43K	-1	19	51	15	13	4	10	59 PCP
BANFF	76.18	332.1	10	49	0							
SOUTH POLE	76.31	180.0	10	48	-2							
LISBON	76.62	44.2	10	53	2	19	50	-1	12	15	11	8 PCP
PENTICTON	76.90	328.8	10	52K	-1							
SEATTLE	77.25	326.4	10	50K	-5	19	54	-3				
VICTORIA	78.38	326.6	11	0	-1							
MALAGA	79.00	47.8	11	6	2	20	40	25				
BANDEIRA	79.52	102.8	11	9K	2	20	28	8			14	25 PP
GRANADA	79.78	47.7	11	8A	0	20	47	24			13	59 PP
ALMERIA	80.45	48.4	11	12K	0	20	50	20			14	26 PP
TOLEDO	80.66	45.1	11	15K	2	20	39	7	13	35	14	19 PP
LUANDA	80.70	96.9	11	12K	-1	20	38	6	13	13	14	33 PP
HERMANUS	81.12	123.2	11	30	15	20	44	7			26	25 SS
TAMANRASSET	81.70	64.2	11	19K	1							
PORT HARDY	81.81	326.9	11	18K	0							
ALICANTE	82.51	47.7	11	23K	1	21	4	14			16	34 PPP
VALENTIA	82.88	32.3	11	24	0							
SCOTT BASE	83.33	190.2	11	26	0							
GODHAVN	83.56	5.6	11	25K	-2							
YELLOWKNIFE	83.83	340.6	11	27A	-2							
ALGIERS UNI.	84.49	50.2	11	31	-1	21	17	8	13	34	15	11 PP
BAGNERES	84.87	43.5	11	35	1							
BARCELONA	85.57	45.6	11	53	16	21	24	5				
CAPE HALLETT	85.73	195.3	11	37	-1							
JERSEY	86.05	37.3	11	45A	6	21	25	1				
FOLINIERE	86.83	38.1	11	42	-1							
KIMBERLEY	86.96	118.7	11	43	-1							
GRAHAMSTOWN	87.32	123.5	11	18	-27							
CLERMONT-FD.	87.89	41.9	11	49	1	21	42	1				
KEW	88.07	35.7	11	48K	-1	21	59	17	14	9	15	39 PP
GARCHY	88.42	40.5	11	50A	0						37	51 PKPPKP
PARIS	88.65	38.9	11	51A	-1	21	41	-6			37	52 PKPPKP
DURHAM	88.80	32.4	11	55	3	22	10	21	13	59	15	55 PP
SITKA	89.01	330.0	11	53	0						40	3 SKPPKP
ABERDEEN	89.60	30.1	11	55K	-1	21	45	-11			15	32 PP
RESOLUTE	89.73	353.4	11	56A	-1							
ISOLA	89.94	44.4	11	58	1						21	53
MONACO	90.05	44.9	11	59	1						12	11
SCORESBY SD.	90.08	14.3	11	58	0	21	49	-11				
ROSELEND	90.16	42.8	11	58	0							
BESANCON	90.26	41.2	11	58	-1				13	56	15	54 PP
DOURBES	90.41	38.2	12	0	0	22	18	15				
UCCLE	90.51	37.5	12	0	0	22	11	7				
DE BILT	91.46	36.5	12	5A	1	22	29	17	14	24	22	0 SKS
PAVIA	91.69	43.9	12	6	1	22	26	12			16	17 PP
FELDBERG	91.77	41.1	12	6K	0							
MAWSON	91.79	163.5	12	5K	-1	22	19	4			21	43 SKS
STRASBOURG	91.84	40.4	12	8K	2	22	11	-4	14	4	15	57 PP
BENSBERG	92.24	38.0	12	8K	0	22	3	-16	14	6	15	58 PP
KARLSRUHE	92.38	40.1	12	9	0	22	5	-15				
EBINGEN	92.47	41.0	12	9	0							
BULAWAYO	92.52	111.3	12	10A	1							
WITTEVEEN	92.56	36.1	12	11	2				14	32		
PRATO	92.62	45.5	12	26	16	22	49	27				
TUBINGEN	92.64	40.7	12	9	-1							
HEIDELBERG	92.69	39.8	12	10K	0							
FLORENCE X.	92.70	45.7	12	9	-1						16	21 PP
MUNSTER	92.84	37.1	12	14	3							
STUTTGART	92.85	40.5	12	10	-1	22	38	14			22	5 SKS
BOLOGNA	92.96	45.0	12	25	14	21	49	-36			17	19
ROME	93.05	47.7	12	11K	-1	22	11	-15	14	29	16	23 PP
PADOVA	93.58	44.2	12	15	1	22	11	-19			25	17 PS
AQUILA	93.83	47.5	12	15	0	21	59	-33	14	49	22	49
HONOLULU	93.85	290.9	12	16	1	22	1	-32			29	34 SS
BROKEN HILL	93.90	105.8	12	16A	0							
CHANGALANE	93.95	118.1	12	17K	1	22	43	10	14	15	18	43 PP
MESSINA	94.39	51.9	11	56	-22						15	59 PP
BERGEN	94.42	28.7	12	21	3							
REGGIO CALA.	94.44	52.0	12	33	15	22	13	-24			16	39 PP
MOULD BAY	94.61	349.4	12	19K	0							

JENA	94.90	38.8	12	18	-2	22	59	18	14	24	16 34 PP
TRIESTE	94.92	44.3	12	21K	1	22	12	-30			43 40
CHEB	95.16	39.8	12	24	3						16 38 PP
HALLE	95.27	38.3	12	24	2	23	0	59			26 26
LJUBLJANA	95.54	44.1	12	25K	2						16 37
KASPERSKE H.	95.67	40.9	12	23K	-1						
COLLMBERG	95.86	38.7	12	24	0						16 42 PP
ALERT	96.17	0.9	12	25	-1	22	21	15			
TARANTO	96.19	50.0	12	44	18						17 39
KONGSBERG	96.24	30.1	12	26	0	21	59	-7			16 31 PP
PRAGUE	96.44	40.1	12	27	0						16 30 PP
ZAGREB	96.47	44.5	12	23A	-4	22	27	20			16 45
COPENHAGEN	96.64	34.4	12	28A	0	22	29	21			
GOTEBORG	96.90	32.3	12	30	1						16 35 PP
VIENNA-H.	97.27	42.2	12	32	1	22	31	20	14	20	16 48 PP
LWIRO	97.29	94.1	12	32	1						19 26
COLLEGE	97.57	335.0	12	31	-1	22	29	16			16 25 PP
TITOGRAD	98.08	48.4	12	47	13	22	36	21			16 59 PP
HURBANOVO	98.39	42.8	13	6	30				14	10	15 12 *SP
KARLSKRONA	98.47	34.3	12	40	4						29 6 PKKP
SKALSTUGAN	98.49	26.6	12	37	1				14	54	29 15 PKKP
AFIAMALU	98.51	253.4	12	37	1						16 58 PP
RACIBORZ	98.81	40.6	12	39	1						16 42 PP
MIRNY	98.83	172.9	12	39A	1						13 21
PATRAS	99.16	52.9	13	8	29						
CHORZOW	99.35	40.5	12	43	3						17 13 PP
BELGRADE	99.37	46.2	12	42A	2						25 41 PS
DABROWA	99.50	40.5	12	44	3						
WELLINGTON	99.51	223.4	12	43	2	22	33	11	14	45	17 1 PP
SKOPJE	99.58	49.1	12	57	16	22	39	16			
CHILEKA	99.59	108.8	12	43	2						
KRAKOW	99.91	40.9	12	44	1						17 10 PP
CHATEAU	99.93	225.5	12	47	4				14	47	29 17 PKKP
SKALNATE PL.	99.97	41.8	12	48	5	23	33	68	14	37	29 15
TIMISOARA	100.06	45.3	13	0	17	22	40	15			17 12
WILKES	100.11	179.9	12	44	0				12	59	19 19
UPPSALA	100.23	30.8	12	44	0	22	37	1			17 8 PP
KARAPIRO	100.50	226.7	12	47	2				14	50	29 11 PKKP
ATHENS	100.66	53.4	12	46K	0						17 9
ROXBURGH	100.85	217.7	13	7	20	22	44	15	15	7	17 19 PP
WARSAW	100.92	38.8	12	47	0	22	30	1			17 16 PP
SOFIA	101.08	48.6	13	6	18	22	46	16			16 28 PP
UMEA	102.02	27.0	12	54	2	22	52	18	15	9	17 21 PP
TROMSOE	102.18	21.0	12	52	-1	22	56	21			16 33 PP
LWOW	102.50	41.5	12	56	2	22	54	18			17 13 PP
KIRUNA	102.53	22.9	12	56	2	22	52	15	15	12	17 28 PP
CAMPULUNG	102.64	46.2				22	57	20			17 29 PP
BUCHAREST	103.30	47.1				23	0	20			17 48 PP
NURMIJARVI	103.80	30.6	13	1	1	23	56	14	15	15	17 37 PP
HELSINKI	103.93	30.9	13	3	3						17 33 PP
FOCSANI	104.21	45.9				22	52	8			17 22 PP
IASI	104.59	44.4				23	10	24			16 49 PP
SODANKYLA	104.88	23.5	13	10	5	23	1	14			17 29 PP
KEVO	105.00	21.0	13	7	2	23	8	20	15	23	17 38 PP
ISTANBUL UN.	105.08	50.8	13	22	777	23	6	18			
PULKOVO	106.61	31.4				23	9	14			17 46 PP
APATITY	107.49	23.1	13	18K	777	23	24	26	15	36	17 58 PP
SIMFEROPOL	109.04	47.0	13	24K	777	23	24	19			18 18 PP
KHEYS	109.27	7.9									18 18 PP
JERUSALEM	109.32	60.9	13	46	777						
TANANARIVE	109.79	116.1	13	44	777						17 49
KSARA	110.02	58.8	13	28	-236				16	4	18 10 PP
MOSCOW	110.78	35.4	13	31	-235	23	29	17			18 25 PP
NOUMEA	114.69	237.4									17 37 PP
MOORLANDS	114.80	209.0	17	35	2						
PORT VILA	115.14	242.7									19 7
TIFLIS	116.96	50.1	17	45	7	23	53	18			18 58 PP
LUGANVILLE	117.10	244.4	17	40	2						
KOUMAC	117.29	238.0									17 40 PP
GORIS	118.33	52.4	17	54	14						19 22 PP
RIVERVIEW	118.99	218.1	14	11	-211	24	1	19			19 16 PP
CANBERRA	119.19	215.5	17	44	2	24	2	19			28 10 SP
TOOLANGI	119.38	211.3	17	45	3	24	5	21			28 3 PKKP
TIKSI	121.14	353.4	18	1	15						19 35 PP
BRISBANE	122.23	224.7	17	50	2	24	11	18			
SVERDLOVSK	122.70	30.1	18	6	17						19 50 PP
TEHERAN	122.72	56.3	14	40	-189						19 38 PP
SHIRAZ	124.19	63.5	17	53	1						26 2
ADELAIDE	124.73	208.0	17	54K	1	25	53	112			20 24 PP

PETROPAVLOVK	125.59	326.5							20	14	PP
MAGADAN	125.62	336.2							20	9	PP
HONIARA	126.00	247.4	14	59	-176				21	57	
ASHKABAD	127.86	52.5							20	24	PP
CHARTERS TS.	131.49	226.8							16	37	
MUNDARING	134.21	186.5	17	56	-15	24	24	-1			
TASHKENT	134.76	44.6							21	9	PP
RABAUL	135.18	249.4	18	2	-10				20	57	
SEMIPALATNSK	135.86	27.8	18	17	3				24	9	PPP
UGLEGORSK	136.38	330.3							21	10	PP
QUETTA	136.53	60.6	18	20	5						
PORT MORESBY	137.15	239.5	18	7	-9				21	14	
Y.-SAKHLINSK	137.43	327.6	18	19	2				21	14	PP
KARACHI	137.48	68.3	18	34	17						
FRUNSE	137.53	40.0	18	22	5						
KHOROG	137.93	48.6	18	28	10				23	28	
NEMURO	138.05	321.4	18	20	2				21	15	
ABASHIRI	138.43	323.1	18	22A	4				21	16	
KUSIRO	138.96	321.7	18	21	2				21	18	
WAKKANAI	139.02	326.5	18	33	13				20	2	
ASAHIGAWA	139.67	324.1	18	20	-1				21	24	
HIROO	140.01	321.5	18	26	5						
IRKUTSK	141.26	6.3	18	20	-5						
SUTTSU	141.50	324.4	18	23	-2				21	24	
MORI	141.75	323.3	18	26	0				21	25	
HAKODATE	141.82	322.8	18	25	-1				21	24	
HATINOHE	142.13	320.5	18	22	-4				18	40	
LAHORE	142.26	55.9	18	23A	-3						
MIYAKO	142.36	319.0	18	25	-1				27	48	
MORIOKA	142.83	319.7	18	27	0				31	10	
MIZUSAWA	143.19	319.0	18	29	1				27	52	
BOMBAY	143.31	76.8	18	30	2				45	9	SSS
ISINOMAKI	143.46	317.8	18	26A	-2				27	54	
AKITA	143.49	320.5	18	32	4				28	28	
SENDAI	143.82	317.9	18	29K	0				27	56	
SAKATA	144.14	319.6	18	33	4						
YAMAGATA	144.19	318.3	18	29A	0						
POONA	144.30	77.4							20	19	PKP2
HUKUSIMA	144.40	317.5	18	31	1						
ONAHAMA	144.55	316.1	18	31K	1				28	1	
SHIRAKAWA	144.91	316.8	18	32	2						
MITO	145.15	315.5	18	32A	1						
KAKIOKA	145.42	315.5	18	35	4						
UTUNOMIYA	145.46	316.3	18	34	3						
TUKUBASAN	145.48	315.6	18	33K	2	24	42	0	22	18	PP
NEW DELHI	145.57	59.3	18	33A	2				22	14	PP
AIKAWA	145.66	319.7	18	36	5						
DEHRA DUN	145.68	55.9	18	33A	1				18	48	PKP2
ULAN-BATOR	145.81	4.6	17	35	-57						
HONGO	145.98	315.1	18	41	9				19	14	
KUMAGAYA	146.01	316.1	18	35	3						
TOKYO C.M.O.	146.01	315.1	18	39	7						
TAKADA	146.21	318.4	18	34	2						
YOKOHAMA	146.22	314.8	18	36	4						
TITIBU	146.31	316.0	18	37	5						
MERA	146.36	313.8	18	37	5						
OIWAKE	146.46	317.0	18	38	5						
MATUSIRO	146.57	317.6	18	34	1				18	52	PKP2
OSIMA	146.75	314.0	18	39	6				40	36	
HUNATU	146.78	315.6	18	39	6						
AJIRO	146.80	314.6	18	36	3						
SEHORE	146.81	68.7	18	38	5						
KOHU	146.83	316.0	18	36	3				28	15	
MISIMA	146.87	314.9	18	38	5						
MATUMOTO	146.89	317.4	18	40	7						
WAZIMA	146.90	320.0	18	42	9				40	35	
GUAM	146.97	273.6	18	34	1				34	33	SPP
TOYAMA	147.13	318.7	18	36	2						
DARWIN	147.26	218.4	18	37	3						
KODAIKANAL	147.28	92.5	19	5	31				30	2	
HATIDYOZIMA	147.31	311.0	18	41	7						
SHIZUOKA	147.33	315.1	18	43	9						
IIDA	147.41	316.4	18	40	6						
KANAZAWA	147.58	319.0	18	38	4						
OMAESAKI	147.65	314.6	18	40	6						
HAMAMATU	147.93	315.3	18	39	4						
TORISIMA	148.11	306.3	18	53A	18				21	7	
HUKUI	148.14	318.6	18	38	3				21	7	

GIHU	148.18	317.2	18	44	9				
NAGOYA	148.18	316.6	18	39	4			21	2
TSURUGA	148.49	318.2	18	40	4				
HIKONE	148.60	317.4	18	44	8			40	55
KAMEYAMA	148.70	316.6	18	46	10			29	5
HYDERABAD	148.71	79.1	18	55	19			25	26 PPP
MAIZURU	149.04	318.6	18	46	10				
KYOTO	149.09	317.5	18	39	3			35	19
NARA	149.23	316.9	18	40	3				
ABUYAMA	149.29	317.5	18	39K	2				
OWASE	149.33	315.6	18	44	7				
OSAKA	149.44	317.2	18	39	2			19	50
KOBE	149.66	317.6	18	47	10				
TOTTORI	149.78	319.8	18	41	4				
SAIGO	149.85	321.8	18	47	9				
WAKAYAMA	149.93	316.8	18	48	10				
SIOMISAKI	149.98	315.0	18	51	13			28	33
SUMOTO	150.04	317.3	18	44	6			21	9
MADRAS	150.27	87.9	18	44	6			28	39
HIMEJI	150.27	318.1	18	48	10			19	10
YONAGO	150.35	320.6	18	44	6				
OKAYAMA	150.47	318.8	18	45	7				
MATSUE	150.51	320.9	18	46	7				
TAKAMATU	150.61	318.1	18	50	11			28	37
TSURUGISAN	150.93	317.4	18	45	6			20	30
MUROTO	151.18	316.3	18	39	-1			21	11
KOTI	151.43	317.4	18	45	5			41	19
HAMADA	151.48	321.2	18	46	6			28	9
HIROSIMA	151.61	320.0	18	45	5			21	11
MATUYAMA	151.73	318.7	18	46	6			32	10
ASHIZURI	152.29	316.6	18	59	18			28	52
SIMONOSEKI	152.82	321.1	18	47	5				
OOITA	152.87	319.1	18	47	5				
VISHAKHAPTNM	153.31	78.0	18	51	8			24	53
HUKUOKA	153.41	321.2	18	47	4			21	34
ASOSAN	153.43	319.2	18	57	14				
ITUHARA	153.62	323.6	19	4	21				
SAGA	153.68	320.7						19	31
KUMAMOTO	153.72	319.5	19	3	20			21	14
MIYAZAKI	153.83	317.1	18	48	5			28	56
NAGASAKI	154.29	320.4	18	46	2			32	26
BOKARO	154.40	63.3	18	55	11			29	1 PS
CHATRA	154.42	55.9	18	48K	4			23	23 PP
YAKUSIMA	155.36	315.5						22	19
CALCUTTA	157.05	64.5	19	10	22			19	50
SHILLONG	158.74	53.7	18	51K	1			23	32 PP
LEMBANG	159.29	171.2	18	53K	3	25 13	14	20 59	23 17 PP
TANGERANG	159.77	168.1	18	56	5	25 16	17	20 2	23 37 PP
DJAKARTA	159.80	168.7	18	55	4	25 13	14	19 59	23 36 PP
CHITTAGONG	160.11	61.9	18	54	3				
TOCKLAI	160.25	46.7	18	36	-15				22 41 PP
PORT BLAIR	162.30	94.7	19	0K	7				23 58 PP
MEDAN	164.37	129.3	18	58	2	25 11	8		37 27 PPS
TAIPEI	164.89	319.4	19	18	22				
HWALIEN	165.56	316.2	19	8	11				
TAICHUNG	166.05	319.1	19	19	22				
HSINKONG	166.31	314.1	19	5	8				
ALISHAN	166.41	317.0	18	54	-3				
TAITUNG	166.69	313.6	19	20	22				
TAWU	167.12	312.9	19	15	17				
TAINAN	167.16	316.9	19	9	11				
HENGCHUN	167.45	312.1	19	16	18				
MANILA	169.93	276.3						24	14
BAGUIO CITY	170.14	286.7	19	3	4				
HONG KONG	170.92	339.4	19	5	5			24	35 PP

AUGUST 16 23.H 6.M 32.S EPICENTRE -12.84 -14.53 DEPTH= 94.KM

A= 0.94414 B=-0.24466 C=-0.22078 D=-0.2508 E=-0.9680
G=-0.2137 H= 0.0554 K=-0.9753 HT= 6.1

DEPTH OF FOCUS= 0.010R

SE= 3.08

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

M.BOUR	27.15	354.8	5	36	-1						
KIMBERLEY	39.80	119.7	7	30	4						
TAMANRASSET	40.48	29.2	7	32	1				9	7	PP
BULAWAYO	41.90	105.9	7	41	-2						
AVERROES	46.38	8.2	8	1A	-18						
MALAGA	50.21	10.6	8	47A	-2				11	36	PPP
ALMERIA	50.71	12.5	8	53A	1						
GRANADA	50.80	11.3	8	52K	-1				10	24	
LISBON	51.53	5.4	8	59	0						
LA PAZ	51.86	259.0	9	0	-1	16	30	15			
ALGIERS UNI.	52.05	17.9	9	2	-1						
TOLEDO	53.34	10.0	9	12	0	16	40	5	20	48	SS
CARACAS	56.96	291.6				17	36	13	21	38	SS
HUANCAYO	59.25	263.5							17	20	
MONACO	59.76	18.3	9	59	1						
ROME	59.88	23.1				17	58	-3			
ISOLA	60.05	17.8	10	0	0						
N-LAZARVSKYA	60.14	170.2	9	58K	-2						
CLERMONT-FD.	60.47	14.1	10	4	1						
AQUILA	60.62	23.5	10	4	0						
FLORENCE X.	61.06	21.1				18	8	-8			
BOGOTA	61.63	282.4	10	10	0	18	38	15			
ATHENS	61.96	33.7	10	18	5						
BESANCON	62.57	15.6	10	16	-1						
CHINCHINA	63.21	282.3	10	30	9						
TRIESTE	63.57	21.8	10	25	2	19	2	14			
LJUBLJANA	64.19	22.1	10	27K	0						
STRASBOURG	64.27	16.2	10	27	-1						
STUTTGART	64.86	17.2	10	30	-2						
DOURBES	64.88	13.5	10	43	11						
JERUSALEM	65.10	45.8	10	35	2						
BELGRADE	65.56	26.6	10	35K	-1					12	16
BENSBERG	66.29	14.8	10	41	0						
KASPERSKE H.	66.51	19.7	10	40	-2					13	4
KSARA	66.72	44.3	10	43	-1						
BRATISLAVA	66.93	22.4	10	45	0						
JENA	67.46	17.5	10	46	-2					12	33
PRUHONICE	67.56	19.8	10	48	-1						
HALLE	68.08	17.5	10	41	-11					13	41
COLLMBERG	68.21	18.2	10	52	-1						
SKALNATE PL.	68.96	23.6	10	54	-3						
UZHGOROD	69.35	25.1	11	0	0						
KRAKOW	69.53	22.9	11	1	0				11	7	11 55
MAWSON	73.42	157.0	11	22	-2						
BAKURIANI	76.12	40.9	11	40K	0						
GORIS	76.84	43.9	11	44	0						
UPPSALA	76.93	16.0	11	50A	6						
TIFLIS	76.93	41.4	11	46	2						
SHIRAZ	77.15	55.3	11	46	1						
KIROVOBAD	77.40	42.9	11	46	-1						
SKALSTUGAN	78.93	11.9	11	55	0						
NURMIJARVI	79.50	18.5	11	57	-1	21	58	8		27	12 SS
OTTAWA	79.95	321.2	12	0	-1						
BYRD STATION	80.02	189.9	12	1	0						
UMEA	80.94	14.8	12	6	0	22	18	13			
VIBORG	81.00	20.0	12	6	0						
MOSCOW	81.00	26.9	12	6	0						
SCORESBY SD.	83.27	357.5	12	21	3						
KIZYL-ARVAT	83.67	47.6	12	27A	7						
KIRUNA	84.31	12.6	12	23	0						
VANNOVSKAYA	84.55	49.3	12	26	2						
MIRNY	85.14	157.5	12	27A	0						
SODANKYLA	85.38	14.8	12	24	-4						
SCOTT BASE	89.47	180.3	12	47	-1						
WICHITA MTS.	92.41	304.9	13	1	-1						
ALBUQUERQUE	98.80	303.8	13	32	1						
TONTO FOREST	102.63	302.6	13	48	0						
AFIAMALU	145.15	221.1	19	30	3						
MATUSIRO	146.01	41.3	19	29	1						
RABAUL	158.52	141.2								29	20

AUGUST 17 11.H 12.M 45.S EPICENTRE 30.74 131.18 DEPTH= 62.KM

A=-0.56695 B= 0.64798 C= 0.50861 D= 0.7526 E= 0.6585
G=-0.3349 H= 0.3828 K=-0.8610 HT= 1.6

DEPTH OF FOCUS= 0.005R

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
YAKUSIMA	0.66	244.0	0	11K	-5	0	21	-6				
KAGOSIMA	0.99	326.8	0	19A	0	0	39	6				
MIYAZAKI	1.19	9.7	0	23A	2	0	40	2				
NOBOEKA	1.88	13.1	0	33	2	0	57	3				
KUMAMOTO	2.11	348.9	0	35A	1	0	59	0				
UNZENDAKE	2.14	338.4	0	35	1	1	2	2				
ASOSAN	2.15	357.4	0	36	1	1	9	9				
NAGASAKI	2.27	331.1	0	36A	0	1	7	4				
ASHIZURI	2.51	37.6	0	38	-1	1	6	-3				
OOITA	2.51	8.4	0	41A	1	1	12	3				
SAGA	2.61	343.5	0	42A	1	1	18	6				
UWAZIMA	2.74	24.7	0	49	6	1	32	17				
HUKUE	2.80	314.8	0	43A	-1	1	17	0				
HUKUOKA	2.91	346.7	0	46A	1	1	20	1				
SIMONOSEKI	3.21	356.2	0	50	1	1	30	3				
MATUYAMA	3.37	23.2	0	52	0	1	37	6				
KOTI	3.44	34.8	0	51K	-1	1	26	-6				
MUROTO	3.57	44.7	0	50	-4	1	28	-8			3	49
HIROSIMA	3.77	15.9	0	57A	0	1	52	11				
ITUHARA	3.81	335.5	0	57A	-1	1	42	0				
TSURUGISAN	3.92	36.9	0	54	-5	1	39	-5				
HAMADA	4.21	10.0	1	7	4	1	59	7			2	25
TAKAMATU	4.31	33.4	1	5	0	1	51	-3				
OKAYAMA	4.55	29.7	1	10	2	2	7	7				
HIMEJI	4.63	35.1	1	15	6						2	49
SIOMISAKI	4.74	54.0	1	8K	-3	2	10	5				
SUMOTO	4.77	40.3	1	10K	-1						2	43
WAKAYAMA	4.84	43.0	1	11	-1						2	51
MATSUE	4.96	18.1	1	16	2	2	11	1				
YONAGO	5.02	20.7	1	15	0	2	20	8				
KOBE	5.17	39.6	1	18	1	2	22	6				
OSAKA	5.35	42.1	1	18	-1	2	26	6				
TOTTORI	5.38	27.1	1	21	1	2	27	6				
OWASE	5.39	50.6	1	16	-4	2	12	-9				
MAWASHI	5.45	215.2	1	23	3	2	12	-11				
ABUYAMA	5.53	40.7	1	20K	-2	3	8	43				
NARA	5.55	43.7	1	21	-1	2	33	8				
TOYOOKA	5.67	31.6	1	25	1	2	27	-1				
KYOTO	5.73	40.7	1	24	0	2	26	-4				
SAIGO	5.73	17.7	1	29	5						3	8
MAIZURU	5.89	35.7	1	26	-1						3	18
TU	5.98	47.3	1	28A	0	2	34	-2				
KAMEYAMA	6.05	46.0	1	28K	-1						3	31
HIKONE	6.20	42.0	1	31K	0	2	50	9				
TSURUGA	6.38	38.6	1	33K	-1	2	45	-1			3	36
NAGOYA	6.57	46.2	1	34K	-2	2	49	-1			3	47
GIHU	6.60	43.8	1	35	-2	2	46	-5				
HUKUI	6.77	37.2	1	38	-1	2	54	-1				
HAMAMATU	6.79	52.5	1	38K	-1	2	59	3				
OMAESAKI	7.07	55.2									4	20
IIDA	7.33	47.7	1	45	-2						4	14
KANAZAWA	7.35	36.8	1	47	0						4	1
SHIZUOKA	7.39	53.3	1	46K	-2						4	32
TAKAYAMA	7.40	41.6	1	57	9						4	21
HATIDYOZIMA	7.68	69.9	1	50A	-2							
TOYAMA	7.77	38.5	1	47	-6	3	16	-4				
MISIMA	7.85	54.2	1	52K	-2						4	27
MATUMOTO	7.89	44.1	1	55K	1						4	30
KOHU	7.90	49.5	1	53K	-1						4	35
AJIRO	7.92	55.1	1	53	-2						4	45
HUNATU	7.94	51.3	1	55	0						4	35
OSIMA	7.99	57.6	1	54K	-2							
WAZIMA	8.14	34.1	1	59K	1						4	17
MATUSIRO	8.23	43.5	1	58K	-1	3	41	9				
OIWAKE	8.30	45.8	1	59K	-1	3	43	10				
MERA	8.38	57.9	2	2	1							
TITIBU	8.42	49.6	2	2	0						4	29
YOKOHAMA	8.50	54.4	2	2K	-1						5	1
TAKADA	8.64	40.9	2	3	-2	3	52	10				

MAEBASI	8.67	47.3	2	4	-1	3	53	11			
TOKYO C.M.O.	8.70	53.3	2	6K	0	3	59	16			
KUMAGAYA	8.72	49.6	2	7	1				5	12	
HONGO	8.73	53.2	2	7K	1				5	15	
ISIGAKIZIMA	8.92	226.0	2	21	12						
TUKUBASAN	9.23	51.4	2	12K	-1	4	8	12			
UTUNOMIYA	9.27	49.0	2	12	-1				5	23	
KAKIOKA	9.29	51.5	2	13	-1				5	24	
AIKAWA	9.31	36.9	2	19	5				4	52	
TYOSI	9.49	55.9	2	15	-1						
MITO	9.57	51.6	2	16K	-1				5	32	
SHIRAKAWA	9.84	47.3	2	23	2				5	39	
ONAHAMA	10.18	49.9	2	25K	-1				5	49	
TAIPEI	10.27	238.7	2	28	1	4	22	1			
HUKUSIMA	10.38	45.2	2	27	-2				5	40	
YAMAGATA	10.64	42.8	2	32K	0				6	2	
SAKATA	10.80	38.8	2	32	-2				5	34	
HSINCHU	10.81	239.3	2	21	-13	5	21	47			
HWALIEN	10.85	233.9	2	40	5	4	33	-2			
SENDAI	10.98	44.2	2	36	-1				5	59	
ISINOMAKI	11.33	44.7	2	40K	-1	4	51	4			
TAICHUNG	11.40	237.4	2	45	3						
AKITA	11.54	36.7	2	39	-5	5	2	10			
HSINKONG	11.60	231.3	2	51	6	5	31	37			
YUSHAN	11.63	234.0	2	49	4						
MIZUSAWA	11.68	41.6	2	47	1	5	47	51			
ALISHAN	11.71	234.6	3	1	15						
TAITUNG	11.98	230.8	2	57	7	5	1	-2			
MORIOKA	12.10	39.7	2	42	-10	5	0	-6			
TAWU	12.43	230.2	2	53	-3						
TAINAN	12.45	234.4	2	56	0						
MIYAKO	12.51	41.8	2	56	-1						
AOMORI	12.71	35.1	3	3	3				6	34	
HENGCHUN	12.77	229.5	3	14	13						
HATINOHE	12.88	37.9	3	2	0				6	33	
HAKODATE	13.47	32.3	3	13A	3	5	51	13			
MORI	13.61	31.0	3	17	5	5	52	10			
MURORAN	13.97	31.5	3	28	12						
SUTTSU	14.04	28.5	3	20	3						
TOMAKOMAI	14.49	32.2	3	38	15						
URAKAWA	14.70	36.1	3	25	-1	6	11	3			
SAPPORO	14.73	30.6	3	27	1	6	15	7			
OBIHIRO	15.48	35.0	3	34	-2						
ASAHIGAWA	15.75	31.2	3	41	2						
KUSIRO	16.13	37.1	3	45	1				7	6	
WAKKANAI	16.80	26.4	3	52	0	6	54	-2			
ABASHIRI	16.82	34.4	3	53	0				7	35	
NEMURO	17.00	38.4	3	56	1				7	34	
BAGUIO CITY	17.24	216.6	3	53	-5	7	16	10			
MANILA	18.49	212.4	4	13	0	7	43	9			
Y.-SAKHLINSK	18.54	25.5	4	12A	-2						
UGLEGORSK	20.09	21.2	4	30A	-1	8	10	2	4	40	PP
GUAM	21.26	141.0	4	40	-3	8	38	8			
ULAN-BATOR	25.28	319.6	5	20A	-2						
IRKUTSK	29.16	325.3	5	57A	0						
PETROPAVLOVK	29.91	34.0	6	5A	1	10	59	3	7	3	PP
YAKUTSK	31.30	358.7	6	16A	0	11	21	4			
MAGADAN	31.70	19.0	6	21A	1	11	27	3			
SHILLONG	34.92	271.4	6	45A	-3	12	27	13	8	15	PP
CHITTAGONG	36.04	266.3	6	55	-2						
CHATRA	38.59	275.5	7	19K	1				16	5	SSS
RABAUL	40.11	146.3	7	30K	-1	13	0	-33			
PORT BLAIR	40.30	250.4	7	33	0				14	17	
BOKARO	40.70	271.7	7	34A	-2	13	45	4	9	12	PP
MEDAN	40.86	235.1	7	38A	1	13	47	3	9	20	PP
TIKSI	40.96	358.9	7	38A	0				13	27	PCS
SEMIPALATNSK	42.43	312.6	7	49A	-1	14	15	8	9	31	PP
PORT MORESBY	42.75	156.4	7	51	-2	14	14	2			
DARWIN	42.87	180.5	7	52	-2						
DJAKARTA	43.49	216.6	7	57	-2	14	23	1	9	43	PP
TANGERANG	43.58	216.8	7	58A	-2	14	25	1	9	44	PP
LEMBANG	43.65	215.1	7	59	-1	14	27	2	9	45	PP
VISHAKHAPTNM	45.23	264.8	8	13K	0	15	10	22	9	59	PP
DEHRA DUN	45.40	283.7	8	14A	0				18	28	
FRUNSE	46.09	301.6	8	19A	-1				15	12	PS
NEW DELHI	46.58	281.7	8	21A	-2	15	24	17	10	22	PP
LAHORE	48.18	286.4	8	34	-2	15	50	21			
HONIARA	48.56	140.7	8	36K	-3	15	25	-10			

HYDERABAD	49.52	267.2	8	47A	1	16	12	24		10	44 PP
WARSAK DAM	49.86	296.3	8	49	0						
MADRAS	50.08	261.0	8	47	-4	16	2	6		10	26 PP
CHARTERS TS.	52.57	162.1	9	8	-1	16	30	0			
POONA	53.02	270.8								11	1
BOMBAY	53.75	271.8	9	12	-6	16	53	7		11	41 PP
KODAIKANAL	53.75	259.7	9	20	2					16	5
SVERDLOVSK	54.38	320.4	9	21K	-2					11	35 PP
QUETTA	54.66	287.1	9	24	-1	17	23	25			
KHEYS	57.13	349.2	9	41A	-1	17	33	2		11	54 PP
LUGANVILLE	57.54	137.9	9	44K	-1						
COLLEGE	58.84	29.5	9	54	0	18	1	8		12	12 PP
ASHKABAD	59.18	298.4	9	55	-2						
BRISBANE	61.37	158.1	10	10	-2	18	28	2			
NOUMEA	62.67	143.0	10	20K	0					16	57
HONOLULU	63.33	80.1	10	26	1	18	51	0			
KIPAPA	63.35	79.9	10	26	1	18	48	-3			
MUNDARING	63.96	194.1	10	27	-2	19	3	5			
MOULD BAY	64.85	14.4	10	35A	0	19	14	5			
APATITY	64.85	335.1	10	32A	-3	19	9	0		14	30 PP
TEHERAN	65.17	298.1	10	37A	0	19	32	19		14	37 PPP
ADELAIDE	65.74	173.2	10	39A	-1	19	19	-1	10 48	23	51 SS
KEVO	66.21	338.4	10	41A	-2	19	29	3		13	5 PP
HAWAII V.OB.	66.53	80.7	10	34	-11						
SHIRAZ	66.57	291.5	10	44A	-2	19	27	-3		13	13 PP
SITKA	66.59	36.5	10	47	1	19	41	10			
ALERT	66.80	1.9	10	47A	0	19	39	6			
RIVERVIEW	66.93	162.0	10	50	2	19	42	7		11	21 PCP
MOSCOW	67.09	322.2	10	47A	-2	19	37	0		13	14 PP
SODANKYLA	67.34	336.1	10	48A	-2	19	41	1		13	17 PP
GORIS	67.54	303.5	10	51A	-1	20	35	53			
TIFLIS	67.80	306.2	10	53	0	19	51	6		13	37 PP
CANBERRA	67.81	164.3	10	52	-1	19	43	-2		27	15 SSS
KAJAANI	68.37	332.6	10	55A	-2	19	53	1		13	28 PP
TROMSOE	68.76	339.7	10	58	-1						
PULKOVO	69.11	327.9	11	0	-1	20	2	1		13	36 PP
KIRUNA	69.22	337.7	11	0A	-2	20	4	2		15	5
TOOLANGI	69.26	167.9	11	2	0	20	10	8		11	25 PCP
AFIAMALU	70.52	120.2	11	9	-1	20	23	6			
RESOLUTE	70.64	11.7	11	13A	2						
NURMIJARVI	71.29	329.9	11	14	-1	20	28	2		13	53 PP
HELSINKI	71.32	329.6	11	14	-1						
UMEA	71.38	334.1	11	13A	-2	20	29	2		13	52 PP
PORT HARDY	73.43	40.6	11	28	1						
SIMFEROPOL	73.57	312.7	11	27A	-1					15	49 PPP
MOORLANDS	74.29	167.8	11	42	10						
SKALSTUGAN	74.41	336.0	11	31A	-2						
UPPSALA	74.61	331.3	11	32A	-2	21	2	-2			
VICTORIA	76.82	41.2	11	48A	1						
LWOW	77.11	320.6	11	47K	-1	21	34	3			
SCORESBY SD.	77.24	351.0	11	49	0	21	41	9			
KAP TOBIN	77.30	351.0	11	50	1						
WARSAW	77.38	323.7	11	49	-1	21	39	5		14	43 PP
KSARA	77.56	301.9	11	49A	-2	21	43	7		14	47 PP
KARLSKRONA	77.67	328.9	11	46	-5						
KONGSBERG	77.92	333.7	11	54K	1	22	2	22			
SEATTLE	77.92	41.5	11	58	5	21	55	15			
GOTEBORG	78.26	331.4	11	53A	-2						
PENTICTON	78.50	39.1	11	57A	1						
ISTANBUL UN.	78.75	311.1	11	58	1						
JERUSALEM	79.03	300.4	11	59	0						
KRAKOW	79.19	322.3	12	0A	0	21	56	3		14	58 PP
EDMONTON	79.30	33.4	12	2A	2						
COPENHAGEN	79.36	329.6	12	0K	-1	22	15	20			
DABROWA	79.40	322.8	12	1	0						
CHORZOW	79.54	322.8	12	1	-1					12	10 PCP
BANFF	79.57	36.0	12	3	1						
RACIBORZ	80.07	323.0	12	5	0	22	25	23		15	9 PP
GODHAVN	80.25	1.7	12	5A	0					22	5
SPOKANE	80.66	39.5	12	11	3						
CHATEAU	80.90	146.6	12	8	-1				12 29	15	9 PP
TIMISOARA	80.95	318.2	12	7	-2						
HURBANOVO	81.39	321.2	12	10	-1					14	50 PP
SOFIA	81.43	314.8	12	13	1	22	30	14		23	24 PS
SHASTA	81.65	47.5	11	54	-19						
GISBORNE	81.67	144.7	12	12	-1						
BRATISLAVA	81.80	321.9	12	16A	2	22	24	4		15	22 PP
COLLMBERG	81.92	326.0	12	14	0	22	28	6			

BELGRADE	81.93	317.8	12	14	0	22	39	17		23	6 PS
PRUHONICE	82.00	324.4	12	15	0					22	29 PS
PRAGUE	82.00	324.5	12	14	-1	22	39	17		15	23 PP
VIENNA-H.	82.14	322.2	12	17A	2	22	18	-6	12 35	15	28 PP
WELLINGTON	82.20	148.4	12	26	10	22	28	4		15	21 PP
HALLE	82.29	326.6	12	15	-1	22	32	7			
MINERAL	82.34	47.4	12	17A	1						
BLUE MTS.	82.36	41.9	12	17A	1	22	34	8		15	27 PP
CALISTOGA	82.66	49.3	12	9A	-9						
JENA	82.84	326.3	12	18	-1	22	35	4		15	27 PP
SKOPJE	83.00	315.0	12	15	-5						
CHEB	83.01	325.3	12	21	1						
KASPERSKE H.	83.03	324.1	12	20A	0						
BERKELEY	83.30	49.8	12	21A	0	22	41	6		15	33 PP
ROXBURGH	83.39	154.1	12	52	30	22	45	9		28	3 SS
WITTEVEEN	83.79	329.8	12	24	0						
ATHENS	83.84	310.7	12	23A	-1	22	40	-1		15	38 PP
ZAGREB	83.85	320.5	12	24A	0	22	45	4		13	24
ABERDEEN	83.98	336.5	12	22A	-3	22	43	1		15	40 PP
LICK	84.00	50.0	12	27A	2						
TITOGRAD	84.04	316.3	12	25	0					12	37 PCP
PARAISO	84.08	51.1	12	30	5						
BUTTE	84.29	38.9	12	28	2						
LJUBLJANA	84.50	321.3	12	27A	0					15	43 PP
FROBISHER	84.57	8.6	12	27A	-1	22	53	5			
BENSBERG	84.87	328.2	12	29A	0					15	44 PP
DE BILT	84.95	329.9	12	29A	-1	22	51	-1		15	48 PP
TRIESTE	85.17	321.3	12	30A	-1	22	52	-2		15	50 PP
HEIDELBERG	85.23	326.4	12	31A	0						
PRIEST	85.33	50.5	12	34A	3						
BOZEMAN	85.33	38.5	12	33	2						
STUTTGART	85.39	325.7	12	31	-1	23	13	17	12 40	15	51 PP
KARLSRUHE	85.65	326.3	12	33	0					22	57
DURHAM	85.65	334.7	12	33A	0	23	2	3		15	53 PP
TUBINGEN	85.66	325.6	12	33A	0						
RAVENSBURG	85.90	324.8	12	33	-1						
EBINGEN	85.95	325.4	12	34	0						
UCCLE	86.24	329.4	12	35	-1	23	0	-4			
STRASBOURG	86.25	326.3	12	36A	0	22	38	-26		15	49 PP
PADOVA	86.33	322.0	12	40	4	23	0	-5		28	45 SS
EUREKA	86.37	45.6	12	39	3	23	30	24		16	10 PP
FELDBERG	86.62	325.6	12	37	-1						
DOURBES	86.64	328.8	12	38	0	23	18	10			
AQUILA	87.49	319.0	12	43	1	23	15	-1		16	0 PP
KEW	87.71	332.0	12	42	-1	23	24	6		16	9 PP
FLORENCE X.	87.74	321.1	12	43	0	23	15	-4		16	11 PP
DUGWAY	87.83	43.5	12	46A	2	23	11	-8			
PAVIA	87.90	323.1	12	38A	-6					16	13 PP
SALT LAKE C.	88.03	42.6	12	47	2						
BESANCON	88.04	326.2	12	41	-4					16	15 PP
PASADENA	88.14	50.9	12	46	1	23	16	-6			
ROME	88.30	319.1	12	45A	-1	23	14	-10		16	14 PP
PARIS	88.52	328.9	12	15A	-32						
ROSELEND	88.83	324.7								16	21 PP
MESSINA	88.87	314.7							13 27	16	59 PPP
BOULDER CITY	89.22	47.8	12	53	3						
FLAMING GRGE	89.35	41.3	12	53	2						
GARCHY	89.39	327.6	12	51A	0						
PRICE	89.39	43.0	12	54A	3						
UINTA BASIN	89.65	41.8	12	55A	3	23	43	7		16	29 PP
ISOLA	89.68	323.4	12	54	2					16	28 PP
MONACO	89.80	322.9	12	53	0					16	28
FOLINIERE	89.84	330.4	12	58	5						
CLERMONT-FD.	90.48	326.6								13	28
GLEN CANYON	90.63	45.4	12	59	2						
LARAMIE	91.21	39.1	13	2	3						
GOLDEN	92.44	40.1	13	8	3						
TONTO FOREST	92.55	47.3	13	8	2	24	7	5	13 21	16	53 PP
TUCSON	94.14	48.6	13	15	2						
TANANARIVE	94.22	250.6	13	14	1						
ALBUQUERQUE	95.08	44.2	13	20	3						
TORTOSA	95.44	324.7	13	25	6					22	57 SCS
ALGIERS UNI.	97.11	320.5	13	25	-1	24	37	40		17	24 PP
WILKES	98.06	188.3	13	30	-1	24	5	3		17	27 PP
TOLEDO	98.37	326.8	13	32A	0	24	3	0		17	31 PP
WICHITA MTS.	99.77	39.7	13	41	3	24	24	14		17	38 PP
ALMERIA	99.97	323.9	13	39	0						
GRANADA	100.28	324.8	13	43A	2					17	49 PP
TULSA	100.37	37.1	13	43	2	24	19	6		17	51 PP

BREBEUF	100.84	17.5	13	39	-4	24	19	-3	32	11	SS
MALAGA	101.03	325.0	13	43	-1				15	50	PP
MIRNY	101.26	194.6	13	44A	-1	24	16	-2	17	54	PP
LWIRO	101.79	274.4							13	48	PP
PALISADES	104.93	19.4	14	0	-1	24	43	8			
AVERROES	105.25	325.0							16	58	PP
TAMANRASSET	105.52	308.9	13	57	777	24	46	9	18	24	PP
CUMBERLAND	105.52	30.4	14	5	777	25	55	78	18	30	PP
BLACKSBURG	106.21	25.8							18	32	PP
CAPE HALLETT	106.25	168.4	18	16	777						
MAWSON	110.35	202.3	18	25	0						
SCOTT BASE	110.41	172.4	18	24	-1						
SOUTH POLE	120.57	180.0	18	45	0				19	48	
BANDEIRA	121.27	270.7	18	48	2				20	16	PP
BYRD STATION	123.40	168.6	18	52	2						
M.BOUR	125.68	321.0							20	44	PP
N-LAZARVSKYA	128.30	201.6	19	1	1				21	9	PP
FORT FRANCE	133.26	16.5	19	12	3						
CARACAS	135.46	25.8	19	2	-11				21	53	PP
CHINCHINA	136.21	40.5	19	35	21				22	31	PP
TRINIDAD	137.11	18.3	19	19	3						
BOGOTA	137.35	38.9	19	20A	3				22	55	PKS
ARGENTINE I.	144.17	169.0	19	27	-2						
G. G. VIDELA	144.79	169.6	19	28	-2						
NANA	148.07	60.4	19	40	5						
HUANCAYO	149.22	58.6	19	42	5						
AREQUIPA	154.89	60.7	19	48	3						
LA PAZ	157.38	55.6	19	55	6						
ANTOFAGASTA	159.57	75.2	19	54	3				24	22	PP
SANTA LUCIA	161.32	104.0	19	55	2				24	31	

AUGUST 18 7.H 9.M 50.S EPICENTRE 35.80 139.55 DEPTH= 145.KM

A=-0.61863 B= 0.52742 C= 0.58234 D= 0.6488 E= 0.7610
G=-0.4431 H= 0.3778 K=-0.8129 HT= -0.2

DEPTH OF FOCUS= 0.018R

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
HONGO	0.20	116.3	0	21A	0	0	35	-2				
TOKYO C.M.O.	0.20	126.0	0	21	0	0	35	-2				
YOKOHAMA	0.38	167.5	0	21K	-1	0	37	-1				
KUMAGAYA	0.38	338.5	0	21A	-1	0	36	-2				
TITIBU	0.42	295.5	0	22	0	0	37	-2				
KAKIOKA	0.67	49.7	0	22A	-1	0	37	-4				
HUNATU	0.70	245.1	0	22	-1	0	38	-3				
MAEBASI	0.72	327.2	0	21A	-2	0	34	-7				
UTUNOMIYA	0.79	18.9	0	22A	-2	0	38	-4				
KOHU	0.82	261.2	0	24	0	0	41	-1				
AJIRO	0.83	206.4	0	23	-1	0	40	-2				
MISIMA	0.84	216.1	0	22K	-2	0	37	-5				
MERA	0.91	165.3	0	24K	0	0	41	-2				
MITO	0.94	51.8	0	25A	0	0	42	-1				
OIWAKE	0.97	303.5	0	24	-1	0	42	-1				
OSIMA	1.04	187.8	0	25	0	0	42	-2				
TYOSI	1.06	93.9	0	27A	1	0	46	1				
SHIZUOKA	1.25	229.0	0	29K	1	0	51	2				
MATUSIRO	1.31	304.7	0	27	-1	0	48	-2				
MATUMOTO	1.36	289.8	0	28K	-1	0	50	-1				
NAGANO	1.40	308.9	0	28	-1	0	48	-3				
SHIRAKAWA	1.42	22.1	0	29	0	0	50	-2				
IIDA	1.43	259.3	0	29	-1	0	51	-1				
ONAHAMA	1.58	43.1	0	30A	-1	0	52	-3				
OMAESAKI	1.62	222.7	0	32	0	0	55	0				
TAKADA	1.67	321.5	0	33	1	0	55	-1				
HAMAMATU	1.84	234.8	0	34K	0	0	59	-1				
TAKAYAMA	1.90	281.3	0	34	-1	1	0	-1				
HUKUSIMA	2.08	20.5	0	36	-1	1	2	-2				
TOYAMA	2.10	296.0	0	38	1	1	3	-2				
NIIGATA	2.16	349.4	0	39	1	1	8	2				
NAGOYA	2.20	254.2	0	38	0	1	6	-1				
GIHU	2.30	260.9	0	39	0	1	7	-2				
AIKAWA	2.45	335.2	0	41	0	1	9	-4				
KANAZAWA	2.46	288.1	0	42	1	1	13	0				

YAMAGATA	2.53	14.4	0	43K	1	1	13	-1			
WAZIMA	2.65	307.3	0	44	0	1	16	-1			
SENDAI	2.69	23.2	0	44K	0	1	13	-5			
HATIDYOZIMA	2.70	175.7	0	43K	-2	1	15	-3			
HUKUI	2.71	276.3	0	45	0				2	0	
HIKONE	2.74	259.9	0	46	1	1	16	-3			
TSURUGA	2.84	268.0	0	42	-4	1	18	-3			
ISINOMAKI	2.98	27.8	0	46A	-2	1	18	-7			
SAKATA	3.10	4.0	0	51	1	1	28	1			
KYOTO	3.22	257.1	0	50	-1	1	21	-9			
NARA	3.24	250.9	0	51	-1	1	29	-2			
ABUYAMA	3.38	255.3	0	53A	0						
OSAKA	3.49	252.0	0	55	0	1	35	-1			
MIZUSAWA	3.55	20.2	0	55	-1	1	35	-3			
TOYOOKA	3.86	267.4	0	58	-2	1	38	-7			
SIOMISAKI	3.90	234.2	1	0	0	1	43	-3			
AKITA	3.94	6.2	1	8	7	1	46	-1			
SUMOTO	4.07	250.4	1	2K	0	1	49	-1			
MORIOKA	4.10	17.8	1	2	-1	1	47	-4			
MIYAKO	4.30	25.8	1	5	0	1	49	-6			
TAKAMATU	4.75	253.5	1	11	0	2	4	-2			
TSURUGISAN	4.95	248.5	1	19	5	2	5	-6			
HATINOHE	4.97	17.7	1	12	-2	2	6	-5			
YONAGO	5.06	267.6							2	0	
AOMORI	5.11	10.5	1	33	17	2	31	16			
MUROTO	5.11	241.7				2	14	-1			
MATSUE	5.29	268.1	1	20	1						
KOTI	5.44	247.4	1	19	-2	2	20	-3			
MATUYAMA	5.90	252.6	1	28	1	2	34	0			
HAKODATE	6.08	8.6	1	28A	-1	2	39	1			
HAMADA	6.18	263.8							2	25	
MORI	6.34	6.9							2	10	
MURORAN	6.61	9.3				2	46	-5			
URAKAWA	6.82	20.7	1	36A	-3	2	49	-7			
TOMAKOMAI	7.00	12.4				2	48	-13			
OOITA	7.03	250.9	1	50	8						
HIROO	7.10	23.2				2	53	-10			
SAPPORO	7.39	10.3	1	43	-4	3	3	-7			
OBIHIRO	7.65	20.6	1	47	-3	3	12	-4			
HUKUOKA	7.87	256.3							2	47	
KUSIRO	8.09	26.1	1	51	-5	3	15	-11			
ASAHIGAWA	8.26	14.4	1	55K	-3						
NEMURO	8.84	29.9				3	33	-12			
ABASHIRI	8.98	22.4	1	56A	-12	3	38	-9			
SHILLONG	41.90	269.6	7	36A	-2						
COLLEGE	50.93	31.7	8	50	1						
NEW DELHI	52.49	280.8	8	58A	-2						
CHARTERS TS.	55.94	172.4	9	25	-1						
QUETTA	59.88	287.2	9	52	-1						
ALERT	61.45	3.2	10	3K	-1						
KEVO	64.06	339.1	10	19A	-2						
SODANKYLA	65.52	336.9	10	29	-1				11	2	PCP
TROMSOE	66.39	340.8	10	34	-2						
KAJAANI	67.04	333.7	10	39	-1						
KIRUNA	67.13	338.9	10	39	-1						
UMEA	69.80	335.7	10	55	-2						
NURMIJARVI	70.32	331.5	10	59A	-1						
HELSINKI	70.41	331.1	10	59	-2						
SHIRAZ	71.14	293.3	11	4A	-1						
EDMONTON	71.14	37.2	11	5K	0						
CANBERRA	71.30	171.9	11	6	0						
SKALSTUGAN	72.51	338.1	11	11	-2						
SHASTA	73.05	51.9	11	17	1						
TOOLANGI	73.21	175.1	11	17	0						
UPPSALA	73.40	333.4	11	17	-1						
MINERAL	73.74	51.9	11	10K	-10						
BLUE MTS.	73.87	46.1	11	22	2	12	0				
GOTEBORG	76.99	334.1	11	37	-2						
EUREKA	77.79	50.1	11	44	1	12	15				
FROBISHER	78.34	12.3	11	40K	-6						
FLAMING GRGE	80.87	45.7	12	1	1						
UINTA BASIN	81.15	46.3	12	2K	1	12	37		13	4	
COLLMBERG	81.41	329.3	12	3	1				12	38	
KASPERSKE H.	82.79	327.6	12	10	0						
LARAMIE	82.80	43.5	12	10	0						
TONTO FOREST	83.95	51.8	12	17	2	12	52				
TUCSON	85.53	53.2	12	25	2	13	0				
ALBUQUERQUE	86.53	48.8	12	30	2	13	5				
WICHITA MTS.	91.33	44.4	12	51	0						

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TULSA	92.02	41.9	12 55	1										
LA PAZ	148.76	59.2	19 37	10										

AUGUST 18 18.H 43.M 16.S EPICENTRE 50.59-177.01 DEPTH= 17.KM

A=-0.63657 B=-0.03320 C= 0.77050 D=-0.0521 E= 0.9986
G=-0.7695 H=-0.0401 K=-0.6374 HT= -5.6

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
PETROPAVLOVK	15.23	288.6	3 36A	0				
MAGADAN	20.31	308.6	4 36	-1				
COLLEGE	20.88	35.8	4 40	-3	8 30	-1		
SITKA	25.12	58.9	5 25	0	9 58	11		
YAKUTSK	30.77	312.4	6 14A	-2				
TIKSI	31.87	330.9	6 25A	-1	11 37	2		
HONOLULU	32.80	146.1	6 52	18	11 50	1		
MOULD BAY	33.93	21.3	6 44K	0	12 4	-3		9 19
VICTORIA	34.20	72.2	6 44	-2				
MATUSIRO	34.80	263.7	6 49	-2				9 22 PCP
SEATTLE	35.25	73.0	6 56	1	12 43	16		
PENTICTON	36.16	69.1	7 3K	0				
ABUYAMA	37.52	263.8	7 13K	-1				
BANFF	37.79	64.5	7 15	-2				
EDMONTON	38.14	60.4	7 20K	0				
SHASTA	38.64	83.1	7 23	-1				
UKIAH	39.00	85.7	7 26	-1				
MINERAL	39.34	83.0	7 28K	-2				
BLUE MTS.	39.62	74.4	7 31	-1				9 6 PP
CALISTOGA	39.69	85.9	7 32K	-1				
RESOLUTE	40.00	24.2	7 36	1				
BERKELEY	40.35	86.7	7 37K	-1	13 48	3		9 13 PP
LICK	41.06	86.9	7 43K	-1				
PARAISO	41.21	88.6	7 49	4				
PRIEST	42.41	87.6	7 54K	-1				
ALERT	43.21	10.1	8 1	0				
EUREKA	43.38	80.4	8 2	-1	14 36	6		9 47 PCP
DUGWAY	44.94	77.5	8 14K	-1				
SALT LAKE C.	45.21	76.2	8 16	-2				
PASADENA	45.25	87.9	8 6	-12	15 1	4		
BOULDER CITY	46.22	83.5	8 25	-1				10 0 PCP
PRICE	46.53	76.9	8 27K	-1				
FLAMING GRGE	46.63	74.5	8 27	-2				8 51
IRKUTSK	46.78	304.2	8 28K	-2				
UINTA BASIN	46.88	75.3	8 29	-2	15 21	1		10 20 PP
GLEN CANYON	47.65	80.3	8 35	-2				
ULAN-BATOR	47.68	298.0	8 43K	6				
LARAMIE	48.73	71.8	8 43	-2				
TONTO FOREST	49.54	82.8	8 54K	-1			8 59	10 12 PCP
GOLDEN	49.83	73.4	8 52	-2				
TUCSON	51.15	84.5	9 1	-3				
ALBUQUERQUE	52.14	78.8	9 9	-2				10 20 PCP
LAWRENCE	56.37	67.9	9 39	-3				
WICHITA MTS.	57.17	73.8	9 44	-4	17 47	6		10 40 PCP
SCORESBY SD.	57.90	9.6	9 54	1	17 54	4		
KAP TOBIN	57.96	9.7	9 52	-1				
TULSA	58.07	71.0	9 49K	-5	17 54	1		
KEVO	58.69	350.5	9 56	-3	18 0	-1		12 4 PP
FAYETTEVILLE	58.91	69.8	10 1K	1				
TROMSOE	59.53	353.6	10 2	-2				
HONG KONG	59.73	268.8	10 6	0	18 19	5		
SCHEFFERVLLE	59.95	38.9	10 6K	-1				
APATITY	59.98	347.0	10 1K	-7	18 13	-4		10 44 PCP
BAGUIO CITY	60.01	259.1	10 4	-4	18 17	-1		
RABAUL	60.66	215.9	10 8	-4				
SODANKYLA	61.02	349.8	10 13K	-2	18 32	1		39 26 PKPPKP
MANILA	61.03	257.4	10 21	6				
KIRUNA	61.18	352.5	10 14K	-2	18 31	-2	10 27	
LONDON ONT.	61.55	56.1	10 17K	-1				
OTTAWA	62.69	51.0	10 23	-3				
SVERDLOVSK	62.86	328.5	10 26	-1				
BREBEUF	63.65	49.8	10 29K	-3	19 7	3		11 9 PCP
KAJAANI	64.05	348.2	10 33K	-2	19 9	0		12 59 PP
CUMBERLAND	64.32	64.7	10 33	-3	19 15	3		12 58 PP

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AFIAMALU	64.38	174.4				19	12	-1				
PENNSYLVANIA	64.87	55.9	10	38	-2							
UMEA	65.13	351.7	10	40K	-2	19	16	-6	10	54	20 33	SCS
SKALSTUGAN	65.94	355.5	10	45	-2							
ALMATA	66.57	310.1	10	48A	-3							
PALISADES	66.78	53.3	10	52K	0	19	45	3	10	58		
VIBORG	67.12	346.6	10	53	-1	19	46	0				
LUGANVILLE	67.28	196.6	10	52	-3							
PORT MORESBY	67.36	218.8	10	56A	0	19	48	-1				
CHAPEL HILL	67.77	60.3	10	57	-1							
PULKOVO	67.79	345.5	10	58	-1	19	53	-1				
NURMIJARVI	67.88	348.6	10	58K	-1	19	54	-2			24 27	SS
FRUNSE	68.03	311.2	11	0K	0	19	59	2				
COLUMBIA	68.06	63.0	10	57	-3							
HELSINKI	68.17	348.4	11	0	-1							
HALIFAX	68.99	44.6	11	5K	-1							
UPPSALA	69.28	352.2	11	6K	-2	20	10	-2	11	20	39 7	PKPPKP
BERGEN	69.35	358.8	11	8	0							
KONGSBERG	69.99	356.4	11	12K	0	20	21	0	11	26		
MOSCOW	70.20	340.0	11	12K	-1	20	24	1				
SHILLONG	71.37	287.6	11	19K	-2							
GOTEBORG	71.82	354.9	11	22K	-1				11	37		
KARLSKRONA	73.11	352.7	11	31	0				11	46		
CHATRA	73.25	291.8	11	31K	-1							
KHOROG	73.66	309.5	11	34	0	21	5	2				
DURHAM	74.94	2.7	11	49A	7	21	19	2			21 32	SKS
DEHRA DUN	75.82	300.5	11	46	-1							
BOKARO	76.32	290.8	11	48	-1						21 34	
WARSAK DAM	76.39	307.3	11	48	-2							
WARSAW	76.43	348.7	11	50	0	21	34	1			12 4	PCP
LAHORE	76.87	303.8	11	51	-1	21	38	0				
WITTEVEEN	76.92	357.7	11	54	1							
CHARTERS TS.	77.46	215.2	11	53	-3	21	44	-1				
NEW DELHI	77.63	300.0	11	54K	-3	21	47	1				
DE BILT	77.67	358.6	11	59	2	21	52	5				
HALLE	78.00	354.3	11	57	-2	21	51	1				
BERMUDA	78.13	53.1	12	6	7							
COLLMBERG	78.13	353.6	11	59	0						14 57	PP
KEW	78.28	2.1	12	0	0	21	55	2				
LWOW	78.37	346.3	12	0A	-1	21	57	3				
CHORZOW	78.58	349.6	12	1	-1						12 27	
JENA	78.60	354.5	12	1	-1	21	56	-1			15 3	PP
KRAKOW	78.70	349.0	12	3K	0	21	59	1				
BENSBERG	78.77	357.3	12	3K	0	22	2	3				
RACIBORZ	78.87	350.1	12	3	0						12 17	PCP
UCCLE	78.98	359.1	12	7	3							
KIZYL-ARVAT	79.11	320.6	12	6A	1	22	8	6				
PRAGUE	79.25	352.5	12	4	-2							
ASHKABAD	79.31	318.6	12	4	-2	22	10	6				
VANNOVSKAYA	79.42	318.7	12	6	0							
SKALNATE PL.	79.52	348.6	12	6	-1	22	9	3			13 39	
DOURBES	79.68	358.9	12	9	1	22	13	5				
UZHGOROD	79.78	347.1	12	8	0							
KASPERSKE H.	80.25	353.0	12	10K	-1							
HEIDELBERG	80.27	356.2	12	17	6							
KARLSRUHE	80.67	356.4	12	14	1							
VIENNA-H.	80.87	351.0	12	14	0							
STUTTGART	80.88	355.8	12	14	0	22	24	3	12	29		
BRATISLAVA	80.88	350.5	12	14K	0	22	23	2			15 31	PP
PARIS	80.98	0.3	12	16K	1							
TIFLIS	81.07	329.7	12	15	0	22	27	4				
SIMFEROPOL	81.08	338.2	12	16	1	22	32	9				
STRASBOURG	81.13	356.8	12	15	-1	22	27	4			15 11	PP
BAKURIANI	81.47	330.5	12	18K	1							
KIROVOBAD	81.53	328.1	12	22	4							
QUETTA	81.77	308.2	12	19	0	22	35	5				
BRISBANE	82.11	206.8	12	19	-2	22	31	-2				
BESANCON	82.51	357.9	12	22	-1							
GARCHY	82.51	359.9	12	22K	-1							
GORIS	82.56	327.6	12	22	-1	22	46	8				
TRIESTE	83.69	352.4	12	29K	0	22	49	0				
BELGRADE	83.77	347.6	12	30A	1						22 54	
CLERMONT-FD.	84.02	359.9	12	32	2	23	7	14				
TEHERAN	84.04	322.3	12	32K	1	22	58	5				
ROSELEND	84.05	357.4	12	32	1						13 24	
ISOLA	85.55	357.1	12	39	1							
ISTANBUL UN.	85.95	340.6	12	14	-26	23	22	11				
MONACO	85.98	356.8	12	39	-1							

LEMBANG	86.05	254.4	12	35	-6						
TANGERANG	86.14	255.6	12	38	-3						
AQUILA	87.00	352.3	12	44	-1	23	24	2		24	19 PS
POONA	87.41	296.2								14	35
SAN JUAN	88.53	62.6	12	51	-2						
RIVERVIEW	88.63	206.1	12	52	-1	23	19	-18		12	55 PCP
SHIRAZ	88.91	318.5	12	53K	-1	23	42	3	13 2	16	18 PP
CHATEAU	89.65	185.8	12	54	-4						
TOLEDO	89.70	5.4	12	58K	0	23	36	-11		16	30 PP
ATHENS	89.95	343.8	12	58	-1					23	54
CANBERRA	90.64	207.2	13	0A	-2					13	5 PCP
KSARA	91.07	333.1	13	6	2					16	44 PP
MALAGA	92.82	5.9	13	11	-2	24	16	2			
JERUSALEM	93.18	332.9	13	14	0						
TOOLANGI	93.78	209.0	13	14	-3					13	20 PCP
CARACAS	94.35	67.9	13	18K	-1	23	50	-38			
BOGOTA	94.63	77.1	13	26	5	23	54	-36		17	12 PP
TRINIDAD	97.44	63.4	13	31	-3						
TAMANRASSET	106.92	357.6	14	14	777					18	38 PP
LA PAZ	114.54	86.3	18	57	18						
LWIRO	127.12	326.9	19	4	1					21	36
SCOTT BASE	128.56	184.3	19	3	-3						
BYRD STATION	134.34	168.1	19	14	-3					21	44
MIRNY	134.91	214.4	19	16	-2					22	45
SOUTH POLE	140.40	180.0	19	15	-13					19	55
BULAWAYO	143.49	316.9	19	30	-3						
MAWSON	146.53	217.0	19	36	-3						
CHANGALANE	147.03	306.4	19	40	1					20	1
PIETERMZBURG	150.64	305.1	19	51K	6						
KIMBERLEY	152.67	314.8	19	55A	7						

AUGUST 18 20.H 27.M 38.S EPICENTRE -32.29-177.92 DEPTH= 33.KM

A=-0.84639 B=-0.03080 C=-0.53167 D=-0.0364 E= 0.9993
G= 0.5313 H= 0.0193 K=-0.8470 HT= 1.1

SE= 4.62

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
GISBORNE	7.16	206.5	1	44	-1						2	57	
ONERAHI	7.28	239.5	1	55	8								
CHATEAU	8.70	215.8	2	8	2						4	49	
WELLINGTON	10.71	211.1				4	27	-7					
ROXBURGH	16.47	213.3	3	56	6	6	43	-8					
NOUMEA	17.07	301.8	4	6	9								
MONOWAI	17.50	215.5	3	41	-22	7	13	-2					
AFIAMALU	19.14	18.5	4	21	-2	7	33	-18					
LUGANVILLE	21.54	317.3	4	54	6								
BRISBANE	25.84	273.2	5	35	5	9	51	-4					
RIVERVIEW	25.93	258.2	5	35	4						11	9	SS
CANBERRA	27.59	254.6	5	51	5						9	6	PCP
TOOLANGI	30.33	249.7	6	14	4				6	26	7	13	PP
CHARTERS TS.	34.21	281.9	6	47	3	12	20	12					
ADELAIDE	36.66	253.6	7	1	1						14	34	
PORT MORESBY	39.52	297.4	7	31	2								
RABAUL	39.57	308.7	7	30	1								
CAPE HALLETT	40.57	185.5	7	52	14								
SCOTT BASE	46.16	184.5	8	30	7								
BYRD STATION	53.06	169.3	9	22	6								
WILKES	53.52	208.4	9	23	4	16	56	8					
MUNDARING	54.94	251.4	9	32	2								
HONOLULU	56.56	22.3				17	47	18					
KIPAPA	56.76	22.3				17	45	14					
SOUTH POLE	57.88	180.0	9	56	5						10	21	PP
MIRNY	60.49	207.4	10	12	3	18	25	5	10	37			
MAWSON	70.57	200.8	11	18	4	20	30	7					
LEMBANG	73.26	272.5									14	19	
BAGUIO CITY	76.21	299.7	11	47	0								
N-LAZARVSKYA	76.99	183.3	11	55A	4								
MATUSIRO	79.83	325.5	12	7	0	22	11	5					
PRIEST	86.64	43.0	12	46A	5								
PASADENA	86.74	45.9	12	51	9								
LICK	86.92	41.6	12	47A	4								
BERKELEY	86.95	40.9	12	47K	4	23	18	1			13	12	
CALISTOGA	87.33	44.2	12	48	3								

SHASTA	88.90	38.8	12	55	3						
MINERAL	89.08	39.5	12	56K	3						
BOULDER CITY	90.00	46.3	13	2	5						
TUCSON	90.17	51.3	13	2	4						
TONTO FOREST	91.16	49.5	13	7	4					30	31 PKKP
EUREKA	91.63	43.1	13	8	3						
GLEN CANYON	92.64	47.2	13	16	7						
BLUE MTS.	94.47	38.4	13	20	2					30	22 PKKP
ALBUQUERQUE	94.70	51.4	13	23	4						
UINTA BASIN	95.95	45.6	13	27	2	24	56	59		17	24 PP
COLLEGE	99.66	12.5	13	44	3						
ALMATA	121.64	304.1	18	52	2						
WARSAK DAM	122.87	292.1	18	54	1						
QUETTA	125.27	286.2	19	3	6						
SCHEFFERVLLE	127.61	43.0	19	5	3						
SVERDLOVSK	133.40	319.8	19	18	5					22	45
KIZYL-ARVAT	136.03	294.8	19	24	6					32	55
SHIRAZ	136.99	280.3	19	24	5					22	58
TEHERAN	139.33	288.8	19	30	6					23	8
KEVO	139.97	346.8	19	29	4						
APATITY	140.24	341.8	19	28A	3						
TROMSOE	141.43	350.6	19	34	6						
SODANKYLA	142.04	344.9	19	28	-1						
KIRUNA	142.84	348.6	19	30	0						
GORIS	143.73	294.1	19	33K	2					23	4 PKS
KIROVOBAD	143.77	296.1	19	33	1						
KAJAANI	144.41	340.9	19	32	-1						
TIFLIS	144.92	297.9	19	37	3						
BAKURIANA	145.88	298.0	19	40A	5						
MOSCOW	145.92	324.1	19	38A	3						
UMEA	146.46	345.5	19	39	3						
VIBORG	146.61	336.3	19	41K	5						
PULKOVO	146.74	334.1	19	41A	4						
SKALSTUGAN	148.04	351.4	19	47A	8						
NURMIJARVI	148.10	338.9	19	45	6					23	2 PP
HELSINKI	148.27	338.3	19	45	6						
UPPSALA	150.56	344.0	19	50	7						
KSARA	151.70	282.3	19	50	6					23	34 PP
JERUSALEM	151.96	277.9	19	58	13						
SIMFEROPOL	152.15	306.3	20	1	16						
KONGSBERG	152.18	351.8	19	54	9						
GOTEBORG	153.70	348.0								20	14 PKP2
HALLE	159.49	342.2	19	57	2						
PRUHONICE	160.04	335.9	20	19	24						
JENA	160.10	342.1	20	12	17					21	39
KASPERSKE H.	161.09	336.2	20	3	7					20	42
ATHENS	161.43	293.8								26	45
STUTTGART	162.67	343.8	20	8	10					20	50 PKP2
AQUILA	166.53	321.4								27	22
TAMANRASSET	170.05	198.7	20	15	11					25	27 PP
MALAGA	173.06	48.7	20	12	7						

AUGUST 20 15.H 48.M 11.S EPICENTRE 41.22 142.90 DEPTH= 42.KM

A=-0.60165 B= 0.45510 C= 0.65643 D= 0.6033 E= 0.7975
G=-0.5235 H= 0.3960 K=-0.7544 HT= -2.1

DEPTH OF FOCUS= 0.001R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
URAKAWA	0.93	354.7	0	19A	1	0	34	3				
HIROO	1.11	16.5	0	20K	0	0	35	0				
HATINOHE	1.24	236.8	0	20K	-2	0	36	-2				
AOMORI	1.65	256.7	0	27K	-1	0	47	-1				
HAKODATE	1.71	290.9	0	29K	1	0	52	3				
OBIHIRO	1.71	7.5	0	30K	1	0	53	3				
TOMAKOMAI	1.72	325.6	0	31K	2	0	53	3				
MIYAKO	1.72	204.6	0	26	-3	0	47	-3				
MURORAN	1.81	308.1	0	30	0	0	52	0				
MORI	1.95	297.5	0	34	2	0	53	-3				
MORIOKA	2.01	221.5	0	32	-1	0	57	0				
KUSIRO	2.08	32.0	0	33K	-1	0	58	-1				
SAPPORO	2.18	328.6	0	36A	1	1	3	2				
MIZUSAWA	2.49	213.5	0	39	-1	1	9	0				

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SUTTSU	2.54	309.4	0	40	0	1	13	3			
AKITA	2.61	235.8	0	39A	-2	1	10	-2			
RUMOE	2.89	341.4	0	46	1	1	17	-2			
NEMURO	2.90	42.5	0	44K	-1	1	15	-4			
ABASHIRI	2.98	19.6	0	46	-1	1	21	0			
ISINOMAKI	3.04	204.0	0	46A	-1	1	21	-2			
SAKATA	3.30	226.4	0	52	1	1	35	5			
SENDAI	3.32	208.2	0	50	-1	1	30	0			
YAMAGATA	3.56	214.3	0	54A	-1	1	35	-1			
HUKUSIMA	3.94	209.2	0	59A	-1	1	46	0			
WAKKANAI	4.29	348.5	1	0	-5	1	55	0			
NIIGATA	4.44	223.3	1	10K	3	2	0	2			
ONAHAMA	4.54	200.6	1	5	-4	2	0	-1			
SHIRAKAWA	4.59	207.8	1	8	-1	2	7	5			
AIKAWA	4.80	229.8	1	11	-1						
MITO	5.19	202.2	1	16A	-2	2	18	1			
UTUNOMIYA	5.23	207.8	1	19	1	2	22	4			
KAKIOKA	5.42	203.9	1	18	-3	2	37	14			
TAKADA	5.47	222.8	1	23	1	2	29	5			
MAEBASI	5.66	213.1	1	26	2	2	38	9			
TYOSI	5.72	196.9	1	22	-3	2	24	-6			
KUMAGAYA	5.76	209.6	1	24	-2	2	39	8			
NAGANO	5.83	220.4	1	27	0	2	33	0			
MATUSIRO	5.93	219.5	1	27A	-1	2	38	2			
OIWAKE	5.95	216.2	1	31	3	2	43	7			
HONGO	6.02	205.0	1	28	-1	2	34	-4			2 53
TITIBU	6.02	211.0	1	30	1	2	48	10			
WAZIMA	6.03	232.4	1	32	3						
TOKYO C.M.O.	6.06	205.1	1	29	-1	2	34	-5			
MATUMOTO	6.28	219.4	1	35	2	3	4	20			
YOKOHAMA	6.32	204.8	1	32	-1	2	56	11			
TOYAMA	6.33	226.4	1	34	0	2	51	5			
KOHU	6.50	212.9	1	39	3	2	57	7			
HUNATU	6.57	210.9	1	44	7	2	54	3			
TAKAYAMA	6.72	222.9	1	41	2						
MERA	6.74	202.0	1	39	0						
KANAZAWA	6.76	228.1	1	40	0						
MISIMA	6.84	208.3	1	40	-1	3	1	3			
AJIRO	6.85	207.1	1	37	-4	2	56	-2			
IIDA	6.94	216.6	1	41	-1	3	18	17			
OSIMA	7.01	204.4	1	44	1	2	59	-4			
HUKUI	7.34	227.4	1	47	-1						
GIHU	7.54	221.6	1	51	0						
OMAESAKI	7.57	210.7	1	55	4						3 51
NAGOYA	7.63	219.6	1	55	3	3	25	7			
HAMAMATU	7.67	213.8	2	1	9	3	39	20			
TSURUGA	7.72	226.1	1	53	0	3	24	4			
UGLEGORSK	7.88	356.0	1	55	0	3	24	0			
HIKONE	7.91	223.5	1	57	1	3	30	5			
KYOTO	8.38	224.7	2	1	-1	3	47	11			
HATIDYOZIMA	8.47	198.0	2	4	0	3	31	-8			
TOYOOKA	8.51	230.7	2	5A	1	3	47	7			
ABUYAMA	8.57	224.7	2	3A	-2						
NARA	8.59	222.8	2	6	1						
OSAKA	8.76	223.9	2	12	4	3	54	8			
OWASE	8.89	218.8	2	9	0	4	10	21			
TOTTORI	8.90	233.0	2	6	-3						
KOBE	8.93	225.5	2	9	-1						
SUMOTO	9.33	225.2	2	12	-3						
YONAGO	9.47	235.4	2	18	1						
SIOMISAKI	9.61	218.4				4	24	17			2 42
MATSUE	9.63	236.4	2	26	7						
TAKAMATU	9.82	228.3	2	21	-1						
MUROTO	10.56	223.9									2 58
HAMADA	10.61	237.0	2	29	-4	4	46	15			
KOTI	10.68	227.2	2	33	-1						
MATUYAMA	10.89	230.7	2	36	-1	4	37	-1			
ASHIZURI	11.59	226.1	2	48	2						
SIMONOSEKI	11.94	236.4	2	49	-2						
OOITA	12.01	232.0	2	54	2						
HUKUOKA	12.53	236.5	3	11	12						
SAGA	12.80	235.6									3 28
KUMAMOTO	12.84	233.1	3	2	-1						
MIYAZAKI	13.07	228.4	3	17	11						
NAGASAKI	13.41	235.0	3	1	-9						6 23
PETROPAVLOVK	15.90	36.8	3	40	-3						
MAGADAN	19.01	12.4	4	19	-2						7 47
YAKUTSK	22.29	343.5	4	50A	-5						8 48

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IRKUTSK	28.32	306.1	5	51A	-1	10	36	2						
HONG KONG	30.65	240.8	6	12A	-1	11	9	-2	6	27		7	12	PP
BAGUIO CITY	31.33	224.5	6	17	-2	11	45	23						
MANILA	32.54	222.0	6	29	-1	12	1	20						
ESEN BULAK	33.67	294.8	6	38A	-1	12	2	4						
SEMIPALATNSK	43.43	304.2	7	59A	-2									
SHILLONG	44.74	266.0	8	10A	-1									
CHATRA	47.60	270.6	8	36K	2									
KHEYS	48.80	347.5	8	42	-1									
FRUNSE	49.45	295.9	8	47A	-1									
MOULD BAY	52.20	17.5	9	9A	0									
DEHRA DUN	52.63	280.0	9	10	-2									
HONIARA	52.79	158.7	9	14	0									
SVERDLOVSK	52.83	316.9	9	9K	-5									
KIPAPA	53.17	92.9				16	47	4						
HONOLULU	53.18	93.1				16	52	9						
NEW DELHI	54.16	278.6	9	21A	-3									
LAHORE	54.75	283.3	9	27	-1									
ALERT	55.89	3.9	9	35A	-1	17	18	-1						
RESOLUTE	58.27	15.3	9	51	-2									
PORT HARDY	59.33	47.6	10	0	-1									
APATITY	59.37	335.1	9	59A	-2	18	2	-3				18	16	PS
LUGANVILLE	60.75	153.0	10	12	2									
QUETTA	60.86	285.9	10	10	-1	18	25	1						
CHARTERS TS.	61.07	176.4	10	5	-7									
SODANKYLA	61.57	336.8	10	15	-1									
TROMSOE	62.14	340.8	10	18	-2							11	0	PCP
ASHKABAD	62.70	297.7	10	21	-2									
VICTORIA	62.74	48.3	10	23	-1									
VANNOVSKAYA	62.86	297.8	10	23	-1									
KIRUNA	63.02	338.9	10	24A	-2	18	52	1						
KAJAANI	63.35	333.6	10	26	-2							12	43	PP
KIZYL-ARVAT	63.40	299.8	10	29	1									
PENTICTON	64.40	46.0	10	33	-1									
MOSCOW	64.60	322.8	10	35A	-1	19	11	0						
PULKOVO	65.19	329.0	10	39A	-1	19	17	-1						
EDMONTON	65.27	39.8	10	40	0									
UMEA	65.94	335.9	10	42A	-2	19	26	-1						
NURMIJARVI	66.81	331.7	10	49K	-1	19	37	-1				19	59	PS
HELSINKI	66.93	331.3	10	50	-1									
SHASTA	67.71	55.0	10	55	-1									
HUNGRY HORSE	67.96	44.5	10	57	0									
BLUE MTS.	68.28	49.0	10	59	0	19	58	3				24	23	SS
MINERAL	68.41	54.9	11	0K	0									
SKALSTUGAN	68.45	338.6	10	58A	-2									
TEHERAN	68.56	299.1	11	1	0	20	27	28	11	15		21	25	SCS
BRISBANE	68.87	170.6	11	2	-1									
KIROVOBAD	68.88	305.9	11	2A	-1									
TIFLIS	69.17	307.5	11	5	0	20	10	4						
BERKELEY	69.46	57.4	11	3K	-3	20	9	0				24	37	SS
GORIS	69.57	304.9	11	6A	-1									
UPPSALA	69.71	333.9	11	7A	-1	20	10	-2				11	28	PCP
BAKURIANI	69.92	308.2	11	10A	1									
LICK	70.17	57.5	11	15K	4									
PARAISO	70.31	58.7	11	16	4									
SHIRAZ	71.41	293.3	11	17A	-1	20	30	-2	11	32		13	58	PP
PRIEST	71.52	58.0	11	25K	6									
EUREKA	72.37	52.8	11	25	1									
DUGWAY	73.78	50.6	11	33K	1									
WARSAW	74.18	327.1	11	36	2	21	3	0				11	47	PCP
PASADENA	74.36	58.3	11	49	14									
LWOW	74.68	324.0	11	41	4	21	23	14						
RIVERVIEW	75.07	172.9				21	20	7						
FLAMING GRGE	75.26	48.3	11	42	1									
BOULDER CITY	75.29	55.0	11	44	3									
UINTA BASIN	75.56	48.8	11	43	1	21	21	2				21	53	PS
ADELAIDE	75.91	183.5	11	44A	0				11	59				
KRAKOW	76.28	326.2	11	46A	0	21	27	0						
CANBERRA	76.37	174.9	11	47	0									
RACIBORZ	76.97	327.1	11	51	1							12	0	PCP
COLLMBERG	78.04	330.5	12	5	9							14	51	PP
HALLE	78.27	331.2	11	54	-4	21	41	-7						
TOOLANGI	78.45	177.9	11	53	-6							11	59	PCP
PRAGUE	78.49	329.0	12	5	6									
PRUHONICE	78.51	328.9	11	59	0	21	51	0						
TONTO FOREST	78.60	54.3	12	0	1	21	58	6	12	16		14	57	PP
JENA	78.87	331.0	12	1	0	21	52	-2				12	29	
BRATISLAVA	78.91	326.4	12	1	0	21	57	2				14	0	

VIENNA-H.	79.15	326.8	12	3	1						12	59
KASPERSKE H.	79.57	328.9	12	5A	0						12	59
KSARA	79.64	306.0	12	5	0	22	23	20			15	11 PP
DURHAM	79.68	340.0				21	53	-10				
BELGRADE	80.03	322.4	12	8	1						12	22 PCP
TUCSON	80.24	55.6	12	9	1				12	24		
BENSBERG	80.39	333.4	12	9	0							
SCHEFFERVLLE	81.03	16.9	12	12	0							
ALBUQUERQUE	81.03	51.1	12	14	2							
JERUSALEM	81.43	304.9	12	17	2							
STUTTGART	81.49	331.0	12	19	4							
LJUBLJANA	81.67	326.5	12	15K	-1							
TUBINGEN	81.77	331.0	12	17	1							
DOURBES	81.98	334.4	12	21	4	22	55	28				
STRASBOURG	82.20	331.8	12	20	1							
TRIESTE	82.31	326.7	12	19K	0	22	29	-1			22	53 SKS
ATHENS	83.60	316.0									22	49
PARIS	83.79	334.9	12	27	0							
KARAPIRO	84.23	154.6	12	31	2							
FOLINIERE	84.74	336.6	12	33	2							
FLORENCE X.	84.87	327.1	12	39	7	23	9	13				
GARCHY	84.93	333.8	12	32K	0							
ROSELEND	85.06	330.9	12	34	1							
AQUILA	85.13	325.0	12	34	1	23	4	6				
WICHITA MTS.	85.67	46.5	12	36	0	23	0	-4			24	7 PS
ROME	85.89	325.3	12	37	0	23	7	1			15	59 PP
ISOLA	86.19	329.8	12	39	0						13	36
CLERMONT-FD.	86.24	333.1	12	41	2							
TULSA	86.27	44.0	12	53	14	23	12	3				
BREBEUF	87.69	24.8	12	58A	12	23	23	0				
PENNSYLVANIA	90.37	29.7	12	59	0							
CUMBERLAND	91.57	37.6	13	5	1	24	1	3			30	19 SS
PALISADES	91.61	27.0				23	33	-25				
TOLEDO	93.86	335.1	13	15K	0	24	15	-3	13	29	17	3 PP
MALAGA	96.85	334.1	13	29	1	24	29	29				
TAMANRASSET	105.05	319.7									18	24 PP
MAWSON	123.79	207.0	18	49	-5							
BYRD STATION	131.59	166.6	19	9	0							
ANTOFAGASTA	147.16	68.2	19	43	6							

AUGUST 21 3.H 39.M 19.S EPICENTRE 14.42 -72.52 DEPTH= 0.KM

A= 0.29108 B=-0.92413 C= 0.24750 D=-0.9538 E=-0.3004
G= 0.0744 H=-0.2361 K=-0.9689 HT= 5.9

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
GALERAZAMBA	4.51	216.9	1	11	0	1	59	-6				
HOPE	5.40	311.7	1	21	-2	2	17	-10				
CARACAS	6.71	124.9	1	41	-1	2	49	-11				
SAN JUAN	7.29	56.5	1	46	-4							
BALBOA HTS.	8.78	232.6	2	6	-5	3	35	-16				
ST. KITTS	9.85	71.6	2	21K	-5	3	56	-22				
BOGOTA	9.86	189.1	2	27A	1	4	8	-10				
CHINCHINA	9.88	198.3	2	24	-2	4	10	-9				
ST. CLAUDE	10.56	79.9	2	32	-3	4	24	-12				
GRENADA	10.76	101.4	2	34	-4	4	25	-15				
TRINIDAD	11.48	107.8	2	47	-1	4	44	-14				
MERIDA	17.53	294.2	4	11	4							
BERMUDA	19.25	20.5	4	29	1							
COLUMBIA	20.96	339.9	4	45A	-2							
CHAPEL HILL	22.19	345.8	5	0	1							
VERA CRUZ	23.09	285.1	5	5	-3						11	41
BLACKSBURG	23.76	344.2	5	16	2							
CUMBERLAND	24.12	333.2	5	20A	2	9	39	6			5	46
WASHINGTON	24.71	351.5	5	27	3							
TACUBAYA	25.99	284.7	5	34	-2						6	35
HUANCAYO	26.45	186.2									6	24
PALISADES	26.52	357.6	5	41	1	10	33	19				
PENNSYLVANIA	26.69	350.9	5	44	2							
LONDON ONT.	29.48	347.0	6	8A	1							
SCARBOROUGH	29.76	350.2	6	11A	1							
TULSA	29.88	319.9	6	11A	0	11	6	-2				
AREQUIPA	30.70	178.1	6	18	0							
BREBEUF	30.99	358.5	6	23K	2	11	28	3			12	53 SS

WICHITA MTS.	30.99	315.3	6	19	-2	11	25	0		7	13 PP
OTTAWA	31.00	355.6	6	21A	0						
LAWRENCE	31.61	324.9	6	26	0						
ALBUQUERQUE	36.73	309.9	7	11	1						
ANTOFAGASTA	37.94	176.9	7	21A	1	13	7	-6			
GOLDEN	38.24	317.5	7	23	0						
TUCSON	39.14	303.7	7	31	0						
LARAMIE	39.24	319.5	7	31	0						
TONTO FOREST	40.15	306.5	7	41	2				7	54	9 20 PP
SCHEFFERVLLE	40.56	5.1	7	44A	2						
UINTA BASIN	41.35	315.8	7	48	-1	14	13	9			9 25 PP
GLEN CANYON	41.36	310.2	7	55	6						
FLAMING GRGE	41.51	316.7	7	50	0						
SALT LAKE C.	43.10	315.2	8	4	1						
BOULDER CITY	43.46	307.5	8	8	2				8	20	
DUGWAY	43.52	314.0	8	7A	1						
EUREKA	45.49	311.7	8	23	1				8	35	10 0 PP
PASADENA	45.58	303.9	8	23	0						
BUTTE	46.03	321.5	8	26	-1						9 17
SANTA LUCIA	47.63	177.9	8	41	2						
PRIEST	48.04	305.8	8	43A	1						
HUNGRY HORSE	48.06	323.5	8	40	-3						
BLUE MTS.	48.47	318.0	8	45A	-1	15	48	1			10 43 PP
LICK	49.09	307.1	8	51A	0						
PARAISO	49.43	305.6	8	47	-6						
BERKELEY	49.70	307.6	8	55A	0	16	5	1			10 57 PP
MINERAL	49.86	310.9	8	38A	-18						
CALISTOGA	50.13	308.5	8	59A	0						
BANFF	50.34	326.1	8	59	-1						
EDMONTON	50.42	329.4	8	59	-2						
SHASTA	50.54	311.2	8	59	-3						
PENTICTON	51.78	322.4	9	10	-1						
VICTORIA	53.76	320.2	9	24A	-2						
YELLOWKNIFE	56.42	338.1	9	43	-2						
RESOLUTE	61.52	353.4	10	19	-2						
MALAGA	64.06	56.0	10	39	2	19	17	4			
TOLEDO	64.42	52.5	10	41A	1	19	21	3			19 48 PS
MOULD BAY	66.48	349.0	10	51A	-2						
FOLINIERE	67.46	43.0	11	0	1						
ALERT	68.22	1.4	11	3A	-1	20	1	-3			
PARIS	69.43	43.0	11	12K	1						
GARCHY	69.79	44.6	11	14K	0						
CLERMONT-FD.	69.82	46.3	11	36	22						
COLLEGE	70.81	334.1	11	17	-3				11	31	
DOURBES	70.82	41.7	11	22	2						
ROSELEND	72.28	46.3	11	29	0						11 45 PCP
BENSBERG	72.46	40.7	11	30	0						
ISOLA	72.65	47.8	11	32	1						12 6
TAMANRASSET	73.70	70.2	11	39K	2						14 18 PP
STUTTGART	73.92	43.0	11	37	-1						12 13
SKALSTUGAN	74.89	27.5	11	48	4						
JENA	75.24	40.6	11	46	0						12 19
COLLMBERG	76.10	40.1	11	52	1						14 40
KASPERSKE H.	76.71	42.3	11	55	1						
TROMSOE	77.10	21.0	12	5	9						
PRUHONICE	77.23	41.4	11	57	0						12 32
TRIESTE	77.25	45.9				21	43	-4			
UPPSALA	77.74	31.1	12	17	17						
KIRUNA	77.87	22.8	12	1	0						
UMEA	78.40	26.9	12	4	0						
SODANKYLA	80.29	22.8	12	13	-1						
KRAKOW	80.65	40.7	12	17	1						13 0
NURMIJARVI	81.07	29.8	12	18	0	22	23	-4			27 53 SS
HELSINKI	81.30	30.1	12	17	-2						22 14
KAJAANI	81.56	25.9	12	14	-6						12 38
APATITY	82.75	21.9	12	27K	0						
MATUSIRO	121.60	331.1	19	17	22						
CANBERRA	137.37	233.2	19	29	4						
TOOLANGI	139.19	228.5	19	45	16						
ADELAIDE	145.24	228.3	19	41K	2						

AUGUST 21 18.H 2.M 46.S EPICENTRE 48.92 158.26 DEPTH= 52.KM

A=-0.61269 B= 0.24435 C= 0.75160 D= 0.3704 E= 0.9289
G=-0.6981 H= 0.2784 K=-0.6596 HT= -5.0

DEPTH OF FOCUS= 0.003R

SE= 2.31

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PETROPAVLOVK	4.11	3.3	1	8A	6						1	40	
KURILSK	7.99	246.4	1	53	-4						2	25	
Y.-SAKHLINSK	10.59	265.5	2	33A	1						4	21	
UGLEGORSK	10.64	277.0	2	35K	2	4	35	3					
OKHA	10.66	301.5	2	32	-1								
MAGADAN	11.50	340.6	2	42	-2						6	36	
MATUSIRO	19.16	237.2	4	20	-2	7	59	9					
YAKUTSK	20.60	320.2	4	33	-4								
ABUYAMA	21.85	238.4	4	51A	1								
TIKSI	26.48	339.6	5	34	-1						10	28	
COLLEGE	32.27	40.3	6	26	0								
ULAN-BATOR	33.57	288.2	6	39	2								
IRKUTSK	33.74	296.6	6	40	1								
ESEN BULAK	40.82	290.8	7	42	4								
KHEYS	43.76	346.5	8	2	0						8	34	
SEMIPALATNSK	48.30	303.0	8	37	-1								
PENTICTON	51.13	56.4	8	59	-1								
HUNGRY HORSE	54.73	54.7	9	23	-4								
BLUE MTS.	54.99	59.8	9	29	0						10	30	PCP
MINERAL	55.18	66.5	9	30A	0								
FRUNSE	55.74	297.8	9	34K	0	17	22	7					
SHILLONG	55.86	270.8	9	35K	0								
APATITY	56.68	337.8	9	36	-5	17	8	-20					
TROMSOE	58.07	344.4	9	49	-2								
SODANKYLA	58.43	340.2	9	52	-1								
EUREKA	59.10	64.1	9	59	1								
KIRUNA	59.35	342.8	9	59	-1	18	8	5					
KAJAANI	60.88	337.5	10	9	-1								
KHOROG	60.96	294.7	10	16	5	18	32	9					
BOULDER CITY	62.07	66.5	10	17	-1								
UINTA BASIN	62.27	59.7	10	20	1						10	54	PCP
UMEA	62.86	340.5	10	22	-1	18	51	4					
NEW DELHI	63.39	283.7	10	26K	-1								
MOSCOW	64.55	327.4	10	34A	0								
NURMIJARVI	64.65	336.6	10	33	-2	19	2	-7			23	24	SS
SKALSTUGAN	64.68	343.9	10	40	5								
HELSINKI	64.86	336.3	10	36	0								
TONTO FOREST	65.36	65.6	10	40	1				10	52	10	54	*SP
UPPSALA	66.96	339.6	10	46	-4								
TUCSON	67.03	67.0	10	50	0								
ALBUQUERQUE	67.75	62.1	10	55	0								
ASHKABAD	68.25	303.0	10	55	-3								
QUETTA	68.72	291.7	11	1	0								
WICHITA MTS.	72.39	57.3	11	23	0								
TIFLIS	72.44	313.9	11	25	2								
TULSA	73.04	54.7	11	26K	-1								
GORIS	73.41	311.5	11	30	1								
TEHERAN	73.66	305.8	11	32	2	21	2	6	11	51			
LWOW	74.06	331.1	11	33	0								
SIMFEROPOL	74.55	322.4	11	34	-1								
COLLMBERG	75.83	338.3	11	42	-1						12	25	
BRISBANE	76.12	185.0	11	46	2								
JENA	76.52	339.1	11	47	0						12	22	
PRUHONICE	76.66	336.9	11	55	8								
SHIRAZ	77.63	300.9	11	54K	1	21	50	11			12	56	
KASPERSKE H.	77.69	337.1	11	54A	1								
CUMBERLAND	78.56	48.3	11	58	0								

AUGUST 22 19.H 52.M 20.S EPICENTRE -9.50 158.34 DEPTH= 0.KM

A=-0.91684 B= 0.36404 C=-0.16396 D= 0.3690 E= 0.9294
G= 0.1524 H=-0.0605 K=-0.9865 HT= 6.6

SE= 2.43

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

HONIARA	1.59	87.6	0	28	-2							
RABAUL	8.08	310.3	2	UA	-2							
LUGANVILLE	10.46	125.8	2	33A	-2	4	23	-11				
KOUMAC	12.40	153.2	3	2	1	5	35	14				
PORT VILA	12.68	131.2	3	5	0	5	14	-14				
NOUMEA	14.92	149.5	3	24	-10							
CHARTERS TS.	15.72	226.6	3	43	-2	6	36	-4				
BRISBANE	18.55	195.7	4	21	1	7	45	0				
RIVERVIEW	25.10	194.2	5	29A	1	9	52	1	5	39	6 7	PP
GUAM	26.51	329.2	5	39	-2	10	59	45				
CANBERRA	27.08	197.0	5	48K	1	10	27	3			10 42	*SS
AFIAMALU	29.57	101.4	6	10	1	11	7	3				
TOOLANGI	30.26	200.5	6	14	-1	11	14	-1	6	22	7 18	PP
ADELAIDE	31.06	212.3	6	22K	0	11	26	-1			13 40	SSS
KARAPIRO	32.27	154.0	6	32A	-1						9 22	
CHATEAU	33.34	155.3	6	43	1							
WELLINGTON	34.82	158.1	6	54A	-1	12	16	-10			8 24	PP
ROXBURGH	37.07	167.2	7	13	-1	13	0	-1			8 42	PP
TORISIMA	43.37	337.1	8	4	-2						11 10	
MANILA	44.06	302.6	8	11	-1	14	40	-5				
MUNDARING	44.92	233.9	8	19	0	14	55	-2				
BAGUIO CITY	45.38	304.3	8	21	-1	15	4	0				
HATIDYOZIMA	45.90	338.2									10 25	
MERA	47.53	339.3	8	39	0							
OSIMA	47.55	338.7	8	38	-1							
SIOMISAKI	47.81	334.3	8	35	-6						15 30	
AJIRO	47.90	338.6	8	41	-1							
MISIMA	48.02	338.5	8	41	-2							
YOKOHAMA	48.05	339.4	8	44	1							
SHIZUOKA	48.09	337.9	8	44	0							
HAMAMATU	48.12	337.1	8	43	-1							
TOKYO C.M.O.	48.24	339.6	8	48	3	15	46	2				
HENGCHUN	48.37	310.8	8	48	2							
HUNATU	48.42	338.6	8	47	1						11 37	
TAWU	48.46	311.2	8	49	2							
MIYAZAKI	48.57	329.1	8	50	3	15	49	0				
KAKIOKA	48.60	340.4	8	47	-1						10 37	
TUKUBASAN	48.61	340.3	8	46A	-2	15	47	-3	8	52	10 29	PP
MITO	48.64	340.7	8	48	0							
KOHU	48.65	338.5	8	48	0	15	51	1				
KAMEYAMA	48.73	335.9	8	48	-1	15	52	1				
KAGOSIMA	48.74	328.0	8	50	1						10 56	
TITIBU	48.74	339.1	8	49	0							
IIDA	48.79	337.7	8	48	-1							
KUMAGAYA	48.79	339.5	8	47	-2							
NAGOYA	48.81	336.6	8	49A	0	15	53	1				
NARA	48.84	335.2	8	49	0							
TOKUSIMA	48.85	333.6	8	47	-3							
KOTI	48.89	332.3	8	50	0							
HWALIEN	48.92	313.5	8	48	-2							
SUMOTO	48.94	334.1	8	49	-1	15	54	0				
OSAKA	48.94	334.9	8	45	-5							
UTUNOMIYA	48.99	340.2	8	44	-7							
ONAHAMA	49.02	341.5	8	56	5							
GIHU	49.09	336.6	8	51	0							
ABUYAMA	49.11	335.1	8	50A	-2							
KOBE	49.11	334.6									9 57	
KYOTO	49.18	335.4	8	51	-1						14 57	
HIKONE	49.18	336.0	8	53	1	15	57	-1				
OIWAKE	49.25	338.8	8	51	-2							
TAKAMATU	49.30	333.3	8	52	-1	15	59	0				
MATUMOTO	49.38	338.2	8	55	1							
SHIRAKAWA	49.39	340.9	8	53	-1							
MATUYAMA	49.47	331.8	8	55	1	16	1	-1				
OOITA	49.53	330.3	8	56	1	16	3	1				
MATUSIRO	49.56	338.6	8	53	-2	15	59	-4				
KUMAMOTO	49.66	329.2	8	56	0							
NAGANO	49.68	338.7	8	55	-1							
TOYOOKA	49.99	334.8	8	59	1	16	11	2				
NAGASAKI	50.00	328.4	8	57	-1	16	12	3				
TOYAMA	50.07	337.8	9	0	1							
SAGA	50.20	329.2	8	57	-3							
SENDAI	50.24	342.1	8	59	-1							
LEMBANG	50.25	269.0	8	58	-2	16	14	2			10 59	PP
ISINOMAKI	50.26	342.6	8	58A	-2							
YAMAGATA	50.39	341.6	9	0	-1	16	16	2				
HUKUOKA	50.42	329.5	9	1	-1						11 52	
NIIGATA	50.50	340.2									9 52	
HAMADA	50.68	331.9	9	4	0	16	17	-1				

MIZUSAWA	50.96	342.8	9	10	4	16	18	-4			
DJAKARTA	51.10	269.7	9	2	-5	16	16	-8	11	3	PP
MIYAKO	51.21	343.8	9	7	-1						
TANGERANG	51.30	269.7	9	5	-3				11	5	PP
MORIOKA	51.48	343.1	9	6	-4						
AKITA	51.81	342.1							11	53	
HATINOHE	52.15	343.8	9	13	-2						
HONOLULU	52.60	54.0	9	17	-1	16	46	1	10	6	PCP
KIPAPA	52.72	53.9	9	19	0						
URAKAWA	53.34	345.6	9	25	1				16	5	
HAKODATE	53.55	343.7	9	24A	-1	16	56	-2			
HONG KONG	53.60	306.7	9	26	1	17	1	3			
KUSIRO	53.76	347.3	9	25A	-2	16	48	-12			
NEMURO	53.85	348.5	9	32	5	17	3	1			
MORI	53.87	343.7	9	33	6						
OBIHIRO	53.97	346.3	9	32	4						
SAPPORO	54.57	344.8	9	30	-3	16	59	-12			
ABASHIRI	54.77	347.6	9	34	0						
ASAHIGAWA	54.98	345.9	9	35A	-1						
WAKKANAI	56.69	346.0	9	47	-1						
Y.-SAKHLINSK	57.97	347.4	9	56	-1	17	57	0	12	19	PP
MEDAN	60.85	279.5	10	14	-3	19	22	48	12	33	PP
PETROPAVLOVK	62.27	0.2	10	24A	-2	18	48	-4	10	58	PCP
CAPE HALLETT	63.18	176.0	10	32	0						
SCOTT BASE	68.47	178.1	11	6	0				20	13	
PORT BLAIR	68.54	286.5							11	33	
MAGADAN	69.08	355.9	11	9	-1	20	12	-3			
MIRNY	71.64	202.5	11	25A	-1	20	44	-1	11	55	PCP
ULAN-BATOR	73.01	326.6	11	33A	-1	21	2	1			
SHILLONG	73.43	300.2	11	30A	-6	20	59	-6	14	2	PP
YAKUTSK	74.70	346.5	11	42A	-2	21	20	0			
CALCUTTA	75.53	296.2							12	34	
IRKUTSK	76.89	329.3	11	55A	-1	21	44	0	12	12	PCP
CHATRA	77.83	300.1	12	2A	1	21	58	4			
VISHAKHAPTNM	78.87	290.2	12	13	6	22	11	6			
BYRD STATION	79.34	169.9	12	10	0						
SOUTH POLE	80.56	180.0	12	15	-1	22	12	-11	12	43	
MADRAS	80.76	284.9	12	31K	14	22	31	6	15	31	PP
KODAIKANAL	82.81	281.6	12	41	13	22	50	4	23	38	PS
TIKSI	83.29	351.0	12	27A	-3	22	47	-4	23	45	PS
HYDERABAD	83.31	288.9				22	48	-3			
MAWSON	83.37	202.6	12	30A	-1	22	51	0			
COLLEGE	84.24	20.3	12	33	-2	22	44	-16	15	55	PP
SEHORE	85.77	294.2	12	52	9						
DEHRA DUN	86.48	301.4	12	45	-1	23	13	-9			
NEW DELHI	86.82	299.5	12	47A	-1	23	10	-15	12	54	PCP
UKIAH	87.09	49.7	12	52	3						
PORT HARDY	87.44	37.7	12	53	2						
CALISTOGA	87.45	50.3	12	52A	1						
BERKELEY	87.51	51.1	12	53A	2	23	20	-12	16	0	PP
POONA	87.82	289.1							14	51	
LICK	87.86	51.8	12	54K	1						
PRIEST	88.36	53.1	12	57K	2						
MINERAL	88.60	48.9	12	57A	1						
BOMBAY	88.85	289.3	13	0	2	23	27	-17	16	11	PP
VICTORIA	89.36	40.6	13	2	2						
SEMIPALATNSK	89.76	321.2	13	0	-2	23	28	-25			
LAHORE	89.86	301.9	13	1	-1	23	34	-20			
SEATTLE	89.86	41.6	13	4	2	23	57	3			
PASADENA	89.93	55.5	13	4	1	23	57	3	23	36	SKS
FRUNSE	91.82	313.0	13	11A	0				23	45	SKKS
PENTICTON	91.98	40.4	13	8	-4						
BLUE MTS.	92.64	45.1	13	15	0	24	25	7	16	51	PP
EUREKA	92.66	50.6	13	18	3	24	14	-4	16	55	PP
BOULDER CITY	92.96	54.2	13	19	2				16	59	PP
KHOROG	93.19	307.3	13	19	1	23	52	-31	17	5	PP
BANFF	94.89	39.1	13	26	0						
DUGWAY	95.18	50.3	13	28A	1						
HUNGRY HORSE	95.45	42.0	13	28	0						
TONTO FOREST	95.59	56.3	13	30	1				17	19	PP
GLEN CANYON	95.69	53.6	13	31	2						
TUCSON	95.69	58.4	13	32	3				17	20	PP
QUETTA	95.90	299.5	13	29	-1	24	46	40			
SALT LAKE C.	95.98	49.8	13	29	-2						
BUTTE	96.12	44.5	13	32	1						
EDMONTON	96.52	37.1	13	32A	-1						
N-LAZARVSKYA	96.77	190.6	13	33	-1	24	6	-5	17	21	PP
YELLOWKNIFE	96.98	27.9	13	35	0						

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.

MOULD BAY	97.33	13.8	13	36	-1				24	14	
UINTA BASIN	97.65	50.4	13	40	2	25	7	51	17	36	PP
ALBUQUERQUE	99.61	56.1	13	50	3				17	51	PP
SVERDLOVSK	102.11	326.1	13	56A	-2						
WICHITA MTS.	106.06	56.6	14	18	777	25	0	4	18	38	PP
TANANARIVE	106.18	247.1							18	43	PP
TULSA	108.34	55.4	18	45	777	25	8	2	34	27	SS
SHIRAZ	108.35	298.1	17	41	777				18	55	
TEHERAN	109.23	304.5	17	59	777	25	16	7	26	11	SKKS
APATITY	111.61	340.2	18	18	-19	25	14	-5	19	0	PP
GORIS	112.95	308.8	14	42	-237	25	5	-19	21	50	PPP
TIFLIS	113.81	311.4	14	52	-229				19	43	PP
SODANKYLA	113.90	341.6	18	38	-3				19	37	PP
MOSCOW	114.85	327.6							19	46	PP
KIRUNA	115.44	343.6	18	46	2				19	52	PP
KAJAANI	115.44	338.3	18	44	0	25	36	2	19	45	PP
CUMBERLAND	116.65	55.0	18	48	1				19	40	PP
PULKOVO	116.67	333.5				25	37	-2	19	56	PP
CHANGALANE	116.76	234.3							29	48	SP
UMEA	118.21	340.4	18	50	0	25	45	1	20	0	PP
NURMIJARVI	118.66	335.9	18	51	0	25	46	0	20	14	PP
HELSINKI	118.73	335.5	18	53	2						
SCORESBY SD.	119.08	0.1	18	54	3						
SIMFEROPOL	120.63	317.0	18	57	3	25	57	5	20	24	PP
SKALSTUGAN	120.85	343.1	18	57	2				20	30	PP
KIMBERLEY	121.23	228.1	18	57A	1						
OTTAWA	121.62	42.1	18	58	2						
HERMANUS	121.62	219.5							37	22	SSP
UPPSALA	121.80	337.9	18	59	2				20	31	PP
KSARA	122.12	304.0	18	53	-4				20	25	PP
BULAWAYO	122.44	238.9	18	59	1						
WASHINGTON	122.65	49.7	18	59	1				31	30	
BREBEUF	122.96	41.3	19	7	8				37	44	SS
PALISADES	124.35	46.5	19	3	1						
KONGSBERG	124.70	341.3	19	5	3				20	56	PP
LWOW	124.84	325.6	19	5	3				20	53	PP
BROKEN HILL	124.89	245.0	19	6	3						
KARLSKRONA	125.12	335.5	19	7A	4				20	53	PP
WARSAW	125.12	329.4	19	4	1	26	7	0	21	3	PP
GOTEBORG	125.40	338.6	19	5	1				20	56	PP
ISTANBUL UN.	125.48	314.1	19	4	0				20	54	PP
UZHGOROD	126.43	325.1	19	8	3				28	2	
COPENHAGEN	126.71	336.7	19	7	1						
KRAKOW	126.94	327.6	19	8	2				21	16	PP
LA PAZ	127.26	119.1	19	10	3						
SKALNATE PL.	127.26	326.6	19	16	9				28	13	SKKS
CHORZOW	127.29	328.3	19	9	2				21	5	PP
BOGOTA	127.80	91.5	19	12	4				21	13	PP
RACIBORZ	127.83	328.5	19	11	3				21	17	PP
LWIRO	128.40	259.5	19	12	3						
SOFIA	128.69	318.1							21	25	
BELGRADE	129.50	321.8	19	13	2				22	36	PP
COLLMBERG	129.57	332.4	19	13	1				22	37	PKS
PRAGUE	129.72	330.4	19	16	4						
PRUHONICE	129.72	330.3	19	13	1				38	41	SS
ABERDEEN	130.08	346.2							38	52	SSP
ATHENS	130.40	312.4	19	15	2				22	29	
JENA	130.47	332.9	19	14	1				21	31	PP
CHEB	130.70	331.6	19	21	7				21	37	PP
KASPERSKE H.	130.76	330.0	19	15	1				21	30	PP
ZAGREB	131.57	325.2	19	17K	2				22	40	PP
DURHAM	132.11	344.4							21	48	PP
DE BILT	132.22	337.9							22	40	SKP
BENSBERG	132.34	335.6	19	19	2				22	46	PKS
HEIDELBERG	132.85	333.2	19	18	0						
TRIESTE	132.91	326.3	19	19K	1				21	46	PP
STUTTGART	133.06	332.3	19	20	2				22	49	SKP
UCCLE	133.58	337.4	19	23	4				22	50	PKS
STRASBOURG	133.88	333.1	19	22	2				22	54	PKS
DOURBES	134.04	336.7	19	33	13				21	55	PP
PADOVA	134.08	327.2							22	50	PKS
KEW	134.64	341.3							22	1	PP
AQUILA	135.13	322.9	19	24	2	26	0	-31	24	10	PPP
CARACAS	135.43	84.7	19	27A	4				22	1	PP
FLORENCE X.	135.47	325.9	19	35	12				31	24	PS
PAVIA	135.65	328.8	19	19	-4				34	6	PPS
BESANCON	135.68	333.1	19	25	2				22	0	PP
PARIS	135.90	337.1	19	26	3				23	1	PP

ROME	135.94	323.0	19	25	2	26	7	-26			24	17	PPP
SAN JUAN	136.05	73.4	19	23	-1						22	0	
MESSINA	136.05	316.6	19	27	3						25	6	PPP
ROSELEND	136.54	331.1	19	27	2						22	29	PP
GARCHY	136.90	335.4	19	28A	3						22	10	PP
FOLINIERE	137.01	339.5	19	28	3								
ISOLA	137.43	329.3	19	24	-2						22	19	PP
MONACO	137.55	328.5									22	16	
BANDEIRA	137.70	235.4	19	31A	4				19	42			
CLERMONT-FD.	138.08	334.0	19	34	7						22	16	PP
ST. CLAUDE	140.46	76.4	19	35	3								
LUANDA	140.77	243.3	19	33	1								
TRINIDAD	140.87	84.8	19	33	1								
BAGNERES	141.51	334.1	19	36	2								
SETIF	143.80	321.5	19	43	6								
ALGIERS UNI.	144.82	324.4	19	38	-1						22	56	PP
ALICANTE	145.54	329.9	19	43K	2						23	12	PP
TOLEDO	145.92	335.5	19	44A	3	25	40	-69			23	12	PP
ALMERIA	147.70	330.4	19	48K	4						23	21	PP
GRANADA	147.97	332.2	20	17	32	26	53	2			44	47	SS
MALAGA	148.71	332.7	19	48	2						23	22	PP
LISBON	148.82	340.9	20	13	27						20	48	
TAMANRASSET	150.82	300.2	19	52	3						23	30	PP
PONTA DELGDA	151.66	6.7	19	59	9								
AVERROES	152.92	333.1	19	51	-1				20	14	24	16	PP
M.BOUR	173.33	317.1	20	13	2						23	46	PKS

AUGUST 23 13.H 9.M 27.S EPICENTRE 52.25 159.51 DEPTH= 46.KM

A=-0.57595 B= 0.21520 C= 0.78865 D= 0.3500 E= 0.9367
G=-0.7388 H= 0.2760 K=-0.6148 HT= -6.2

DEPTH OF FOCUS= 0.002R

SE= 2.78

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
PETROPAVLOVK	0.94	326.2	0	17	0	0	31	1				
MAGADAN	8.80	329.7	2	11	4						5	4
KURILSK	10.40	232.2	2	27	-2							
Y.-SAKHLINSK	12.07	251.0	2	54	2	5	13	7				
YAKUTSK	18.72	313.1	4	16K	-1							
MATUSIRO	21.75	232.2	4	50	1	8	51	9				
TIKSI	23.70	336.3	5	6	-2						5	43 PP
COLLEGE	29.27	44.0	5	58	-2	10	45	-3				
IRKUTSK	33.09	292.4	6	32	-1						7	47 PP
ULAN-BATOR	33.42	284.0									7	53
MOULD BAY	37.97	22.6	7	13	-2							
KHEYS	40.72	345.7				13	48	4			13	32 PCS
ALERT	43.82	7.3	8	2	-1							
RESOLUTE	44.25	21.5	8	0	-6							
KIPAPA	44.85	116.9				14	55	10				
HONOLULU	44.90	117.1				14	57	12				
BAGUIO CITY	47.11	235.4	8	29	0	15	20	3				
SEMIPALATNSK	47.21	301.0	8	27	-3							
PENTICTON	48.68	59.3	8	42	1							
EDMONTON	49.46	51.9	8	47	0							
HUNGRY HORSE	52.20	57.4	9	10	2							
SHASTA	52.50	69.7	9	11K	1							
BLUE MTS.	52.68	62.6	9	10	-2	16	39	5			20	43 SS
MINERAL	53.19	69.5	9	27	12							
APATITY	53.91	337.4	9	20	-1	16	54	3				
BERKELEY	54.45	72.2									17	10
FRUNSE	54.94	296.5	9	27	-1							
TROMSOE	55.08	344.3	9	27	-2							
KIRUNA	56.41	342.6	9	38	-1							
RABAUL	56.58	188.8									26	9
SHILLONG	56.65	269.5	9	41K	1							
EUREKA	56.98	66.7	9	45	2							
SCORESBY SD.	57.58	0.6	9	46	-1							
KAP TOBIN	57.64	0.6	9	47	0							
KAJAANI	58.11	337.3	9	49	-2							
DUGWAY	58.26	64.1	9	52K	0							
SALT LAKE C.	58.39	63.1	9	55	2							
PASADENA	59.41	72.7	10	2	2	18	5	1				
FLAMING GRGE	59.62	61.4	10	4	3							

UINTA BASIN	59.95	62.0	10	2	-2	18	15	4			18	56	PPS
UMEA	59.99	340.5	10	1A	-3								
BOULDER CITY	60.06	69.0	9	57	-7								
PULKOVO	61.08	333.4	10	1U	-1	18	20	-5					
HONIARA	61.43	179.5									18	45	
SKALSTUGAN	61.70	344.0	10	14	-1								
NURMIJARVI	61.91	336.6	10	16K	-1	18	35	-1			22	46	SS
HELSINKI	62.13	336.2	10	15	-3								
MOSCOW	62.18	327.1	10	19K	0								
GOLDEN	62.65	59.9	10	23	1								
WARSAK DAM	62.80	291.0	10	10	-13								
TONTO FOREST	63.31	67.9	10	25	-1				10	39			
UPPSALA	64.11	339.7	10	29A	-2	19	5	2					
TUCSON	65.04	69.2	10	39	2								
ALBUQUERQUE	65.53	64.2	10	41	1								
ASHKABAD	67.12	302.7	10	51	0								
GOTEBORG	67.24	341.8	10	51	0								
KARLSKRONA	67.93	339.2	10	52	-4								
COPENHAGEN	69.04	340.7	11	2K	-1								
WICHITA MTS.	69.96	59.1	11	6	-2	20	16	3			24	59	SS
WARSAW	70.21	334.3	11	7	-3								
AFIAMALU	70.41	150.3				20	21	2					
TULSA	70.50	56.4				20	20	0					
TIFLIS	70.70	313.9	11	14	1								
LWOW	71.53	331.4	11	17	-1								
GORIS	71.80	311.5	11	17A	-2								
TEHERAN	72.36	305.8	11	24	1								
BREBEUF	72.47	36.2	11	20	-3								
KRAKOW	72.47	334.0	11	23K	0						11	48	
RACIBORZ	72.90	335.1	11	26	0								
CHARTERS TS.	72.95	193.0	11	22	-4						12	7	
COLLMBERG	73.03	338.8	11	27	1						12	54	
JENA	73.68	339.5	11	30	0								
PRUHONICE	73.90	337.3	11	32	0								
BENSBERG	74.54	342.3	11	35	0								
PENNSYLVANIA	74.83	41.5	11	41	4								
KASPERSKE H.	74.92	337.6	11	38A	1						12	6	
BRATISLAVA	74.95	335.0	11	38	0								
UCCLE	75.20	344.0	11	47	8								
CUMBERLAND	75.77	49.7	11	41	-1	21	21	2			26	40	SS
DOURBES	75.83	343.6	11	49	6								
STUTTGART	76.22	340.2	11	45	0								
SHIRAZ	76.60	301.2	11	46	-1								
STRASBOURG	76.70	341.2	11	49	1								
BELGRADE	77.09	331.4	11	51K	1						22	18	PS
PARIS	77.44	344.7	11	59	7								
ISTANBUL UN.	77.66	323.9	11	54	1								
FOLINIERE	77.93	346.6	11	55	1								
TRIESTE	78.14	336.2	11	55	-1	22	9	24			22	23	SP
BESANCON	78.33	341.9	11	57	0								
GARCHY	78.82	343.9	11	59A	0								
ROSELEND	79.70	341.0	12	4	0								
CLERMONT-FD.	80.28	343.5	12	16	9								
ISOLA	81.06	340.3	12	13	2								
KSARA	81.18	315.5	12	12	0								
AQUILA	81.32	335.3	12	13	0						42	33	
JERUSALEM	83.21	314.9	12	24A	2								
TOLEDO	87.14	347.4	12	43	1	23	44	28			16	48	PP
MALAGA	90.30	347.1	12	56	-1	23	41	-4					
TAMANRASSET	101.91	335.6									18	1	PP

AUGUST 25 6.H 11.M 45.S EPICENTRE 39.08 38.36 DEPTH= 37.KM

A= 0.61036 B= 0.48308 C= 0.62778 D= 0.6206 E=-0.7841
G= 0.4923 H= 0.3896 K=-0.7784 HT= -1.3

DEPTH OF FOCUS= 0.001R

SE= 2.64

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BAKURIANI	4.75	54.4	1	12	1								
TIFLIS	5.58	59.7	1	28	5								
KSARA	5.61	201.6	1	19	-4	2	31	4			8	20	PCP
KIROVOBAD	6.33	73.1	1	35	2								
SIMFEROPOL	6.66	333.1	1	37	-1								

GROZNY	7.00	50.4	1 37	-6			
ISTANBUL UN.	7.45	288.2	1 45	-4		3 57	SGSG
JERUSALEM	7.72	200.3	1 50	-3			
MAKHACH-KALA	7.93	57.7	2 0A	4		3 45	
TEHERAN	10.88	103.8	2 37	1	4 55 17	6 1	
ATHENS	11.52	269.1	2 50	5			
SOFIA	11.94	292.4	2 51	0	5 28 25	3 1	PP
KIZYL-ARVAT	13.91	83.8	3 21K	4			
BELGRADE	14.50	299.1			6 9 4	4 30	PG
TITOGRAD	14.86	289.1	3 31	2		5 11	
SHIRAZ	14.99	124.6	3 25K	-6		4 3	PP
VANNOVSKAYA	15.50	88.0	3 41	4			
SKALNATE PL.	16.42	313.8	3 49	0	7 5 15	4 8	PP
NIEDZIKA	16.51	314.6	3 49	-1		4 47	
MOSCOW	16.67	358.6	3 50	-2	6 56 1		
KRAKOW	17.06	316.0	3 58	1		4 8	PP
CHORZOW	17.70	315.6	4 5	0		4 26	PP
ZAGREB	17.81	299.5				10 3	
WARSAW	17.83	323.2	4 7	0	7 30 8	4 18	PP
BRATISLAVA	17.83	307.6	4 4	-3	7 36 14		
MESSINA	17.84	274.4	4 6	-1	7 23 1	7 47	SS
RACIBORZ	18.03	314.2	4 12	3		4 32	PCP
LJUBLJANA	18.85	299.4	4 17	-2			
TRIESTE	19.29	297.9	4 23	-1	8 4 10		
ROME	19.86	286.5	4 27	-4	8 15 8	4 49	PP
PRAGUE	20.19	310.8	4 33	-1			
KASPERSKE H.	20.35	307.7	4 32	-4			
PADOVA	20.56	296.5	4 45	7			
FLORENCE X.	20.82	291.8	4 27	-14	8 15 -11	4 49	PP
PULKOVO	21.33	348.8	4 47	1	8 43 7		
CHEB	21.42	309.4	4 54	7			
JENA	22.21	311.0	4 51	-4	9 1 9	5 13	PP
HALLE	22.21	312.7	4 54	-1	9 0 8		
PAVIA	22.42	295.2	5 2	5	9 18 22	6 54	
VIBORG	22.48	347.7	4 57K	0			
HELSINKI	22.74	342.6	4 59	-1			
KARLSKRONA	22.80	326.0	5 2	2			
STUTTGART	22.96	304.5	5 0	-2		8 11	
SVERDLOVSK	23.02	32.2	5 1A	-2			
TUBINGEN	23.03	303.8	5 5	2			
NURMIJARVI	23.11	342.6	5 3	0			
MONACO	23.59	291.4	5 5	-3			
DUZHANBE	23.65	81.6	5 9	0			
ISOLA	23.87	292.5	5 10	-1		5 55	
STRASBOURG	23.89	303.4	5 12	1	9 30 8	10 41	SSS
COPENHAGEN	23.94	322.4	5 17	5	9 36 13		
ROSELEND	24.24	296.1	5 15	1		5 36	
UPPSALA	24.58	334.6	5 16	-2	9 36 3		
BENSBERG	24.85	308.8	5 23	3			
BESANCON	24.85	299.8	5 18	-2			
QUETTA	25.06	102.0	5 22	0	10 3 21		
GOTEBORG	25.31	326.1	5 25	0			
WITTEVEEN	25.72	312.7	5 32	3			
KAJAANI	25.83	349.3	5 30	0	10 13 19	7 35	
KHOROG	26.01	83.0	5 33	2			
SETIF	26.18	274.1	5 37	4	10 6 6	6 21	PP
DE BILT	26.37	310.5				10 23	
UCCLE	26.54	307.4	5 39	3	10 14 8		
GARCHY	26.83	299.4	5 39A	0			
UMEA	27.03	342.3	5 39	-2	10 20 6		
WARSAK DAM	27.05	90.4	5 40	-1			
PARIS	27.37	302.6	5 42	-2			
KONGSBERG	27.45	328.0	5 46	2	10 48 27		
FRUNSE	27.51	74.4	5 44	-1	10 24 2		
ALGIERS UNI.	27.85	276.5	5 43	-5	10 20 -7		
APATITY	28.66	356.1	5 55A	0	10 40 0	12 11	SS
SKALSTUGAN	29.05	336.1	5 57	-2			
SODANKYLA	29.10	350.7	5 58	-1		7 46	
FOLINIERE	29.32	302.1	6 2	1			
KEW	29.55	307.6			10 54 0		
KIRUNA	30.47	346.7	6 11	0		12 8	
DURHAM	30.97	313.7			11 49 32		
KEVO	31.34	352.4	6 18	-1	11 11 -11	12 21	
SEMIPALATNSK	31.44	55.0	6 19	-1			
ABERDEEN	31.89	318.0				18 40	
TAMANRASSET	32.30	249.5	6 27	-1	11 29 -9		
TROMSOE	32.32	347.4	6 27	-1			
TOLEDO	32.52	285.1	6 34	4	11 51 10		
MALAGA	33.60	279.7	6 39A	0	11 59 1		

NEW DELHI	33.70	96.2	6	37	-3						
LWIRO	42.05	194.3	7	48	-2						
CHATRA	42.28	91.7	7	54	2						
ESEN BULAK	42.31	60.6	7	59	7						
SHILLONG	46.56	90.2	8	24	-2						
ULAN-BATOR	49.00	56.0	8	47	2						
ALERT	52.90	350.7	9	15	0						
YAKUTSK	56.98	34.2	9	37	-7						
BULAWAYO	59.61	190.6	10	3K	0						
MOULD BAY	64.09	354.2	10	32	0						
SCHEFFERVLLE	66.78	322.6	10	48	-2						
MATUSIRO	74.64	55.4	11	36	-1					26	12 SS
BREBEUF	76.03	317.8	11	50K	5						
COLLEGE	76.28	2.7	11	45	-2						
YELLOWKNIFE	76.47	347.5	11	48	0						
CHAPEL HILL	85.65	313.7	12	37	1						
CUMBERLAND	89.45	317.4	12	53	-1					13	20
HUNGRY HORSE	89.57	342.0	12	55	0						
PENTICTON	89.86	345.8	12	55	-1						
BOZEMAN	91.28	339.1	13	4	1						
VICTORIA	91.30	348.0	13	3	0						
BUTTE	91.36	340.2	13	3	0						
LARAMIE	93.51	333.6	13	14	1						
BLUE MTS.	93.63	342.9	13	14	0					16	19
TULSA	94.22	324.3	13	17A	1						
UINTA BASIN	95.72	335.9	13	24	1					17	20
WICHITA MTS.	96.47	325.5	13	26	-1					26	5 PS
EUREKA	98.36	340.2	13	37	2						
TONTO FOREST	101.77	334.7	13	52	1					18	5 PP
KARAPIRO	146.69	101.8	19	39	3						
CHATEAU	147.01	104.1	19	39	2						

AUGUST 25 12.H 18.M 12.S EPICENTRE -17.58-178.73 DEPTH= 557.KM

A=-0.95367 B=-0.02116 C=-0.30012 D=-0.0222 E= 0.9998
G= 0.3000 H= 0.0067 K=-0.9539 HT= 5.2

DEPTH OF FOCUS= 0.083R

SE= 1.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
AFIAMALU	7.62	62.4	1	54	-1	3	9	-18					
RAOUL ISLAND	11.64	176.5	2	35	-1								
PORT VILA	12.35	267.3	2	45	2	5	4	11					
LUGANVILLE	13.71	276.5	2	57	1						13	54	
NOUMEA	14.70	248.9	3	8	2	5	49	13					
KOUMAC	16.33	256.8	3	25	3								
KARAPIRO	20.89	192.8	4	6K	1						5	33	
CHATEAU	22.12	191.9	4	13	-3						7	49	
HONIARA	22.24	288.6	4	17	0						6	51	
WELLINGTON	24.28	192.0	4	32	-4	8	8	-8			14	24	SCS
BRISBANE	28.02	244.5	5	9	0	9	14	-1					
ROXBURGH	29.56	197.2	5	20K	-2	9	31	-8	7	0	8	6	PCP
RIVERVIEW	31.45	233.2	5	39K	1	10	6	-2	7	7	7	10	PP
RABAUL	31.45	291.6	5	37K	-1						8	19	
CHARTERS TS.	33.20	260.0	5	53K	0	10	30	-5					
CANBERRA	33.66	232.0	5	57K	0	10	40	-2			7	32	PP
PORT MORESBY	34.11	279.3	6	1K	1	10	41	-8			8	39	*SP
TOOLANGI	37.14	230.3	6	26K	1	11	31	-3	8	1	8	35	PCP
MACQUARIE I.	40.67	199.9	6	54A	0								
ADELAIDE	41.55	236.9	7	1K	0	12	36	-2			8	48	PP
HAWAII V.OB.	43.40	33.1	7	15	0								
HONOLULU	43.60	28.4	7	17	0	13	8	1			8	56	PCP
KIPAPA	43.75	28.5	7	18	0	13	11	2					
GUAM	47.45	308.2	7	46	-1	13	58	-2			9	29	PCP
CAPE HALLETT	55.11	184.1	8	42	0								
MUNDARING	60.00	242.9	9	15	0	16	46	1					
SCOTT BASE	60.73	183.5	9	20	0	16	58	4			11	16	PP
MERA	65.38	323.3	9	49	-1	17	50	-1					
OSIMA	65.53	322.8	9	51	0								
YOKOHAMA	65.85	323.5	9	53	0	17	56	0					
AJIRO	65.89	322.9	9	52	-1						11	48	
TOKYO C.M.O.	65.97	323.8	9	54	1	17	58	0			18	54	SCS
MISIMA	66.03	322.8	9	52	-2	17	56	-2			19	4	SCS
MITO	66.08	324.8	9	54K	0	18	0	1					

OMAESAKI	66.09	322.0	9	54	0							
KAKIOKA	66.13	324.5	9	55	1					11	50	
TUKUBASAN	66.17	324.4	9	49	-6	17	59	-1	11 49	12	51	PP
SHIZUOKA	66.24	322.4	9	55K	0	18	0	-1				
ONAHAMA	66.26	325.5	9	55K	0							
WILKES	66.33	204.6	9	54	-2	18	0	-2	11 54			
HUNATU	66.40	323.0	9	55	-1	18	2	-1		11	51	
HAMAMATU	66.46	321.8	9	56	0					11	52	
KUMAGAYA	66.52	323.9	9	57	0	18	6	2		11	53	
UTUNOMIYA	66.53	324.5	9	56	-1					11	52	
TITIBU	66.57	323.6	9	58	1							
KOHU	66.64	323.0	9	57	0	18	5	0				
SHIRAKAWA	66.76	325.2	9	58	0	18	8	1		11	54	
SIOMISAKI	66.78	319.5	9	59	1	18	8	1				
MAEBASI	66.87	323.9	9	58K	-1					11	57	
OWASE	66.93	320.3	9	59	0							
IIDA	66.96	322.4	9	59	0					11	56	
HUKUSIMA	67.08	325.8	9	59	-1	18	10	-1		11	56	
OIWAKE	67.11	323.5	10	0	0					11	57	
ISINOMAKI	67.14	326.8	9	59K	-2	18	10	-1		11	54	
NAGOYA	67.22	321.6	10	1K	0	18	14	2		11	57	PP
SENDAI	67.24	326.4	10	0	-1	18	10	-2		11	55	
KAMEYAMA	67.30	321.1	10	3K	1					12	0	
MATUMOTO	67.39	323.1	10	3K	1	18	15	1		12	0	PP
MANILA	67.46	294.6	10	3	1	18	16	1				
MATUSIRO	67.46	323.5	10	1K	-1	18	13	-2				
GIHU	67.50	321.7	10	4	1							
YAMAGATA	67.51	326.1	10	2K	-1	18	15	-1		11	48	
NAGANO	67.55	323.6	10	3	0	18	17	1		12	7	PP
NARA	67.57	320.6	10	5	2							
BYRD STATION	67.62	170.7	10	3	0	18	20	3				
HIKONE	67.72	321.3	10	5	1	18	19	1		12	2	PP
MIYAKO	67.72	328.1	10	3	-1					12	0	
OSAKA	67.73	320.4	10	5K	1	18	21	3		12	2	
MIZUSAWA	67.76	327.2	10	4	0	18	15	-3				
TAKADA	67.83	323.9	10	5	0					12	1	
ABUYAMA	67.85	320.6	10	5K	0							
KYOTO	67.86	320.8	10	6	1	18	20	0		12	2	
SUMOTO	67.90	319.7	10	5K	0	18	22	2		19	18	SCS
TOKUSIMA	67.93	319.3	10	7	2					12	2	
KOBE	67.96	320.2	10	6	0							
NIIGATA	67.97	325.0	10	6	0							
ASHIZURI	68.05	317.3	10	5	-1	18	23	1				
TSURUGA	68.08	321.5	10	6	0							
TOYAMA	68.15	323.0	10	7K	0					12	5	
MORIOKA	68.16	327.6	10	3	-4					12	2	
KOTI	68.25	318.3	10	7K	0	18	26	2				
SAKATA	68.27	326.2	10	9	2							
YAKUSIMA	68.31	314.0	10	6	-2					12	5	
KANAZAWA	68.35	322.5	10	8	0							
TAKAMATU	68.42	319.2	10	9	1	18	28	2				
MIYAZAKI	68.59	315.7	10	11	2					12	9	
HATINOHE	68.60	328.4	10	8	-1	18	24	-4		12	4	
BAGUIO CITY	68.66	296.0	10	9	-1	18	30	1	12 6	12	48	PP
AKITA	68.73	327.0	10	9	-1					12	21	
TOYOOKA	68.75	320.6	10	11K	1	18	30	0		11	48	PP
WAZIMA	68.79	323.3	10	11	0	18	31	1				
NEMURO	68.89	332.8	10	10K	-1	18	31	-1				
MATUYAMA	68.91	318.1	10	11	0	18	33	1				
KAGOSIMA	68.95	314.9	10	11K	0					12	9	
KUSIRO	69.14	331.9	10	10K	-3	18	35	1				
AOMORI	69.20	328.2	10	14	1							
URAKAWA	69.23	330.3	10	14A	1							
OOITA	69.27	316.9	10	14	1	18	39	3		12	12	
HIROSIMA	69.47	318.3	10	15	0	18	39	1				
YONAGO	69.58	319.7	10	15	0					12	12	
KUMAMOTO	69.62	316.1	10	15	0					12	13	
OBIHIRO	69.63	331.1	10	16	0							
MATSUE	69.77	319.6	10	17	1					12	15	
HAKODATE	69.95	328.9	10	17K	0	18	43	-1		12	16	
ABASHIRI	70.01	332.5	10	17	-1	18	45	1		12	15	
HAMADA	70.04	318.5	10	17K	-1	18	46	1		12	16	PP
SAIGO	70.10	320.3	10	18	0					12	17	
NAGASAKI	70.11	315.5	10	16K	-2	18	44	-1		12	14	PP
SAGA	70.15	316.2	10	19	0					12	35	
TOMAKOMAI	70.17	329.9	10	20	1							
MORI	70.26	329.0	10	22	3							
HUKUOKA	70.30	316.5	10	20	1					12	18	

SAPPORO	70.62	330.1	10	21K	0	18	52	1			21	32	SS
ASAHIGAWA	70.68	331.2	10	21	-1						12	21	
SUTTSU	70.95	329.3	10	23	0								
HENGCHUN	71.10	301.4	10	26	2								
HSINKONG	71.13	302.7	10	26	2								
TAITUNG	71.14	302.2	10	26	2								
TAWU	71.15	301.8	10	24	0								
HWALIEN	71.36	303.6	10	26	0	19	2	3					
TAIPEI	71.96	304.5	10	30	1	19	6	0					
WAKKANAI	72.26	331.9	10	31	0						19	12	
PETROPAVLOVK	72.98	345.9	10	34K	-1	19	15	-2	12	33	13	33	PP
Y.-SAKHLINSK	73.05	333.5	10	35K	0	19	17	-1			12	34	PP
MIRNY	73.35	204.7	10	36K	-1	19	19	-2	12	39	13	30	PP
DJAKARTA	73.35	268.7	10	38	1	19	26	5	11	13	13	37	PP
PARAISO	75.54	44.0	10	53	4								
BERKELEY	76.49	42.7	10	55A	1				12	56	13	54	SP
PRIEST	76.58	44.9	10	55A	0	20	0	4	12	56	38	8	PKPPKP
UKIAH	76.61	41.2	10	56	1	19	59	3	12	56	38	11	PKPPKP
HONG KONG	76.67	298.7							12	55	10	57	PCP
CALISTOGA	76.73	41.9	10	55A	-1				12	56	38	6	PKPPKP
PASADENA	77.22	47.8	10	58	0	20	6	3	12	57	13	59	*SP
SHASTA	78.05	40.3	11	2	-1						13	4	
MINERAL	78.34	41.0	11	4A	0				13	6	38	5	PKPPKP
BOULDER CITY	80.51	47.6	11	17	1	20	36	-1	13	19	29	48	PKKP
MAGADAN	80.77	344.8	11	16	-1	20	35	-4	13	16	24	18	*SS
EUREKA	81.50	44.1	11	21	0	20	49	3	13	23	29	44	PKKP
TUCSON	81.68	52.5	11	23	1	20	52	5	13	24	29	50	PKKP
VICTORIA	82.14	33.5	11	23A	-1				13	28			
SEATTLE	82.21	34.7	11	23	-1	20	49	-4					
TONTO FOREST	82.27	50.5	11	25	0	20	55	1	13	28	14	42	PP
SITKA	82.68	22.2	11	27	0						13	31	
GLEN CANYON	83.28	48.0	11	41	11						13	34	
BLUE MTS.	83.47	39.0	11	30A	-1	21	0	-6	13	33	14	30	PP
ARGENTINE I.	83.92	157.3	11	33	0						20	57	
DUGWAY	83.96	44.7	11	33A	0	21	31	21					
MEDAN	84.02	275.6	11	35	2								
MAWSON	84.07	199.8	11	33K	-1	21	0	-11					
PENTICTON	84.63	34.3	11	36	0								
G. G. VIDELA	84.65	157.3	11	31	-5	21	0	-17			13	34	PP
SALT LAKE C.	84.88	44.5	11	37	0	21	13	-6	13	41	15	4	PP
PRICE	85.04	45.9	11	39	1								
COLLEGE	85.52	12.7	11	38A	-3	21	12	-13	13	44	29	36	PKKP
ALBUQUERQUE	86.13	51.6	11	43	-1								
UINTA BASIN	86.21	45.7	11	44A	0	21	22	-10	13	47	14	52	PP
TACUBAYA	86.30	68.5	11	48	4	21	39	7			21	22	SKS
FLAMING GRGE	86.61	45.3	11	16	-30								
BUTTE	86.94	39.7	11	46	-1	21	21	-17	13	50	37	38	PKPPKP
HUNGRY HORSE	87.23	37.1	11	47	-2	21	21	-20	13	52	29	36	PKKP
BOZEMAN	87.70	40.5	11	49	-2				13	54	37	33	PKPPKP
GOLDEN	88.86	47.7	11	57	1								
VERA CRUZ	88.97	69.6	12	4	7	22	0	3					
YAKUTSK	89.13	338.3	11	56K	-2				13	56			
N-LAZARVSKYA	91.58	183.5	12	8K	-1				14	5	26	5	
COMITAN	91.67	73.6	12	16	7								
WICHITA MTS.	92.04	54.3	12	10	-1	22	28	4	14	15	15	18	PP
PORT BLAIR	92.10	281.5	12	11K	0	21	49	-35			15	1	PP
CONCEPCION	92.32	129.7	12	19	7								
ULAN-BATOR	92.82	319.6	12	14K	-1	21	52	-38					
YELLOWKNIFE	94.15	24.8	12	20K	-1						14	30	PP
TULSA	94.59	53.9	12	22A	-1	22	50	5	14	28	16	18	PP
SANTA LUCIA	94.76	127.1	12	24	1						16	12	
MERIDA	95.33	69.8				22	8	0			14	27	
LAWRENCE	95.94	51.1	12	28	-1								
IRKUTSK	95.99	323.0	12	27	-2	22	10	-2	14	33	15	32	*SP
CHITTAGONG	96.03	291.4	12	28	-1								
SHILLONG	96.88	294.5	12	33K	0	22	16	0			15	28	PP
NANA	97.49	105.0									14	42	
HUANCAYO	98.86	105.6	12	44	2								
ANTOFAGASTA	98.90	118.3	12	43A	1	22	27	1			16	48	PP
CALCUTTA	99.15	290.7									13	38	
ESEN BULAK	99.17	315.7				22	26	-2			17	42	PP
MOULD BAY	100.08	12.1	12	46K	-1								
CHATRA	101.29	294.7	12	54	1						17	11	
BOKARO	101.76	291.4				22	41	1			16	52	
CUMBERLAND	102.52	56.5	12	57	-1	22	41	-3	15	2	17	16	PP
LA PAZ	103.72	112.4	13	1	-2						26	43	
CHINCHINA	103.97	89.2	11	56A	-68	22	24	-26			14	2	PP
MADRAS	104.24	279.3				22	53	2			16	59	

RESOLUTE	105.19	15.9	13	10	777						
BOGOTA	105.35	90.0	13	12A	777	22	57	1	15	16	17 38 PP
COLUMBIA	105.86	58.9	15	18	777						22 58
HYDERABAD	106.94	283.3				23	4	1			17 49 PP
LONDON ONT.	107.22	49.5	17	51	777						
CHAPEL HILL	107.79	57.2									17 54 PP
SCARBOROUGH	108.71	49.0	18	2	777						
PENNSYLVANIA	109.38	52.2	13	30	777						
WASHINGTON	109.76	54.3	18	6	777						21 58
DEHRA DUN	109.84	296.5	13	35	777						18 7
NEW DELHI	110.29	294.6	13	32K	-237						17 30
ALERT	110.69	7.3	17	29	-1						
OTTAWA	111.36	47.5	17	31	0						
POONA	111.45	283.4									19 25
PALISADES	112.38	52.3	13	41	-232	24	31	66	15	45	17 31 PKP
KHEYS	112.44	351.5	17	27	-6				19	47	
BOMBAY	112.49	283.6				23	24	-2			18 16
BREBEUF	112.84	47.5	17	34	0	23	26	-1			18 30 PP
CARACAS	113.75	86.0	13	48A	-228						15 50
FRUNSE	113.85	309.6	17	35	-1						18 39 PP
SAN JUAN	116.25	77.8	17	40	0	23	41	1			18 56 PP
SCHEFFERVLLE	116.81	37.0	17	41	-1						
GODHAVN	118.45	19.3									16 13
TRINIDAD	119.05	87.4	17	47	1						
ST. KITTS	119.23	79.6	17	46	0						
BERMUDA	119.27	62.3	14	12	-214						
QUETTA	119.36	295.1	17	48	2	23	55	4			14 21 P
ST. CLAUDE	119.95	81.3									19 23 PP
HALIFAX	119.96	48.3	17	48K	0						
FORT FRANCE	120.21	82.9	17	49	1						23 56 SKP
SVERDLOVSK	121.20	326.4	17	49	-1	23	57	0			19 28 PP
TANANARIVE	121.83	233.6	17	55	4						
GRAHAMSTOWN	123.92	205.5	17	56K	1						
SCORESBY SD.	125.26	9.3	17	58	0						28 20
PIETERMZBURG	125.31	211.3	17	59	1						
KAP TOBIN	125.31	9.4	17	58	0						
KEVO	125.48	349.3	17	58	0				20	17	20 2 PP
APATITY	125.96	345.4	17	58A	-1	24	13	1	19	58	19 40 PP
ASHKABAD	126.42	304.4	18	0	0						
TROMSOE	126.83	352.4	17	59	-2						20 10 PP
CHANGALANE	127.05	215.3	18	2A	1						20 3 PP
SODANKYLA	127.61	347.9	17	57	-5				20	19	19 45 PP
KIRUNA	128.29	350.9	17	52	-12						20 22 PP
KIMBERLEY	128.64	206.6	18	6A	2						
KAJAANI	130.16	345.2	17	49	-18						20 28 PP
SHIRAZ	131.87	294.3	18	4K	-7	23	52	-35			20 44
UMEA	132.00	348.8	17	54	-17				20	25	20 37 PP
TEHERAN	132.23	302.5	18	12	1				20	42	23 40 PPP
PULKOVO	132.91	340.4	18	13	0						20 49 PP
MOSCOW	133.00	332.7	18	12	-1				20	27	21 55 PKS
CHILEKA	133.14	227.1	18	12	-1						20 49
SKALSTUGAN	133.42	353.2	18	13	0						20 44 SKP
BULAWAYO	133.90	216.8	17	58	-16						20 51
NURMIJARVI	133.95	344.2	18	1	-13				20	28	20 52 SKP
HELSINKI	134.16	343.7	17	58	-17						20 52 SKP
GORIS	135.36	308.8	18	6	-11						20 56
TIFLIS	135.79	312.3	18	18	0				20	33	20 59 PP
UPPSALA	136.15	348.2	18	6	-12						20 58 SKP
BERGEN	137.13	357.1	18	16	-4						21 10
KONGSBERG	137.54	353.7	18	12	-9	25	8	31			21 2 SKP
BROKEN HILL	138.38	221.8	18	8	-15						
GOTEBORG	139.15	351.2	18	13	-11				20	36	
KARLSKRONA	139.98	347.6	18	20	-5				20	46	21 14 SKP
ABERDEEN	140.39	2.9				25	28	46			20 53 PP
COPENHAGEN	141.02	349.9	18	23	-6						
SIMFEROPOL	141.29	322.0	18	23	-6	24	22	-21			21 59 PKS
WARSAW	142.08	340.2	18	26	-4	24	40	-5			21 40 PP
DURHAM	142.81	2.7	18	26A	-5	24	23	-23	20	37	21 23 PP
LWOW	142.98	335.4	18	29	-3				20	51	22 51
IASI	143.39	329.6	18	12	-20						
DABROWA	144.29	340.2	18	34	0						
KRAKOW	144.30	339.3	18	33K	-1						23 55 *PPP
CHORZOW	144.40	340.4	18	34K	0						20 47
WITTEVEEN	144.58	354.3	18	31	-3						
FOCSANI	144.62	328.0	18	37	3						
RACIBORZ	144.83	341.0	18	35	1						20 3
SKALNATE PL.	144.92	338.2	18	37	2						21 30 PP
KSARA	145.07	304.3	18	35K	0	25	40	51	20	49	21 44 PP
COLLMBERG	145.08	347.1	18	35	0	24	55	6			

HALLE	145.11	348.3	18	36	1					22	12	PP
DE BILT	145.41	355.8	18	37K	2				20 59	40	6	SS
BANDEIRA	145.62	200.9	18	38K	2	24	56	6	20 51	22	4	PKS
JENA	145.72	348.4	18	32	-4				20 51	22	6	PP
PRAGUE	145.90	344.8	18	34	-2				20 54	21	52	PP
PRUHONICE	145.95	344.6	18	37K	1					20	53	
CAMPULUNG	146.00	329.4	18	39	3							
BUCHAREST	146.07	327.4	18	43	7					22	2	PKS
KEW	146.16	1.8	18	36	0				20 51	40	7	SS
JERUSALEM	146.22	301.2	18	37	0							
BENSBERG	146.36	353.3	18	36K	-1				20 51	22	57	PP
CHEB	146.36	347.0	18	41	4					21	6	
LWIRO	146.47	236.7	18	39	2							
ISTANBUL UN.	146.62	320.2	18	36	-1					21	46	PP
HURBANOVO	146.75	339.0	18	41	4				20 29	21	59	PP
UCCLE	146.76	356.4	18	38	1					22	15	PP
BRATISLAVA	146.86	340.5	18	40K	3				20 56	26	10	
KASPERSKE H.	146.98	345.1	18	37	0				20 51	24	1	
TIMISOARA	147.36	333.7	18	42	4							
DOURBES	147.44	356.0	18	32	-6					18	54	
HEIDELBERG	147.69	350.9	18	39K	1				20 58			
KARLSRUHE	148.11	351.1	18	40	1					20	59	
STUTTGART	148.21	349.9	18	40	1				20 56	40	30	SS
JERSEY	148.36	4.2	18	52	12							
BELGRADE	148.43	333.5	18	42A	2					27	58	PP
TUBINGEN	148.48	350.1	18	40K	0							
STRASBOURG	148.63	351.7	18	42K	2	25	10	16	20 54	22	15	PP
SOFIA	148.71	327.8	18	45	5					22	25	PP
PARIS	148.83	358.4	18	43A	3				21 1			
EBINGEN	148.83	350.0	18	40	0				21 2			
FOLINIERE	148.85	2.2	18	41	1							
FELDBERG	149.28	351.1	18	42K	1							
ZAGREB	149.29	339.7	18	42K	1					21	1	
LJUBLJANA	149.55	341.6	18	42K	1				21 3	22	20	PP
TRIESTE	150.14	342.3	18	43K	1	24	42	-14	21 5	22	23	PP
BESANCON	150.15	353.5	18	43	1				21 4			
SKOPJE	150.19	328.9	18	51	9							
GARCHY	150.34	357.5	18	45K	2				21 1			
TITOGRAD	150.86	332.0	18	51	8					27	50	PP
PADOVA	150.87	344.6	18	51K	8	25	8	11	21 5	22	58	PP
LUANDA	151.21	205.2	18	49K	5				21 4	22	38	PP
ROSELEND	151.61	352.1	18	46	2				21 5			
PAVIA	151.69	348.2	18	50	5				21 10	28	29	
ATHENS	151.72	320.4	18	45A	0				21 3	23	18	
CLERMONT-FD.	151.85	357.3	18	47K	2					22	25	PKS
PRATO	152.49	344.5	18	48	2					21	48	PP
FLORENCE X.	152.55	344.2	18	50	4				21 3	22	53	PP
PATRAS	152.72	323.1	18	47	1							
ISOLA	153.03	350.8	18	48	2					19	10	PKP2
AQUILA	153.22	339.8	18	48	1				21 3	22	48	PP
MONACO	153.41	350.0	18	48	1					21	10	
ROME	153.93	340.7	18	48K	0				21 2	22	50	PP
BAGNERES	154.57	1.9	18	50	1				21 9	19	15	
MESSINA	155.95	331.5	18	51	1				21 11	21	53	
TORTOSA	156.83	1.5	18	51	-1					27	50	PP
LISBON	157.05	21.3	18	54K	2					23	6	PP
TOLEDO	157.30	10.7	18	54K	2	25	12	8	21 38	23	17	PP
ALICANTE	159.25	3.9	18	55K	0					19	33	PKP2
GRANADA	160.00	11.4	18	58A	3	25	27	20	21 51	26	20	
MALAGA	160.28	13.6	18	57K	1	25	24	17				
ALMERIA	160.52	9.0	18	57K	1					23	27	PP
ALGIERS UNI.	160.82	355.6	18	55	-1				21 13	23	29	PP
SETIF	161.09	349.6	18	54	-2				21 18	23	36	PP
M.BOUR	162.18	97.7	19	54	57					26	27	PP
AVERROES	162.50	24.9	18	48K	-10				21 27	23	24	PP
TAMANRASSET	173.46	323.1	19	8K	3				21 26	24	36	PP

AUGUST 27 3.H 23.M 40.S EPICENTRE -45.94 -76.31 DEPTH= 90.KM

A= 0.16512 B=-0.67804 C=-0.71624 D=-0.9716 E=-0.2366
G=-0.1695 H= 0.6959 K=-0.6979 HT= -3.9

DEPTH OF FOCUS= 0.009R

SE= 3.76

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SANTA LUCIA	13.22	21.2	2	56A	-9	6	32	61			4	2	
COPIAPO	19.15	16.4	4	15	-4								
G. G. VIDELA	20.32	163.3	4	32	1	8	23	14					
ARGENTINE I.	20.45	165.4	4	31	-1								
ANTOFAGASTA	22.69	14.1	4	52A	-3	8	42	-10	5	34			
LA PAZ	30.14	15.8	5	56	-8	11	6	11					
HUANCAYO	33.78	1.7	6	40	5								
NANA	33.84	359.1	6	37	1						15	30	
BYRD STATION	37.44	191.3	7	4	-2								
BOGOTA	50.37	2.9	8	48	-2	16	6	11			23	37	SS
CHINCHINA	50.69	0.9	8	55A	2	16	13	14			23	44	SS
FUQUENE	51.23	3.3	9	0	3	16	29	22					
CAPE HALLETT	53.35	200.5	9	11	-1								
BALBOA HTS.	54.72	356.1	9	25	2								
GALERAZAMBA	56.46	1.2	9	51	16	17	38	21					
CARACAS	56.81	11.0	9	36A	-2						19	32	
TRINIDAD	57.90	17.4	9	45	0								
FORT FRANCE	61.92	16.7									18	12	
MAWSON	62.67	163.6	10	18	0								
MIRNY	67.55	175.4	10	52	3	19	48	11					
WILKES	67.93	183.0	10	53	2	19	56	14			13	35	PP
ROXBURGH	72.16	222.3				20	50	19					
WELLINGTON	72.53	228.4				20	38	3					
KARAPIRO	74.54	231.2	11	32	1								
KIMBERLEY	77.01	117.8	11	44	-1								
BERMUDA	78.66	10.0	11	52	-2								
BANDEIRA	79.20	100.2	11	56	-1								
M.BOUR	80.32	57.7	12	14	11	22	15	15					
CUMBERLAND	81.58	352.4	12	9	-1	22	23	10			27	46	SS
WICHITA MTS.	82.77	341.7	12	14	-2	22	38	13			27	48	SS
TULSA	83.35	344.2	12	18	-1	22	33	2			28	2	SS
TUCSON	83.86	331.1	12	22	1								
AFIAMALU	83.88	256.5									18	30	SSS
ALBUQUERQUE	84.99	335.5	12	26	-1								
TONTO FOREST	85.88	331.6	12	32	1				12	43	15	54	PP
PENNSYLVANIA	86.36	358.8	12	30	-4								
PALISADES	86.59	1.8	12	41	6	23	21	19			23	15	SKS
PASADENA	88.23	326.4	12	49	6	23	36	18					
GLEN CANYON	88.43	332.4	12	44	1								
TOOLANGI	88.77	212.0	12	45	0				12	54			
GOLDEN	89.14	338.0	12	49	2								
BROKEN HILL	89.71	110.5	12	51	2								
RIVERVIEW	89.76	217.8	12	51	1	23	37	5			29	38	SS
UINTA BASIN	90.88	335.2	12	56	1	23	50	8			16	35	PP
PRIEST	90.95	325.5	13	4A	9								
OTTAWA	90.95	0.4	12	59	4								
BREBEUF	91.08	1.9				23	54	10			30	8	SS
EUREKA	92.16	330.4	12	2	-59								
BERKELEY	93.08	325.3	13	4A	-1	24	24	23			16	38	PP
ADELAIDE	93.48	208.2									28	20	
CALISTOGA	93.88	325.4	13	3A	-6								
SHASTA	95.58	326.6	13	22	6								
LWIRO	98.85	102.5	13	40	9								
TAMANRASSET	100.62	68.4	13	27	-12	23	46	-23			17	33	PP
MALAGA	104.61	52.1									18	26	
TOLEDO	107.09	50.1									27	57	
ALGIERS UNI.	108.87	56.5									28	1	PS
ROME	117.75	57.5									30	54	
AQUILA	118.56	57.6									29	44	
COLLEGE	123.58	330.9	18	47	0								
UZHGOROD	127.25	55.5	19	0	6								
ISTANBUL UN.	127.43	66.8									21	6	PP
KSARA	128.04	78.2	19	4	8						21	11	PP
UMEA	132.63	36.8									33	29	
NURMIJARVI	133.48	42.0									22	44	PKS
KIRUNA	133.93	31.6									22	51	PKS
KAJAANI	135.86	37.8	19	9	-2								
SHIRAZ	137.18	94.0	19	16	3						22	49	SKP
BAKURIANI	137.29	73.2	19	18	5								
TIFLIS	138.14	73.9	19	20	5								
MOSCOW	138.66	51.5	19	24	8								
KIROVOBAD	138.69	76.1	19	18	2								
APATITY	138.75	33.2	18	44	-32						23	54	PPP
KIZYL-ARVAT	144.86	83.7	19	35	8								
VANNOVSKAYA	145.56	86.8	19	49	21								
ASHKABAD	145.73	87.0	19	31	3								

BAGUIO CITY	147.36	211.1	19 34	3
QUETTA	147.41	105.9	19 36	5
MAGADAN	149.12	313.4	19 39	5
SVERDLOVSK	151.48	51.8	19 47K	10
TIKSI	151.58	343.5	19 49K	12
MATUSIRO	152.58	262.3	19 48	9
WARSAK DAM	152.82	104.6	19 53	14
NEW DELHI	152.90	120.6	19 48	9
YAKUTSK	158.02	326.4	19 58	12
FRUNSE	159.05	88.1	19 44	-3
ULAN-BATOR	177.04	313.2	20 14	14

AUGUST 29 8.H 53.M 50.S EPICENTRE 39.64 74.21 DEPTH= 51.KM

A= 0.21010 B= 0.74300 C= 0.63546 D= 0.9623 E=-0.2721
G= 0.1729 H= 0.6115 K=-0.7721 HT= -1.6

DEPTH OF FOCUS= 0.003R

SE= 2.34

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MURGAB	1.29	189.8						0 22 PG
ANDIJAN	1.79	308.7	0 30K	0				1 2
FERGANA	2.01	292.3	0 32K	-1	0 59	2		
DZERGETAL	2.35	260.5	0 39	1				1 17 SG
NAMANGAN	2.36	305.3	0 38	0				
KHOROG	3.01	225.0	0 52A	5				1 32 S*
GARM	3.10	259.3	0 48A	0				1 30 S*
RYBACHE	3.17	27.4	0 53	4				
FRUNSE	3.20	5.4	0 50K	0	1 30	3		
KULYAB	3.90	244.9	1 1A	2				2 11 SG
ALMATA	4.17	28.7	1 6A	3				
ALMATA-2	4.33	32.2	1 5A	-1				2 20 SG
DUZHANBE	4.37	257.5	1 6A	0				2 24 SG
TCHIMKENT	4.38	308.7	1 5	-1				
KURMENTY	4.54	41.1	1 9	1				
CHILIK	5.03	37.4	1 15	0				2 4
SAMARKAND	5.58	272.6	1 22A	-1	2 27	0		
WARSAK DAM	6.02	201.6	1 26	-3				
LAHORE	8.08	179.3	1 57	-1	3 28	-1		
DEHRA DUN	9.82	160.2	2 22K	0	4 12	0		2 31 PP
QUETTA	11.16	214.4	2 38	-2	4 38	-6		
NEW DELHI	11.31	166.5	2 37A	-5	4 38	-10		2 50 PP
SEMIPALATNSK	11.57	19.6	2 42A	-3	4 52	-2		
ASHKABAD	12.49	267.2	2 52K	-6	5 9	-7		
VANNOVSKAYA	12.68	267.4	3 6	6				
KIZYL-ARVAT	13.88	273.9	3 14K	-2	5 41	-8		
KARACHI	15.96	204.4	3 41	-2				
SEHORE	16.60	170.7	3 47	-4	6 48	-5		4 5 PP
CHATRA	16.73	135.9	3 48A	-5	6 51	-5		4 1 PP
TEHERAN	18.46	265.0	4 15A	1	7 50	15		
BOKARO	18.57	144.7	4 14A	-1	7 35	-2		4 34 PPP
SVERDLOVSK	19.37	337.1	4 21A	-3	8 0	5		
SHILLONG	20.40	128.2	4 33A	-2	8 7	-9		4 50 PP
BOMBAY	20.71	183.7	4 41	2	8 33	11		5 7 PP
CALCUTTA	20.88	140.6	4 40	0	8 27	2		
POONA	21.04	181.0	4 47A	5	8 41	13		5 32 PP
KIROVOBAD	21.31	281.7	4 42A	-3	8 36	3		
TOCKLAI	21.42	120.7	4 42	-4				
GORIS	21.46	278.6	4 45A	-1				5 11 PP
GROZNY	21.59	289.1	4 48	0				5 10 PP
TIFLIS	22.35	284.9	4 56	1				5 21 PP
HYDERABAD	22.44	169.3	5 2	6	9 7	13		5 25 PP
CHITTAGONG	22.83	133.8	4 58	-2				
VISHAKHAPTNM	23.23	157.6	5 4	0	9 21	13		
BAKURIANI	23.31	285.1	5 6	2				9 25
IRKUTSK	24.25	48.6	5 14A	0				9 39
ULAN-BATOR	24.86	59.8	5 21A	1	10 1	25		
MADRAS	27.06	167.1	5 40A	0	10 29	17		6 32 PP
MOSCOW	28.98	315.9	5 56A	-1				7 8 PPP
KODAIKANAL	29.44	173.5	5 9A	-52	11 6	16		7 3
SIMFEROPOL	29.90	293.5	6 6A	1				7 14 PPP
KSARA	31.10	271.4	6 44	28	11 42	25		7 46 PP
BODAYBO	31.42	41.2	6 18	-1				
PORT BLAIR	32.33	144.4	6 32A	5				7 44 PP

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PHU-LIEN	33.47	114.6	6	38	1						
PULKOVO	33.93	321.1	6	40A	-1	12	0	-1		7	54 PP
ISTANBUL UN.	34.20	287.2	6	44	1	12	12	7			
IASI	34.28	298.3	7	10	26						
BUCHAREST	35.64	293.7	7	0	5	12	40	13		15	28
APATITY	35.78	334.6	6	56A	0	12	33	4		8	17 PP
CAMPULUNG	36.26	295.4	7	6	5					8	42
LWOW	36.45	303.1	7	2	0					8	23 PP
KAJAANI	36.45	327.5	7	2A	0	12	36	-4		8	8 PP
HELSINKI	36.64	320.6	7	4	0						
NURMIJARVI	36.86	321.1	7	5A	-1	12	36	-10		8	28 PP
UZHGOROD	37.68	301.3	7	12	0					8	32
SOFIA	37.95	291.6	7	19	4	13	12	9		8	49 PP
HONG KONG	38.02	105.0	7	17A	2	13	20	16		8	52 PP
SODANKYLA	38.05	332.4	7	15A	-1	13	4	0		8	40 PP
WARSAW	38.22	307.3	7	18	1	13	14	7		7	39 PP
TIMISOARA	38.82	296.9	7	23	1					16	10
SKALNATE PL.	38.96	302.4	7	22	-1	13	27	9		9	19 PPP
ATHENS	38.96	284.1	7	23A	0	13	25	7			
KRAKOW	39.07	303.9	7	24A	0	13	26	7		8	46
SKOPJE	39.49	291.0	7	31	4						
BELGRADE	39.53	295.6	7	29A	1	13	38	12		9	2 PP
UMEA	39.56	325.7	7	28A	0	13	24	-3		9	0 PP
CHORZOW	39.64	304.3	7	29	0					9	1 PP
RACIBORZ	40.17	304.1	7	33	0					9	13 PP
UPPSALA	40.25	319.3	7	33A	-1	13	39	2		9	6 PP
PATRAS	40.36	285.3	7	36	1						
KIRUNA	40.44	331.8	7	35A	0	13	39	-1		9	6 PP
HURBANOVO	40.49	300.7	7	42	6					9	47 PPP
TITOGRAD	40.93	292.3	8	1	22					8	38 PPP
BRATISLAVA	41.17	301.4	7	42	1					9	21 PP
KARLSKRONA	41.27	313.6	7	40A	-2					9	21 PP
TROMSOE	41.48	334.2	7	43	-1					9	18 PP
KHEYS	41.54	356.1	7	45	1					9	24 PP
VIENNA-H.	41.64	301.6	7	47	2	14	4	6		9	26 PP
TIKSI	41.90	22.8	7	47A	0	14	3	1		9	25 PP
TAIPEI	42.07	95.7	7	54	5						
TAINAN	42.18	99.1	7	44	-6						
MEDAN	42.20	142.0	7	39K	-11	13	57	-9		9	22 PP
ALISHAN	42.34	98.1	7	56	5						
ZAGREB	42.39	298.1	7	46A	-5					9	22 PP
PRUHONICE	42.52	304.5	7	52	0	14	9	-2			
PRAGUE	42.58	304.6	7	52	-1	14	17	5		17	26 SS
HWALIEN	42.72	96.9	7	58	4						
TARANTO	42.93	290.2								9	26
TAITUNG	43.03	98.7	8	9	12					11	0
SKALSTUGAN	43.04	324.7	7	56A	-1					9	37 PP
COPENHAGEN	43.06	313.0	7	56	-1	14	24	5			
HENGCHUN	43.15	99.9	8	2	4						
COLLMBERG	43.27	306.6	8	0	1	14	30	8			
KASPERSKE H.	43.29	303.4	7	59A	0					9	41 PP
LJUBLJANA	43.33	298.8	8	0A	1					9	40 PP
CHEB	43.88	305.0	8	7	4					10	3 PP
HALLE	43.89	307.1	8	3	-1	14	24	-7			
TRIESTE	43.95	298.4	8	4	0	14	38	6		9	47 PP
JENA	44.22	306.3	8	5	-1	14	38	3		9	52 PP
KONGSBERG	44.30	318.9	8	7A	0	14	32	-5		9	52 PP
REGGIO CALA.	44.91	287.6	8	13	1	14	57	12			
MESSINA	44.95	287.7	8	12	0	14	46	0		9	58 PP
AQUILA	45.12	294.0	8	15	2	14	57	9		10	6 PP
PADOVA	45.29	298.6	8	17	2	15	2	11		10	1 PP
ROME	45.91	293.7	8	20A	0	15	8	8	8 30	10	16 PP
STUTTGART	46.13	303.8	8	22A	0	15	4	1		10	14 PCP
RAVENSBURG	46.16	302.4	8	22A	0						
FLORENCE X.	46.18	296.6	8	22	0	15	8	4	8 36	10	18 PP
PRATO	46.25	296.8				15	18	13			
TUBINGEN	46.33	303.5	8	23A	0						
HEIDELBERG	46.34	304.7	8	22	-1						
BAGUIO CITY	46.38	106.4	8	25	2	15	22	16		10	19 PP
BERGEN	46.41	320.2	8	24	0						
MUNSTER	46.45	308.4	8	23	-1						
EBINGEN	46.48	303.1	8	24A	0						
KARLSRUHE	46.63	304.3	8	26	1	15	15	5			
WITTEVEEN	46.84	309.7	8	27	0						
BENSBERG	46.94	307.2	8	28A	0					11	8 PP
STRASBOURG	47.15	303.9	8	30A	1	15	17	0		18	32 SS
PAVIA	47.18	299.1	8	32	2	15	8	-10		10	22 PP
FELDBERG	47.18	302.9	8	30A	0						

MANILA	47.87	107.8	8	36	1					10	51	
DE BILT	47.89	309.1	8	36A	1	15	37	9		10	29	PP
UGLEGORSK	47.92	55.1	8	36A	0					16	0	
WELSCHBRUCH	48.11	304.0	8	31	-6	15	34	3				
ABUYAMA	48.24	75.3	8	38A	0							
BESANCON	48.68	302.6	8	41	0							
UCCLE	48.71	307.5	8	40	-2	15	40	1				
ROSELEND	48.73	300.4	8	42	0							
DOURBES	48.75	306.6	8	45	3	15	49	9				
MONACO	48.82	297.7	8	46	4							
Y.-SAKHLINSK	48.93	57.6	8	43A	0					16	7	PS
ISOLA	48.93	298.4	8	43	0	15	50	8				
MATUSIRO	49.51	72.1	8	47	-1	16	4	14				
MAGADAN	50.35	40.0	8	53A	-1	16	0	-2		10	53	PP
PARIS	50.44	305.5	8	53A	-2					10	50	
GARCHY	50.55	303.4	8	55A	-1					10	55	
MIZUSAWA	50.59	67.8	8	55	-1							
ABERDEEN	50.77	316.9	8	58K	1	16	12	4		10	57	PP
CLERMONT-FD.	51.02	301.6	9	0	1	16	19	8				
TUKUBASAN	51.03	71.7	8	58A	-1	16	10	-1	9 6	12	2	PPP
DURHAM	51.12	313.8	9	0A	0	16	20	7		11	2	PP
KEW	51.35	309.5	9	1A	-1	16	17	1		10	57	PP
FOLINIERE	52.31	306.3	9	8	-1							
KURILSK	52.91	58.2	9	12	-1							
JERSEY	53.17	307.2	9	10	-5	17	2	21				
SETIF	53.17	289.6	9	13	-2	16	30	-11				
BARCELONA	53.31	296.8	9	15	-1	16	49	6				
TANGERANG	54.53	139.1	9	25A	0					11	46	PP
ALGIERS UNI.	54.62	291.2	9	23	-3	17	3	3		11	24	PP
SCORESBY SD.	55.21	336.0	9	31	1	17	21	13				
KAP TOBIN	55.23	335.9	9	31	0							
ALERT	56.22	353.7	9	37	-1							
ALICANTE	56.43	294.5	9	33	-6	17	32	8		21	17	SS
PETROPAVLOVK	56.52	46.1	9	37A	-3							
TOLEDO	58.22	297.6	9	51A	-1	17	56	8		11	57	PP
ALMERIA	58.52	293.8	9	54A	0	17	59	7		12	9	PP
LWIRO	58.88	236.2	9	56A	0	17	55	-2				
GRANADA	59.16	294.6	9	56A	-2	18	7	7		12	10	PP
TAMANRASSET	59.76	275.6	10	2	0	18	15	7		12	17	PP
MALAGA	59.95	294.5	10	2	-2	18	15	5				
LISBON	62.24	298.6	10	19A	0					10	46	PCP
TANANARIVE	63.36	208.4	10	28	1					12	20	
AVERROES	63.81	292.6	10	28	-2							
MOULD BAY	64.08	3.6	10	30A	-1	19	7	5				
GODHAVN	64.83	341.9				19	18	6		11	34	
RESOLUTE	65.73	356.8	10	41A	-1							
CHILEKA	66.08	221.8	10	44K	0							
GUAM	66.59	91.7	10	50	3							
BROKEN HILL	68.62	228.2	11	0	0							
COLLEGE	70.75	17.6	11	12	-1	20	28	6		13	50	PP
BULAWAYO	73.14	224.5	11	27	0							
PONTA DELGDA	73.62	305.5	11	32	2	21	0	5				
CHANGALANE	76.41	218.2	11	46A	0	21	34	8	11 59			
YELLOWKNIFE	77.97	4.2	11	53A	-2							
BANDEIRA	78.42	239.6	11	59A	2	21	57	9		12	5	PCP
PIETERMZBURG	80.05	217.7	12	7	1							
SCHEFFERVLLE	80.15	338.3	12	6A	-1							
SITKA	80.50	15.8	12	9	0	22	19	9				
MUNDARING	81.21	144.9	12	13	1	22	18	1				
M.BOUR	81.87	281.8	12	13	-3	22	31	7				
KIMBERLEY	82.13	222.3	12	18	1							
PORT MORESBY	83.08	108.2	12	22A	0	22	32	-4		15	24	PP
RABAUL	83.43	100.9	12	26	2							
GRAHAMSTOWN	84.94	218.4								14	2	
EDMONTON	87.12	4.5	12	43A	1							
HALIFAX	87.92	331.3	12	47	1							
HERMANUS	89.50	222.6				23	47	9		23	29	SKS
CHARTERS TS.	89.62	116.6	12	55	1	23	28	-11				
BREBEUF	90.45	338.0	12	58A	0	23	54	8		25	8	PS
PENTICTON	90.58	9.6	12	59A	1							
VICTORIA	90.84	11.6	13	1A	1							
OTTAWA	91.14	339.3	13	1A	0							
SEATTLE	91.85	11.1	13	10	6	23	45	-14				
HUNGRY HORSE	92.08	5.5	13	6	1	23	38	-23				
HONIARA	92.68	99.9	13	1	-7					16	50	PP
SCARBOROUGH	93.62	341.0	13	13	1							
BUTTE	94.50	4.7	13	17	1					22	47	
PALISADES	94.64	316.4	13	17A	0	23	53	-30				

LONDON ONT.	94.73	342.2	13	18A	1						
BOZEMAN	94.94	3.7	13	19	1						
ADELAIDE	95.14	131.9	13	21A	2	23	40	-9		13	26 PCP
BLUE MTS.	95.25	8.2	13	20A	0	24	1	11		17	0 PP
PENNSYLVANIA	95.99	339.1	13	23	0						
BRISBANE	98.90	118.1	13	38	2					17	22
MINERAL	99.09	12.2	13	37A	0						
FLAMING GRGE	99.74	2.8	13	42	2						
SALT LAKE C.	99.78	4.7	13	42	2						
DUGWAY	100.28	5.5	13	43A	0						
UINTA BASIN	100.34	2.9	13	44A	1	24	12	-4		17	41 PP
CALISTOGA	100.59	13.3	13	45A	1						
EUREKA	100.71	8.0	13	46	2					17	1 PP
TOOLANGI	100.89	130.0	13	46	1						
PRICE	100.99	3.9	13	47	1						
BERKELEY	101.39	13.2	13	49A	1					18	0 PP
CANBERRA	101.54	126.4	13	49A	1					18	6 PP
RIVERVIEW	101.94	124.0	13	53	3					18	0 PP
LICK	102.02	12.9	13	53A	3						
KIPAPA	102.12	48.9				24	37	12		32	47 SS
HONOLULU	102.17	49.0	13	53	2	24	29	4		18	7 PP
CUMBERLAND	102.85	343.2	13	55	1	24	31	3		17	43 PP
PRIEST	103.35	12.3	14	5A	9						
GLEN CANYON	103.57	4.8	14	0	3						
TULSA	104.26	351.6	14	4	4	24	42	8		18	10 PP
BOULDER CITY	104.29	7.6	14	7	7					18	11 PP
PASADENA	105.69	10.6	14	6	777	24	46	5		18	34 PP
WICHITA MTS.	105.71	353.8	14	8	777					17	50 PP
ALBUQUERQUE	105.77	0.6	14	8	777						
TONTO FOREST	106.26	4.7	14	11	777	24	55	12	14 23	18	38 PP
MIRNY	106.85	172.3	14	10	777	25	2	16		18	40 PP
MAWSON	107.26	184.5	14	15	777					18	42 PP
TUCSON	108.32	4.5	14	21	777						
TRINIDAD	115.20	310.5	18	40	4						
AFIAMALU	117.19	85.7	18	44	4					36	28 SS
CARACAS	118.44	315.4	18	45K	3	25	38	6			
N-LAZARVSKYA	118.75	199.6	18	40	-3					20	3 PP
ROXBURGH	120.00	126.0	18	47	2					37	10 SS
KARAPIRO	120.59	115.7	18	48	1						
WELLINGTON	121.62	119.5	18	50	1					37	22 SS
GALERAZAMBA	122.38	323.8								23	15 PPP
BALBOA HTS.	125.87	327.4	18	58	1						
FUQUENE	126.25	319.1	19	1	4					20	54 PP
BOGOTA	127.15	318.9	19	2	3					21	0 PP
CHINCHINA	127.62	320.8	19	5	5					21	1 PP
SCOTT BASE	128.92	164.2	19	4	1						
CAPE HALLETT	129.03	157.0	19	4	1						
BYRD STATION	139.16	176.4	19	15	-7						
LA PAZ	139.98	294.3	19	24	1					23	1 PKS
HUANCAYO	141.53	307.1	19	28	2						
NANA	142.40	309.1	19	29	2						
G. G. VIDELA	144.71	210.3	19	34	3						
ARGENTINE I.	145.06	209.2	19	33	1						
ANTOFAGASTA	146.21	287.4	19	36A	2					22	59 PP
SANTA LUCIA	151.22	271.3	19	44	2				19 50	23	29

AUGUST 29 15.H 30.M 29.S EPICENTRE -6.97 -81.48 DEPTH= 0.KM

A= 0.14706 B=-0.98175 C=-0.12060 D=-0.9890 E=-0.1481
G=-0.0179 H= 0.1193 K=-0.9927 HT= 6.9

SE= 2.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
NANA	6.77	137.8	0	47	-56	2	47	-15				
HUANCAYO	7.89	130.2	1	59	0	3	7	-23				
CHINCHINA	13.23	26.4	3	8	-4	5	32	-9				
BOGOTA	13.69	32.9	3	15A	-3	5	47	-5				
FUQUENE	14.58	32.2	3	25	-5							
BALBOA HTS.	15.94	6.9	3	50	2	7	0	15				
LA PAZ	16.13	127.1	3	49	-1	6	48	-2				
GALERAZAMBA	18.69	19.4	4	25A	3	7	59	11				
ANTOFAGASTA	19.74	148.6	4	34K	0							
SAN SALVADOR	21.90	339.5	4	59	2							
CARACAS	22.61	40.0	5	5	1	9	17	9				
COPIAPO	22.86	153.8	5	8	2	9	24	12				

COMITAN	25.37	335.5	5	31	0	10	3	8		
TRINIDAD	26.57	49.0	5	43	1	10	19	4		
SANTA LUCIA	28.19	160.6	5	55K	-2	10	38	-4	6	39 PP
OAXACA	28.23	327.8	5	57	0	10	49	7	14	31
MERIDA	28.88	344.1	6	1	-2					
SAN JUAN	29.40	30.8	6	8	0	11	3	2		
FORT FRANCE	29.52	43.0	6	8	-1	11	6	3		
VERA CRUZ	29.74	331.2	6	15	4	11	11	4	11	51
ST. CLAUDE	30.10	40.5	6	16	2	11	18	6		
ST. KITTS	30.45	37.3	6	16	-1					
PUEBLA	30.65	327.7	6	39	20	11	43	22	13	15
TACUBAYA	31.49	326.6	6	31	5	11	43	9		
LEON	34.24	325.1	6	59	9				20	13
MANZANILLO	34.29	319.3	7	3	13	12	35	17	17	31
GUADALAJARA	34.87	322.5	6	51	-4	12	31	4	17	31
MAZATLAN	38.62	321.6	7	31	4				15	31
COLUMBIA	40.75	0.6	7	45	0	13	50	-6	9	26 PP
DALLAS	42.19	340.7	7	57	1					
CUMBERLAND	42.51	355.1	7	59K	0	14	20	-2	9	51 PP
CHIHUAHUA	42.61	327.3							9	17
WICHITA MTS.	44.51	339.8	8	14	-1	14	54	3	9	55 PP
TULSA	44.73	343.4	8	17K	0	14	34	-20	14	56
PHILADELPHIA	47.05	6.6	8	36	1	15	30	2		
PENNSYLVANIA	47.65	3.7	9	39	59					
ALBUQUERQUE	47.90	332.1	8	40	-2					
TUCSON	48.00	326.0	8	42	-1					
FORDHAM	48.10	7.7	8	47	3					
CLEVELAND	48.22	360.0	8	47K	2	15	52	8		
PALISADES	48.25	7.7	8	45K	0	15	36	-9	8 59	18 12 SCS
CHICAGO CGS.	48.84	353.9	8	49	0	15	56	3		
LONDON ONT.	49.77	0.3	8	55K	-2					
TONTO FOREST	49.78	327.4	8	56	-1	16	9	3		10 56 PP
GLEN CANYON	52.01	329.3	9	15	1					
OTTAWA	52.39	5.1	9	13K	-4					
BREBEUF	52.71	6.9	9	30K	11	16	38	-8		20 51 SS
BOULDER CITY	52.98	326.1	9	22	1					11 26 PP
PASADENA	53.65	322.0	9	26	0	17	4	5		39 39 PKPPKP
PRICE	53.70	332.0	9	27K	1					
UINTA BASIN	53.71	333.5	9	25	-1	16	53	-7		11 29 PP
HALIFAX	53.82	15.8	9	27K	0					
FLAMING GRGE	54.13	334.0	9	29	0					
SALT LAKE C.	55.11	332.1	9	37	0					
DUGWAY	55.11	331.0	9	37K	0					
EUREKA	56.16	328.2	9	44	0					39 42 PKPPKP
PRIEST	56.49	322.2	9	46K	-1					39 43 PKPPKP
PARAISO	57.66	321.3	9	50	-5					
LICK	57.87	322.6	9	57K	1					39 34 PKPPKP
BERKELEY	58.59	322.7	10	1K	0	18	5	0		12 37 PP
BOZEMAN	58.71	336.1	10	2	0	18	11	5		11 19 PCP
G. G. VIDELA	59.24	170.9	10	5	-1	18	20	7		
CALISTOGA	59.28	323.2	10	5K	-1					
ARGENTINE I.	59.43	171.7	10	5	-2					
BUTTE	59.61	335.3	10	8	0	18	18	0		
MINERAL	59.84	325.3	10	8K	-2					39 44 PKPPKP
UKIAH	59.98	323.3	10	11	0					39 44 PKPPKP
SHASTA	60.52	325.1	10	12	-3					39 21
BLUE MTS.	60.81	331.5	10	15K	-2	18	35	2		12 45 PP
HUNGRY HORSE	62.07	336.0	10	24	-1	18	51	2		
SCHEFFERVLLE	62.78	9.5	10	27K	-3					
PENTICTON	65.18	333.6	10	45A	-1					
SEATTLE	65.22	330.9	10	39	-7	19	22	-7		
EDMONTON	65.90	339.7	10	46K	-4					
VICTORIA	66.37	331.0	10	53K	0					
M.BOUR	67.40	71.3	10	59	-1	20	4	9		
ANGRA DO HO.	67.72	43.4	11	7	5	20	7	8		
PONTA DELGDA	68.35	44.9	11	7K	1	20	8	2	24	27 SS
PORT HARDY	69.81	330.8	11	14K	-1					
YELLOWKNIFE	73.79	344.7	11	35	-3					
HAWAII V.OB.	77.19	291.7	11	58	0					
SITKA	77.34	333.1	11	59	0	21	55	6		
KIPAPA	80.12	293.1	12	14	0	22	24	6		
HONOLULU	80.17	293.0	12	15	1	22	23	4		
AVERROES	80.65	54.7	12	18K	1	22	19	-5	23	17 SP
LISBON	80.76	49.0	12	18K	1	22	26	1	15	21 PP
RESOLUTE	81.93	356.4	12	21K	-2					
N-LAZARVSKYA	84.56	160.6	12	36K	-1				15	46 PP
GRANADA	84.61	51.7	12	38A	1	23	7	3	15	58 PP
TOLEDO	84.88	48.9	12	39K	1	23	4	-3	15	56 PP

ALMERIA	85.42	52.2	12	41K	0	23	16	4	16	5	PP
MOULD BAY	85.95	351.5	12	43K	-1						
COLLEGE	86.50	336.9	12	45	-1	22	44	-38	16	5	PP
KAP TOBIN	86.77	16.9	12	47	-1				23	7	
SCORESBY SD.	86.81	16.9	12	48	0	23	15	-10			
ALICANTE	87.27	51.0	12	50K	0	23	18	-12	16	16	PP
SCOTT BASE	87.71	191.4	12	51	-1	23	11	-23	16	18	PP
JERSEY	88.34	40.2				23	22	-18			
AFIAMALU	88.64	256.2	12	59	2	23	35	-7			
CAPE HALLETT	88.88	196.9	12	58	0						
FOLINIERE	89.30	40.8	13	0	0						
ALGIERS UNI.	89.77	53.1	13	2K	0	23	54	1	16	34	PP
ALERT	89.77	2.5	13	1K	-1						
DURHAM	89.85	34.8	13	1A	-1	23	50	-4	16	37	PP
TAMANRASSET	89.91	67.2	13	3K	0	23	58	4	16	38	PP
KEW	89.92	38.2	13	2K	-1	23	52	-2	16	26	PP
ABERDEEN	90.09	32.4	13	6A	3	23	30	-26	16	31	PP
CLERMONT-FD.	91.19	44.2	13	9	0	24	11	6			
PARIS	91.24	41.1	13	10K	1				26	8	
GARCHY	91.38	42.7	12	9K	-60				16	49	
SETIF	91.56	53.9	13	11	1	24	14	5	16	57	PP
UCCLE	92.72	39.3	13	14	-2	24	20	1			
DOURBES	92.78	40.0	13	19	3	24	19	-1			
BANDEIRA	92.83	105.3	13	17K	1	23	34	-46	16	58	PP
BESANCON	93.34	43.0	13	18	0						
DE BILT	93.40	38.1	13	20K	1	24	31	6	17	7	PP
ROSELEND	93.62	44.6	13	20	0						
WELSCHBRUCH	93.72	41.9	13	24	4						
ISOLA	93.75	46.1	13	21	1	23	57	-31			
WITTEVEEN	94.38	37.5	13	24	1						
BENSBERG	94.51	39.4	13	24K	0	23	57	-37	16	58	PP
STRASBOURG	94.68	41.8	13	25K	0	24	8	-28	17	14	PP
FELDBERG	94.78	42.5	13	25K	0						
HERMANUS	94.86	125.4	13	30	5	24	2	-35	17	12	PP
MUNSTER	94.88	38.4	13	26	0						
KARLSRUHE	95.14	41.4	13	27	0	24	5	3			
PAVIA	95.35	45.3	13	29	1				17	7	PP
HEIDELBERG	95.37	41.0	13	27K	-1						
EBINGEN	95.44	42.2	13	27	-1						
TUBINGEN	95.53	41.9	13	28K	-1						
CHATEAU	95.59	229.5	13	29	0						
WELLINGTON	95.66	227.4	13	29K	0	24	9	4	17	20	PP
STUTTGART	95.69	41.7	13	19K	-10	24	5	0	31	17	SS
RAVENSBURG	95.85	42.7	13	30K	0						
KARAPIRO	95.88	230.8	13	30	0						
KONGSBERG	96.53	30.7	13	36	3	23	54	-16	17	44	PP
FLORENCE X.	96.74	46.8	13	39	5	24	18	7	17	1	PP
PADOVA	97.27	45.1	13	39	3	24	16	2	17	39	PP
JENA	97.29	39.6	13	36	-1	24	13	-1	17	41	PP
HALLE	97.54	39.0	13	38	0	24	57	42			
ROME	97.55	48.7	13	38K	0	24	18	3	17	11	PP
SKALSTUGAN	97.87	26.8	13	39	0				30	12	PKKP
COPENHAGEN	97.93	34.8	13	40	1						
COLLMBERG	98.20	39.2	13	41	0	25	18	60			
AQUILA	98.25	48.3	13	42	1	24	16	-3	17	6	PP
ROXBURGH	98.28	222.2	13	41	0	24	17	-2	17	49	PP
KASPERSKE H.	98.54	41.4	13	42	0				17	38	PP
TRIESTE	98.59	44.9	13	53	11	24	20	0	17	44	PP
PRAGUE	99.10	40.5	13	45	0	24	25	2	17	47	
LJUBLJANA	99.14	44.6	13	45	0				17	41	PP
PRUHONICE	99.17	40.6	13	45	0	24	26	3	25	18	S
KARLSKRONA	99.69	34.3	13	40	-7				17	40	PP
MESSINA	99.79	52.5	13	47	-1				26	57	PS
TROMSOE	100.12	20.5	13	49	0						
ZAGREB	100.16	44.8	13	51	1				18	5	
VIENNA-H.	100.39	42.3	13	51	0	24	28	-1	18	1	PP
UPPSALA	100.57	30.5	13	51	0	24	27	-3	17	55	PP
KIMBERLEY	100.74	120.9	13	51	-1						
BRATISLAVA	100.88	42.4	13	56	3	24	21	-11	17	6	PP
KIRUNA	100.91	22.2	13	52	-1	24	26	-6	17	57	PP
GRAHAMSTOWN	101.05	125.8	13	53K	-1						
UMEA	101.39	26.3	13	54K	-1	24	31	-3	18	1	PP
MAWSON	101.41	166.8	13	52K	-3				18	1	PP
RACIBORZ	101.52	40.4	14	0	4	24	38	3	18	2	PP
CHORZOW	102.02	40.2	13	59	1				18	9	PP
TITOGRAD	102.59	48.2	13	47	-13	24	41	1	27	17	PS
KRAKOW	102.64	40.4	14	2	1	24	41	1	18	14	PP
WARSAW	103.14	38.1	14	2	-1	24	41	-1	28	27	PPS
SODANKYLA	103.33	22.2	14	3	-1				18	19	PP

BELGRADE	103.34	45.7	15	3K	59	24	44	1	18	22	PP
TIMISOARA	103.82	44.7				24	44	-1	19	13	
NURMIJARVI	103.97	29.3	14	5	-1	24	43	-3	18	15	PP
KHEYS	104.06	6.3	14	6	-1				20	39	PPP
HELSINKI	104.18	29.6	14	9	2						
KAJAANI	104.58	25.4	14	9	0				18	30	PP
LWOW	105.30	40.3	14	13	777	24	51	-1	18	32	PP
SOFIA	105.58	47.7	14	15	777	24	55	1	17	43	PP
APATITY	105.78	21.2	13	54	777	24	53	-1	18	29	PP
BULAWAYO	106.21	113.2	14	17	777						
ATHENS	106.24	52.6	14	17	777	24	57	1	28	6	
WILKES	106.35	185.0	14	16	777	24	25	-32	18	39	PP
MIRNY	106.55	177.7	14	14	777	24	52	-6	18	38	PP
PULKOVO	106.89	29.4	14	18	777	24	51	-8	18	41	PP
BROKEN HILL	107.35	107.4	14	22	777						
CHANGALANE	107.74	120.3	14	25	777	25	0	-3	18	51	PP
LWIRO	109.82	94.9	14	35	777						
ISTANBUL UN.	109.97	48.9	14	34K	777				18	38	
MOSCOW	111.88	32.2	14	43	-234	25	26	6	19	17	PP
TIKSI	112.71	350.0	14	43K	-236				19	25	PP
SIMFEROPOL	112.92	44.1	14	46K	-233	25	22	-2	19	28	PP
CHILEKA	113.18	110.3	18	42	2						
RIVERVIEW	115.77	227.3							19	51	PP
JERUSALEM	116.30	58.1	18	49	3						
KSARA	116.53	55.7	15	11	-215				20	1	PP
CANBERRA	116.56	224.9	18	51	5				29	31	PS
TOOLANGI	117.71	221.0	18	49	0				20	1	PP
YAKUTSK	120.45	343.5	18	53	-1				20	17	PP
SVERDLOVSK	122.10	23.5	18	56	-1	26	3	6	20	26	PP
GORIS	123.18	46.9	19	1	2	25	56	-5	20	40	PP
ADELAIDE	123.63	219.5	19	2A	2				20	43	PP
Y.-SAKHLINSK	125.09	324.3	19	3	0				20	52	
RABAUL	125.31	259.9	19	4	1				27	57	
CHARTERS TS.	125.89	239.2	19	10	6				27	55	
TEHERAN	128.29	49.4	19	11K	2				21	9	PP
PORT MORESBY	128.89	252.1	19	10K	0				31	37	
TUKUBASAN	132.18	313.6	19	16K	-1				21	38	PP
ASHKABAD	132.34	43.6	19	18	1				22	46	SKP
MATUSIRO	133.37	315.0	19	5	-14				21	47	PP
SEMIPALATNSK	134.10	16.2	19	20	0				21	43	PP
GUAM	134.12	281.9	19	20	0						
IRKUTSK	134.59	355.0	19	22	1				21	53	PP
ABUYAMA	136.06	314.4	19	14A	-10						
MUNDARING	137.75	202.6	19	19	-8						
FRUNSE	138.54	26.7	19	19	-9				22	18	PP
ULAN-BATOR	138.58	351.5	19	19	-9						
KHOROG	140.97	35.0	19	28	-5				22	34	PP
QUETTA	142.44	48.0	19	32	-3				22	52	PKS
WARSAK DAM	143.34	39.1	19	36	-1						
KARACHI	145.05	55.9	19	41	1						
LAHORE	146.71	39.6	19	44	1						
DEHRA DUN	149.86	37.0	19	50	2				23	24	PP
NEW DELHI	150.54	40.6	19	50K	1				23	23	PP
TAIPEI	151.61	311.8	20	3	13						
HWALIEN	152.13	309.8	20	2	11						
BOMBAY	152.34	62.2	19	57	6				23	45	PP
ALISHAN	153.00	309.9	20	14	22						
TAITUNG	153.15	308.1	19	59	7				21	53	
POONA	153.38	62.1	19	58	5				23	56	PP
TAWU	153.56	307.7	19	55	2						
BAGUIO CITY	156.47	295.5	19	57	0						
MANILA	156.57	290.9	19	59	2				22	49	
CHATRA	157.49	27.3	20	0	2				28	12	
HYDERABAD	157.83	60.2	20	6	7				24	18	PP
HONG KONG	158.55	316.9	20	2K	2				24	15	PP
KODAIKANAL	158.94	79.7	19	46	-14				24	22	
BOKARO	159.26	34.7	20	3	3				24	18	PP
SHILLONG	160.45	18.2	20	3K	1				30	15	SKKS
MADRAS	160.98	70.2	20	13	11	27	19	13	24	31	PP
CALCUTTA	161.70	31.3	20	3	0						
VISHAKHAPTNM	161.71	52.9	20	8	5				24	40	
CHITTAGONG	163.39	22.2	20	8	3						
LEMBANG	163.56	213.7	20	6K	1				24	48	
PHU-LIEN	164.17	331.1	20	7	2						
DJAKARTA	164.53	212.6	20	5	-1				24	47	
TANGERANG	164.64	212.0	20	5K	-1				24	47	
PORT BLAIR	172.62	50.4	20	14K	3				25	29	

AUGUST 29 20.H 57.M 44.S EPICENTRE -15.53-173.23 DEPTH= 134.KM

A=-0.95724 B=-0.11363 C=-0.26604 D=-0.1179 E= 0.9930
G= 0.2642 H= 0.0314 K=-0.9640 HT= 5.6

DEPTH OF FOCUS= 0.016R

SE= 2.34

	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	
AFIAMALU	2.13	41.3	0	14	-22	0	34	-30					
PORT VILA	17.82	260.4	4	2A	2								
LUGANVILLE	18.93	267.4	4	13	0								
NOUMEA	20.36	247.6	4	33	5	8	33	30					
KARAPIRO	24.42	201.9	5	6	-1								
HONIARA	26.86	279.9	5	28	-2	10	19	24					
RABAUL	35.83	284.7	6	46	-2								
RIVERVIEW	36.90	233.9	6	55	-2						15	39	SSS
CHARTERS TS.	38.77	257.2	7	11	-2	12	46	-14					
PORT MORESBY	39.12	274.2	7	15A	-1	13	34	29					
HONOLULU	39.50	22.5	7	18	-1	13	24	13			9	22	PCP
KIPAPA	39.63	22.5	7	18	-2	13	24	11					
TOOLANGI	42.51	230.9	7	42	-1				7	52	8	12	
ADELAIDE	47.08	236.5	8	19K	-1	15	16	15	8	31	18	56	
CAPE HALLETT	57.60	185.9	9	38	0								
SCOTT BASE	63.14	184.7	10	15	-1								
MUNDARING	65.62	241.6	10	31	-1	19	12	7					
TUKUBASAN	67.77	320.5	10	44A	-1	19	54	24			27	26	SSS
BYRD STATION	68.81	171.3	10	50	-2								
MATUSIRO	69.14	319.8	10	54	0	19	59	12					
WILKES	70.37	204.6	11	1	0	20	14	13					
PARAISO	70.46	41.7	11	9	7								
PRIEST	71.46	42.7	11	7K	-1								
BERKELEY	71.47	40.4	11	6A	-2	20	22	8			12	52	PP
CALISTOGA	71.75	39.6	11	6	-3								
PASADENA	71.99	45.6	11	11	0	20	37	17					
BAGUIO CITY	72.62	293.1	11	16	2								
MINERAL	73.40	38.7	11	18A	-1								
Y.-SAKHLINSK	73.74	330.3	11	22	1								
BOULDER CITY	75.28	45.6	11	20	-10								
UGLEGORSK	75.52	331.5	11	31A	0								
TUCSON	76.28	50.6	11	34	-1								
EUREKA	76.41	42.0	11	36	0								
TONTO FOREST	76.94	48.6	11	38	-1						11	50	PCP
PORT HARDY	77.15	27.8	11	39A	-1								
MIRNY	77.38	204.2	11	42	0	21	38	19	11	58			
SEATTLE	77.60	32.5	11	40	-3						20	32	
LEMBANG	77.78	266.2	11	43	-1								
GLEN CANYON	78.03	46.1	11	46	1								
BLUE MTS.	78.62	36.9	11	47	-1	21	48	16			26	48	SS
DUGWAY	78.85	42.8	11	48A	-2								
SALT LAKE C.	79.77	42.6	11	53	-1								
PENTICTON	80.03	32.3	11	55A	-1								
MAGADAN	80.30	342.3	11	57	0								
HONG KONG	80.41	296.3	11	58	0	22	1	10					
ALBUQUERQUE	80.76	49.9	11	58	-2								
UINTA BASIN	81.05	43.9	12	0	-1	22	13	15			23	0	PS
FLAMING GRGE	81.47	43.4	12	4	1								
COLLEGE	82.46	10.7	12	8	-1								
HUNGRY HORSE	82.47	35.3	12	7	-2								
LUBBOCK	83.66	52.8	12	19	4								
WICHITA MTS.	86.59	52.7	12	28	-1	22	59	6			28	52	SS
MAWSON	87.72	198.6	12	36K	1								
TULSA	89.15	52.4	12	54A	13	23	16	0			29	31	SS
ULAN-BATOR	94.75	318.4	13	10	3								
CUMBERLAND	97.01	55.1	13	13	-4	23	57	17			31	20	SS
LA PAZ	99.54	110.1	13	13	-16	24	10	17					
PALISADES	106.98	51.3				24	45	17			26	7	S
BREBEUF	107.60	46.7									33	58	SS
CARACAS	108.32	83.9									18	40	PP
KAJAANI	129.39	348.3	18	56	3								
ASHKABAD	129.53	306.6	18	55	2								
NURMIJARVI	133.24	348.0									22	32	PKS
KIROVOBAD	137.57	314.1	19	0	-8								
TIFLIS	138.14	316.3	19	12	3								
BAKURIANI	138.99	317.0	19	14	3								
SIMFEROPOL	142.68	327.4	19	17	0								
BROKEN HILL	143.29	216.8	19	19K	1								
KRAKOW	143.95	345.6	19	20	1						19	48	

RACIBORZ	144.31	347.4	19	21	1							
NIEDZIKA	144.44	344.7	19	21	1							
JENA	144.48	354.8	19	19	-1					22	34	PP
UZHGOROD	144.61	342.1	19	22	1							
BENSBERG	144.66	359.6	19	21	0					19	47	
UCCLE	144.76	2.7	19	20	-1							
DOURBES	145.47	2.5	19	27	5					22	49	PP
KASPERSKE H.	146.03	352.0	19	25	2							
BRATISLAVA	146.35	347.5	19	27	3							
VIENNA-H.	146.42	348.4	19	29	5							
PARIS	146.62	5.1	19	28A	4							
STUTTGART	146.79	357.0	19	29	5							
STRASBOURG	147.03	358.8	19	30A	5					24	6	
KSARA	148.05	310.1	19	37	11					22	44	PP
ISTANBUL UN.	148.11	327.2	19	29	3					23	3	PP
GARCHY	148.19	4.8	19	31A	4							
BESANCON	148.36	1.0	19	33	6					20	12	
BELGRADE	148.59	341.2	18	30	-57					19	34	
LJUBLJANA	148.88	349.5	19	33	5							
BANDEIRA	149.08	192.4	19	35A	7			19	41			
TRIESTE	149.40	350.4	19	31K	3					19	40	PKP2
JERUSALEM	149.46	307.0	19	38	10							
CLERMONT-FD.	149.70	5.1	19	37	8							
ROSELEND	149.93	0.2	19	35	6					19	57	
ISOLA	151.44	359.6	19	49	18					20	9	
FLORENCE X.	151.58	353.2	19	51	19					23	40	
LWIRO	151.95	232.8	19	37	5							
AQUILA	152.67	349.3	19	36	3					23	26	PP
ATHENS	153.09	329.4	19	36	2							
ROME	153.26	350.5	19	46	12					23	36	PP
TOLEDO	153.96	19.2	19	36	1					23	32	PP
MALAGA	156.67	23.1	19	47	8					23	54	PP
M.BOUR	157.04	89.7	19	43	4					24	2	PP
TAMANRASSET	172.69	9.1	20	0	8					25	9	

AUGUST 30 4.H 46.M 23.S EPICENTRE 44.84 79.91 DEPTH= 22.KM

A= 0.12461 B= 0.70044 C= 0.70275 D= 0.9845 E=-0.1751
G= 0.1231 H= 0.6919 K=-0.7114 HT= -3.5

SE= 1.87

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	#PP M	S	SUPP. M	S	
CHILIK	1.66	220.7	0	29	1						0	52	SG
KURMENTY	2.19	213.2	0	36	0						1	7	SG
ALMATA-2	2.41	230.3	0	41A	2						1	17	SG
ALMATA	2.65	234.7	0	43A	1						1	29	SG
FABRICHNAYA	3.04	237.0	0	48	0								
RYBACHE	3.61	229.9	0	53	-3						1	38	S*
FRUNSE	4.32	244.1	1	7A	1								
NARYN	4.45	221.4	1	11	3						2	23	
SEMIPALATNSK	5.57	2.2	1	24	0								
ANDIJAN	6.89	236.2	1	42	0						3	47	SG
NAMANGAN	7.18	240.3	1	46	0								
FERGANA	7.47	236.2	1	50	0						2	13	
TCHIMKENT	7.91	254.9				3	26	0			4	8	
DZERGETAL	8.56	232.0	2	7	2								
GARM	9.24	234.2	2	14	-1						4	49	
ELTSOVKA	9.39	24.1	2	15	-1	3	58	-5					
KHOROG	9.69	223.5	2	22	1						5	4	
OBI-GARM	9.79	234.7	2	23	1								
DUZHANBE	10.42	236.9	2	30K	-1								
SAMARKAND	10.89	246.2	2	38	0								
WARSAK DAM	12.60	213.6	3	0	-1								
LAHORE	13.97	200.1	3	17	-2								
NEW DELHI	16.37	188.5	3	44K	-6						12	11	
SVERDLOVSK	17.02	321.7	3	58	0						7	20	
ASHKABAD	17.56	254.4	4	3	-2								
VANNOVSKAYA	17.73	254.7	4	5	-2								
IRKUTSK	17.73	56.5	4	8K	1								
KIZYL-ARVAT	18.42	260.5	4	18	2								
ULAN-BATOR	18.84	71.0	4	19A	-2	7	56	9					
CHATRA	18.90	159.6	4	24	3								
BOKARO	21.50	165.2	4	50	1						8	47	
SHILLONG	21.52	149.3	4	48A	-1						10	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	
TEHERAN	23.48	257.2	5	2	-7	9	35	17			5	30	PP
CHITTAGONG	24.46	152.5	5	21	3								
GROZNY	24.49	278.6	5	23	4						9	50	
BODAYBO	24.74	46.0	5	21	0								
GORIS	25.34	269.7	5	29	2								
TIFLIS	25.63	275.5	5	32	2								
BAKURIANI	26.53	276.2	5	41	3						10	28	
VISHAKHAPTNM	27.19	172.9									11	18	
MOSCOW	28.69	307.5	5	58	1								
PULKOVO	32.91	314.8				11	46	-4					
APATITY	33.18	329.4	6	41	4	12	0	6			13	53	SS
YAKUTSK	33.26	41.1	6	35	-3						16	25	SSS
KAJAANI	34.63	322.3	6	50	0						7	53	PP
KSARA	35.40	267.4									16	37	
TIKSI	35.45	24.3	6	55K	-2	12	29	-1			7	18	
HELSINKI	35.62	315.4	6	56	-2								
SODANKYLA	35.65	327.8	6	59	1						15	9	
NURMIJARVI	35.77	315.9	7	0	1	12	31	-4					
LWOW	37.45	298.1	7	15	2						8	39	PP
UMEA	37.89	321.4				13	6	-1			8	45	PP
KIRUNA	38.07	328.0	7	19	0	12	54	-16					
TROMSOE	38.82	330.8	7	26	1								
UZHGOROD	38.86	296.8	7	23	-2								
UPPSALA	39.32	315.1	7	31	2						9	11	PP
KRAKOW	39.94	299.6	7	36	2						17	1	
KARLSKRONA	40.98	309.7	7	43	0								
RACIBORZ	41.00	300.2									17	49	
SKALSTUGAN	41.44	321.3	7	47	0						9	24	PP
PRUHONICE	43.27	301.1	8	3	1						18	51	
KONGSBERG	43.34	315.9	8	4	2						9	45	PP
COLLMBERG	43.77	303.4	8	6	0								
KASPERSKE H.	44.15	300.3	8	9	0						9	58	PP
BAGUIO CITY	44.33	116.5	8	11	1								
JENA	44.74	303.3	8	28	15						10	9	PP
TRIESTE	45.37	295.6				15	1	3					
STUTTGART	46.92	301.3	8	32	1								
AQUILA	47.01	291.7									19	37	
FLORENCE X.	47.78	294.3									21	47	
ROSELEND	49.86	298.6	8	54	0						9	45	
ISOLA	50.29	296.7	8	58	1								
GARCHY	51.32	301.9	9	5	0								
FOLINIERE	52.73	304.9	9	17	2								
MOULD BAY	58.57	5.3	9	57K	0						15	31	
TOLEDO	59.58	297.4	10	5A	1								
TAMANRASSET	63.44	276.4	10	30	0						16	53	
COLLEGE	64.46	20.5	10	36	-1								
YELLOWKNIFE	72.39	7.0	11	25	-1								
BROKEN HILL	75.21	231.6	11	42	-1								
PORT MORESBY	80.93	112.9	12	14A	0								
EDMONTON	81.50	8.0	12	18	1								
PENTICTON	84.68	12.7	12	33	0								
CHARTERS TS.	88.38	120.5	12	53	2								
BLUE MTS.	89.40	12.2	12	56	0						16	29	PP
UINTA BASIN	94.80	7.3	13	22	1						14	30	
EUREKA	94.85	12.3	13	22	1								

SEPTEMBER 2 1.H 34.M 30.S EPICENTRE 33.96 74.73 DEPTH= 23.KM

A= 0.21883 B= 0.80182 C= 0.55606 D= 0.9647 E=-0.2633
G= 0.1464 H= 0.5364 K=-0.8311 HT= 0.5

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	
KHOROG	4.37	324.3	1	10A	3	2	4	6					
DEHRA DUN	4.59	141.4	1	11A	1	2	3	0			1	26	PPP
NEW DELHI	5.77	157.9	1	25A	-1	2	29	-4			1	47	PG
GARM	6.17	325.9	1	31	-1								
DUZHANBE	6.66	315.4	1	39	0								
FERGANA	6.83	340.7	1	41A	0	3	2	3					
ANDIJAN	7.03	345.2	1	45	1	3	8	4					
QUETTA	7.61	242.4	1	51	-1								
SAMARKAND	8.43	314.7	2	3	-1	3	38	-1					
FRUNSE	8.85	359.5	2	11	2	3	54	4					
ALMATA	9.45	9.9	2	18	0	4	1	-4					

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ALMATA-2	9.52	11.7	2	18A	-1						
SEHORE	10.95	168.6				4	39	-3			
KARACHI	11.30	218.4	2	42	-1						
CHATRA	12.87	120.2	3	2K	-2	5	20	-8			
ASHKABAD	13.85	291.4	3	13	-4						
BOKARO	13.98	133.3	3	19	0	5	46	-8	15	51	SCS
BOMBAY	15.10	187.0	3	36	3	6	24	3	7	6	
POONA	15.39	183.2	3	38A	1	6	33	5	6	57	SS
KIZYL-ARVAT	15.72	294.7	3	37K	-4						
CALCUTTA	16.53	130.0	3	45	-7				7	6	
SEMIPALATNSK	16.92	12.2	3	55	-2	6	58	-5			
TEHERAN	19.24	281.9	4	25	0	8	5	10			
SHIRAZ	19.36	263.2	4	26K	0	7	58	0	16	1	SCS
ESEN BULAK	20.53	46.4	4	37	-2	8	29	6			
MADRAS	21.45	165.3	4	46	-3	8	41	1	5	12	PP
GORIS	23.37	291.9	5	10K	2						
KODAIKANAL	23.75	173.3							9	34	
GROZNY	24.39	301.1	5	18	1						
TIFLIS	24.79	297.0	5	23	2						
SVERDLOVSK	24.82	341.4	5	22K	0						
BAKURIANI	25.74	296.7	5	32	2						
ULAN-BATOR	27.78	50.2	5	51	2	10	50	21			
PHU-LIEN	31.07	106.7	6	20	2	11	24	3			
KSARA	32.12	280.8	6	33	5				13	50	
SIMFEROPOL	32.91	301.7	6	36	2						
JERUSALEM	33.12	277.4	6	38	2						
MOSCOW	33.54	321.9	6	39	-1						
HONG KONG	36.46	98.1	7	7	2	12	48	3			
PULKOVO	38.74	325.5	7	23	-1						
VIBORG	39.79	326.5	7	32	-1						
LWOW	40.13	308.9	7	38	2				9	4	
ATHENS	41.07	290.7							14	9	
APATITY	41.13	337.3	7	43	-1						
UZHGOROD	41.22	307.0	7	44	0						
HELSINKI	41.41	324.8	7	45	-1				9	21	PP
KAJAANI	41.54	331.0	7	46	-1				9	26	PP
NURMIJARVI	41.66	325.2	7	47	-1				9	22	PP
BELGRADE	42.61	301.4	8	11	15				11	7	
KRAKOW	42.78	309.1	7	59	2				9	43	PP
SODANKYLA	43.32	335.2	8	2K	0				9	49	PP
RACIBORZ	43.90	309.2							9	56	PP
KEVO	44.29	338.4	8	10K	1						
UMEA	44.56	329.0	8	10	-2						
BRATISLAVA	44.69	306.5	8	10	-3						
UPPSALA	44.94	323.1	8	12	-3						
KARLSKRONA	45.62	317.8	8	24	4						
KIRUNA	45.69	334.5	8	20A	-1				10	14	PP
PRUHONICE	46.26	309.2	8	25	0				10	37	PP
LJUBLJANA	46.64	303.8	8	28	0				10	21	PP
TROMSOE	46.81	336.6	8	29	-1						
KASPERSKE H.	46.95	308.1	8	32	1				10	0	
TIKSI	47.02	20.6	8	30A	-1						
COLLMBERG	47.16	311.1	8	35	3				10	30	PP
TRIESTE	47.23	303.3							10	53	PPP
COPENHAGEN	47.37	317.0	8	38	4						
SKALSTUGAN	47.99	327.7	8	40A	1						
JENA	48.08	310.6	8	38	-2				11	9	PPP
KONGSBERG	48.95	322.4	8	46	0				10	37	PP
FLORENCE X.	49.30	301.2							11	27	
STUTTGART	49.80	308.0	8	52	-1						
BENSBERG	50.85	311.1	9	9	8						
MATUSIRO	51.06	67.9	9	1	-1	16	18	1			
ROSELEND	52.13	304.5	9	9	-1				10	32	
ISOLA	52.18	302.6	9	13	2				9	40	
DOURBES	52.61	310.3	9	14	0						
FOLINIERE	56.13	309.6	9	40	0						
LWIRO	56.23	239.7	9	43A	3						
BANGUI	59.72	253.4	10	3	-2	18	16	3			
TOLEDO	61.35	300.7	10	14	-2						
ALERT	61.90	354.2	10	19A	-1						
CHILEKA	62.22	224.1	10	17	-5						
BROKEN HILL	65.24	230.4	10	40	-2						
BULAWAYO	69.45	226.3	11	7	-1						
CHANGALANE	72.26	219.6	11	25	0				11	35	11 41 PCP
PIETERMZBURG	75.86	218.9	11	45	-1						
COLLEGE	76.03	17.3	11	47	0						
KIMBERLEY	78.26	223.4	12	0	1						
PORT MORESBY	80.94	107.7	12	13	-1						
YELLOWKNIFE	83.59	4.4	12	26	-2						

SCHEFFERVLLE	85.59	338.8	12	38A	0						
CHARTERS TS.	86.69	116.8	12	43	0						
EDMONTON	92.74	4.9	13	12A	1						
BRISBANE	95.82	119.0	13	25	0						
UINTA BASIN	105.98	3.4	14	11	777				18	32	PP
EUREKA	106.26	8.6	18	25	777						
WICHITA MTS.	111.39	354.1							29	26	PKKP
TONTO FOREST	111.87	5.4							29	28	PKKP
SOUTH POLE	123.78	180.0	18	55	-1						
BYRD STATION	133.48	176.6	19	16	1						
LA PAZ	142.43	288.2	19	35	4						
AREQUIPA	145.03	291.4	19	38	3						
HUANCAYO	145.08	301.5	19	39	4						
NANA	146.10	303.4	19	40	3						

SEPTEMBER 2 23.H 44.M 59.S EPICENTRE 46.39 151.24 DEPTH= 0.KM

A=-0.60676 B= 0.33299 C= 0.72177 D= 0.4811 E= 0.8767
G=-0.6327 H= 0.3473 K=-0.6921 HT= -4.1

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
KURILSK	2.63	244.9	0	37A	-8						1	20
NEMURO	5.06	234.8	1	6A	-13	1	54	-25				
ABASHIRI	5.46	246.7	1	17A	-8	2	18	-11				
Y.-SAKHLINSK	5.90	279.2	1	31	0						2	53
KUSIRO	5.95	237.5	1	18	-14	2	21	-21				
OBIHIRO	6.70	241.7	1	33	-9	3	2	1				
WAKKANAI	6.74	265.1	1	42	-1	3	11	10				
UGLEGORSK	6.74	296.8	1	50	7	3	18	16				
ASAHIGAWA	6.80	250.6	1	37K	-7	2	57	-6				
HIROO	7.01	236.9	1	34	-13	2	43	-25				
URAKAWA	7.41	238.1	1	41	-11	2	56	-22				
SAPPORO	7.79	248.3	1	49	-9	3	19	-9				
TOMAKOMAI	7.86	244.9	1	57	-2							
MURORAN	8.40	244.7	1	55	-11	3	32	-11				
SUTTSU	8.64	249.4	2	2	-7							
MORI	8.78	244.6	2	3	-8	3	32	-20				
HAKODATE	8.82	242.5	1	59K	-13	3	41	-12				
OKHA	8.94	326.3	2	23	9						4	26
HATINOHE	9.17	233.8	2	6	-11	3	29	-33				
AOMORI	9.41	237.4	2	0	-20	3	45	-23				
MIYAKO	9.56	228.5	2	6	-16	3	35	-37				
MORIOKA	9.95	231.3	2	12	-16	3	47	-34				
MIZUSAWA	10.38	229.3	2	19	-15	3	58	-34				
AKITA	10.53	234.7				5	11	36			4	13
ISINOMAKI	10.82	226.2	2	22	-17	4	6	-36				
SENDAI	11.15	227.0				4	14	-36				
YAMAGATA	11.45	228.6	2	31	-17	4	21	-37				
HUKUSIMA	11.77	226.6	2	31	-21							
ONAHAMA	12.19	222.9				4	38	-38				
SHIRAKAWA	12.38	225.5	2	45	-16	4	48	-33				
MITO	12.85	222.7				4	55	-37			3	50
UTUNOMIYA	13.00	224.9	3	12	3	5	3	-33				
KAKIOKA	13.11	223.2	2	49	-21							
MAGADAN	13.18	359.0	3	21	10						6	21
TAKADA	13.41	230.8									5	35
MAEBASI	13.52	226.7				5	13	-34				
KUMAGAYA	13.56	225.2	3	2	-14	5	16	-33				
NAGANO	13.76	229.7	3	14	-5							
OIWAKE	13.84	227.9	3	7	-13							
TITIBU	13.84	225.6				5	21	-35				
MATUSIRO	13.85	229.3	3	3A	-17	5	16	-40				
YOKOHAMA	14.01	222.7				5	15	-45			8	15
KOHU	14.35	226.2	3	33	6	5	35	-33				
HUNATU	14.38	225.2	3	9	-18	5	38	-30				
IIDA	14.83	227.7	3	23	-10							
NAGOYA	15.55	228.9	3	4	-38							
KYOTO	16.32	231.4	3	57	5						4	57
HIROSIMA	18.64	236.6	4	10	-11	7	34	-13				
YAKUTSK	19.93	329.5	4	41A	5	8	23	7				
OOITA	19.93	235.7	4	28	-9	8	22	6				
HUKUOKA	20.40	238.5	4	52	11	8	19	-7				
SAGA	20.68	238.0	5	2	18							
KUMAMOTO	20.76	236.5	4	36	-9							

ULAN-BATOR	29.88	289.3	6	10	-2						
COLLEGE	37.23	38.1	7	18	3						
ESEN BULAK	37.27	290.6	7	15	-1						
HONG KONG	38.40	244.0	7	17	-8	13	9	-12			
BAGUIO CITY	39.27	230.6	7	21	-11	13	13	-21			
HONOLULU	47.95	103.8				15	45	5			
ALERT	50.24	5.4	9	2	2						
ALMATA-2	50.70	294.9	9	5K	1						
SHILLONG	51.08	267.4	9	UA	-6						
FRUNSE	52.65	295.8	9	17A	-1						
SVERDLOVSK	53.21	316.7	9	20	-3						
CHATRA	53.53	272.0	9	12	-13						
PENTICTON	56.45	51.7	9	47	1						
APATITY	57.15	336.1	9	54K	3						
EDMONTON	57.39	45.1	9	55	2						
KHOROG	57.61	292.0	9	52A	-2	17	43	-9			
DEHRA DUN	57.62	281.4	9	50A	-4						
DUZHANBE	58.72	294.6	9	59	-3						
SODANKYLA	59.11	338.2	10	5	0					12	15 PP
TROMSOE	59.14	342.4	10	6	1					10	51 PP
NEW DELHI	59.28	280.4	10	0A	-6						
LAHORE	59.36	284.9	10	3	-4						
WARSAK DAM	59.69	288.8	10	5	-4						
HUNGRY HORSE	60.02	50.1	10	12	1						
KIRUNA	60.26	340.7	10	13	0					10	58 PCP
BLUE MTS.	60.34	54.9	10	15K	2	18	35	8		12	19 PP
KAJAANI	61.30	335.3	10	20	0						
BUTTE	62.24	51.5	10	27	1						
SCORESBY SD.	63.34	357.4	10	34	1						
UMEA	63.55	338.0	10	34	-1						
MOSCOW	64.00	324.8	10	36	-2					11	11 PCP
EUREKA	64.47	58.9	10	41	0						
NURMIJARVI	64.97	334.0	10	43	-1	19	26	1		11	15 PCP
QUETTA	65.13	288.2	10	41A	-4	19	22	-5			
HELSINKI	65.14	333.6	10	44	-1						
WOODY	65.15	63.8	10	45	0				11 16	11	43 *SP
ASHKABAD	65.52	299.8	10	45A	-3	19	28	-4			
SKALSTUGAN	65.67	341.2	10	49	0						
BOULDER CITY	67.44	61.2	11	1	1						
UPPSALA	67.54	336.7	11	0	-1						
UINTA BASIN	67.62	54.7	11	2	1	20	2	4		24	36 SS
RAPID CITY	68.50	48.3	11	7	1						
GLEN CANYON	68.71	58.5	11	11	3						
LARAMIE	69.16	51.7	11	11	0						
KONGSBERG	69.74	340.4	11	15	1					11	41 PCP
BERGEN	70.01	342.8	11	17	1						
GOLDEN	70.39	52.8	11	20	2						
TIFLIS	70.62	310.4	11	19	0						
TONTO FOREST	70.73	60.4	11	21	1	20	41	7	11 30	11	37 PCP
TEHERAN	71.13	302.1	11	21A	-2	20	41	2			
KARLSKRONA	71.26	335.6	11	17	-6						
GORIS	71.37	307.9	11	23A	-1	20	42	0			
TUCSON	72.40	61.7	11	30	0						
COPENHAGEN	72.55	337.0	11	31	0						
ALBUQUERQUE	73.11	57.0	11	26	-8						
BRISBANE	73.45	178.6	11	27	-9					20	51
SIMFEROPOL	73.49	318.8	11	35	-2						
LWOW	73.81	327.5	11	38	0						
SCHEFFERVLLE	74.15	21.8	11	42	2						
SHIRAZ	74.70	296.9	11	41A	-3	21	17	-3	11 53	14	44 PP
KRAKOW	75.10	329.9	11	46A	0					12	6 PCP
RACIBORZ	75.66	330.9	11	49	0					12	8 PCP
COLLMBERG	76.25	334.5	11	52	0					14	51 PP
HALLE	76.38	335.2	11	52	-1				12 10		
PRAGUE	76.89	333.1	11	55	-1						
PRUHONICE	76.94	333.0	11	56	0						
JENA	77.00	335.1	11	56	-1	21	55	10		13	19
MUNSTER	77.15	337.9	12	59	62						
BRATISLAVA	77.67	330.5	11	59A	-1					22	34
WICHITA MTS.	77.72	52.3	11	59	-2					21	57
VIENNA-H.	77.85	331.0	12	1	0						
KASPERSKE H.	77.99	333.1	12	1A	-1					12	54
BENSBERG	78.19	337.7	12	3A	0					12	25
TULSA	78.33	49.7	12	4	0						
ISTANBUL UN.	78.89	319.3	12	6	-1						
BELGRADE	79.33	326.7	11	59K	-10	21	56	-14		12	12 PCP
KEW	79.49	342.4	12	10	0	22	14	3			
STUTTGART	79.60	335.5	12	11	0					12	33

DOURBES	79.64	338.9	12	12	1					31	49	
OTTAWA	79.67	31.6	12	11	0							
STRASBOURG	80.19	336.4	12	15	1	22	28	9				
BREBEUF	80.32	30.2	12	15K	0							
LJUBLJANA	80.39	331.0	12	14A	-1							
TRIESTE	80.99	331.3	12	18A	0							
PARIS	81.35	339.7	12	21A	1							
CANBERRA	81.36	181.9	12	18	-2							
BESANCON	81.90	336.9	12	23	0							
FOLINIERE	82.07	341.6	12	24	0							
PENNSYLVANIA	82.77	35.3	12	29	1							
JERUSALEM	83.13	309.6	12	30A	1							
ROSELEND	83.15	335.9	12	30	1							
FLORENCE X.	83.48	332.0	12	19	-12							
CUMBERLAND	83.72	43.3	12	32	0	22	57	2		13	32	
TOOLANGI	83.74	184.6	12	25	-8					12	39	*SP
CLERMONT-FD.	84.03	338.2	12	36	2							
AQUILA	84.03	330.0	12	33	-1	23	23	25	12 51			
PALISADES	84.12	32.6	12	36	2	22	56	-3				
ISOLA	84.41	335.0	12	37	1							
MONACO	84.71	334.5	12	37	0							
BLACKSBURG	84.73	39.0	12	36	-1							
ROME	84.74	330.4	12	38	0	23	17	12		16	21	PP
COLUMBIA	87.14	41.1	12	50	1							
TOLEDO	91.31	341.2	13	9	0	24	35	29		31	39	SS
LA PAZ	135.81	60.8	19	22	-1							

SEPTEMBER 4 5.H 6.M 46.S EPICENTRE 36.02 5.27 DEPTH= 39.KM

A= 0.80730 B= 0.07443 C= 0.58543 D= 0.0918 E=-0.9958
G= 0.5830 H= 0.0537 K=-0.8107 HT= -0.2

DEPTH OF FOCUS= 0.001R

SE= 2.13

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
SETIF	0.20	30.3	0	0	-5								
ALGIERS UNI.	1.93	293.5	0	28	-3								
ALICANTE	5.15	298.6	1	16K	-1	2	21	5			1	41	PG
BARCELONA	5.93	336.5	0	25	-63						1	55	
TORTOSA	6.08	323.5	1	31	1	3	26	47					
ALMERIA	6.29	279.9	1	32	-1	2	49	4			1	49	P*
GRANADA	7.23	281.9	1	47	1	3	13	5			2	48	
MALAGA	7.83	278.0	1	51	-3	3	22	-1					
MONACO	7.88	11.5	1	53	-2	3	24	0					
ROME	8.13	41.5	2	2K	4	3	34	4			2	26	P*
ISOLA	8.27	9.0	1	57	-3	3	25	-9					
TOLEDO	8.31	300.4	2	0K	-1	3	24	-11			2	12	PP
MESSINA	8.50	72.1	2	1	-3	3	38	-1			3	54	SS
REGGIO CALA.	8.56	72.9	2	4	0						4	18	
AQUILA	8.93	42.5	2	9	-1	3	54	4			2	22	PP
FLORENCE X.	9.01	28.8									4	29	S*
PRATO	9.04	27.9	2	33	22	4	32	39					
PAVIA	9.62	16.7	2	23	4						4	42	
ROSELEND	9.72	5.7	2	20	0	4	4	-5					
CLERMONT-FD.	9.88	351.2	2	20	-3						5	4	SG
PADOVA	10.63	26.0	2	38	5	4	24	-8			5	8	S*
AVERROES	10.80	259.1	2	39	4	4	30	-6			2	56	PPP
BESANCON	11.24	2.5	2	38	-3	4	56	9					
GARCHY	11.37	352.4	2	40A	-3								
TRIESTE	11.56	31.1	2	46	0						6	23	
LISBON	11.79	287.5	2	47K	-2								
FELDBERG	12.03	8.9	2	52	0								
RAVENSBURG	12.19	14.0	2	56	2								
LJUBLJANA	12.21	32.0	2	56A	2	5	4	-6			3	26	
WELSCHBRUCH	12.41	3.4	3	2	5	5	5	-10			6	6	
EBINGEN	12.46	11.6	2	58	0								
TITOGRAD	12.59	55.2	2	59	0	5	32	13					
STRASBOURG	12.69	7.6	3	2K	1	4	59	-23			3	22	PPP
ZAGREB	12.70	36.3	3	0A	-1	5	48	26			8	20	
STUTTGART	13.08	11.8	3	6	0								
KARLSRUHE	13.19	9.1	3	2	-5						3	20	
FOLINIERE	13.43	343.4	3	8	-2								
HEIDELBERG	13.61	9.6	3	13	0								
DOURBES	14.08	358.2	3	18	-1	5	52	-3					

JERSEY	14.22	340.0	3	22	1	5	20	-38			
KASPERSKE H.	14.45	22.4	3	22	-2				4	25	
BELGRADE	14.51	48.1	3	18K	-7	6	6	1	8	24	
VIENNA-H.	14.72	30.4	3	30A	3	6	19	9	3	47	PPP
UCCLE	14.79	357.7	3	28	0	6	17	5			
ATHENS	14.88	77.0	3	28A	-1	6	17	3	3	50	PP
BRATISLAVA	14.96	32.1	3	38	7	6	22	6	3	56	PP
BENSBERG	15.00	4.7	3	31K	0	6	14	-3	9	9	
HURBANOVO	15.23	35.0	3	36	2	6	20	-2	4	6	PP
TIMISOARA	15.47	46.2	3	37	0				6	38	
SOFIA	15.47	59.0	3	38	1	6	35	8	3	51	PP
PRUHONICE	15.50	22.9	3	39	2	6	26	-2	4	25	
PRAGUE	15.54	22.5	3	39	1	6	37	8	4	19	
JENA	15.58	15.0	3	38	-1	6	36	6	5	44	
KEW	15.96	347.2	3	43K	0	6	48	9	4	7	PP
MUNSTER	16.04	5.3	3	45	1						
DE BILT	16.08	359.8	3	47	2	6	51	9			
HALLE	16.20	15.1	3	47	1	6	34	-10			
COLLMBERG	16.25	17.6	3	47	0	6	49	3			
WITTEVEEN	16.83	2.9	3	59K	5						
RACIBORZ	16.90	29.7	3	57	2	7	29	28	4	29	PP
NIEDZIKA	17.33	34.7	4	2	1	7	28	18			
CHORZOW	17.39	30.6	4	2	1				4	20	PP
CAMPULUNG	17.58	52.2	4	9	5	7	29	13			
KRAKOW	17.60	32.7	4	7	3	7	30	13			
UZHGOROD	17.77	39.6	4	7	1						
ISTANBUL UN.	19.20	67.7	4	22	-1				7	55	
BACAU	19.31	50.3	4	23	-2	7	57	2			
DURHAM	19.34	348.0	4	23K	-2	8	5	10			
LWOW	19.40	38.9	4	27	1	8	8	11			
WARSAW	19.69	29.7	4	27	-2	8	6	3	8	34	SS
IASI	20.00	49.2	4	34	2	8	14	4	4	56	
COPENHAGEN	20.27	11.8	4	34	-1						
KARLSKRONA	21.34	16.0	4	46K	0				6	32	
ABERDEEN	21.73	349.1	4	50A	0	8	48	5	7	11	
SIMFEROPOL	23.59	58.9	5	9	1	9	25	9			
KONGSBERG	23.82	5.5	5	10K	0	9	37	17	6	4	PP
BERGEN	24.40	0.0	5	16	0						
KSARA	25.15	86.0	5	26K	3	10	1	18	8	20	PCP
UPPSALA	25.16	14.7	5	22K	-1	9	49	6			
JERUSALEM	25.17	91.0	5	27	4						
HELSINKI	27.30	21.6	5	40	-3						
NURMIJARVI	27.49	20.9	5	43	-2				6	22	
SKALSTUGAN	27.93	6.7	5	47K	-2						
PULKOVO	28.77	26.4	5	55	-1						
VIBORG	28.93	23.9	5	50	-8						
UMEA	29.30	13.5	5	59K	-2	10	49	-1	6	39	
M.BOUR	29.34	228.4	5	59	-2	11	8	17			
MOSCOW	29.52	37.9	6	3	0	10	53	-1			
BAKURIANI	30.15	67.3	6	8	-1						
TIFLIS	31.10	67.3	6	18	1	11	20	1			
KAJAANI	31.22	18.9	6	18	0				7	17	PP
GROZNY	31.76	64.2	6	23	0						
GORIS	32.45	71.3	6	29	0	11	45	5			
KIRUNA	33.01	10.5	6	32K	-2	11	48	0			
SODANKYLA	33.69	14.7	6	38	-2						
BANGUI	33.80	155.6	6	39	-2						
TROMSOE	34.49	8.4	6	45	-1						
APATITY	35.41	18.2	6	54A	0	12	27	1	8	16	PP
KEVO	35.82	12.7	6	58	0						
TEHERAN	37.10	76.4	7	10	1	12	58	6	8	37	PP
SHIRAZ	39.90	85.3	7	31	-1	13	30	-4	7	40	8 57 PP
KIZYL-ARVAT	40.10	69.6	7	35	1	13	42	5			
VANNOVSKAYA	41.78	71.0	7	47	0						
ASHKABAD	41.97	70.9	7	48	-1	14	5	0			
SVERDLOVSK	42.07	42.5	7	48	-2	14	5	-1			
LWIRO	43.95	144.9	8	5	0				10	39	
KHEYS	48.86	10.0	8	45A	1						
DUZHANBE	49.68	66.9	8	50	0	15	55	0			
BANDEIRA	51.21	170.0	9	4A	2				10	19	PCP
QUETTA	51.26	77.8	9	1	-1	16	17	0			
SCHEFFERVLLE	51.53	315.3	9	3	-1						
ALERT	51.62	351.1	9	4	-1						
HALIFAX	51.79	302.0	9	5K	-1						
KHOROG	52.10	67.4	9	9	1	16	32	4			
FRUNSE	52.64	60.0	9	12	-1	16	36	0			
WARSAK DAM	53.36	71.4	9	16	-2						
SEMIPALATNSK	54.25	49.6	9	23	-1						

ALMATA-2	54.42	58.7	9	23K	-3									
BROKEN HILL	54.78	152.1	9	27K	-1									
RESOLUTE	58.24	342.1	9	51	-2									
BREBEUF	58.26	305.8	9	52K	-1	17	54	3	10	6				
CHILEKA	58.60	146.0	9	54	-1									
OTTAWA	59.67	306.3	10	1K	-2									
NEW DELHI	60.02	74.9	10	3K	-2									
PALISADES	60.14	301.0	10	4	-2	18	20	5					19	48 SCS
SCARBOROUGH	62.64	305.6	10	23	0									
PENNSYLVANIA	62.96	302.2	10	24	-1									
SAN JUAN	64.58	274.9	10	36	0									
BLACKSBURG	66.35	299.6	10	47	0									
KIMBERLEY	66.99	161.4	10	51	0									
IRKUTSK	67.45	41.1	10	53	-1									
CHATRA	68.60	71.8	10	58	-3									
PIETERMZBURG	69.44	156.7	11	7	1									
CARACAS	69.53	268.2	11	8A	1	20	19	9						
YELLOWKNIFE	70.67	334.7	11	13A	-1									
CUMBERLAND	70.76	300.3	11	13	-1								13	58 PP
SHILLONG	72.86	70.6	11	25A	-2									
LAWRENCE	75.44	307.6	11	41	-1									
EDMONTON	76.35	327.2	11	47K	0									
RAPID CITY	77.25	315.5	11	52	0									
COLLEGE	77.25	348.6	11	52	0									
TULSA	77.55	305.3	11	53K	-1									
BOGOTA	78.68	267.5	12	6	6	22	11	18						
CHINCHINA	79.73	268.7	12	6	0									
WICHITA MTS.	80.10	305.7	12	7	-1								15	16 PP
HUNGRY HORSE	80.13	323.8	12	7	-1									
BUTTE	81.02	321.4	12	13	1									
GOLDEN	81.26	313.1	12	19	5									
PENTICTON	81.99	327.2	12	18K	0									
FLAMING GRGE	82.77	316.0	12	23	1									
LUBBOCK	82.93	306.5	12	24	2									
UINTA BASIN	83.28	315.7	12	24	0	22	45	5					30	45 PKKP
BLUE MTS.	84.21	323.0	12	29	0								15	15
VICTORIA	84.24	328.6	12	30K	1									
SEATTLE	84.43	327.4	12	33K	3	22	50	-2						
ALBUQUERQUE	84.99	310.0	12	34	1								28	44
GLEN CANYON	86.72	314.3	12	42	1									
LA PAZ	86.73	247.0	12	42	1	23	20	6						
EUREKA	87.40	318.5											30	36 PKKP
TONTO FOREST	88.37	312.2	12	51	2				13	1			16	4 PP
BOULDER CITY	89.27	315.4	12	56	3									
TUCSON	89.50	310.4	12	56	2									
HUANCAYO	89.53	254.8	12	57	2									
MINERAL	89.67	322.3	12	56A	1									
SHASTA	89.79	323.0	12	56	0									
CALISTOGA	91.46	321.8	13	5A	1									
LICK	91.97	320.4	13	9A	3									
PRIEST	92.37	319.0	13	11A	3									
PASADENA	92.49	316.2	13	10	2									
PARAISO	93.12	320.2	13	11	0									
MATUSIRO	95.61	36.3	13	15	-8								30	57 SS
TUKUBASAN	96.77	35.3											31	38 SS
MAWSON	111.98	159.6	18	32	1									
SOUTH POLE	125.83	180.0	18	58	0								20	49
CHARTERS TS.	142.37	75.7	19	27	-2									
TOOLANGI	148.27	104.8	19	44	5								20	18
CANBERRA	150.63	99.5	19	37	-5									
BRISBANE	151.16	81.9	19	51	8									

SEPTEMBER 4 13.H 32.M 8.S EPICENTRE 71.31 -73.02 DEPTH= 0.KM

A= 0.09411 B=-0.30828 C= 0.94663 D=-0.9564 E=-0.2920
G= 0.2764 H=-0.9054 K=-0.3223 HT=-12.1

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
GODHAVN	6.90	98.1	1	43K	-1							
RESOLUTE	7.21	307.9	1	45A	-4							
ALERT	11.45	7.0	2	43	-4							
MOULD BAY	13.49	312.1	3	12A	-3	5	59	12				
SCORESBY SD.	16.34	68.4	3	46	-6							

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KAP TOBIN	16.36	68.6	3	46	-6	7	5	11			
SCHEFFERVLLE	16.78	167.4	3	49A	-9						
KHEYS	25.97	16.4	5	37K	2					6	26 PP
OTTAWA	26.02	184.3	5	33	-3	9	57	-9			
COLLEGE	26.86	294.2	5	43	-1	10	26	7			
HALIFAX	27.16	165.2	5	45A	-1						
SCARBOROUGH	27.84	189.7	5	51A	-2						
TROMSOE	28.01	48.2	5	54	0	10	10	-28		6	49 PP
LONDON ONT.	28.64	192.5	5	59A	-1						
SITKA	29.00	273.5	6	7	4	11	11	17			
KIRUNA	29.72	49.8	6	8K	-2	11	2	-3			
KEVO	29.78	43.6	6	9	-1	11	8	2		7	8 PP
HUNGRY HORSE	29.83	241.6	6	7	-4	11	4	-3			
PALISADES	30.38	181.3	6	13A	-2	11	14	-2			
CHICAGO JSA.	30.38	201.9	6	15	0						
FORDHAM	30.54	181.3	6	14	-3	11	17	-1			
PENTICTON	30.60	249.1	6	17	0						
SKALSTUGAN	30.86	60.4	6	19	-1						
RAPID CITY	31.01	224.7	6	19	-2	11	32	6			
BERGEN	31.34	69.2	6	25	1					7	37 PP
PHILADELPHIA	31.46	183.2	6	27	2	11	31	-2		15	46
BUTTE	31.55	238.0	6	25	-1	11	30	-4			
SODANKYLA	31.58	46.8	6	25A	-1					6	58
ABERDEEN	31.65	78.8	6	26A	-1	11	35	-1		7	32
VICTORIA	32.47	252.6	6	33	-1						
GEORGETOWN	32.55	185.9	6	33	-2						
WASHINGTON	32.55	185.9	6	42	7	12	53	63			
UMEA	32.83	54.8	6	35K	-2	11	51	-3			
SEATTLE	32.90	250.6	6	40	2	11	58	3			
APATITY	32.97	42.6	6	37K	-1	11	52	-4		7	56 PP
KONGSBERG	33.24	66.8	6	41K	1	12	8	8	6 51	7	50 PP
DURHAM	33.80	80.9	6	46K	1	12	8	-1		8	7 PP
ST. LOUIS 1	33.92	204.5	6	35	-11						
BLUE MTS.	33.95	242.8	6	46	-1	12	10	-2	7 41	9	12
LAWRENCE	34.36	211.5	6	48	-2						
BLACKSBURG	34.39	190.5	6	48	-2						
KAJAANI	34.52	49.6	6	52A	0	12	4	-16			
UPPSALA	35.38	60.7	6	57K	-2	12	31	-3			
FLAMING GRGE	35.47	230.7	7	0	0						
CHAPEL HILL	35.60	188.4	7	0	-1						
GOLDEN	35.67	225.1	7	2	1	12	33	-5			
UINTA BASIN	36.09	230.6	7	5	0	12	39	-6		8	19
SALT LAKE C.	36.25	233.6	7	6	0	12	49	2			
CUMBERLAND	36.40	197.4	7	6	-2	12	39	-10		8	52
NURMIJARVI	36.74	55.0	7	11A	1	12	52	-3		8	26 PP
FAYETTEVILLE	37.00	209.1	7	13	0	12	55	-4		8	8
KEW	37.01	82.8	7	14A	1	12	55	-4		8	42 PP
DUGWAY	37.03	234.5	7	13A	0	12	58	-1			
PRICE	37.07	231.7	7	14K	1						
HELSINKI	37.12	55.1	7	14	0						
COPENHAGEN	37.39	68.4	7	17	1						
TULSA	37.44	211.1	7	14K	-2	12	55	-10		8	33
COLUMBIA	37.62	190.9	7	18	0	13	4	-4		19	16
KARLSKRONA	37.91	65.5	7	17	-3					8	46 PP
WITTEVEEN	38.06	75.6	7	24K	2						
DE BILT	38.21	77.5	7	23K	0	13	19	2		8	55 PP
JERSEY	38.42	86.3	7	40K	15	13	19	-1			
EUREKA	38.55	237.8	7	26	0						
PULKOVO	38.84	51.7	7	29	1	13	26	-1		16	16 SS
WICHITA MTS.	39.08	214.3	7	28	-2	13	25	-5		8	56 PP
MUNSTER	39.09	75.5	7	30	0						
SHASTA	39.24	245.8	7	31A	0						
FOLINIERE	39.30	85.1	7	31	-1						
MINERAL	39.33	244.7	7	34A	2						
DOURBES	39.76	79.6	7	36	0	13	32	-9			
GLEN CANYON	39.76	231.3	7	37	1						
BENSBERG	39.83	76.7	7	37K	1	13	43	2	7 49	9	12 PP
PARIS	40.22	82.4	7	38K	-2	13	47	0			
ALBUQUERQUE	40.47	224.2	7	41	-1					18	52
HALLE	40.84	72.2	7	45	0	13	55	-2			
UKIAH	40.93	245.8	7	48	3						
CALISTOGA	41.20	244.8	7	49K	1						
JENA	41.22	72.9	7	47	-1	13	46	-16	8 2	9	28 PP
COLLMBERG	41.34	71.5	7	48	-1	14	3	-1			
PONTA DELGDA	41.41	118.2	7	51	2						
BOULDER CITY	41.53	234.6	7	52	2						
HEIDELBERG	41.67	76.5	7	52	1						
GARCHY	41.75	83.0	7	50	-2						
WELSCHBRUCH	41.80	79.3	7	58	6						

BERKELEY	41.82	244.0	7	54K	1	14	8	-3		9	35 PP
KARLSRUHE	41.92	77.0	7	56A	3	14	15	2			
STRASBOURG	42.10	77.9	7	55K	0	14	19	4		9	44 PP
TONTO FOREST	42.23	229.7	7	58	2	14	18	1		9	36 PP
STUTTGART	42.40	76.5	7	58	1	14	20	0	8 12	9	49 PCP
TUBINGEN	42.55	76.8	8	1A	2						
BESANCON	42.71	80.4	8	1	1						
FELDBERG	42.79	78.2	8	1	0						
EBINGEN	42.83	77.1	7	56	-5						
PRAGUE	42.85	71.2	8	2	1	14	1	-25		9	37 PP
WARSAW	42.91	64.3	8	1	-1	14	28	1		9	51 PP
PRUHONICE	42.97	71.1	8	2	0	14	30	2			
PRIEST	42.98	241.3	8	4K	2						
CLERMONT-FD.	43.10	84.0	8	4	1	14	33	3			
PARAISO	43.29	243.3	8	4	-1						
RAVENSBURG	43.39	76.9	8	6	1						
KASPERSKE H.	43.42	72.5	8	6A	0					9	50 PP
HOUSTON	43.43	208.8	8	9	3						
RACIBORZ	43.98	68.1	8	12	2	14	48	5		10	13 PP
CHORZOW	44.03	67.3	8	12	1					10	3 PP
TUCSON	44.07	228.3	8	11	0						
PASADENA	44.15	237.6	8	13	1	14	46	1		9	56
MOSCOW	44.25	49.3	8	13A	1	14	47	0		10	5 PP
ROSELEND	44.30	80.9	8	14	1					9	9
KRAKOW	44.52	66.7	8	16	1	14	53	2		10	1 PP
VIENNA-H.	45.06	70.8	8	20	1	15	3	5		10	10 PP
BRATISLAVA	45.35	70.2	8	21	0	15	8	5		10	9 PP
SKALNATE PL.	45.39	67.0	8	13	-9					10	9 PP
LISBON	45.51	100.1	8	23	0	15	6	1		18	46 SS
PAVIA	45.56	78.9	8	23	0	15	10	4		18	47 SS
ISOLA	45.78	81.5	8	24	-1						
MAGADAN	45.88	330.6	8	25	0	15	9	-1		10	13 PP
LWOW	45.93	63.5	8	27K	1	15	13	2		10	16 PP
HURBANOVO	45.95	69.5	8	31	5	15	12	1		10	38 PPP
TOLEDO	46.09	94.4	8	27A	0	15	13	0		10	22 PP
PADOVA	46.20	76.4	8	29	1	15	7	-8		10	12 PP
MONACO	46.31	81.4	8	30	1						
LJUBLJANA	46.45	73.7	8	29A	-1	15	20	2		10	23 PP
TRIESTE	46.57	74.6	8	32	1	15	23	3		10	26 PP
BARCELONA	46.69	87.6	8	17	-15	15	2	-20			
ZAGREB	47.11	72.6	8	36A	1					14	8
PRATO	47.33	78.0	8	39	2	16	4	33			
FLORENCE X.	47.47	78.0	8	42	4	15	30	-3		10	16 PP
SVERDLOVSK	48.05	32.3	8	47K	4					10	34 PP
ALICANTE	48.63	91.8	8	48A	1	15	49	0		11	39 PP
GRANADA	48.69	95.5				16	3	13		21	0 SS
MALAGA	48.86	96.5	8	50	1	15	54	2			
ALMERIA	49.36	94.6				15	57	-2			
BELGRADE	49.38	69.4	8	44A	-9					10	39 PP
AQUILA	49.44	76.9	8	52	-1	16	4	4		10	50 PP
ROME	49.56	77.9	8	52	-2	16	8	6		10	52 PP
BACAU	49.69	63.0	8	55	0	16	7	3		11	17
CAMPULUNG	50.33	65.3	8	54K	-6	16	8	-5		10	32
PETROPAVLOVK	50.68	322.2	9	2K	-1	16	20	2			
TITOGRAD	51.18	71.7	9	7	0	16	26	1		18	59 SCS
MERIDA	51.30	200.0	9	7	-1	16	25	-1		15	28
BUCHAREST	51.42	64.8	9	10K	2	16	30	2		10	57 PP
MAZATLAN	51.82	220.1								18	24
SOFIA	52.17	68.1	9	11	-3	16	42	4		10	53 PP
TARANTO	52.35	74.5	8	52	-23					18	52 SS
LEON	52.90	214.1								26	37
SIMFEROPOL	53.20	57.9	9	23K	1	16	55	3		20	46 SS
HOPE	53.36	184.4	9	24	1						
GUADALAJARA	53.64	215.9				17	4	6			
VERA CRUZ	53.87	207.3	9	32	5	17	8	7			
MESSINA	53.89	77.1	9	26	-1	17	2	0		11	29 PP
REGGIO CALA.	54.02	77.1	9	29	1					11	42
TACUBAYA	54.15	210.9	9	31	2	17	10	5		25	55
ST. KITTS	54.31	167.9	9	29	-1						
PUEBLA	54.35	209.7								31	4
ISTANBUL UN.	55.36	64.1	9	38A	0						
MANZANILLO	55.42	216.7								26	58
ST. CLAUDE	55.69	166.8	9	42	2	17	27	1			
OAXACA	56.11	207.7								30	52
COMITAN	56.23	202.2								30	56
ATHENS	56.63	74.0	9	45A	-2					17	38
IRKUTSK	56.71	2.0	9	46K	-1	17	41	2		13	2 PPP
FORT FRANCE	57.02	166.3	9	50	0	17	43	0			

SEMIPALATNSK	57.10	20.0	9	48	-2	17	41	-3			11	57 PP
TIFLIS	59.00	50.6	10	3	0						12	2 PP
Y.-SAKHLINSK	59.24	332.3				18	9	-3			10	42
GALERAZAMBA	60.50	182.5				18	33	4				
CARACAS	60.88	173.1	10	15A	-1	18	12	-22				
TRINIDAD	61.04	166.9	10	15	-2							
ULAN-BATOR	61.08	0.1	10	19	1	18	43	7				
GORIS	61.48	50.1	10	22K	2						12	44 PP
ESEN BULAK	62.34	8.4	10	27K	1	18	38	-14				
FRUNSE	63.84	26.0	10	36K	0	19	13	2			12	40 PP
KSARA	64.06	61.2	10	39A	2	19	8	-6	10	58	12	56 PP
ASHKABAD	65.71	40.6	10	50	2				11	4	13	17 PP
FUQUENE	65.76	180.8	10	49	0	19	33	-2				
JERUSALEM	65.78	62.5	10	50	1						13	10 PP
M.BOUR	65.92	118.3	10	51	2	19	40	4				
TEHERAN	66.28	47.1	10	55	3	19	49	8			13	16 PP
CHINCHINA	66.28	182.8	10	52	0	19	40	-1			27	28 SSS
KIPAPA	68.29	272.5	11	5	0	20	8	3				
HONOLULU	68.43	272.5	11	5	0	20	9	2				
KHOROG	68.61	29.7	11	7K	0	20	9	0				
HAWAII V.OB.	69.26	269.1	11	11	0							
MATUSIRO	70.17	333.6	11	14K	-2	20	28	1				
TUKUBASAN	70.21	332.0	11	15A	-1	20	28	0			13	52 PP
WARSAK DAM	72.02	30.4	11	25	-2							
SHIRAZ	72.37	48.0	11	28	-1	20	45	-8			14	45 PP
LAHORE	74.86	28.5	11	43	-1	21	43	22				
QUETTA	74.94	35.2	11	43K	-1	21	20	-2				
DEHRA DUN	76.61	25.5	11	56K	2	21	43	3			14	50 PP
NEW DELHI	78.20	26.5	12	2K	-1	21	57	0			15	0 PP
CHATRA	81.14	17.8	12	19	1							
SHILLONG	82.80	13.7	12	27A	0	22	46	1			15	42 PP
NANA	83.15	183.8	12	30	1	22	47	-2				
HUANCAYO	83.18	182.3	12	32	3							
BOKARO	83.97	19.4	12	48	15						22	57
HONG KONG	86.50	353.3	12	47K	1	23	15	-6			16	15 PP
BOMBAY	87.00	32.2	12	29	-19	24	16	-10			15	24
POONA	87.54	31.3	12	49K	-2							
LA PAZ	87.66	175.3	12	51	0	23	17	-15				
PHU-LIEN	88.13	0.3	12	57	4							
HYDERABAD	89.34	27.1	13	1	2						16	21 PP
VISHAKHAPTNM	89.71	22.5	13	20	19						23	54
BAGUIO CITY	91.99	346.9	13	12	1	24	25	13				
MADRAS	93.95	26.1									25	10 PS
ANTOFAGASTA	94.77	177.6	13	25	1	24	34	2			30	31 SS
LWIRO	95.91	79.5	13	21	-8							
AFIAMALU	105.89	273.8									33	18 SS
RABAUL	107.18	312.2	18	46	777							
HONIARA	110.22	302.9									19	8
HERMANUS	122.90	100.3									29	23 SS
CHARTERS TS.	123.90	314.2	19	3	3						37	30
BRISBANE	129.27	304.6	19	12	2							
WELLINGTON	135.56	274.7									34	52 SKKS
ROXBURGH	141.08	277.3									40	58 SS
MOORLANDS	144.95	303.7	19	40	1							
TARRALEAH	145.01	304.6	19	41	2							
N-LAZARVSKYA	152.08	135.2	19	49	-1							
BYRD STATION	153.30	196.4	19	54	2							
CAPE HALLETT	161.03	237.1	19	58	-3							
SOUTH POLE	161.20	180.0	19	57	-5							
SCOTT BASE	163.64	220.5	20	3	-1							
MAWSON	164.38	97.9	20	1	-4						21	1 PKP2
MIRNY	173.07	53.2									21	40 PKP2
WILKES	174.84	343.9									21	46 PKP2

SEPTEMBER 6 6.H 3.M 51.S EPICENTRE 36.47 130.76 DEPTH= 15.KM

A=-0.52625 B= 0.61054 C= 0.59186 D= 0.7575 E= 0.6529
G=-0.3864 H= 0.4483 K=-0.8060 HT= -0.4

SE= 3.32

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
HAMADA	1.90	145.4	0	31A	-2	0	53	-4				
SAIGO	2.09	96.7	0	31	-5	0	40	-22				
MATSUE	2.13	117.9	0	33	-3	1	11	8				
YONAGO	2.35	115.6	0	35	-4	1	16	8				

HIROSIMA	2.50	146.5	0	38A	-4	1	19	7			
SIMONOSEKI	2.52	176.8	0	38A	-4	1	1	-12			
ITUHARA	2.57	208.5	0	39A	-3	1	8	-6			1 35
HUKUOKA	2.90	186.3	0	45A	-2	1	29	7			
TOTTORI	2.94	108.1	0	43	-5	1	9	-14			
MATUYAMA	3.11	147.2	0	47	-3	1	28	0			
OKAYAMA	3.14	123.9	0	53	2	1	28	0			
SAGA	3.24	186.8	0	51	-1	1	52	21			
OOITA	3.31	167.4	0	50A	-3	1	31	-2			
TOYOOKA	3.42	104.8	0	51	-4	1	32	-4			
TAKAMATU	3.44	127.7	0	56	1	1	45	9			
UWAZIMA	3.55	155.0	0	55	-2	1	51	12			
HIMEJI	3.56	122.5	0	55	-2	1	36	-3			
ASOSAN	3.57	175.8	0	55	-2	1	35	-4			
KUMAMOTO	3.65	180.8	0	54A	-4						
KOTI	3.70	141.3	0	55	-4	1	43	0			
TSURUGISAN	3.73	133.6	0	56	-3	1	47	3			
UNZENDAKE	3.76	186.6	0	56	-3	1	39	-5			
NAGASAKI	3.80	191.2	1	0A	0	1	47	2			
MAIZURU	3.89	103.6	1	0	-1	1	56	9			
TOKUSIMA	3.94	126.4	1	3	1	2	1	12			
NOBOEKA	3.96	168.5									1 32
SUMOTO	4.00	120.9	1	1	-2						2 11
KOBE	4.02	115.1	0	59	-4						
ASHIZURI	4.18	153.1	1	4	-1						
ABUYAMA	4.23	110.8	1	2K	-4						
WAKAYAMA	4.24	120.5	1	6	0	2	20	24			
MUROTO	4.27	137.8	1	6	-1	2	19	22			
OSAKA	4.29	113.7	1	5A	-2	2	7	9			1 25
KYOTO	4.29	108.3	1	4	-3						2 27
TSURUGA	4.38	99.2	1	3	-5	1	39	-21			
HUKUI	4.44	93.8	1	6	-3	1	38	-23			
NARA	4.50	111.9	1	8	-2	1	58	-5			
MIYAZAKI	4.57	172.9	1	10	-1	2	12	7			
HIKONE	4.62	103.5	1	12	0	2	16	10			
KANAZAWA	4.75	87.6	1	9	-4	2	36	27			
KAGOSIMA	4.89	182.1	1	15	-1	2	8	-5			
KAMEYAMA	4.92	107.5	1	19	3						2 49
GIHU	4.99	100.6	1	14	-3						2 46
WAZIMA	5.00	77.8	1	18	1						
TU	5.02	109.0	1	24	7	2	30	14			
OWASE	5.06	116.7	1	21	3	2	33	16			
SIOMISAKI	5.10	124.8	1	17	-1	2	25	7			
TOYAMA	5.19	85.6	1	16	-4	2	47	27			
NAGOYA	5.21	102.6	1	20	0	2	27	6			
TAKAYAMA	5.25	91.6	1	19	-2						3 19
IIDA	5.81	97.3	1	24	-4	2	58	22			
MATUMOTO	5.82	90.1	1	28	-1						3 25
HAMAMATU	5.93	105.1	1	32	2						3 29
NAGANO	5.99	85.9	1	30	-1						3 31
MATUSIRO	6.00	87.2	1	27K	-4	2	45	4			
YAKUSIMA	6.01	182.1	1	28	-3						3 38
AIKAWA	6.17	73.3	1	31	-2						
OIWAKE	6.29	89.0	1	33	-2						3 45
OMAESAKI	6.36	104.9	1	36	0						3 32
KOHU	6.37	94.9	1	36	0						3 36
SHIZUOKA	6.39	101.3	1	37	0						3 48
HUNATU	6.57	96.1	1	39	0						3 20
MAEBASI	6.70	88.2	1	41K	0						3 51
TITIBU	6.74	91.7	1	41	-1						
NIIGATA	6.77	75.2	1	28	-14	2	51	-9			
MISIMA	6.79	99.1	1	48	6						3 30
AJIRO	6.93	99.4	1	40	-4	2	55	-9			
KUMAGAYA	6.97	90.1	1	47A	2						4 13
OSIMA	7.22	101.1	2	2	14						
YOKOHAMA	7.29	95.6	1	53	4						4 11
TOKYO C.M.O.	7.32	93.6	1	53	3						2 23
HONGO	7.34	93.3	1	42	-8						3 10
UTUNOMIYA	7.34	86.7	1	50	0						3 14
MERA	7.54	99.2	2	2	9						
SAKATA	7.59	68.7	1	51	-2						4 34
KAKIOKA	7.61	89.0	1	52	-2	3	34	13			
SHIRAKAWA	7.62	82.3	1	53	-1						
MITO	7.83	87.8	1	55	-2						4 14
YAMAGATA	7.84	74.1	1	54	-3						
HUKUSIMA	7.86	77.8	1	57	0						4 48
AKITA	8.05	63.4	1	59	-1	3	44	12			
HATIDYOZIMA	8.15	111.7	2	11	10						

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ONAHAMA	8.16	83.6	2	2A	1	3	45	11			
TYOSI	8.20	92.3	2	6	4						
SENDAI	8.27	74.4	2	2	-1	3	38	1			
ISINOMAKI	8.62	73.8	2	5	-3	3	53	7			
MIZUSAWA	8.63	69.0	2	8	0	4	4	18			
MORIOKA	8.82	65.4	2	7	-3	4	1	10			
AOMORI	8.96	58.0	2	26	14					4	0
HATINOHE	9.36	61.1	2	16	-2	4	15	11			
MIYAKO	9.39	66.9	2	18	0	4	12	7			
HAKODATE	9.42	52.5	2	18K	-1	4	17	11			
MORI	9.45	50.5	2	22	3						
SUTTSU	9.65	46.2	2	20	-2						
MURORAN	9.83	50.4	2	23	-1					4	59
TOMAKOMAI	10.37	50.3	2	39	7						
SAPPORO	10.47	47.8	2	32	-1	4	44	12			
URAKAWA	10.90	55.0	2	47	8	4	55	13			
RUMOE	11.16	44.7								5	39
HIROO	11.31	55.3	2	45	0					6	9
OBIHIRO	11.54	52.3	2	48	0						
WAKKANAI	12.16	39.3	3	0	4					5	32
KUSIRO	12.34	54.1	2	57	-2					5	43
ABASHIRI	12.78	49.7	3	4	0						
NEMURO	13.27	54.4	3	13	2					5	38
ANPU	13.76	217.7	3	26	8						
Y.-SAKHLINSK	13.79	36.5	3	18A	0	5	57	5			
TAIPEI	13.89	217.4	3	28	9					8	4
HWALIEN	14.74	214.8	3	45	15						
TAICHUNG	15.04	218.0								8	1
TAINAN	16.23	217.1								8	56
TAWU	16.47	214.0	3	57	4						
HONG KONG	20.17	230.1								5	42
ULAN-BATOR	20.96	310.5	4	44	-1	8	36	2			
BAGUIO CITY	21.92	207.0	4	51	-4	8	55	3			
MANILA	23.37	204.2	5	7	-2	9	33	15			
IRKUTSK	24.43	318.6	5	19A	-1	9	41	5			
PETROPAVLOVK	25.57	40.9	5	27	-4	9	51	-4			
GUAM	26.12	147.7	5	34	-2				5 44	5	54 *SP
PHU-LIEN	26.21	240.0	5	45	9						
MAGADAN	26.49	23.0	5	37	-2					6	53 PPP
ESEN BULAK	27.51	301.9	5	50K	2	10	32	5			
SHILLONG	34.84	263.0	6	49K	-4	12	30	7		8	13 PP
TIKSI	35.24	359.0	6	54K	-2	12	29	0		8	9 PP
CHATRA	38.06	268.0	7	24	4						
SEMIPALATNSK	38.48	307.5	7	22K	-2	13	10	-8		8	55 PP
BOKARO	40.53	264.7	7	47	6	14	8	19		9	27 PP
PORT BLAIR	42.20	244.0								17	51
FRUNSE	43.01	296.4	8	1A	0	14	22	-4	8 8	9	50 PP
DEHRA DUN	43.98	277.8	8	6	-3	14	38	-2		17	39 SS
RABAUL	45.14	149.1	8	14	-4						
NEW DELHI	45.35	276.0	8	15K	-5	14	57	-3		10	18 PP
LAHORE	46.47	281.2	8	26	-3						
KHOROG	46.63	289.9	8	28	-2					15	39 PS
TASHKENT	47.22	295.6	8	34A	+1	15	26	0	8 41		
TANGERANG	48.07	213.1	8	40K	-1						
PORT MORESBY	48.16	158.1	8	46	4						
HYDERABAD	49.71	262.1								16	18
SVERDLOVSK	49.83	317.4	8	53A	-2	16	2	-1		10	50 PP
POONA	52.81	266.3	9	16K	-1	16	43	-1			
QUETTA	52.84	282.8	9	14K	-4	16	45	1			
BOMBAY	53.44	267.3								10	41 PPP
COLLEGE	54.09	31.4	9	25	-2						
ASHKABAD	56.29	295.1	9	40	-3					11	35 PP
CHARTERS TS.	58.13	162.8	9	52	-4	17	53	-2			
MOULD BAY	59.41	15.2	10	1	-4	18	13	1			
APATITY	59.54	333.8	10	1K	-5	18	4	-9		12	14 PP
KEVO	60.78	337.2	10	10	-4	18	28	-1		12	22 PP
ALERT	61.10	2.0	10	13	-3						
SODANKYLA	61.99	334.8	10	18	-4					12	35 PP
TEHERAN	62.28	295.4	10	24	0	18	51	3		19	53 SCS
MOSCOW	62.41	320.4	10	22K	-3	18	46	-4		12	42 PP
HONOLULU	62.83	82.7				19	17	22		23	7 SS
KAJAANI	63.15	331.3	10	25	-5					12	48 PP
KIRUNA	63.81	336.6	10	30A	-4	19	7	0		23	16 SS
PULKOVO	64.11	326.4	10	34A	-2	19	10	-1		12	54 PP
GORIS	64.18	301.2	10	36	-1	19	14	2			
TIFLIS	64.22	304.0	10	36	-1	19	16	3			
SHIRAZ	64.26	288.9	10	33A	-4	19	10	-3	10 59	13	0 PP
KOUMAC	64.97	145.2	10	49K	7						

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RESOLUTE	65.12	12.1	10	39	-4						
UMEA	66.10	333.0	10	45	-4	19	33	-3		23	45 SS
NURMIJARVI	66.19	328.7	10	46	-4	19	35	-2		13	13 PP
HELSINKI	66.24	328.3	10	47	-3						
BRISBANE	66.82	158.7	10	5U	-4						
NOUMEA	67.48	144.2	11	5K	7						
SKALSTUGAN	69.06	335.1	11	4	-4						
MUNDARING	69.44	193.2	11	10	0						
UPPSALA	69.45	330.3	11	7	-3	20	14	-2			
SIMFEROPOL	69.48	311.1	11	8	-2	20	14	-2			
ADELAIDE	71.46	173.1	11	20K	-2				11	29	
SCORESBY SD.	71.54	350.6	11	22	-1						
RIVERVIEW	72.49	162.3								25	51
LWOW	72.50	319.4	11	28	-1	20	51	0		14	2 PP
WARSAW	72.59	322.6				20	53	1			
KONGSBERG	72.65	332.9	11	28	-1						
GOTEBORG	73.09	330.5	11	30	-2						
CANBERRA	73.42	164.5	11	32K	-2				11	41	12 58
SEATTLE	73.90	42.3	11	43K	6	21	18	11			
COPENHAGEN	74.26	328.8	11	38	-1	21	15	4			
KSARA	74.29	300.5	11	36	-3					21	52 PS
PENTICTON	74.31	39.8	11	32	-7						
KRAKOW	74.47	321.3	11	38	-2	21	14	1			
EDMONTON	74.74	34.0	11	40	-2						
SKALNATE PL.	74.85	320.5	11	43	1						
TOOLANGI	74.93	167.9	11	41K	-2				11	49	12 43
RACIBORZ	75.32	322.0	11	42	-3					12	2 PCP
JERUSALEM	75.88	299.1	11	46K	-2						
COLLMBERG	77.00	325.2	11	53	-1						
BRATISLAVA	77.11	321.0	11	54	-1						
PRAGUE	77.16	323.7	11	53	-2	21	19	-24			
PRUHONICE	77.16	323.6	11	54	-1	21	44	1			
SOFIA	77.18	313.8	11	58	3	21	45	2		14	50 PP
HALLE	77.34	325.8	11	55	-1					14	51 PP
VIENNA-H.	77.42	321.4	11	57	0					12	8
BELGRADE	77.49	316.9	11	47A	-10					14	42 PP
HUNGRY HORSE	77.77	38.1	12	7	8				12	20	
JENA	77.90	325.6	11	58	-1	21	51	0		27	24 SS
SHASTA	78.06	48.1	11	59K	-1						
KASPERSKE H.	78.20	323.3	11	59	-2					14	58 PP
BLUE MTS.	78.35	42.4	12	0	-2	22	1	5		14	57 PP
WITTEVEEN	78.68	329.2	12	4	0						
MINERAL	78.75	48.0	12	4A	0						
MUNSTER	78.91	328.1	12	3	-2						
CALISTOGA	79.22	49.8	12	5A	-2						
DE BILT	79.83	329.4	12	8	-2	22	9	-2		15	12 PP
LJUBLJANA	79.83	320.6	12	9	-1					12	55
BENSBERG	79.84	327.6	12	8A	-2						
ATHENS	79.87	309.9	12	5	-5						
BERKELEY	79.89	50.2	12	11K	1	22	15	3			
BUTTE	80.07	39.2	12	11	0						
DURHAM	80.34	334.2	12	23	10	22	12	-5		15	38 PP
STUTTGART	80.48	325.1	12	12	-1	22	21	3			
LICK	80.61	50.4	12	14A	0						
PARAISO	80.78	51.5	12	19	4						
UCCLE	81.15	328.9	12	13	-4	22	27	2			
STRASBOURG	81.31	325.7	12	17A	-1	22	29	2		15	23 PP
DOURBES	81.58	328.3	12	18	-1	22	34	5			
PADOVA	81.62	321.4								13	39
PRIEST	81.97	50.8	12	22A	1						
WELSCHBRUCH	82.08	326.3	12	17	-5						
KEW	82.50	331.6	12	22	-2	22	39	0			
EUREKA	82.63	45.8	12	24	-1					16	0 PP
AQUILA	82.96	318.4	12	25	-1					15	37 PP
BESANCON	83.11	325.7	12	33	6						
PAVIA	83.12	322.6								45	30
PARIS	83.45	328.5	12	29	0						
ROME	83.76	318.6	12	31	1	22	49	-2		15	45 PP
DUGWAY	83.93	43.6	12	30K	-1						
ROSELEND	83.97	324.3	12	29	-2						
SALT LAKE C.	84.07	42.7	12	32	0						
GARCHY	84.38	327.2	12	32A	-2						
MESSINA	84.61	314.3	12	33	-2	22	54	-6		13	43 PP
FOLINIERE	84.71	330.0	12	34	-1						
PASADENA	84.81	51.0	12	36	0	23	3	1		23	51
KARAPIRO	84.83	146.0	12	35	-1						
ISOLA	84.88	323.1	12	34	-2						
FLAMING GRGE	85.28	41.3	12	37	-1						
CLERMONT-FD.	85.52	326.2								13	7

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UINTA BASIN	85.62	41.8	12	39	-1	23	14	4		16	3	PP
BOULDER CITY	85.64	47.8	12	41	1							
GLEN CANYON	86.86	45.3	12	47	1							
CUGLIERI	87.06	319.5								15	47	
SCHEFFERVLLE	87.83	10.1	12	50	0							
GOLDEN	88.28	39.9	12	53	0							
TONTO FOREST	88.92	47.0	12	54	-2					12	57	PCP
TUCSON	90.61	48.2	13	4	0					16	39	PP
ALBUQUERQUE	91.20	43.7	13	7	1	24	9	7				
TOLEDO	93.39	326.8	13	21	5					25	39	PS
LAWRENCE	93.77	34.2	13	17	-1							
BREBEUF	95.49	17.0	13	25	-1					31	27	SS
WICHITA MTS.	95.56	38.9	13	26	0	24	41	41		31	20	SS
TULSA	95.99	36.3	13	29A	1	24	46	43				
MALAGA	96.14	325.3	13	29	0					17	23	PP
CUMBERLAND	100.74	29.4	13	49	-1	25	27	60		18	1	PP
MIRNY	106.70	194.8	18	50	777							
MAWSON	115.49	203.2	18	40	-2							
SCOTT BASE	116.12	172.0								19	49	PP
SOUTH POLE	126.29	180.0	19	1	-2					20	53	
BYRD STATION	129.07	167.8	19	7	-1							
NANA	145.20	52.6	19	38	0							
HUANCAYO	146.19	50.6	19	42	3							
LA PAZ	153.99	45.1	19	50	-1					43	37	SS

SEPTEMBER 6 10.H 16.M 40.S EPICENTRE -24.06-180.00 DEPTH= 508.KM

A=-0.91413 B=-0.00006 C=-0.40541 D=-0.0001 E= 1.0000
G= 0.4054 H= 0.0000 K=-0.9141 HT= 3.6

DEPTH OF FOCUS= 0.075R

SE= 1.83

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
RAOUL ISLAND	5.49	160.7	1	33	1								
NOUMEA	12.59	275.3	2	48	3	5	9	11					
PORT VILA	12.60	297.8	2	47K	2	5	17	18					
ONERAHI	12.65	201.4	2	48	2	5	8	9					
AFIAMALU	12.73	39.0	2	43K	-4	4	53	-8					
KARAPIRO	14.34	194.4	3	3K	0	5	35	4			7	28	PCP
LUGANVILLE	14.79	302.7	3	7A	-1	5	54	15					
KOUMAC	14.96	280.4	3	12K	3	5	57	14					
WELLINGTON	17.72	193.1	3	33	-4	6	30	-2					
HONIARA	24.04	303.9	4	34K	-1						10	50	
BRISBANE	24.73	256.5	4	42K	0	8	28	0					
RIVERVIEW	26.98	242.3	4	57	-5								
CANBERRA	29.06	240.1	5	20	0	9	36	0			6	48	PP
CHARTERS TS.	31.47	270.5	5	41K	1	10	11	-2					
TOOLANGI	32.36	237.3	5	48K	0						10	25	PCP
RABAUL	33.31	302.0	5	55	-1								
PORT MORESBY	34.56	289.3	6	5K	-1	10	57	-3					
ADELAIDE	37.30	243.4	6	34K	5								
DARWIN	47.91	275.0	7	52	-1						9	34	
CAPE HALLETT	48.59	184.0	7	58	0								
GUAM	50.77	313.5	8	13	-1								
SCOTT BASE	54.22	183.4	8	39	0								
MUNDARING	56.17	246.6	8	51	-2				10	29			
BYRD STATION	61.46	170.1	9	27	-1								
SOUTH POLE	66.08	180.0	9	57	0						11	45	
BAGUIO CITY	70.59	298.8	10	24	-1								
MATUSIRO	72.03	325.6	10	32K	-1	18	53	-20					
ABUYAMA	72.18	322.8	10	34K	0								
MAWSON	77.60	200.4	11	3A	-1								
PARAISO	81.02	43.7	11	26	4								
PRIEST	81.99	44.7	11	28A	1								
BERKELEY	82.05	42.5	11	28A	1								
LICK	82.10	43.2	11	29A	2								
CALISTOGA	82.33	41.7	11	29A	0								
PASADENA	82.45	47.5	11	30	1								
SHASTA	83.74	40.2	11	36A	0								
MINERAL	83.99	40.9	11	37A	0								
BOULDER CITY	85.74	47.6	11	47	2								
TUCSON	86.55	52.5	11	51	2				13	45	16	13	
EUREKA	86.95	44.2	11	52	1				13	48	15	21	PP

TONTO FOREST	87.29	50.6	11	54	1	22	9	20			15	24 PP
VICTORIA	88.17	33.7	11	52A	-5							
SEATTLE	88.19	34.9	11	56A	-1							
GLEN CANYON	88.47	48.2	12	0	2							
BLUE MTS.	89.23	39.2	12	2A	0	22	13	7	13	58	15	37 PP
DUGWAY	89.38	44.9	12	2A	0							
SALT LAKE C.	90.30	44.8	12	7	0							
PENTICTON	90.62	34.7	12	8A	0							
ALBUQUERQUE	91.05	52.0	12	11	1				14	9		
UINTA BASIN	91.55	46.1	12	13	1	22	34	7			15	55 PP
FLAMING GRGE	91.98	45.7	12	15	1							
COLLEGE	92.07	13.2	12	13	-2							
HUNGRY HORSE	93.08	37.6	12	18	-1							
GOLDEN	94.07	48.2	12	22	-2							
EDMONTON	96.16	33.6	12	32A	-1							
WICHITA MTS.	96.74	55.1	12	35	-1	23	21	57	14	34	16	37 PP
CUMBERLAND	107.00	58.2									17	52 PP
QUETTA	120.85	291.9	18	56	2							
KEVO	131.57	347.8	18	13	-1						20	52 SKP
APATITY	131.86	343.5									20	53
BROKEN HILL	132.69	218.9									20	58
SHIRAZ	133.14	288.8									20	58
SODANKYLA	133.64	346.1	18	17	-1						20	59 SKP
TEHERAN	134.42	297.1									21	3
KIRUNA	134.44	349.3	18	20	0						21	1 SKP
KAJAANI	136.04	342.9	18	15	-8						21	8 SKP
UMEA	138.06	346.7									21	12 SKP
SKALSTUGAN	139.66	351.6									21	17 SKP
NURMIJARVI	139.76	341.4	18	25	-4						21	17 SKP
HELSINKI	139.95	340.9	18	24	-6						21	18 SKP
LWIRO	141.69	230.9	18	31	-3						21	25
UPPSALA	142.16	345.6	18	29	-6							
KONGSBERG	143.80	351.7	18	36A	-1						21	29 SKP
GOTEBORG	145.30	348.7	18	37K	-2							
KSARA	147.27	295.5	18	49	7				20	58		
COLLMBERG	151.02	343.1	18	55	7						19	4 PKP2
PRUHONICE	151.74	340.0	18	57	8						22	42
KASPERSKE H.	152.79	340.3	18	50	0				21	3	19	13 PKP2
STUTTGART	154.27	345.8	19	19	27							
LJUBLJANA	155.13	335.5	19	22	28						21	9
ISOLA	159.12	345.7	19	40	41							

SEPTEMBER 7 1.H 16.M 57.S EPICENTRE 36.53 130.79 DEPTH= 38.KM

A=-0.52621 B= 0.60981 C= 0.59265 D= 0.7571 E= 0.6533
G=-0.3872 H= 0.4487 K=-0.8055 HT= -0.4

DEPTH OF FOCUS= 0.001R

SE= 3.26

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
HAMADA	1.93	147.0	0	28A	-3	0	46	-8				
SAIGO	2.08	98.4	0	32	-1	0	40	-18				
MATSUE	2.14	119.6	0	29	-5	0	55	-5				
YONAGO	2.35	117.1	0	34	-3	1	14	9				
HIROSIMA	2.54	147.7	0	37A	-3	1	17	7				
SIMONOSEKI	2.58	177.4	0	36A	-4	1	1	-10				
ITUHARA	2.63	208.4	0	37	-4	1	10	-2			1	32
TOTTORI	2.93	109.3	0	42	-3	1	5	-15				
HUKUOKA	2.96	186.7	0	40A	-6	1	26	5				
MATUYAMA	3.14	148.2	0	45	-3	1	22	-3				
OKAYAMA	3.15	125.0	0	44	-4	1	23	-2				
SAGA	3.30	187.2	0	48	-2	1	50	21				
OOITA	3.36	168.1	0	48A	-3	1	28	-3				
TOYOOKA	3.41	105.8	0	50	-2	1	30	-2				
TAKAMATU	3.46	128.7	0	52	-1	1	42	9				
HIMEJI	3.57	123.5	0	53	-1	1	47	11				
UWAZIMA	3.60	155.8	0	52	-3	1	46	9				
ASOSAN	3.63	176.3	0	52	-3	1	31	-6			1	11
KUMAMOTO	3.70	181.2	0	53A	-3	1	38	-1				
KOTI	3.73	142.1	0	53A	-4	1	40	0				
TSURUGISAN	3.75	134.5	0	54	-3	1	36	-5				
UNZENDAKE	3.82	186.9	0	53	-5	1	35	-7				
NAGASAKI	3.86	191.5	0	53	-6	1	46	3				
MAIZURU	3.88	104.5	0	57	-2	1	48	4				

TOKUSIMA	3.95	127.3	0	59	-1	2	1	15			
NOBOEKA	4.01	169.1							1	27	
SUMOTO	4.01	121.8	0	59A	-2	2	8	21	8	13	
KOBE	4.02	116.0	0	59	-2						
HUKUE	4.15	203.5	1	2	-1	1	57	6			
ASHIZURI	4.21	153.8	1	0	-3	2	16	24			
ABUYAMA	4.23	111.7	0	58K	-6	1	59	6			
WAKAYAMA	4.25	121.4	1	1	-3	2	7	14			
KYOTO	4.29	109.1	1	2K	-3	1	58	4			
OSAKA	4.29	114.5	1	4	-1	1	53	-1	2	19	
MUROTO	4.30	138.6	1	1	-4	2	15	21			
TSURUGA	4.36	100.0	1	1	-5				2	40	
NARA	4.50	112.7	1	7	-1	1	59	0			
HIKONE	4.61	104.2	1	8	-1	2	11	9			
MIYAZAKI	4.63	173.4	1	6	-3	2	13	10			
KANAZAWA	4.72	88.3	1	10	-1	2	35	30			
KAMEYAMA	4.92	108.3	1	14	1	2	41	31	1	59	
KAGOSIMA	4.95	182.4	1	12	-2	2	17	6			
WAZIMA	4.97	78.3	1	12K	-2						
GIHU	4.98	101.3	1	13	-1	2	33	22			
TU	5.01	109.7	1	17	2	2	24	12			
OWASE	5.06	117.4	1	12	-3	2	15	2			
SIOMISAKI	5.11	125.5	1	15	-1	2	21	6			
TOYAMA	5.16	86.2	1	15	-2	2	38	22			
NAGOYA	5.20	103.3	1	15K	-2	2	20	3			
TAKAYAMA	5.23	92.2	1	14	-4				3	1	
IIDA	5.79	97.9	1	25	-1				3	2	
MATUMOTO	5.80	90.6	1	27	1				3	19	
HAMAMATU	5.92	105.7	1	28	0				3	11	
NAGANO	5.96	86.5	1	29	1				3	23	
MATUSIRO	5.97	87.7	1	24A	-4	2	44	8			
TAKADA	6.01	82.4	1	17	-12	2	31	-6			
YAKUSIMA	6.07	182.4	1	27	-3				3	30	
AIKAWA	6.13	73.7	1	29	-1						
OIWAKE	6.26	89.5	1	31	-1						
KOHU	6.35	95.5	1	34	1				3	33	
OMAESAKI	6.35	105.5	1	44	10	3	8	22			
SHIZUOKA	6.38	101.9	1	35	1				3	46	
HUNATU	6.55	96.7	1	37	1				3	50	
MAEBASI	6.67	88.7	1	39K	1				3	41	
TITIBU	6.72	92.2	1	38	-1				4	8	
NIIGATA	6.73	75.6	1	47	8	3	15	20			
MISIMA	6.78	99.6	1	47	8	3	28	32			
KUMAGAYA	6.94	90.6	1	43K	1				4	6	
OSIMA	7.21	101.6							2	12	
YOKOHAMA	7.27	96.1	1	48	2				3	58	
TOKYO C.M.O.	7.30	94.0	1	50A	3	3	17	8			
UTUNOMIYA	7.31	87.1	1	50	3				3	2	
HONGO	7.31	93.8	1	53	6				4	4	
SAKATA	7.54	69.0	1	50	0				4	22	
KAKIOKA	7.58	89.5	1	54	3						
SHIRAKAWA	7.59	82.7	1	51	0						
YAMAGATA	7.80	74.4	1	51	-3						
MITO	7.80	88.2	1	56	2				4	6	
HUKUSIMA	7.83	78.2	1	54	0	3	35	13	4	32	
AKITA	8.00	63.7	2	3	7	3	52	25			
ONAHAMA	8.13	84.0	2	1A	3	3	40	10			
HATIDYOZIMA	8.15	112.2	2	8	9						
TYOSI	8.18	92.7	2	2	3						
SENDAI	8.23	74.8	1	59	-1	3	47	15			
MIZUSAWA	8.58	69.3	2	6	1	3	58	17			
MORIOKA	8.77	65.7	2	4	-3	3	59	13			
AOMORI	8.91	58.2	2	12	3	4	4	15			
HATINOHE	9.31	61.4	2	10	-5	4	14	15			
MIYAKO	9.35	67.2	2	16	1	4	9	9			
HAKODATE	9.36	52.7	2	15	0	4	14	13			
MORI	9.40	50.7	2	19	3						
SUTTSU	9.60	46.4	2	21	2						
MURORAN	9.77	50.6	2	20	-1				4	56	
TORISIMA	9.97	124.5							6	57	
TOMAKOMAI	10.31	50.5	2	42	14						
SAPPORO	10.42	48.0	2	31	1	4	43	17			
URAKAWA	10.84	55.2	2	40	4	4	41	4			
ASAHIGAWA	11.43	47.2	2	47	3						
OBIHIRO	11.48	52.5	2	46	2						
WAKKANAI	12.10	39.4	2	56	3	5	24	17			
KUSIRO	12.29	54.2	2	54	-1	5	18	6			
ABASHIRI	12.72	49.8	3	1	0	5	37	15			

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NEMURO	13.22	54.6	3	6K	-2	5	34	0				
Y.-SAKHLINSK	13.73	36.6	3	17K	3	5	53	7				
ANPU	13.82	217.7	3	16	1							
TAIPEI	13.95	217.3	3	39	22	6	17	25				
HWALIEN	14.80	214.8	3	31	3							
ALISHAN	15.57	216.4	3	58	20							
TAITUNG	16.07	213.9	3	55	10	6	18	-23				
TAWU	16.53	214.0	3	53	3							
HENGCHUN	16.90	213.8	4	5	10							
HONG KONG	20.22	230.0									10	43
MANILA	23.44	204.2	5	3	-3	9	19	6				
IRKUTSK	24.41	318.5	5	16A	0							
PETROPAVLOVK	25.51	41.0	5	29	3	9	58	9			6	10 PP
GUAM	26.16	147.9	5	29	-3							
ESEN BULAK	27.51	301.8	5	46	1	10	28	7				
SHILLONG	34.88	262.9	6	48	-2							
TIKSI	35.18	358.9	6	51A	-1	12	26	4			8	8 PP
CHITTAGONG	36.50	258.2	7	7	4							
CHATRA	38.09	268.0	6	17	-60						8	48
SEMIPALATNSK	38.47	307.4	7	19A	-1	13	9	-3			8	51 PP
CALCUTTA	39.15	261.1									7	38 PPP
BOKARO	40.56	264.7				13	51	7			7	45 PPP
PORT BLAIR	42.25	244.0									16	8
FRUNSE	43.00	296.4	7	57A	0						9	58 PCP
DEHRA DUN	44.00	277.8	8	4K	-1	14	35	1			17	59 SS
NEW DELHI	45.37	276.0	8	14K	-2	14	47	-7			10	8 PP
VISHAKHAPTNM	45.73	258.9	8	22	3	15	14	15				
LAHORE	46.49	281.1	8	23	-2							
KHOROG	46.64	289.9	8	27A	1	15	15	3				
TASHKENT	47.22	295.6	8	31A	0	15	21	1			15	45 PS
WARSAK DAM	47.77	285.4	8	36	1							
TANGERANG	48.13	213.1	8	36	-2							
PORT MORESBY	48.21	158.1	8	43	4	15	41	7				
SVERDLOVSK	49.81	317.4	8	50K	-1	16	0	3			10	48 PP
POONA	52.84	266.2	9	12K	-2							
QUETTA	52.85	282.8	9	11K	-3	16	40	2				
HONIARA	53.31	143.2	9	23	6							
COLLEGE	54.03	31.4	9	20	-3							
ASHKABAD	56.29	295.0	9	39	0	17	31	6			11	52 PP
MOULD BAY	59.35	15.2	9	59	-2	18	8	3				
APATITY	59.50	333.8	9	59	-3	18	2	-5			21	57 SS
KEVO	60.74	337.2	10	6	-4	18	27	4			12	13 PP
ALERT	61.04	2.0	10	9	-3							
SODANKYLA	61.95	334.8	10	14	-4						12	33 PP
TEHERAN	62.28	295.4	10	21	1	18	45	3				
MOSCOW	62.38	320.4	10	19	-2	18	43	0			12	37 PP
HONOLULU	62.79	82.8									19	11
KIPAPA	62.80	82.6									19	14
KAJAANI	63.11	331.3	10	23	-3						14	20 PPP
TROMSOE	63.25	338.7	10	24	-3				10	33		
KIRUNA	63.77	336.6	10	27	-3						23	13 SS
PULKOVO	64.08	326.4	10	30	-2	19	3	-2			10	53 PCP
GORIS	64.18	301.2	10	33A	0	19	10	4				
TIFLIS	64.21	304.0	10	33	0	19	11	5			14	31 PPP
SHIRAZ	64.26	288.9	10	29A	-4	19	7	0	11	6	13	1 PP
KOUMAC	65.00	145.2	10	52	14							
UMEA	66.06	333.0	10	42	-3	19	29	0			23	41 SS
NURMIJARVI	66.15	328.7	10	45K	-1	19	31	1			14	49 PPP
HELSINKI	66.20	328.3	10	44	-2							
BRISBANE	66.87	158.8	10	47	-3						13	22
NOUMEA	67.51	144.2	11	3A	9							
YELLOWKNIFE	68.33	27.0	10	59	0							
SKALSTUGAN	69.02	335.1	11	0	-4							
UPPSALA	69.41	330.3	11	0	-6	20	9	0			24	45 SS
SIMFEROPOL	69.46	311.1	11	5A	-1	20	7	-3			20	27 PS
SCORESBY SD.	71.49	350.7	11	5	-14	20	7	-26				
ADELAIDE	71.52	173.1	11	18K	-1				11	26		
LWOW	72.48	319.4	11	24	0	20	49	4			14	8 PP
WARSAW	72.56	322.6	11	24	-1	20	48	3			11	49 PCP
KONGSBERG	72.61	332.9	11	25	0	20	50	4				
VICTORIA	72.72	42.1	11	35	9							
GOTEBORG	73.05	330.5	11	29A	1							
CANBERRA	73.47	164.5	11	30K	0				11	39		
SEATTLE	73.84	42.3	11	38	6	21	15	15				
COPENHAGEN	74.23	328.8	11	33	-2							
PENTICTON	74.25	39.8	11	35	0							
KSARA	74.28	300.5	11	33	-2						21	49 PS
KRAKOW	74.45	321.3				21	9	2			11	36 PP

EDMONTON	74.68	34.0	11	39K	2							
ISTANBUL UN.	74.75	309.9	11	20	-18							
CHORZOW	74.77	321.9	11	39	1							
SKALNATE PL.	74.83	320.5	11	40	2						11	55 PCP
TOOLANGI	74.97	168.0	11	39	0				11	47	11	59 PCP
RACIBORZ	75.29	322.0	11	41	0						14	32 PP
JERUSALEM	75.88	299.1	11	45	1							
COLLMBERG	76.97	325.2	11	47	-3						14	45 PP
BRATISLAVA	77.08	321.0	11	50A	-1	21	32	-4			21	55 PS
PRAGUE	77.13	323.7	11	51	0	21	43	7			14	49
PRUHONICE	77.13	323.6	11	51	0	21	40	4				
SOFIA	77.16	313.8	11	54	3						14	48 PP
HALLE	77.31	325.9	11	53	1	21	41	3				
VIENNA-H.	77.39	321.4	11	54A	1							
BELGRADE	77.46	316.9	11	43K	-10	21	10	-30			14	38 PP
HUNGRY HORSE	77.71	38.2	11	53	-1							
JENA	77.87	325.6	11	55	0	21	45	1			14	53 PP
SHASTA	78.01	48.1	11	57	1							
KASPERSKE H.	78.17	323.4	11	55	-2						14	55 PP
BLUE MTS.	78.30	42.4	11	57	-1	21	59	10			15	11 PP
MINERAL	78.70	48.0	12	1A	1							
MUNSTER	78.87	328.1	12	0	-1							
CALISTOGA	79.16	49.8	11	57A	-5							
BENSBERG	79.80	327.7	11	5	-61						15	11 PP
LJUBLJANA	79.81	320.6	12	6	0						12	32
BERKELEY	79.84	50.3				22	11	6			26	39
ATHENS	79.85	309.9	12	5	-1							
HEIDELBERG	80.25	325.8	12	9	1							
DURHAM	80.30	334.3	12	8	-1							
STUTTGART	80.45	325.1	12	9	0	22	15	4	12	20		
LICK	80.55	50.4	12	7A	-3							
KARLSRUHE	80.68	325.7	12	11A	0							
TUBINGEN	80.72	325.0	12	11	0							
PARAISO	80.73	51.5	12	16	5							
STRASBOURG	81.28	325.7	12	14A	0	22	28	8			15	24 PP
DOURBES	81.54	328.3	12	15	0	22	29	6				
FELDBERG	81.68	325.1	12	16	0							
PRIEST	81.92	50.8	12	20K	3							
WELSCHBRUCH	82.04	326.3	12	16	-2							
KEW	82.46	331.6	12	19	-1							
EUREKA	82.57	45.8	12	22	2							
AQUILA	82.93	318.5	12	22	0	22	43	6			15	35 PP
BESANCON	83.07	325.7	12	23	0							
PARIS	83.42	328.5	12	25K	0							
ROME	83.73	318.6	12	27	1	22	45	0			15	41 PP
DUGWAY	83.87	43.6	12	27K	0							
ROSELEND	83.94	324.3	12	26	-1						13	11
SALT LAKE C.	84.01	42.7	12	30	2							
GARCHY	84.35	327.2	12	29K	0							
MESSINA	84.59	314.3	12	29	-2	22	55	2			15	28 PP
FOLINIERE	84.67	330.0	12	30	-1							
PASADENA	84.76	51.0	12	40	9	23	0	5				
ISOLA	84.85	323.1	12	32	0							
KARAPIRO	84.86	146.0	12	41	9							
FLAMING GRGE	85.22	41.3	12	35	1							
CLERMONT-FD.	85.49	326.2	12	18	-17							
UINTA BASIN	85.56	41.8	12	36	1	23	8	5			16	2 PP
BOULDER CITY	85.58	47.8	12	39	4							
GLEN CANYON	86.80	45.3	12	44	3							
ROXBURGH	88.73	154.0	12	50	-1							
TONTO FOREST	88.86	47.0	12	54	3				13	3	16	28 PP
TUCSON	90.55	48.2	13	1	2						13	31
ALBUQUERQUE	91.14	43.7	13	4	2							
TOLEDO	93.36	326.9	13	13A	1	23	46	-28			16	49 PP
WICHITA MTS.	95.50	38.9	13	23	1	24	40	46			27	14 PPS
TULSA	95.93	36.4	13	23	-1	24	41	45			31	19 SS
MALAGA	96.10	325.3	13	24	-1						17	19
CUMBERLAND	100.68	29.5				25	24	64			17	47 PP
LWIRO	100.97	275.4									18	10
MIRNY	106.76	194.8	18	39	777							
MAWSON	115.55	203.2	18	38	0							
SOUTH POLE	126.35	180.0	18	59	0							
BYRD STATION	129.12	167.8	19	5	1							
CARACAS	130.34	23.1	19	8	1						21	21 PP
HUANCAYO	146.14	50.6	19	40	5							
AREQUIPA	151.89	50.5	19	55	11							
LA PAZ	153.93	45.1	19	51	4				19	59		

SEPTEMBER 7 7.H 13.M 50.S EPICENTRE 45.92 150.97 DEPTH= 98.KM

A=-0.61037 B= 0.33879 C= 0.71601 D= 0.4853 E= 0.8743
G=-0.6260 H= 0.3475 K=-0.6981 HT= -3.9

DEPTH OF FOCUS= 0.010R

SE= 4.04

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
KURILSK	2.28	253.5	0	27K	-10	0	52	-12				
NEMURO	4.64	238.0	0	56A	-13	1	44	-18				
ABASHIRI	5.11	250.6	1	7K	-8	2	12	-2				
KUSIRO	5.54	240.3	1	11	-10	2	7	-17				
Y.-SAKHLINSK	5.80	283.9	1	20K	-5						2	45
OBIHIRO	6.32	244.4	1	21	-11							
ASAHIGAWA	6.48	253.8	1	27	-7							
WAKKANAI	6.53	268.9	1	32	-3	2	40	-8				
HIROO	6.60	239.3	1	23	-13	2	46	-4				
UGLEGORSK	6.81	300.9	1	41K	2	3	8	13				
RUMOE	6.92	256.8	1	34	-6							
URAKAWA	7.00	240.3	1	30A	-11	2	47	-13				
SAPPORO	7.44	250.9	1	40	-7	3	9	-2				
TOMAKOMAI	7.50	247.3	1	54	6							
MURORAN	8.04	247.0	1	45K	-10	3	21	-4				
SUTTSU	8.30	251.8	1	32	-27							
MORI	8.41	246.7	1	53	-8							
HAKODATE	8.44	244.5	1	50A	-11	3	18	-17				
PETROPAVLOVK	8.69	32.3	2	7	3	3	51	10				
HATINOHE	8.74	235.3	1	51	-14	3	19	-24				
AOMORI	9.00	239.1				3	30	-19			4	49
MIYAKO	9.11	229.7	2	8	-2							
MORIOKA	9.51	232.6	2	0	-15	3	38	-23				
MIZUSAWA	9.93	230.4	2	10	-11	3	48	-23				
AKITA	10.10	236.0				4	8	-8			4	37
ISINOMAKI	10.35	227.1	2	11K	-16	3	57	-24				
SENDAI	10.69	227.9	2	16	-15	4	2	-27				
SAKATA	10.81	233.5									4	58
YAMAGATA	10.99	229.5	2	21	-14	4	13	-24				
HUKUSIMA	11.30	227.5	2	24	-15	4	25	-19				
ONAHAMA	11.71	223.6				4	29	-25				
SHIRAKAWA	11.91	226.2	2	35	-12	4	36	-23				
MITO	12.37	223.3	2	37	-17	4	41	-29				
KAKIOKA	12.63	223.8									4	38
MAEBASI	13.05	227.4	2	51	-12							
KUMAGAYA	13.09	225.9	2	52	-11	5	1	-26				
TOKYO C.M.O.	13.28	223.6									13	59
NAGANO	13.31	230.5	3	5	-1							
TITIBU	13.38	226.2	3	7	0							
MATUSIRO	13.40	230.1	2	53K	-14	5	19	-15				
YOKOHAMA	13.53	223.2									5	42
MAGADAN	13.66	359.6	3	10	0						6	11
KOHU	13.88	226.8	3	18	5	5	27	-18				
HUNATU	13.91	225.8				5	28	-18			4	43
MISIMA	14.12	224.4									5	34
IIDA	14.37	228.3	3	11	-9							
GIHU	15.03	230.6	3	15	-13							
HAMAMATU	15.05	226.6									6	26
NAGOYA	15.09	229.6	3	7	-22							
KYOTO	15.88	232.1	3	22	-17	6	37	6				
ABUYAMA	16.08	232.0	3	31A	-10							
OOITA	19.51	236.3	4	8	-14	7	24	-27				
HUKUOKA	19.99	239.2	4	20	-7	8	14	13				
TIKSI	27.85	345.2	5	42	0						6	42 PP
ULAN-BATOR	29.86	290.0	5	59	-1							
ESEN BULAK	37.26	291.1	7	5	1							
COLLEGE	37.72	37.7	7	8	1							
BAGUIO CITY	38.82	230.7	7	11	-6	13	7	0				
SEMIPALATNSK	45.76	302.5									9	45 PCP
HONOLULU	48.02	103.1				15	40	20				
ALMATA-2	50.73	295.2	8	52K	0							
ALERT	50.73	5.4	8	51A	-1							
SHILLONG	50.86	267.6	8	51A	-2							
RESOLUTE	52.09	17.9	9	2	0							
YELLOWKNIFE	52.47	35.7	9	5	0							
FRUNSE	52.68	296.0	9	6A	0							
CHATRA	53.35	272.2	9	11A	0							
TASHKENT	56.84	297.1	9	35A	-1							
PENTICTON	56.90	51.4	9	35	-2							

APATITY	57.51	336.2	9	40A	-1	17	35	6				
DEHRA DUN	57.52	281.5	9	41A	0							
KHOROG	57.61	292.2	9	41A	-1	17	49	19				
KEVO	57.62	340.0	9	40	-2							
EDMONTON	57.86	44.8	9	43	-1							
NEW DELHI	59.18	280.5	9	50A	-3							
SODANKYLA	59.48	338.2	9	53	-2							
TROMSOE	59.54	342.4	9	54	-1				10	5		
SHASTA	60.25	61.0	9	59A	-1							
KIRUNA	60.64	340.7	10	3	0						10	46 PCP
BLUE MTS.	60.77	54.6	10	4	0	18	28	17			12	20 PP
MINERAL	60.94	60.9	10	4A	-1							
CALISTOGA	61.37	62.9	10	18A	10							
KAJAANI	61.65	335.3	10	8	-1						10	50 PCP
BERKELEY	62.04	63.4				18	38	11				
LICK	62.76	63.6	10	16K	-1							
UMEA	63.92	338.0	10	23A	-1							
PRIEST	64.12	64.1	10	27A	1							
MOSCOW	64.28	324.8	10	28	1							
EUREKA	64.88	58.6	10	30	-1							
NURMIJARVI	65.31	334.0	10	34	0						23	40 SS
HELSINKI	65.48	333.6	10	34	-1							
ASHKABAD	65.59	299.9	10	34	-1						19	48 PS
CHARTERS TS.	65.83	184.9	10	31	-6							
SKALSTUGAN	66.06	341.1	10	38	0							
DUGWAY	66.27	56.3	10	38A	-2							
FLAMING GRGE	67.75	53.8	10	49	0							
BOULDER CITY	67.83	60.9	10	50	1							
UPPSALA	67.90	336.7	10	49	-1							
UINTA BASIN	68.05	54.4	10	50	-1	19	54	13			24	22 SS
RAPID CITY	68.95	48.0	10	57	1							
GLEN CANYON	69.12	58.2	10	58	1							
KONGSBERG	70.12	340.3	11	5	2							
TIFLIS	70.78	310.4	11	9	2							
TONTO FOREST	71.13	60.1	11	10	1						13	55 PP
TEHERAN	71.22	302.1	11	12	2							
GOTEBORG	71.26	338.2	11	10	0							
GORIS	71.51	307.9	11	12A	0	20	30	9			13	2
KARLSKRONA	71.61	335.5	11	12	0							
TUCSON	72.79	61.4	11	19	0							
COPENHAGEN	72.91	336.9	11	21A	1							
BRISBANE	72.98	178.3	11	16	-4							
SIMFEROPOL	73.72	318.7	11	26A	1							
LWOW	74.11	327.4	11	29	2							
SCHEFFERVLLE	74.67	21.6	11	31A	1							
SHIRAZ	74.74	296.8	11	30A	-1	21	2	4			13	52 PP
KRAKOW	75.41	329.8	11	35	1						11	58 PCP
RACIBORZ	75.98	330.8	11	39	1						11	56 PCP
COLLMBERG	76.60	334.4	11	41A	0				11	47		
HALLE	76.73	335.1	11	42	0						23	27
DURHAM	77.02	344.1	11	41K	-3	21	39	16				
PRAGUE	77.23	333.0	11	44	-1							
PRUHONICE	77.27	332.9	11	45	0							
JENA	77.35	335.0	11	45	0	21	24	-2			12	19
MUNSTER	77.52	337.8	11	46	0							
WICHITA MTS.	78.16	52.1	11	50	0	21	50	15			22	25 SP
VIENNA-H.	78.17	330.9	11	50	0							
KASPERSKE H.	78.32	333.0	11	51A	0						12	26
BENSBERG	78.56	337.6	11	52A	0							
TULSA	78.79	49.5	11	53A	0	21	48	7			27	6 SS
KEW	79.88	342.2	12	0	1							
STUTTGART	79.95	335.4	12	0	0							
KARLSRUHE	79.98	336.0	11	33A	-27							
DOURBES	80.01	338.8	12	2	2							
OTTAWA	80.17	31.4	11	59	-2							
STRASBOURG	80.55	336.2	12	5A	2							
BREBEUF	80.83	30.0	12	4	0							
CANBERRA	80.88	181.6	12	17	12							
WELSCHBRUCH	81.10	337.0	12	6	0							
KSARA	81.36	310.3	12	8	1							
BESANCON	82.26	336.8	12	14	2							
FOLINIERE	82.46	341.4	12	13	0							
GARCHY	83.01	338.6	12	17	2							
ROSELEND	83.51	335.7	12	20	2							
ATHENS	83.99	320.8	12	20	0							
CUMBERLAND	84.20	43.1	12	21	0	22	42	5			23	51 SP
PALISADES	84.63	32.4				22	49	8				
ISOLA	84.76	334.8	12	27	3							

KARAPIRO	86.34	160.8	12	28	-4								25	26	
TOLEDO	91.70	341.0											19	45	PP
CARACAS	114.34	41.5											20	2	
MIRNY	120.53	203.2													
BULAWAYO	126.59	278.7	18	53	1										
HUANCAYO	128.34	64.4	18	57	2										
MAWSON	130.72	210.4	18	58	-2										
BYRD STATION	134.75	165.8	19	5	-2										
SOUTH POLE	135.73	180.0	19	5	-4										
LA PAZ	136.21	61.0	19	12	2										

SEPTEMBER 7 8.H 50.M 55.S EPICENTRE -11.94 -14.11 DEPTH= 0.KM

A= 0.94912 B=-0.23866 C=-0.20547 D=-0.2439 E=-0.9698
G=-0.1993 H= 0.0501 K=-0.9787 HT= 6.3

SE= 6.01

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
M.BOUR	26.30	353.7	5	39	0	10	6	-4					
BANDEIRA	26.83	99.4	5	37A	-7				5	44	11	6	SS
KIMBERLEY	39.90	120.7	7	29	-8								
BULAWAYO	41.77	106.9	7	45	-8								
LWIRO	43.60	80.6	7	58	-9								
AVERROES	45.43	7.9	8	17	-5						9	58	PP
CHANGALANE	45.78	115.1	8	18A	-7				8	30	15	5	SP
CHILEKA	47.74	100.4	8	32	-8								
MALAGA	49.25	10.3	8	45	-7								
ALMERIA	49.75	12.2	8	49	-7						10	55	PP
GRANADA	49.84	11.0	9	2A	5	16	8	2					
TOLEDO	52.39	9.8	9	10K	-6	16	40	-1			11	10	PP
LA PAZ	52.44	258.3	9	16	0	16	40	-2					
ANTOFAGASTA	54.56	249.4	9	40	8	17	17	6			20	49	SS
AREQUIPA	55.66	258.2	9	41	1								
SANTA LUCIA	55.66	237.6				17	31	5			21	12	
CARACAS	57.01	290.9	9	49A	-1	17	52	9					
MESSINA	57.08	27.7				17	43	-1			21	13	SS
ROME	58.89	23.0									13	46	
CLERMONT-FD.	59.50	13.9	10	26	19								
AQUILA	59.63	23.4				18	15	-3			13	31	
HUANCAYO	59.76	262.9	10	6	-3								
FLORENCE X.	60.07	21.0									18	45	
ROSELEND	60.33	16.6	10	10	-3								
PAVIA	60.62	18.7									18	42	
GARCHY	60.91	13.3	10	10A	-7								
ATHENS	60.99	33.7	9	55	-22						10	11	
BESANCON	61.59	15.4	10	14	-7								
FOLINIERE	61.63	10.2	10	16	-6								
TRIESTE	62.58	21.7	10	25	-3	18	43	-12					
RAVENSBURG	63.09	17.7	10	25	-6								
LJUBLJANA	63.21	22.0	10	26	-6						11	47	
STRASBOURG	63.29	16.1	10	25A	-8	19	3	-1			22	52	SS
STUTTGART	63.88	17.0	10	28	-9	19	1	-11					
DOURBES	63.91	13.3	10	30	-7	18	58	-14					
HEIDELBERG	64.30	16.3	10	31	-8								
BELGRADE	64.58	26.6	10	26K	-15						19	17	PS
BENSBERG	65.32	14.6	10	40A	-6								
KASPERSKE H.	65.53	19.6	10	38K	-9						12	58	PP
VIENNA-H.	65.74	21.8	10	42	-7								
KSARA	65.80	44.4	10	36	-13	19	16	-19			13	0	PP
BRATISLAVA	65.94	22.3	10	41	-9	19	28	-9			23	47	SS
JENA	66.48	17.4	10	45	-8	19	25	-19			13	17	PP
PRUHONICE	66.58	19.7	10	46	-8	19	33	-12					
PRAGUE	66.62	19.6	10	42	-12	19	43	-2					
HALLE	67.10	17.3	10	46	-11								
COLLMBERG	67.23	18.1	10	51	-7						13	19	PP
DURHAM	67.29	7.8	10	57A	-2	19	45	-8					
RACIBORZ	67.93	21.8	11	10	7								
KRAKOW	68.55	22.8				20	3	-5			11	0	PP
ABERDEEN	69.57	7.0									28	10	SS
SIMFEROPOL	71.44	34.0	11	22	-2	20	37	-5					
GOTEBORG	72.63	14.3	11	29	-2								
MAWSON	74.09	157.1	11	37	-3								
BAKURIANI	75.17	40.8	11	39	-7								
GORIS	75.92	43.9	11	49	-1	21	33	0					

UPPSALA	75.95	15.9	11	59	9	21	25	-8				
TIFLIS	75.99	41.4	11	45	-6							
PALISADES	76.21	317.7	11	48	-4	21	36	0				
SHIRAZ	76.31	55.3	11	45	-7	21	29	-8			16	57
SKALSTUGAN	77.97	11.7	12	2	0							
SOUTH POLE	78.14	180.0	12	1	-2							
NURMIJARVI	78.52	18.4				21	53	-8			26	45 SS
PENNSYLVANIA	78.77	316.0	11	58	-8							
PULKOVO	79.84	21.1	12	5	-7							
UMEA	79.96	14.7	12	7	-5	22	13	-3				
VIBORG	80.01	19.9	12	6A	-7							
MOSCOW	80.02	26.8	12	7	-6	22	2	-15				
BYRD STATION	80.97	189.8	12	18	0							
KAJAANI	82.19	17.2	12	18	-6						17	35
CUMBERLAND	82.26	308.8				22	38	-2			23	32 SP
KIRUNA	83.35	12.5	12	29A	-1	22	46	-5				
VANNOVSKAYA	83.66	49.2	12	26	-6							
ASHKABAD	83.84	49.3	12	33	0							
SODANKYLA	84.41	14.7	12	32	-3							
MIRNY	85.81	157.4	12	40	-2						13	47
APATITY	86.33	16.5	12	39	-6	23	10	-10			28	37 SS
KEVO	86.33	13.3				23	15	-5			24	11 PS
QUETTA	88.35	58.8	12	51A	-4	23	27	-12				
TULSA	90.28	306.6				23	38	-19			25	3 PS
SCOTT BASE	90.37	180.2	13	3	-1							
SVERDLOVSK	91.72	32.0	13	5	-6							
WICHITA MTS.	92.23	304.9	13	21	8	23	55	-19			25	31 PS
TASHKENT	92.89	48.5	13	17	1	24	18	-2				
WARSAK DAM	93.03	56.1	13	13	-4							
ALBUQUERQUE	98.63	303.9	13	53	11							
UINTA BASIN	101.75	309.0									27	11 PS
TONTO FOREST	102.48	302.7									14	43
BLUE MTS.	107.66	313.4									18	33 PP
RIVERVIEW	132.38	163.3									39	29 SS
CHARTERS TS.	142.77	148.5	19	31	-4							
MATUSIRO	145.06	40.8	19	35A	-4							
NOUMEA	145.97	180.9	19	43K	2							
KOUMAC	147.67	177.2	19	55	11							
PORT MORESBY	151.79	137.9	19	51	1							

SEPTEMBER 7 12.H 43.M 59.S EPICENTRE 53.95 160.37 DEPTH= 86.KM

A=-0.55675 B= 0.19854 C= 0.80660 D= 0.3359 E= 0.9419
G=-0.7597 H= 0.2709 K=-0.5911 HT= -6.8

DEPTH OF FOCUS= 0.008R

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
PETROPAVLOVK	1.39	228.6	0	22A	-3	0	36	-7				
MAGADAN	7.69	320.7	1	51K	0						3	41
OKHA	1 .34	274.8	2	31	4						4	35
UGLEGORSK	12.39	254.3	2	59	5							
Y.-SAKHLINSK	13.19	245.4	3	5	0							
YAKUTSK	18.00	308.9	4	3	-2	7	28	8				
TIKSI	22.36	334.2	4	52	1	8	51	4			9	25 SS
MATUSIRO	23.22	230.4	5	0A	0	9	5	3				
ABUYAMA	25.81	232.4	5	25A	1							
COLLEGE	27.69	46.2	5	41	-1							
IRKUTSK	32.95	290.4	6	27	-1						7	48 PPP
ULAN-BATOR	33.54	282.0	6	31	-2							
MOULD BAY	36.20	23.6	6	56	0							
ESEN BULAK	40.47	286.4	7	33	2							
ALERT	42.06	7.7	7	45A	1							
YELLOWKNIFE	42.42	43.3	7	48A	1							
RESOLUTE	42.47	22.4	7	48A	0							
KIPAPA	45.20	119.3	8	9	-1	14	55	13			10	20
HONOLULU	45.26	119.5				14	58	15			18	16
VICTORIA	45.88	64.1	8	15A	0							
SEMIPALATNSK	46.79	300.1	8	20	-2							
SEATTLE	47.00	64.4	8	30	6	15	23	15				
PENTICTON	47.39	61.1	8	28A	1							
EDMONTON	48.01	53.5	8	32A	0							
HUNGRY HORSE	50.86	59.0	8	53	-1							
SHASTA	51.45	71.5	8	58A	0							

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.

BLUE MTS.	51.45	64.3	8	58A	0						19	51	SS
KEVO	52.05	341.3	9	2	-1						12	24	PPP
MINERAL	52.13	71.3	9	3A	0								
APATITY	52.53	337.2	9	5K	-1	16	23	-2			10	35	
CALISTOGA	52.75	73.5	9	7A	-1								
ALMATA-2	52.88	294.6	9	7K	-2								
BERKELEY	53.46	74.0	9	14A	1	16	41	4			20	33	SS
TROMSOE	53.58	344.3	9	13	-1								
SODANKYLA	54.16	339.8	9	18	0				10	7			
LICK	54.18	74.0	9	18A	0								
PARAISO	54.47	75.4	9	17	-4								
FRUNSE	54.65	295.9	9	21A	-1								
KIRUNA	54.93	342.6	9	22	-2								
PRIEST	55.59	74.4	9	29A	0								
EUREKA	55.85	68.3	9	32	1				9	52			
KAJAANI	56.74	337.3	9	36A	-1				10	18			
DUGWAY	57.06	65.7	9	39A	0								
SALT LAKE C.	57.17	64.6	9	40	0								
SHILLONG	57.19	269.1	9	38A	-2								
FLAMING GRGE	58.36	62.9	9	47	-1								
PASADENA	58.43	74.3	9	47	-2	18	1	18					
TASHKENT	58.53	298.0	9	47	-2								
UMEA	58.56	340.5	9	48	-2								
UINTA BASIN	58.71	63.5	9	51A	0	17	55	8			21	55	SS
BOULDER CITY	58.98	70.5	9	53	0						10	11	
CHATRA	59.02	273.8	9	53A	0								
RAPID CITY	59.24	56.5	9	55	1	17	51	-3					
PULKOVO	59.78	333.4	9	58	0								
GLEN CANYON	60.05	67.5	10	0	0								
LARAMIE	60.07	60.1									10	25	
SKALSTUGAN	60.20	344.2	10	1	0								
NURMIJARVI	60.56	336.6	10	3A	0	18	9	-2			22	25	SS
HELSINKI	60.78	336.3	10	4	-1								
MOSCOW	61.03	327.1	10	5	-2						10	29	PCP
GOLDEN	61.36	61.2	10	10	1						18	31	
DEHRA DUN	61.74	283.4	10	14	3								
TONTO FOREST	62.20	69.3	10	15	1				10	37	10	57	PCP
WARSAK DAM	62.67	290.8	10	15	-3								
UPPSALA	62.69	339.9	10	17A	-1								
NEW DELHI	63.53	282.7	10	21K	-2								
TUCSON	63.97	70.5	10	26	0				10	47	39	21	PKPPKP
PORT MORESBY	64.09	194.5	10	25A	-2								
BERGEN	64.27	346.6	10	28	0								
ALBUQUERQUE	64.33	65.5	10	29	1						27	45	
KONGSBERG	64.34	344.0	10	29A	1								
SCHEFFERVLLE	64.84	28.0	10	31A	-1								
GOTEBORG	65.78	342.0	10	39	1								
KARLSKRONA	66.52	339.4	10	43	1						11	24	
COPENHAGEN	67.60	341.0	10	50A	1								
QUETTA	68.11	291.3	10	51	-1						11	18	
WICHITA MTS.	68.65	60.2	10	55	-1	19	59	9			24	11	SS
TULSA	69.13	57.5	10	58A	-1	19	59	3			24	37	SS
LUGANVILLE	69.43	173.0	10	59K	-1								
ST. LOUIS 1	69.64	52.0	11	1	-1								
TIFLIS	69.89	314.0	11	4	1						20	32	PS
OTTAWA	70.12	38.4	11	3	-2								
LWOW	70.27	331.6	11	7	1								
DURHAM	70.63	349.0	11	8K	0								
BREBEUF	70.79	37.0	11	7A	-2								
GORIS	71.05	311.7	11	10	0								
KRAKOW	71.17	334.3	11	12	1						12	4	
SIMFEROPOL	71.35	322.8	11	11	-1	20	23	1					
WITTEVEEN	71.37	343.5	11	15K	3								
RACIBORZ	71.57	335.4	11	15	2						11	32	PCP
COLLMBERG	71.62	339.1	11	13A	-1						13	14	
HALLE	71.65	339.8	11	15	1						11	35	
TEHERAN	71.78	305.9	11	15	0								
UZHGOROD	71.83	332.2	11	15	0								
MUNSTER	72.02	342.7	11	17	1								
JENA	72.27	339.9	11	18	0	20	37	5	11	40			
PRAGUE	72.47	337.8	11	19	0								
PRUHONICE	72.53	337.7	11	19	0	20	40	5					
BENSBERG	73.07	342.7	11	22A	0				11	46	12	18	
PENNSYLVANIA	73.21	42.4	11	22	-1								
KASPERSKE H.	73.54	338.0	11	26A	1						11	46	
UCCLE	73.70	344.4	11	26	0								
KEW	73.72	347.6	11	26	0								
VIENNA-H.	73.72	335.8	11	28A	2								
KOUMAC	74.28	176.2	11	29A	0								

CUMBERLAND	74.28	50.6	11	29A	0	20	59	4			26	8 55
DOURBES	74.34	344.1	11	29	-1							
PALISADES	74.57	39.6	11	30	-1	20	56	-2				
KARLSRUHE	74.72	341.3	11	33K	1							
CHARTERS TS.	74.73	193.7	11	31A	-1							
STUTTGART	74.78	340.6	11	32A	0							
HALIFAX	74.88	30.9	11	32	-1							
TUBINGEN	75.05	340.7	11	35A	1							
BLACKSBURG	75.20	46.1	11	34	-1							
STRASBOURG	75.25	341.6	11	36A	1							
EBINGEN	75.41	340.7	11	37A	1							
WELSCHBRUCH	75.68	342.5	11	37	0							
FELDBERG	75.88	341.2	11	39A	1							
PARIS	75.92	345.1	11	39A	0							
NOUMEA	76.11	174.2	11	41K	1							
SHIRAZ	76.16	301.4	11	40A	0	21	16	0			12	23
LJUBLJANA	76.22	336.3	11	40A	0							
FOLINIERE	76.38	347.1	11	41	0							
BESANCON	76.86	342.4	11	44	0							
GARCHY	77.32	344.4	11	47A	1							
ROSELEND	78.25	341.5	11	53	1						12	36
CLERMONT-FD.	78.78	344.0	11	56K	1							
ISOLA	79.62	340.8	12	1	2						12	26
MONACO	79.98	340.4	12	2	1							
AQUILA	79.98	335.8									37	31
KSARA	80.32	315.9	11	56	-7							
ROME	80.63	336.3	12	6	2						14	52 PP
ATHENS	81.12	326.7	12	6A	-1							
BRISBANE	81.27	186.8	12	8	0							
MESSINA	83.33	332.8	12	18A	0				12	29		
TOLEDO	85.59	348.0	12	32K	2	22	54	1	12	47	13	12
RIVERVIEW	87.78	187.7	12	41A	1							
MALAGA	88.74	347.8	12	46	1							
CANBERRA	89.45	189.3	12	49A	1							
ADELAIDE	90.52	197.6	12	54K	1							
TOOLANGI	92.05	191.8	13	1	1				13	36		
KARAPIRO	92.44	168.0	13	4	2							
BANGUI	113.68	317.6									19	10 PP
CHILEKA	123.12	290.4	18	48K	2							
BROKEN HILL	125.62	297.5	18	54K	3							
LA PAZ	127.11	64.3	18	57	3							
BULAWAYO	130.24	293.3	19	2	2							
MIRNY	130.40	209.0	19	1	1							
CHANGALANE	133.11	284.9	19	7	1							
KIMBERLEY	139.18	290.0	19	12	-5							
BYRD STATION	140.94	164.2	19	13	-7							
SOUTH POLE	143.77	180.0	19	21	-4							

SEPTEMBER 8 0.H 47.M 29.S EPICENTRE -28.44-176.54 DEPTH= 61.KM

A=-0.87904 B=-0.05311 C=-0.47378 D=-0.0603 E= 0.9982
G= 0.4729 H= 0.0286 K=-0.8806 HT= 2.3

DEPTH OF FOCUS= 0.004R

SE= 2.40

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
RAOUL ISLAND	1.45	236.0	0	24	-1							
ONERAHI	10.61	224.2	2	40	8						3	10
KARAPIRO	11.55	213.0	2	41	-4							
WELLINGTON	14.65	206.8	3	23	-2	5	54	-13				
AFIAMALU	15.12	18.0	3	15	-16	5	54	-24				
NOUMEA	16.54	287.9									4	23
PORT VILA	17.52	304.2	4	UA	-2							
KOUMAC	19.12	290.0	4	23K	2							
LUGANVILLE	19.83	307.0	5	25A	57							
ROXBURGH	20.36	209.6	4	33	-1							
BRISBANE	27.10	264.9	5	38	-1	10	6	-5				
RIVERVIEW	28.10	250.8	5	49	1						10	44
HONIARA	29.08	305.9	5	51	-6	10	37	-6				
CANBERRA	29.95	248.0	6	4A	-1							
TOOLANGI	32.93	244.1	6	31	0				6	47		
CHARTERS TS.	34.81	275.4	6	46	-1	12	29	17				
ADELAIDE	38.37	248.6	7	16K	-1						16	19 SSS
PORT MORESBY	39.00	291.8	7	19	-3	13	54	37			9	6 PP

CAPE HALLETT	44.51	185.7	8 10	3						
SCOTT BASE	50.08	184.6	8 54	3						
HONOLULU	52.56	21.8	9 15	5	16 33	3			19 11	
KIPAPA	52.70	21.8	9 13	2						
BYRD STATION	56.62	169.9	9 40	1						
WILKES	57.47	207.2	9 43	-2	17 39	3				
SOUTH POLE	61.72	180.0	10 15	1						
MIRNY	64.45	206.3	10 32	0	19 15	10				
MAWSON	74.58	200.0	11 36	2	21 14	10	11 46			
MATUSIRO	77.38	324.1	11 47A	-3					26 41	SS
PRIEST	83.01	42.5	12 19K	-1						
PASADENA	83.21	45.3	12 21	0	22 42	7				
LICK	83.26	41.0	12 22K	1						
BERKELEY	83.27	40.3	12 20A	-1	22 47	11			24 5	PS
CALISTOGA	83.62	39.6	12 21K	-2						
SHASTA	85.16	38.2	12 30A	-1						
MINERAL	85.35	38.9	12 31K	-1						
BOULDER CITY	86.48	45.7	12 38	1						
SANTA LUCIA	86.67	126.3	12 38	0	23 12	3			28 40	
TUCSON	86.83	50.7	12 40	1						
TONTO FOREST	87.75	48.8	12 43	-1					16 17	PP
EUREKA	88.00	42.4	12 44	-1					30 17	PKKP
GLEN CANYON	89.15	46.5	12 50	0						
SEATTLE	90.06	33.3	12 37	-18	23 25	-16				
VICTORIA	90.15	32.1							23 54	
BLUE MTS.	90.72	37.7	12 57	-1	23 57	11			25 7	PS
ALBUQUERQUE	91.36	50.6	13 0	-1						
MAGADAN	91.72	344.0	12 58	-4						
UINTA BASIN	92.41	44.8	13 4	-1	24 16	15			16 43	PP
FLAMING GRGE	92.87	44.4	13 8	0						
COLLEGE	95.66	11.9	13 18	-2						
WICHITA MTS.	96.73	54.2	13 24	-1	24 4	9			24 51	S
LA PAZ	97.65	113.3	13 38	9	24 12	12				
TULSA	99.31	54.3			24 20	11			26 46	SP
CUMBERLAND	106.66	58.3			24 49	6			27 59	PS
TIKSI	106.71	344.3							18 9	PP
CARACAS	112.12	89.8			25 11	5			19 15	PP
PALISADES	117.09	56.0							20 2	PP
QUETTA	125.26	288.4	18 56	2						
TASHKENT	125.68	302.2	18 54	-1						
SVERDLOVSK	131.16	322.2	19 5	0						
ASHKABAD	133.67	296.6	19 11	1						
VANNOVSKAYA	133.87	296.6	19 12	1						
KEVO	136.48	348.3	19 16	1					21 53	PP
APATITY	136.92	343.7							21 53	PP
SHIRAZ	137.35	283.9	19 19	2			19 31		22 0	PP
SODANKYLA	138.61	346.7	19 16	-3					22 18	PP
KIRUNA	139.29	350.2	19 21	1					40 38	SS
LWIRO	140.97	222.8	19 23	-1						
KAJAANI	141.12	343.3	19 21	-3						
UMEA	143.00	347.7	19 25	-2					23 5	PKS
GORIS	143.08	298.8	19 25	-2						
MOSCOW	143.40	327.8	19 29	1					19 36	PCP
PULKOVO	143.72	337.3	19 26	-2						
TIFLIS	144.01	302.7	19 28	-1						
SKALSTUGAN	144.39	353.2	19 26A	-4						
NURMIJARVI	144.88	341.9	19 28A	-2					41 35	SS
BAKURIANI	144.95	303.0	18 31	-60						
HELSINKI	145.08	341.3	19 29	-2						
UPPSALA	147.14	346.8	19 35A	1						
KONGSBERG	148.51	354.0	19 39A	3						
GOTEBORG	150.15	350.8	19 45A	6						
SIMFEROPOL	150.63	312.4	19 38	-2						
KARLSKRONA	150.97	346.0	19 48	8						
KSARA	151.80	289.1	19 44	3			20 9			
COPENHAGEN	152.02	349.1	19 48	6						
BANGUI	152.06	213.8	19 44	2					23 12	SKP
WARSAW	152.87	336.0	19 50	7					20 3	PKP2
LWOW	153.51	329.3	19 52	8						
KRAKOW	155.04	334.3	19 56	10					23 56	PP
UZHGOROD	155.15	329.3	19 54	8						
RACIBORZ	155.65	336.6	20 7	20					20 35	
COLLMBERG	156.06	345.1	19 59	12					24 1	PP
HALLE	156.10	346.8	19 55	8					20 26	PKP2
JENA	156.72	346.9	19 53	5					21 0	
KEW	156.82	6.0							23 29	PP
PRUHONICE	156.89	341.6	20 0	12					24 0	
BENSBERG	157.33	353.9							20 20	

KASPERSKE H.	157.93	342.1	20	0	10					24	12	PP
STUTTGART	159.21	349.1	20	3	12							
STRASBOURG	159.62	351.8	19	58K	6					24	9	
ATHENS	160.60	304.5	19	41	-12							
TOLEDO	167.01	26.6	20	1	2					24	51	PP
MALAGA	169.42	36.7	20	3	3					25	4	PP
GRANADA	169.46	32.4								25	32	PP
AVERROES	169.48	59.9	19	47	-13							

SEPTEMBER 8 19.H 50.M 28.S EPICENTRE -23.60 179.95 DEPTH= 523.KM

A=-0.91734 B= 0.00082 C=-0.39811 D= 0.0009 E= 1.0000
G= 0.3981 H=-0.0004 K=-0.9173 HT= 3.7

DEPTH OF FOCUS= 0.077R

SE= 1.51

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
RAOUL ISLAND	5.94	161.7	1	38	0								
PORT VILA	12.35	296.1	2	44K	1	5	6	12					
AFIAMALU	12.42	40.5	2	40	-4	5	28	33					
NOUMEA	12.51	273.3	2	47	3	5	16	19					
LUGANVILLE	14.50	301.3	3	4K	-1								
KARAPIRO	14.77	193.8	3	8K	0	5	50	11					
KOUMAC	14.84	278.7	3	10K	2								
WELLINGTON	18.15	192.6	3	39	-2	6	38	-1			5	48	SP
ROXBURGH	23.47	199.0	4	30	0	8	7	0			6	58	SP
HONIARA	23.75	303.1	4	30K	-2	8	8	-3					
BRISBANE	24.79	255.5	4	42	0	8	16	-12					
RIVERVIEW	27.15	241.5	5	5K	2	9	8	3			8	7	PCP
CANBERRA	29.25	239.4	5	21	0	9	37	0	6	51	6	49	PP
CHARTERS TS.	31.42	269.8	5	40K	1	10	8	-3					
TOOLANGI	32.57	236.6	5	49K	0	10	28	-1			7	30	PP
PORT MORESBY	34.36	288.7	6	3K	-1	10	50	-6			11	21	SCP
MACQUARIE I.	34.62	201.6	6	8A	2								
ADELAIDE	37.46	242.9	6	30K	0	11	43	1			15	0	SS
DARWIN	47.82	274.6	7	51	0						14	8	
CAPE HALLETT	49.04	183.9	8	1	0								
HAWAII V.OB.	49.13	31.5	8	0	-1								
HONOLULU	49.48	27.3	8	4	0	14	32	0			10	6	PP
KIPAPA	49.63	27.3	8	4	-1						10	46	*SP
GUAM	50.42	313.3	8	10	-1						12	27	SCP
SCOTT BASE	54.67	183.4	8	43	2								
MUNDARING	56.31	246.4	8	52	-1	16	1	-2					
WILKES	60.37	205.8	9	17	-3	16	50	-4	11	4			
BYRD STATION	61.92	170.1	9	29	-1	17	16	3					
SOUTH POLE	66.54	180.0	9	59	0	18	8	-1	11	53			
MIRNY	67.39	205.7	10	3	-2	18	17	-2	11	55			
BAGUIO CITY	70.32	298.7	10	20	-2	18	52	-1					
MATUSIRO	71.62	325.6	10	29	-1	19	5	-2					
ABUYAMA	71.79	322.7	10	31K	0								
TANGERANG	72.28	270.9	10	32	-2								
KURILSK	74.48	337.1	10	50K	4	19	42	4					
Y.-SAKHLINSK	77.91	335.0	11	5	0	20	18	3					
MAWSON	78.01	200.4	11	5A	0	20	15	-1					
PETROPAVLOVK	78.52	347.1	11	6A	-2	20	20	-1					
HONG KONG	78.56	300.5									11	10	PCP
ARGENTINE I.	78.86	157.3	11	9	-1	20	24	-1	13	4			
UGLEGORSK	79.85	335.8	11	15	0	20	38	3					
PARAISO	80.72	43.7	11	24	5								
PRIEST	81.70	44.8	11	26A	2				13	25			
BERKELEY	81.74	42.6	11	26A	1	20	56	2	13	26	21	52	SP
LICK	81.81	43.3	11	26A	1				13	25			
UKIAH	81.94	41.1	11	27	1				13	28			
CALISTOGA	82.03	41.8	11	26A	0				13	27			
PASADENA	82.18	47.6	11	27	0	21	1	3	13	28	11	37	PCP
SHASTA	83.43	40.3	11	33A	0								
MINERAL	83.68	40.9	11	34A	0								
BOULDER CITY	85.47	47.6	11	45	2				13	47	37	56	PKPPKP
N-LAZARVSKYA	85.52	183.9	11	42A	-1	21	30	0					
MAGADAN	86.25	345.6	11	47	0	21	19	-18					
TUCSON	86.31	52.5	11	44	-3				13	44			
EUREKA	86.66	44.2	11	49	0	21	37	-4	13	51	15	19	PP
TONTO FOREST	87.04	50.6	11	52	1	21	32	-13	13	51	15	28	PP
VICTORIA	87.82	33.8	11	54A	0								

SEATTLE	87.84	34.9	11	52A	-2	21	31	-21				
GLEN CANYON	88.20	48.2	11	57	1							
BLUE MTS.	88.91	39.2	11	59A	0	22	10	9	14	7	15 34	PP
DUGWAY	89.09	44.9	12	0A	0	21	44	-19				
SALT LAKE C.	90.01	44.8	12	5	1							
SOCORRO	90.04	52.6	12	5	0							
PRICE	90.09	46.2				22	6	-6				
ALBUQUERQUE	90.81	52.0	12	11	3						14 59	
UINTA BASIN	91.27	46.1	12	11A	1	22	28	6			15 52	PP
COLLEGE	91.64	13.2	12	10	-2							
FLAMING GRGE	91.70	45.7	12	13	1				14	10	15 56	PP
SANTA LUCIA	92.10	127.9	12	14	0						15 2	
BUTTE	92.33	40.1	12	15	0				14	28	16 3	PP
HUNGRY HORSE	92.75	37.6	12	15	-2						16 0	PP
EDMONTON	95.81	33.6	12	29A	-2							
WICHITA MTS.	96.52	55.1	12	33	-1	22	21	1	14	37	16 34	PP
ULAN-BATOR	96.58	319.6	12	36	2	22	19	-2				
ANTOFAGASTA	97.09	119.5	12	38	1						15 29	
RAPID CITY	97.21	45.0	12	38	1							
SHILLONG	98.23	294.2	12	43A	1	22	27	-2			16 51	PP
TULSA	99.09	54.9	12	45A	-1	22	34	1			16 52	PP
AREQUIPA	99.68	112.7	12	51	3							
IRKUTSK	100.03	322.8				23	39	61			17 3	PP
CALCUTTA	100.08	290.2									18 47	
YELLOWKNIFE	100.11	25.4	12	49	-1						17 1	
LAWRENCE	100.64	52.2	12	53	0							
TIKSI	101.23	345.4				23	35	52			16 57	PP
LA PAZ	102.48	114.3	12	34A	-27						16 34	PP
ESEN BULAK	102.57	315.2				22	53	3			17 19	PP
CHATRA	102.62	293.8									15 7	PP
VISHAKHAPTNM	102.81	283.9									16 49	
MADRAS	103.93	278.2									18 30	
CHINCHINA	105.19	91.2				22	58	-3			17 39	PP
CUMBERLAND	106.80	58.1	13	20	777	23	6	-2	16	12	17 47	PP
FUQUENE	107.12	91.5	13	21	777						17 56	PP
BLACKSBURG	111.24	57.6	16	34	-60						18 20	
RESOLUTE	111.29	16.5	17	34	0							
DEHRA DUN	111.32	294.7									18 34	
POONA	111.54	281.5									22 24	
NEW DELHI	111.56	292.7	17	34	0						28 31	
PENNSYLVANIA	113.96	54.3	17	39	0							
ALMATA-2	114.70	308.3	17	36K	-5							
CARACAS	115.24	89.2	17	41	-1						18 48	PP
OTTAWA	116.26	49.6	17	42A	-2							
FRUNSE	116.62	307.5	17	46	2						25 4	SKKS
ALERT	116.79	7.5	17	43	-2							
PALISADES	116.95	54.6	14	3	-222	23	51	3			25 13	
BREBEUF	117.74	49.7	17	45	-1				19	8	34 44	SS
KHOROG	118.15	301.1	17	57	10							
SHAWINIGAN	118.44	48.5	17	47A	-1						19 12	
SAN JUAN	118.56	81.2	17	47	-1	23	55	1			19 15	PP
TRINIDAD	120.36	91.3	17	52	0							
TASHKENT	120.38	305.2	17	52	0	24	5	5				
QUETTA	120.63	292.1	17	52	0	24	4	3				
CHANGALANE	121.41	214.1	17	55	1							
FORT FRANCE	121.98	86.9	17	56	1							
SCHEFFERVLLE	122.30	39.0	17	54	-1							
KIMBERLEY	122.72	206.0	17	57	1							
SVERDLOVSK	125.41	324.0	18	0K	-1						26 3	SKKS
CHILEKA	128.07	224.6	18	7	1						20 40	PP
BULAWAYO	128.32	215.1	18	8	1							
ASHKABAD	128.59	300.5	18	8	1							
KIZYL-ARVAT	130.23	302.1	18	13	2						26 37	SKKS
KEVO	131.11	347.9	18	0	-12						20 49	SKP
SCORESBY SD.	131.38	9.6	18	12	-1						21 40	
APATITY	131.41	343.6	18	5	-8	24	43	11			20 48	PP.
TROMSOE	132.58	351.1	18	13	-2						20 52	SKP
SHIRAZ	132.94	289.2	18	16	0						20 20	PP
BROKEN HILL	133.01	219.2	18	4	-12						20 56	
SODANKYLA	133.18	346.2	18	5	-11				20	24	20 54	SKP
KIRUNA	133.99	349.4	18	18	0						20 57	SKP
TEHERAN	134.16	297.5	18	20	2						21 1	PP
KAJAANI	135.59	343.0	18	7	-14				20	32	21 3	SKP
UMEA	137.60	346.8	18	14	-10						21 7	SKP
MOSCOW	137.64	329.1	18	28	4						21 8	PP
VIBORG	137.87	339.3	18	16	-9	24	46	2				
GORIS	137.89	303.4	18	17	-8						27 22	SKKS
PULKOVO	138.06	337.5	18	27	2						21 8	PP

TIFLIS	138.66	306.9	18 27	1			21 14	PP
SKALSTUGAN	139.20	351.6	18 20K	-7			21 12	SKP
NURMIJARVI	139.31	341.5	18 20	-7			21 13	SKP
HELSINKI	139.50	341.0	18 20	-8			21 13	SKP
BANDEIRA	139.57	200.2	18 20	-8	20 37		21 28	PP
BAKURIANI	139.59	307.3	18 23	-5				
UPPSALA	141.71	345.7	18 26K	-7			21 19	SKP
LWIRO	141.94	231.5	18 31A	-2				
BERGEN	143.04	355.6	18 31	-4				
KONGSBERG	143.34	351.8	18 32A	-3			21 25	SKP
GOTEBORG	144.84	348.8	18 37A	-1	20 44		21 28	SKP
SIMFEROPOL	145.01	315.9	18 37	-1	20 42			
KARLSKRONA	145.51	344.6	18 39A	0	20 49		21 29	SKP
COPENHAGEN	146.65	347.1	18 42K	2				
KSARA	147.03	296.1	18 48	7	20 50		22 36	PP
WARSAW	147.18	335.9	18 42	1			18 46	PKP2
IASI	147.72	323.7	17 50	-52			19 55	
LWOW	147.76	330.3	18 42	0			21 47	
BACAU	148.47	323.3	18 55	12			20 4	
DURHAM	148.85	1.7	18 48K	5	20 54		40 50	SS
KRAKOW	149.33	334.4	18 45	1			18 50	PKP2
UZHGOROD	149.40	330.3	18 35	-9			20 54	*SPKP
CHORZOW	149.50	335.6	18 52	8			21 0	
RACIBORZ	149.97	336.2	18 48	3			19 1	PKP2
ISTANBUL UN.	150.12	312.5	18 49	4				
BUCHAREST	150.20	320.5					21 2	
WITTEVEEN	150.38	351.7	18 47	1				
COLLMBERG	150.56	343.2	18 46A	0				
HALLE	150.65	344.6	18 45	-1	20 52			
MUNSTER	151.07	350.2	18 47	0				
PRAGUE	151.26	340.4	18 50	3			20 56	
JENA	151.26	344.6	18 46	-1	20 56		22 41	PP
PRUHONICE	151.30	340.2	18 46	-1			20 58	PP
BRATISLAVA	151.95	335.2	18 48	0			20 59	
BENSBERG	152.12	350.2	18 49	1	20 57		19 10	
VIENNA-H.	152.16	336.1	18 50	2			19 12	PKP2
KEW	152.18	0.4	18 56	8	21 4		19 8	PKP2
KASPERSKE H.	152.35	340.5	18 48A	-1			21 6	PP
UCCLE	152.63	353.9	18 58	9				
SOFIA	152.84	320.1	18 2	-47			20 21	
BELGRADE	153.02	326.7	18 42	-8			19 42	
DOURBES	153.30	353.3	18 54	4			19 11	PKP2
HEIDELBERG	153.34	347.2	18 50	0				
BANGUI	153.73	226.2	18 53	2			24 58	PP
KARLSRUHE	153.78	347.3	18 51	0				
STUTTGART	153.82	345.9	18 51	0	20 56		41 42	SS
STRASBOURG	154.31	348.0	18 52	1	21 0		41 50	SS
RAVENSBURG	154.67	344.6	18 52	0				
LJUBLJANA	154.69	335.8	18 52A	0			20 58	
WELSCHBRUCH	154.73	350.0	19 0	8			19 21	PKP2
PARIS	154.76	356.1	18 55	3				
FOLINIERE	154.88	0.7	18 53	1				
ATHENS	155.15	310.7	18 52A	0				
GARCHY	156.24	354.7	18 54A	0	21 5		19 27	PKP2
ROSELEND	157.31	347.8	18 56	1	21 40		19 32	
CLERMONT-FD.	157.73	354.1	18 58	2			21 39	
AQUILA	158.21	332.3					29 12	
ISOLA	158.66	345.9	18 58	1			19 39	
ROME	158.97	333.2	19 1	4	21 7		29 17	SKKS
MESSINA	160.27	321.1					28 44	
M.BOUR	161.57	116.8	18 59	-1			23 35	PP
TOLEDO	163.42	10.8	19 0A	-2	21 0		23 44	PP
ALICANTE	165.29	1.3	19 6	2			24 2	PP
GRANADA	166.13	11.9	20 15K	71	22 11		24 4	PP
ALMERIA	166.63	8.4	19 6K	1			24 2	PP
AVERROES	168.37	32.2	19 8	2			21 15	PP

SEPTEMBER 9 2.H 45.M 41.S EPICENTRE -4.44 152.79 DEPTH= 0.KM

A=-0.88670 B= 0.45589 C=-0.07695 D= 0.4572 E= 0.8893
G= 0.0684 H=-0.0352 K=-0.9970 HT= 7.1

SE= 2.08

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

RABAUL	0.66	291.3	0	15	-1								
PORT MORESBY	7.46	228.4	1	53A	0	3	23	4					
HONIARA	8.66	125.3	2	1UK	0	3	45	-4					
CHARTERS TS.	16.80	201.7	4	U	2	7	14	9					
LUGANVILLE	17.89	129.0	4	15A	3								
GUAM	19.50	335.9	4	33	2								
KOUMAC	19.53	146.1	4	3UA	-2								
PORT VILA	20.14	132.2	4	4U	2	8	31	11					
NOUMEA	22.14	144.5	4	58K	-1	9	4	5					
BRISBANE	22.82	180.0	5	6	0	9	19	8					
DARWIN	23.09	248.7	5	9	1								
RIVERVIEW	29.28	182.8	6	6A	0	10	58	-1	6	16	7	1	PP
CANBERRA	30.92	186.0	6	2U	-1	11	13	-12	6	31	7	25	PP
ADELAIDE	33.05	201.5	6	38A	-1	12	7	9	6	45	13	59	SS
TOOLANGI	33.64	190.5	6	44	0	12	9	2	6	53	8	4	PP
AFIAMALU	36.17	107.5	7	6	0	12	47	1					
MANILA	36.72	301.7	7	16	5	12	57	2					
BAGUIO CITY	38.00	303.8	7	22	1	13	17	3			8	56	PP
KARAPIRO	39.27	151.1	7	33K	1						9	47	PCP
WELLINGTON	41.63	154.9	7	51	-1	14	7	-2			9	34	PP
TUKUBASAN	42.16	344.7	7	54A	-2						9	29	PP
ABUYAMA	42.33	338.8	7	56K	-1						21	12	
MATUSIRO	42.99	342.7	8	1	-2								
ROXBURGH	43.35	163.0	8	6	0	14	31	-3			10	0	PP
MUNDARING	43.86	227.0	8	8	-2	14	35	-6					
MIZUSAWA	44.67	347.1	8	17	1	14	45	-8					
KURILSK	49.65	355.4	8	56A	1								
MACQUARIE I.	50.15	175.3	8	59K	0								
Y.-SAKHLINSK	52.01	351.3	9	28	15								
HONOLULU	54.49	60.0	9	33	1	17	15	5			20	54	SS
KIPAPA	54.60	59.9	9	34	1	17	15	3					
HAWAII V.OB.	56.31	63.3	9	46	1	17	36	2					
PETROPAVLOVK	57.46	4.2	9	43A	-10								
PORT BLAIR	61.85	285.7	10	23	0						19	27	
MAGADAN	63.81	358.9	10	35	-1						20	8	
ULAN-BATOR	65.80	328.0	10	49A	0								
SHILLONG	66.13	300.3	10	52A	1	19	41	2			13	27	PP
CALCUTTA	68.36	296.2	11	3	-2	20	1	-5					
WILKES	68.40	197.0	11	4	-2	20	3	-4			11	40	
CAPE HALLETT	68.65	174.4	11	7	0								
IRKUTSK	69.79	330.6	11	14	0	20	25	2					
CHATRA	70.54	300.3	11	21A	2	20	44	12			14	24	
BOKARO	70.98	296.9	11	24	3	20	50	13			14	3	PP
ESEN BULAK	71.04	322.4	11	23	1	20	31	-7					
VISHAKHAPTNM	71.96	290.1	11	32K	5	21	0	12			14	18	PP
SCOTT BASE	73.73	176.9	11	38	0	21	7	-1					
MADRAS	74.14	284.8	11	40K	0	21	17	4			14	30	PP
MIRNY	74.26	201.1	11	39	-2	21	12	-2	11	42			
HYDERABAD	76.47	289.0	11	55	2								
TIKSI	77.53	352.4	11	57A	-2	21	48	-2					
DEHRA DUN	79.15	301.9	12	9	1						21	18	
NEW DELHI	79.54	300.0	12	9A	-1								
POONA	80.96	289.5	12	17A	-1	22	27	0					
COLLEGE	81.53	21.8	12	18	-3						38	49	PKPPKP
BOMBAY	81.97	289.7	13	22	59						23	47	
SEMIPALATNSK	82.40	322.0	12	25	0	22	39	-2					
LAHORE	82.52	302.5	12	25	-1								
ALMATA	82.79	314.4	12	27	0								
FRUNSE	84.36	313.7	12	37A	2								
WARSAK DAM	85.22	304.5	12	40K	0								
BYRD STATION	85.25	169.9	12	39	-1	23	11	1					
SOUTH POLE	85.59	180.0	12	41	-1						13	24	
KHOROG	85.76	308.0	12	43A	1	23	19	4					
MAWSON	85.89	202.6	12	42A	-1	23	14	-2					
TASHKENT	88.04	311.5	12	54A	1								
UKIAH	88.12	50.7	12	56	2						16	23	PP
CALISTOGA	88.55	51.3	12	57K	1								
QUETTA	88.62	300.2	12	57A	1	23	28	-14					
BERKELEY	88.71	52.0	13	3A	6	23	25	-18			16	23	PP
SHASTA	88.94	49.2	12	57A	-1						30	37	
LICK	89.15	52.6	12	54K	-5								
VICTORIA	89.18	41.4	12	57	-2								
MINERAL	89.50	49.6	13	2A	2								
PRIEST	89.81	53.9	13	1K	-1								
SEATTLE	89.82	42.3	13	3	1	23	33	-20					
PASADENA	91.67	56.1	13	11	1	23	44	-25			16	44	PP
BLUE MTS.	93.03	45.4	13	15A	-2	23	45	-36			17	9	PP
EUREKA	93.75	50.8	13	19	-1						17	4	PP
MOULD BAY	93.78	13.9	13	18	-2	24	36	8					

BOULDER CITY	94.51	54.4	13	24	0				17	13 PP
SVERDLOVSK	94.87	326.5	13	23K	-2					
YELLOWKNIFE	95.11	27.8	13	25	-1				18	8
HUNGRY HORSE	95.41	42.0	13	26	-2				38	31 PKPPKP
EDMONTON	95.83	36.9	13	28	-2					
DUGWAY	96.20	50.2	13	32K	1					
ASHKABAD	96.21	307.5	13	30	-1					
BUTTE	96.40	44.3	13	43	11				17	25 PP
VANNOVSKAYA	96.41	307.5	13	32	0					
TONTO FOREST	97.39	56.1	13	37	0				17	35 PP
TUCSON	97.74	58.2	13	41	3				30	23 PKKP
UINTA BASIN	98.68	50.0	13	43	1	24	22	1	17	42 PP
FLAMING GRGE	98.80	49.4	13	42	-1					
ALERT	100.58	4.4	13	49	-2				30	0
N-LAZARVSKYA	100.60	192.3	13	49A	-2					
SHIRAZ	101.11	299.2	13	53	0	24	26	-6	17	59 PP
ALBUQUERQUE	101.34	55.4	13	56	1				17	58 PP
TEHERAN	101.83	305.4	13	57	0	24	50	14	18	8 PP
GOLDEN	101.93	50.5	13	59	2	24	43	7		
TANANARIVE	102.90	249.6	14	2	1				18	22
APATITY	105.00	339.7				24	42	-9	18	38 PP
GORIS	105.51	309.6	14	12	777	24	53	0		
KEVO	105.96	342.9	18	28	777	24	53	-2	27	57 SP
TIFLIS	106.35	312.1	14	15	777				24	48 PP
BAKURIANI	107.30	312.3	14	19	777					
SODANKYLA	107.38	340.9	14	16	777				18	49 PP
MOSCOW	107.65	327.5	14	21	777				18	38 PCP
WICHITA MTS.	107.81	55.1	14	27	777	25	5	2	18	55 PP
TROMSOE	108.30	344.6	18	32	777				21	58
KAJAANI	108.72	337.7	14	28	777				29	41 PKKP
KIRUNA	109.04	342.7	18	33	777				29	41 PKKP
TULSA	109.91	53.5	18	37	777	25	11	-1	19	3 PP
VIBORG	109.94	334.3	18	35	777	25	11	-1		
HOUSTON	111.11	60.0							19	26 PP
UMEA	111.60	339.4	18	36	0				19	17 PP
NURMIJARVI	111.81	335.2	18	38	1	25	20	0	19	19 PP
HELSINKI	111.86	334.8	18	37	0				29	35 PKKP
SIMFEROPOL	113.19	317.3	18	41	1	25	27	2		
SKALSTUGAN	114.40	341.8	18	42	0				29	23 PKKP
KSARA	114.73	305.2	18	45	2	25	53	22	20	2 PP
CHANGALANE	114.94	238.5	18	46	3					
UPPSALA	115.04	336.9	18	42	-1	25	30	-2	29	19 PKKP
CHILEKA	115.30	250.5	18	46	2					
JERUSALEM	115.68	303.1	18	47A	3					
LWOW	117.58	325.3	18	50	2					
WARSAW	117.98	328.7	18	50	1	25	44	1		
ISTANBUL UN.	118.03	314.6	18	47A	-2					
CUMBERLAND	118.09	51.9	18	49	0	25	44	1	20	4 PP
KARLSKRONA	118.23	334.4	18	54	5				29	17 PKKP
GOTEBORG	118.67	337.3	18	54	4					
UZHGOROD	119.15	324.7	18	50	-1					
KRAKOW	119.74	327.0	18	53	1				20	21 PP
NIEDZIKA	119.86	326.3							29	1
COPENHAGEN	119.88	335.4	18	54A	1					
BULAWAYO	120.00	243.8	18	53	0					
KIMBERLEY	120.15	233.1	18	55K	2					
SCHEFFERVLLE	120.50	25.3	18	53	-1					
RACIBORZ	120.65	327.8	18	56	2					
SOFIA	121.27	318.2	18	58	3				20	36
OTTAWA	121.33	38.2	18	55K	0					
BLACKSBURG	121.54	48.6	18	57	1					
BROKEN HILL	121.70	250.1	18	57	1					
PENNSYLVANIA	122.00	43.8	18	57	0					
COLUMBIA	122.13	52.4	19	5	8	26	2	5		
BELGRADE	122.14	321.6	18	56K	-1				20	26
BRATISLAVA	122.33	326.4	18	58	1					
SHAWINIGAN	122.51	35.8	18	58K	0					
COLLMBERG	122.54	331.3	18	58	0				23	24
BREBEUF	122.56	37.2	18	57K	-1	26	3	5	20	39 PP
PRUHONICE	122.61	329.3	18	58	0				20	30
PRAGUE	122.62	329.4	18	58	0					
VIENNA-H.	122.68	326.8	18	59	1					
HALLE	122.91	332.0	19	0	2				20	39 PP
ATHENS	122.94	313.0	18	59K	1					
JENA	123.46	331.6	18	59	0				20	29 PP
KASPERSKE H.	123.63	329.0	18	59A	-1				22	37 PKS
LWIRO	123.64	264.4	19	2A	2					
SANTA LUCIA	124.28	135.9	19	1	0	26	13	9		

			P		O-C	S			O-C	*PP		SUPP.		
	DELTA DEG.	AZ. DEG.	M	S	S	M	S		S	M	S	M	S	
MUNSTER	124.53	334.6	19	2	0									
PALISADES	124.59	42.0	19	1	-1	26	5		0					
LJUBLJANA	124.99	325.5	19	3	1							20	54	PP
BENSBERG	125.45	334.0	19	4A	1							21	0	PP
DURHAM	125.70	342.0	19	4	0									
HEIDELBERG	125.85	331.8	19	4	0									
STUTTGART	126.02	330.9	19	4	0							32	19	PPS
KARLSRUHE	126.27	331.6	19	7	2									
RAVENSBURG	126.52	329.8	19	5	0									
EBINGEN	126.57	330.5	19	6	1									
UCCLE	126.77	335.5	19	8	2									
STRASBOURG	126.87	331.6	19	7	1							21	5	PP
DOURBES	127.19	334.8	19	9	2	26	22		10					
FELDBERG	127.24	330.8	19	7	0									
AQUILA	127.79	322.4	19	14	6							21	16	PP
BALBOA HTS.	127.85	82.2	19	1	-7									
NANA	128.02	108.9	19	11	3									
KEW	128.04	338.9	19	1U	2									
PAVIA	128.47	327.6										37	36	
ROME	128.61	322.4	19	12	3							21	16	PP
MESSINA	128.62	316.8				25	31		-45			18	33	
HALIFAX	128.83	32.9	19	1U	0									
PARIS	129.07	335.0	19	13K	3									
HUANCAYO	129.43	109.4	19	15	4									
ANTOFAGASTA	129.45	125.6	19	12	1							22	36	PKS
ROSELEND	129.45	329.6	19	7	-4									
GARCHY	129.99	333.4	19	13A	1							22	36	PP
ISOLA	130.27	327.9	19	15	2							20	38	SKP
FOLINIERE	130.30	337.0	19	13	0									
MONACO	130.37	327.3	19	12	-1							22	37	
CLERMONT-FD.	131.10	332.0	19	16	2							22	54	PP
AREQUIPA	131.55	116.5	19	18	3									
CHINCHINA	131.76	87.3	19	17K	2	26	31		7			22	43	PKS
GALERAZAMBA	131.99	79.6										22	57	PKS
BOGOTA	133.29	87.8	19	18	0							22	48	PKS
FUQUENE	133.65	86.7	19	21	2							22	49	PKS
BANGUI	134.31	271.8	19	3	-17							22	34	SKP
LA PAZ	134.51	118.2	19	17	-4	26	39		9					
BANDEIRA	135.49	243.6	19	12	-10					19	32	21	58	PP
LUANDA	137.57	251.8	19	24A	-2					19	35	22	18	PP
ALICANTE	138.39	327.8	19	31K	3							23	6	PKS
TOLEDO	138.99	332.5	19	22	-7	26	31		-7			22	27	PP
SAN JUAN	139.54	66.8	19	28	-2							23	19	SKP
CARACAS	140.19	79.0	19	34K	3							40	59	SS
ALMERIA	140.56	328.1	19	33K	1							23	10	PKS
GRANADA	140.89	329.5	19	37K	5	25	49		-52			23	25	PP
MALAGA	141.65	329.9	19	27	-6							22	28	PP
LISBON	142.13	336.7	19	35A	1							23	15	PP
ST. CLAUDE	144.23	68.7	19	38	0							26	43	SKKS
FORT FRANCE	145.06	70.6	19	41	2							23	14	
TRINIDAD	145.57	77.7	19	4U	0									
M.BOUR	165.88	315.1	20	1U	3							24	52	PP

SEPTEMBER 10 17.H 1.M 2.S EPICENTRE 53.75-159.91 DEPTH= 0.KM

A=-0.55778 B=-0.20405 C= 0.80451 D=-0.3436 E= 0.9391
G=-0.7555 H=-0.2764 K=-0.5939 HT= -6.8

SE= 1.80

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
COLLEGE	12.72	24.0	3	3	-2								
SEATTLE	24.37	89.1				9	46	7					
PETROPAVLOVK	24.48	285.2	5	22A	0								
YELLOWKNIFE	24.97	51.4	5	29A	2								
MOULD BAY	27.23	19.9	5	5U	2	10	32	6					
SHASTA	28.27	102.1	5	58	1								
BLUE MTS.	28.78	90.5	6	1	-1						6	37	
MINERAL	28.95	101.9	6	4A	0								
CALISTOGA	29.52	105.5	6	9A	0								
BERKELEY	30.23	106.3	6	16A	1								
PRIEST	32.36	106.9	6	34A	0								
EUREKA	32.81	97.7	6	38	1						9	20	PCP
DUGWAY	34.22	93.8	6	5UK	0								
TIKSI	34.55	328.0	6	58	5								
PASADENA	35.20	106.7	6	58	0								

FLAMING GRGE	35.79	90.0	7	3	0							
BOULDER CITY	35.83	101.2	7	4	1							
UINTA BASIN	36.06	91.0	7	6	1					9	29	PCP
GLEN CANYON	37.05	96.9	7	15	1							
RAPID CITY	37.56	81.2	7	19	1							
LARAMIE	37.81	86.5	7	51	31							
ALERT	38.07	12.2	7	24K	2							
GOLDEN	38.95	88.4	7	32	2					9	10	PP
TONTO FOREST	39.09	99.8	7	32	1					9	11	PP
TUCSON	40.81	101.6	7	40	-5					9	45	PCP
ALBUQUERQUE	41.46	94.8	7	52	2					9	48	PCP
MATUSIRO	45.39	273.8	8	20	-2					10	11	
WICHITA MTS.	46.29	88.5	8	29	0	15	22	5		18	38	
TULSA	47.14	85.2	8	36A	0							
SCHEFFERVLLE	50.41	48.6	9	1	0							
BREBEUF	53.20	61.2	9	21A	-1							
CUMBERLAND	53.36	78.0	9	21	-3							
PENNSYLVANIA	54.12	68.1	9	27	-2							
ULAN-BATOR	55.04	305.0	9	36	0							
BLACKSBURG	55.18	73.0	9	35	-2							
PALISADES	56.13	65.4				17	32	0				
KEVO	56.70	357.1	9	48	0							
TROMSOE	56.93	0.5	9	49	-1				10	1		
APATITY	58.61	354.0	10	1A	0						18	5
KIRUNA	58.74	359.9	10	2	0							
SODANKYLA	59.10	357.1	10	5K	0							
KAJAANI	62.36	356.2	10	27	0							
UMEA	62.77	359.9	10	23	-7							
SKALSTUGAN	62.85	3.9	10	30	0							
SVERDLOVSK	64.92	336.8	10	43A	-1							
NURMIJARVI	66.03	357.5	10	50	-1	19	38	-1				
HELSINKI	66.37	357.3	10	52	-1							
PULKOVO	66.54	354.4	10	54K	0							
UPPSALA	66.74	1.4	10	55	0							
GOTEBORG	68.72	4.7	11	6	-2							
ALMATA-2	71.64	319.7	11	25K	-1							
FRUNSE	73.06	321.2	11	35	1							
BENSBERG	75.10	8.4	11	47	1							
COLLMBERG	75.16	4.6	11	47A	1							
DOURBES	75.71	10.2	11	45	-4							
FOLINIERE	76.39	13.8	11	54	1							
PRUHONICE	76.54	3.7	11	54	0							
KASPERSKE H.	77.35	4.4	11	0	-59							
STUTTGART	77.45	7.3	12	0	1							
UZHGOROD	77.98	358.5	12	4	2							
GARCHY	78.31	11.7	12	5	1							
SHILLONG	79.77	299.3	12	11K	-1							
CHATRA	81.12	303.6	12	19K	0							
ISOLA	81.81	9.4	12	25	2							
DEHRA DUN	82.44	312.3	12	25	-1							
TIFLIS	82.56	341.6	12	29	3							
BAKURIANI	82.79	342.5	12	29	1							
VANNOVSKAYA	82.95	330.6	12	30	2							
NEW DELHI	84.31	312.1	12	34K	-1							
TEHERAN	86.85	335.0	12	49	1							
QUETTA	87.09	320.8	12	49	0							
SOUTH POLE	143.56	180.0	19	32	-5							
MIRNY	143.82	220.4	19	32	-5							
BULAWAYO	145.82	345.7	19	42A	1							
MAWSON	155.52	218.9	20	13	18							

SEPTEMBER 10 19.H 14.M 20.S EPICENTRE -19.76 175.84 DEPTH= 0.KM

A=-0.93933 B= 0.06840 C=-0.33612 D= 0.0726 E= 0.9974
G= 0.3352 H=-0.0244 K=-0.9418 HT= 4.7

SE= 4.12

	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	7.40	284.6	1	55A	3							
NOUMEA	9.12	252.3	2	26K	11	4	56	56				
LUGANVILLE	9.31	295.6	2	19	1						2	39
KOUMAC	10.88	263.9	2	47K	7							
AFIAMALU	13.20	65.8	3	9	-2	5	30	-10				
KARAPIRO	18.10	180.8	4	27	13						6	11
HONIARA	18.47	301.5	4	19A	0						9	6

CHATEAU	19.37	180.7	4	40	11					
WELLINGTON	21.47	182.2	5	3A	11	9	6	20	9	44 SS
BRISBANE	22.43	245.9	5	7	6	9	21	17		
RIVERVIEW	26.02	232.4	5	44	8	10	12	6	9	9 PCP
ROXBURGH	26.21	190.4	5	44	6	10	26	17		
RABAUL	27.77	300.8	5	49	-3	9	51	-43	14	18 PCP
CHARTERS TS.	27.79	264.2	5	59	7	10	40	6		
CANBERRA	28.27	231.2	6	1U	13	10	52	10	9	11 PCP
PORT MORESBY	29.56	286.3	6	3A	-5	11	9	6		
TOOLANGI	31.80	229.6	6	34	6				6	50 *SP
HONOLULU	48.12	33.4	8	48	5	15	49	7		
CAPE HALLETT	52.66	182.2	9	22	4					
SCOTT BASE	58.30	182.3	10	3	5					
WILKES	62.21	204.5	10	31	6	18	52	2	10 45	
BAGUIO CITY	65.12	299.6	10	44	0	19	32	5		
MATUSIRO	66.33	327.5	10	5U	-2	19	42	1		
BYRD STATION	66.34	170.1	10	56	4					
TANGERANG	68.39	271.1	11	7	2					
MIRNY	69.20	205.1	11	14	4	20	30	14	13	45 PP
SOUTH POLE	70.36	180.0	11	21	4					
PETROPAVLOVK	73.99	349.3	11	40	1	21	11	0		
MAWSON	80.23	201.0	12	17K	3					
BERKELEY	81.63	44.9	12	20K	-1	22	28	-5	23	28 PPS
LICK	81.76	45.6	12	22A	0					
PRIEST	81.79	47.0	12	22K	0					
CALISTOGA	81.84	44.1	12	21K	-1					
PASADENA	82.53	49.8	12	25	-1					
SHASTA	83.09	42.4	12	28K	0					
MINERAL	83.40	43.1	12	30A	0					
ARGENTINE I.	83.84	158.5	12	36	4					
BOULDER CITY	85.81	49.5	12	41	-1					
EUREKA	86.68	46.0	12	47	1					
VICTORIA	86.85	35.5	12	47	0					
SEATTLE	86.98	36.7				23	16	-10		
TUCSON	87.11	54.4	12	51	2					
TONTO FOREST	87.66	52.4	12	52	1				12	55 PCP
BLUE MTS.	88.45	40.9	12	54K	-1				13	27
GLEN CANYON	88.59	49.9	12	57	1					
N-LAZARVSKYA	89.02	185.2	13	1K	3					
DUGWAY	89.17	46.5	12	58K	0					
SALT LAKE C.	90.08	46.4	13	3	0					
ULAN-BATOR	91.20	321.1	13	7	-1					
UINTA BASIN	91.45	47.5	13	10	1				16	40 PP
FLAMING GRGE	91.83	47.0	13	11	0					
BUTTE	91.94	41.4	13	10	-1					
HUNGRY HORSE	92.12	38.9	13	11	-1					
GOLDEN	94.17	49.4	13	22	1					
EDMONTON	94.79	34.6	13	24	0					
SANTA LUCIA	97.47	129.4	17	25	229	24	19	5	27	9 SS
WICHITA MTS.	97.51	55.9	13	37	0				26	30 SP
TULSA	100.05	55.5							24	28
CUMBERLAND	108.03	57.9							19	0 PP
BOGOTA	110.45	92.4							19	27 PP
QUETTA	115.60	294.7							17	14
PALISADES	117.81	53.4							20	10 PP
CARACAS	119.00	88.7				25	46	0	19	50 PP
SVERDLOVSK	120.08	324.9	18	42K	-10					
CHANGALANE	122.20	219.0	19	UK	3					
ASHKABAD	123.33	302.9	19	3	4					
VANNOVSKAYA	123.53	302.9	19	1	2					
KIZYL-ARVAT	124.94	304.5	19	17	15					
APATITY	126.65	343.0	19	5	0				21	5 PP
SHIRAZ	128.00	292.6	19	13	5					
BULAWAYO	128.98	220.9	19	13	3					
KIRUNA	129.49	348.2	19	1U	-1				22	31 PKS
KAJAANI	130.80	342.1	19	13	0				22	45 PKS
GORIS	132.57	305.8	19	2U	4					
UMEA	132.98	345.5	19	18	1				21	48 PP
PULKOVO	133.06	336.9	19	32K	15					
TIFLIS	133.29	309.1	19	19	1					
NURMIJARVI	134.46	340.5	19	21K	1				21	50 PP
HELSINKI	134.62	340.0	19	21	1					
SIMFEROPOL	139.61	317.2	19	32	3				32	44 PS
LWIRO	140.94	239.6	19	42	10					
KSARA	141.86	299.9	19	37	4	26	51	9	21	49 PP
WARSAW	142.11	334.8	19	39	5				22	51 PP
LWOW	142.54	329.8	19	34	0					
UZHGOROD	144.18	329.7	19	38	1					

KRAKOW	144.21	333.3	19	36	-1					20	15
ISTANBUL UN.	144.71	314.3	19	39	1						
DURHAM	145.00	357.4	19	37	-2						
COLLMBERG	145.75	340.8	19	41	1						
WITTEVEEN	145.95	348.2	19	43	3						
PRAGUE	146.33	338.2	19	44	3						
PRUHONICE	146.36	338.0	19	43	2					47	34 SS
JENA	146.50	341.9	19	43	2					20	44
MUNSTER	146.56	346.7	19	43	2						
BRATISLAVA	146.85	333.6	19	43	1						
DE BILT	146.91	349.4	19	40	-2						
VIENNA-H.	147.09	334.4	19	46	4						
KASPERSKE H.	147.42	338.2	19	44	1					20	16
SOFIA	147.46	320.8	19	48	5					24	24
BENSBERG	147.61	346.6	19	47	4						
BELGRADE	147.73	326.3	19	39	-4					20	4 PKP2
KEW	148.21	355.4	19	49	5						
UCCLE	148.30	349.7	19	49	5						
DOURBES	148.94	349.0	19	44	-1						
STUTTGART	149.10	342.6	19	51	5					20	58
KARLSRUHE	149.12	343.8	19	57	11						
LJUBLJANA	149.61	333.8	19	48A	2					20	29 PKP2
STRASBOURG	149.68	344.2	19	53K	7					23	30
ATHENS	149.75	312.8	19	52	5						
TRIESTE	150.25	334.2	19	48	1	26	57	3		24	3 PP
FELDBERG	150.26	343.4	19	56	9						
PARIS	150.53	351.0	19	55A	7						
FOLINIERE	150.91	355.0	19	55	7						
GARCHY	151.93	349.5	19	54	4						
PAVIA	152.35	339.4	19	49	-1					24	17
ROSELEND	152.65	343.4	20	0	9						
FLORENCE X.	152.80	335.1	19	50	-1	26	55	-2		20	20 PKP2
AQUILA	153.03	330.4	19	52	1					24	0 PP
BANGUI	153.04	238.4	20	56	65					23	26 PKS
ROME	153.80	331.0	19	53	0				20 5	23	55 PP
ISOLA	153.91	341.4	20	2	9						
MONACO	154.20	340.4	19	57	4						
MESSINA	154.90	321.2	19	57	3					23	46 PP
TOLEDO	159.95	359.7	20	1vA	10					24	28 PP
GRANADA	162.64	358.5	21	12A	69						
MALAGA	163.10	6.6	20	8	5					20	54 PKP2
M.BOUR	166.64	111.6	20	26	19					25	16

SEPTEMBER 12 3.H 11.M 54.S EPICENTRE -22.49 170.62 DEPTH= 49.KM

A=-0.91250 B= 0.15066 C=-0.38033 D= 0.1629 E= 0.9866
G= 0.3753 H=-0.0620 K=-0.9248 HT= 4.0

DEPTH OF FOCUS= 0.003R

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
NOUMEA	3.87	272.0	0	56K	-3	1	46	3				
KOUMAC	6.21	286.8	1	29K	-2	3	9	27				
LUGANVILLE	7.68	333.9	1	54K	2							
KARAPIRO	15.96	165.7	3	45	2							
HONIARA	16.54	320.1	3	50	0							
BRISBANE	16.90	249.6	3	56	2	7	13	14				
CHATEAU	17.18	167.0	4	0	2							
AFIAMALU	18.75	65.9	4	16K	-1	7	42	1				
WELLINGTON	19.06	170.4	4	18	-3	8	2	14				
RIVERVIEW	20.52	232.4	4	38K	2						8	42
CANBERRA	22.78	231.1	5	1K	2				5	15		
CHARTERS TS.	22.82	271.5	5	1	2	9	11	10				
ROXBURGH	22.96	182.4	5	1	0	9	12	9				
RABAUL	25.49	312.8	5	28	3						14	33
PORT MORESBY	26.00	296.3	5	28	-2						10	29
TOOLANGI	26.34	229.5	5	33	0							
DARWIN	39.17	278.1	7	25	0							
MUNDARING	48.87	246.6	8	42	-1							
CAPE HALLETT	49.84	180.2	8	54	4							
HONOLULU	53.15	37.2				16	48	8				
SCOTT BASE	55.45	181.0	9	32	0							
TANGERANG	63.65	274.3	10	28	0							
BYRD STATION	64.53	169.5	10	32	-2							

MIRNY	64.67	205.6	10	33	-2				11	31	
MATUSIRO	66.21	331.9	10	43	-2	19	32	3			
SOUTH POLE	67.65	180.0	10	47	-7						
MAWSON	75.92	202.1	11	42K	-1						
WOODY	88.27	50.1	12	49	2						
SHILLONG	90.02	297.6	12	57K	2						
EUREKA	92.09	47.9	13	5	0						
COLLEGE	92.77	16.5	13	7	-1						
TONTO FOREST	93.18	54.2	13	10	0				16	54	PP
BLUE MTS.	93.71	42.7	13	14	2	23	48	-27	30	18	PKKP
UINTA BASIN	96.89	49.3	13	28	1	24	7	9	26	14	PS
WICHITA MTS.	103.07	57.7				24	32	3	27	23	
TULSA	105.61	57.3				24	46	6			
HUANCAYO	106.84	111.0	18	37	777						
LA PAZ	110.66	118.8	18	33	6						
CUMBERLAND	113.59	59.7							29	12	
PALISADES	123.34	54.9				26	6	18	27	36	
SHIRAZ	124.50	291.3	18	55	1				28	44	
SAN JUAN	126.93	83.4	18	58	-1						
SODANKYLA	129.81	342.8							22	21	SKP
KIRUNA	131.03	345.5							22	30	PKS
KAJAANI	131.75	339.2	19	8	0				22	32	SKP
UMEA	134.23	342.2	19	7	-5				22	37	PKS
NURMIJARVI	135.21	336.9	19	15	1				39	46	SS
HELSINKI	135.33	336.3	19	16	2				22	43	SKP
KSARA	138.83	296.1	19	26	5				23	3	
SOFIA	146.17	314.3	19	40	6				20	26	
COLLMBERG	146.40	334.4	19	36	2				23	15	
HALLE	146.66	335.6	19	37	2				19	44	PKP2
PRAGUE	146.73	331.7	19	42	7						
PRUHONICE	146.74	331.5	19	37	2				20	11	
BRATISLAVA	146.80	327.0	19	40	5						
BELGRADE	146.95	319.5	19	29	-6				19	52	PKP2
VIENNA-H.	147.11	327.7	19	39	4						
DURHAM	147.24	351.6	19	39K	3						
JENA	147.25	335.3	19	38	2				21	15	
BANGUI	147.47	240.5	19	39	3				23	42	PP
ATHENS	147.71	306.1	19	39	3						
KASPERSKE H.	147.80	331.3	19	40K	4				23	16	
BENSBERG	148.79	339.7	19	43	5						
LJUBLJANA	149.52	326.2	19	45	6				21	44	
STUTTGART	149.87	335.1	19	46	6						
TRIESTE	150.19	326.3	19	40	0				42	20	SS
DOURBES	150.34	341.7	19	46	6						
STRASBOURG	150.60	336.5	19	52	11						
VALENTIA	150.60	1.1	19	47	6						
FOLINIERE	152.84	347.1	19	51	7						
GARCHY	153.31	340.9	20	6	21						
ROSELEND	153.43	334.4	19	59	14						
ISOLA	154.48	331.8	19	55	9						

SEPTEMBER 12 8.H 18.M 55.S EPICENTRE 34.77 32.29 DEPTH= 49.KM

A= 0.69589 B= 0.43982 C= 0.56771 D= 0.5343 E=-0.8453
G= 0.4799 H= 0.3033 K=-0.8232 HT= 0.2

DEPTH OF FOCUS= 0.003R

SE= 2.06

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
KSARA	3.12	106.7	0	48	-1	1	24	-1					
JERUSALEM	3.86	139.8	0	57K	-2								
ISTANBUL UN.	6.78	338.3	1	40K	0								
ATHENS	7.62	297.3	1	50	-2								
SIMFEROPOL	10.26	7.3	2	29A	1	4	33	10					
SOFIA	10.56	321.2	2	32	0						2	52	PPP
BAKURIANI	11.23	48.5	2	44	3								
GORIS	12.15	63.1	2	58A	5								
KISHINEV	12.51	349.0	3	3	5								
GROZNY	13.49	46.7	3	15	4								
TEHERAN	15.63	81.0	3	42	3	6	39	8					
UZHGOROD	15.71	334.8	3	42	2								
LWOW	16.22	340.5	3	48	2	6	57	13					
AQUILA	16.58	302.7	3	55	4	7	4	11			4	17	
ZAGREB	16.60	316.6	3	56K	5	7	15	22					

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ROME	17.08	300.5	3	59K	2	7	15	11	4	21 PP
NIEDZIKA	17.09	332.5	3	58A	1				5	4
BRATISLAVA	17.53	324.4	4	3	0	7	25	11		
LJUBLJANA	17.57	315.2	4	2A	-1					
KRAKOW	17.75	333.1	4	5A	-1				4	42 PPP
TRIESTE	17.81	313.2	3	59	-7	7	24	4		
SHIRAZ	17.85	101.0	4	7	0	7	20	-1	4	21 *SP
VIENNA-H.	17.94	323.5	4	9	1					
RACIBORZ	18.45	330.3	4	17	3				4	32 PP
FLORENCE X.	18.57	305.2	4	15	-1	7	40	2		
PADOVA	18.84	310.4	4	5	-14					
WARSAW	19.23	338.6							4	36 PP
KIZYL-ARVAT	19.64	70.0	4	29A	1	8	13	12		
KASPERSKE H.	19.91	321.8	4	29A	-2				5	49
PRUHONICE	19.99	324.9	4	30	-2	8	14	5		
PRAGUE	20.11	324.9	4	31	-2	8	16	5		
PAVIA	20.48	307.4	4	41	4	8	43	25	6	50
VANNOVSKAYA	21.00	73.8	4	44	2					
MONACO	21.17	302.4	4	42	-2					
ASHKABAD	21.20	73.8	4	46	2					
MOSCOW	21.28	8.3	4	44A	-1	8	40	7		
RAVENSBURG	21.33	314.4	4	45	0					
ISOLA	21.56	303.4	4	47	-1				5	11
COLLMBERG	21.61	325.7	4	47A	-1				9	3
STUTTGART	22.03	316.4	4	51A	-1	8	57	10		
JENA	22.05	323.4	4	51	-1	8	51	4	9	41
HALLE	22.24	325.0	4	54	0	8	59	8		
ROSELEND	22.33	307.0	4	57	2				5	31
FELDBERG	22.34	313.2	4	54	-1					
STRASBOURG	22.81	314.7	4	59	-1	9	11	10	5	27 PP
BESANCON	23.32	310.3	5	5	0					
WELSCHBRUCH	23.57	313.2	5	0	-7					
KARLSKRONA	24.26	337.0	5	14A	0					
BENSBERG	24.34	319.3	5	14A	-1				5	34
MUNSTER	24.66	321.8	5	18	0					
COPENHAGEN	24.98	332.9	5	22K	1					
PULKOVO	25.04	357.6	5	21	-1					
GARCHY	25.18	308.6	5	22	-1					
DOURBES	25.35	315.6	5	23	-1					
UCCLE	25.81	316.9	5	27	-2	9	45	-7		
HELSINKI	25.86	351.6	5	29	0					
VIBORG	26.06	356.1	5	30A	-1					
NURMIJARVI	26.23	351.4	5	32	-1	10	1	2	5	54
GOTEBORG	26.69	335.5	5	39A	2					
UPPSALA	26.86	343.6	5	39	1	10	18	8		
FOLINIERE	27.91	310.1	5	46	-2					
KEW	28.76	315.5	5	54	-2					
KONGSBERG	28.97	336.2	5	57	0				7	10 PP
SVERDLOVSK	29.24	32.3	6	1K	1					
KAJAANI	29.47	355.9	6	1A	-1				7	5 PP
QUETTA	29.50	89.1	6	3	1					
TASHKENT	29.69	66.2	6	4	0					
UMEA	30.01	349.3	6	5A	-2					
SKALSTUGAN	31.38	342.9	6	19A	0					
BANGUI	32.79	205.8	6	34A	3				7	54 PP
SODANKYLA	32.81	356.0	6	31	0				7	33 PP
APATITY	32.83	0.8	6	31K	0	11	47	3	7	32
FRUNSE	33.67	63.3	6	41A	2					
KIRUNA	33.80	351.9	6	39A	-1					
KEVO	35.16	356.8	6	51	-1				8	16 PP
ALMATA-2	35.67	62.5	6	57A	1					
TROMSOE	35.69	352.0	6	56	0				8	15 PP
LWIRO	36.97	185.8	7	8	1				17	50
SEMIPALATNSK	37.90	50.7	7	17	2					
NEW DELHI	38.47	86.5	7	21A	2					
KAP TOBIN	45.85	337.6	8	20	0					
SCORESBY SD.	45.86	337.7	8	21	1					
CHATRA	47.31	83.9	8	33A	2					
ESEN BULAK	48.70	55.9	8	44	2					
ULAN-BATOR	55.45	51.9	9	35	3					
ALERT	56.37	350.9	9	38A	-1					
SCHEFFERVLLE	67.18	321.7	10	51A	0					
SHAWINIGAN	74.74	316.3	11	38A	1					
BREBEUF	75.83	315.8	11	45A	2					
COLLEGE	80.69	0.0	12	11	1					
MATUSIRO	81.10	51.6	12	13A	1					
EDMONTON	87.29	340.2	12	45A	2					
CUMBERLAND	89.12	313.9	12	53	1				23	43
HUNGRY HORSE	91.95	338.3	13	7	2					

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TULSA	94.63	320.1	13	18A	1									
BLUE MTS.	96.09	338.8	13	25	1									
WICHITA MTS.	97.01	321.1	13	29	1								17	17 PP
UINTA BASIN	97.42	331.6	13	31	1									
KARAPIRO	150.35	107.0	19	49	8									

SEPTEMBER 13 16.H 59.M 59.S EPICENTRE 37.16-116.07 DEPTH= 0.KM

A=-0.35113 B=-0.71759 C= 0.60148 D=-0.8982 E= 0.4395
G=-0.2644 H=-0.5403 K=-0.7989 HT= -0.6

SE= 1.84

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
EUREKA	2.32	2.0	0	42	2								
GLEN CANYON	3.59	91.7	0	58	0								
DUGWAY	3.97	39.1	1	3A	0								
PRICE	4.80	57.8	1	17A	2								
SALT LAKE C.	4.88	41.1	1	19	3								
BERKELEY	5.00	281.0	1	17	-1	2	5	-13					
UKIAH	5.97	291.4	1	34	3								
SHASTA	6.06	307.6	1	34A	1								
FLAMING GRGE	6.42	52.1	1	41	3								
ALBUQUERQUE	8.09	103.0	1	58	-3								
BUTTE	9.23	15.4	2	19	2	5	0	57					
BOZEMAN	9.30	22.3	2	18	0	3	58	-7			2	49	
HUNGRY HORSE	11.28	7.0	2	47	2								
SEATTLE	11.44	338.3	2	38A	-9								
CHIHUAHUA	11.95	132.5	2	15	-39	5	27	17					
RAPID CITY	11.97	50.7	2	54	-1	5	6	-4					
VICTORIA	12.56	337.0	2	54	-9								
EDMONTON	16.33	5.8	3	51A	-1								
TULSA	16.35	88.3	3	52	0						5	7	PG
FAYETTEVILLE	17.60	86.9				8	12	49					
GUADALAJARA	19.82	142.4									10	33	
TACUBAYA	23.04	135.6	5	7	-1						12	15	
VERA CRUZ	25.00	130.3									14	13	
YELLOWKNIFE	25.37	1.6	5	29A	-1								
OAXACA	26.32	134.5									14	13	
COLUMBIA	28.58	85.7	6	1	2						14	51	
PENNSYLVANIA	29.76	71.1									15	41	
OTTAWA	31.15	61.9	6	21	-1								
BREBEUF	32.63	61.7	6	35K	0								
PALISADES	32.72	70.0	6	34	-2	12	2	9			9	21	PCP
SHAWINIGAN	33.23	59.8	6	39	-1								
COLLEGE	33.49	336.0	6	44	1						9	22	PCP
SCHEFFERVLLE	37.62	45.9	7	17A	-1								
RESOLUTE	38.93	8.8	7	28A	-1						9	39	
MOULD BAY	39.19	358.8	7	33A	2	13	29	-3					
KIPAPA	39.46	258.5	7	35	2						8	22	
HONOLULU	39.59	258.4	7	35	1						8	21	
HALIFAX	39.78	62.3	7	36A	0								
BALBOA HTS.	43.33	121.1	8	5A	0								
SAN JUAN	47.42	99.2	8	37	-1						10	8	PCP
ALERT	48.81	8.1	8	49A	0								
TRINIDAD	55.63	103.7	9	36	-4								
HUANCAYO	62.14	133.8	10	25	0								
TROMSOE	68.56	15.4	11	5	-1								
LA PAZ	69.90	130.7	11	15	0								
KEVO	70.03	12.9	11	14	-1								
KIRUNA	70.34	16.1	11	16A	-1								
SKALSTUGAN	71.57	21.7	11	24A	-1								
SODANKYLA	72.02	14.3	11	26A	-1								
DURHAM	72.65	33.5	11	31A	0								
AFIAMALU	72.94	237.1	11	33	0								
UMEA	73.57	18.6	11	35A	-1								
KONGSBERG	73.66	25.5	11	37A	0								
KAJAANI	75.11	15.6	11	45A	0								
KEW	75.39	35.6	11	47A	0								
GOTEBORG	75.94	25.8	11	50A	0								
UPPSALA	76.08	22.1	11	50A	-1								
FOLINIERE	77.13	37.7	11	57	0								
NURMIJARVI	77.49	18.7	11	58A	-1								
WITTEVEEN	77.54	31.5	11	59K	0								
HELSINKI	77.86	18.8	12	0	-1								

KARLSKRONA	78.38	25.3	12	3A	-1					
MUNSTER	78.56	31.7	12	6	1					
DOURBES	78.60	34.4	12	4	-1					
LISBON	78.89	49.7	12	7K	1					
BENSBERG	79.11	32.6	12	9A	1				12	50
MATUSIRO	79.50	308.0	12	10A	0					
GARCHY	79.89	37.2	12	12	0					
WELSCHBRUCH	80.61	34.8	12	18	2					
HALLE	80.68	29.9	12	16	0				15	20 PP
HEIDELBERG	80.93	32.9	12	18A	1					
JENA	80.97	30.5	12	18	0				15	22 PP
KARLSRUHE	81.09	33.3	12	19	1					
STRASBOURG	81.13	33.9	12	19	1					
TOLEDO	81.16	46.2	12	19	0					
COLLMBERG	81.26	29.5	12	19	0					
BESANCON	81.29	35.7	12	19	0					
BAGNERES	81.34	41.7	12	18	-1					
STUTTGART	81.65	33.1	12	23A	2					
FELDBERG	81.75	34.3	12	22	0					
ROSELEND	82.74	36.5	12	28	1					
PRAGUE	82.79	29.6	12	27	0					
PRUHONICE	82.90	29.6	12	28	0				15	36
MALAGA	83.05	48.8	12	30K	2					
KASPERSKE H.	83.19	30.6	12	29A	0				13	21
ISOLA	84.05	37.3	12	34	1					
RACIBORZ	84.22	27.6	12	34	0				13	6
KRAKOW	84.88	26.7	12	38A	0				13	31
VIENNA-H.	85.01	29.7	12	39A	1					
BRATISLAVA	85.36	29.3	12	41	1					
NIEDZIKA	85.54	26.9	12	42K	1				13	21
SKALNATE PL.	85.72	27.0	12	42	0					
HONIARA	90.87	258.9	13	7	1					
KSARA	104.70	23.9							18	13
WARSAK DAM	108.85	353.3	17	39	777					
SHIRAZ	112.68	10.8	18	17	-21				18	38
QUETTA	112.95	357.2	18	16	-23					
NEW DELHI	113.43	347.3	18	19	-21				19	31
BANGUI	120.97	55.8	18	55	1					
SOUTH POLE	126.98	180.0	19	6	0					
LWIRO	132.56	51.3	18	55	-22				21	39
BROKEN HILL	141.22	63.8	19	27	-5					
BULAWAYO	144.92	70.9	19	39A	0					
MIRNY	146.17	200.4	19	41	0				29	28 SKKS
KIMBERLEY	146.29	87.2	19	43	2					
CHILEKA	146.61	57.9	19	45	3					
GRAHAMSTOWN	149.38	94.1	19	52A	6					
MAWSON	149.51	179.2	19	47A	1					
TANANARIVE	156.84	42.7	20	3	6				20	32

NUCLEAR EXPLOSION BILBY

SEPTEMBER 14 3.H 52.M 13.S EPICENTRE -31.55-179.10 DEPTH= 0.KM

A=-0.85369 B=-0.01341 C=-0.52061 D=-0.0157 E= 0.9999
G= 0.5205 H= 0.0082 K=-0.8538 HT= 1.3

SE= 3.29

	DELTA DEG.	AZ. DEG.	P M	P S	P O-C S	S M	S S	S O-C S	*PP M	*PP S	SUPP. M	SUPP. S
RAOUL ISLAND	2.50	24.3	0	38	-5							
ONERAHI	6.88	230.5	1	45	0							
KARAPIRO	7.75	213.2	1	59K	2							
CHATEAU	8.80	208.3	2	10	-2							
WELLINGTON	10.89	205.2	2	34K	-7	4	33	-11				
NOUMEA	15.83	302.1	3	46A	0	6	59	16				
ROXBURGH	16.58	209.7	4	5	9	7	5	5				
PORT VILA	17.86	317.4	4	12A	0							
KOUMAC	18.49	302.3	4	17A	-2							
AFIAMALU	18.79	22.6	4	21	-2	7	47	-4				
LUGANVILLE	20.31	318.6	4	41	1							
BRISBANE	24.80	272.4	5	26.	1	9	56	10				
RIVERVIEW	25.10	256.8	5	30	2	9	59	8			10	40
CANBERRA	26.82	253.3	5	45	1	10	22	3			10	32 *SS
MOORLANDS	28.86	238.3	6	10	7							
HONIARA	29.37	314.0	6	3	-4	11	1	1				
TOOLANGI	29.66	248.5	6	9	-1	11	15	10			7	5 PP

CHARTERS TS.	33.07	281.7	6	38	-2	12	0	1			
ADELAIDE	35.25	252.8	7	0K	2				13	23	SCP
PORT MORESBY	38.28	297.8	7	21	-3	13	16	-3			
RABAUL	38.32	309.4	7	20	-4	13	17	-2			
CAPE HALLETT	41.22	184.9	7	49	1						
SCOTT BASE	46.83	184.1	8	33	-1	15	28	4			
DARWIN	49.73	280.9	8	54	-2						
BYRD STATION	53.98	169.3	9	26	-2						
MUNDARING	54.23	251.3	9	30	0	17	3	-4			
HONOLULU	56.27	23.7	10	1	16	17	37	3	18	31	
KIPAPA	56.41	23.7				17	35	-1	23	42	
GUAM	56.62	316.6	9	48	1						
SOUTH POLE	58.63	180.0	9	59	-2						
MIRNY	60.68	207.3	10	18	2	18	29	-3			
MAWSON	70.91	201.0	11	17	-4						
ARGENTINE I.	71.26	156.2	11	20	-3						
TANGERANG	73.40	272.9	11	40	4						
BAGUIO CITY	74.96	300.3	11	47	2						
TUKUBASAN	77.50	327.2	12	2K	3	21	44	-6	26	53	SS
N-LAZARVSKYA	77.68	183.7	11	57	-3	21	42	-10			
MATUSIRO	78.65	326.2	12	6	0	22	1	-2			
KURILSK	82.10	337.1	12	27K	3	22	46	8			
Y.-SAKHLINSK	85.44	334.9	12	45K	4	23	22	10			
PARAISO	85.92	42.6	12	50	7						
PETROPAVLOVK	86.42	346.8	12	47	1	23	33	12			
SANTA LUCIA	86.59	127.4	12	46	-1	23	24	1	29	18	
UGLEGORSK	87.42	335.6	12	55K	4						
SHASTA	88.96	39.5	13	1A	3						
BOULDER CITY	90.22	46.9	13	8	4						
TONTO FOREST	91.44	50.1	13	8	-2				30	38	PKKP
EUREKA	91.78	43.7	13	9	-2						
ANTOFAGASTA	92.44	119.6				24	21	5	16	42	PP
GLEN CANYON	92.88	47.8	13	21	5						
BLUE MTS.	94.52	39.0	13	22	-2	24	7	-27	17	8	PP
ALBUQUERQUE	95.03	51.9	13	31	5						
UINTA BASIN	96.16	46.1	13	30	-1	24	9	1	17	22	PP
LA PAZ	98.41	115.1	13	46	5				24	28	
WICHITA MTS.	100.32	55.7	13	51	1	24	37	8	27	5	PS
TULSA	102.90	55.8							33	7	SS
BOGOTA	105.21	93.9				26	19	87	18	40	PP
MADRAS	105.73	275.8							18	37	
FUQUENE	105.94	93.4							18	47	PP
ESEN BULAK	108.71	313.3	19	0	777						
CUMBERLAND	110.15	60.1							28	41	SP
NEW DELHI	115.19	289.2	19	42A	58						
OTTAWA	120.57	52.8	18	56	2						
PALISADES	120.64	58.1	18	4	-50						
WARSAK DAM	121.65	292.9	18	59	3						
QUETTA	124.09	287.1	19	6	5						
BANDEIRA	132.31	196.3	19	14	-3				21	46	PP
KIZYL-ARVAT	134.81	295.7	19	28	7						
SHIRAZ	135.86	281.5	19	24	1				22	2	SKP
LWIRO	137.20	223.5	19	34	8						
TEHERAN	138.13	289.9	19	31	4						
KEVO	139.01	346.5							24	15	SKP
APATITY	139.21	341.6							28	29	SKKS
SODANKYLA	141.05	344.5	19	33	0				22	20	
KIRUNA	141.91	348.1	19	34	0						
GORIS	142.51	295.1	19	28K	-7						
KAJAANI	143.37	340.6	19	39	2						
TIFLIS	143.68	298.8	19	39	2						
BAKURIANI	144.64	298.9	19	36	-3						
MOSCOW	144.73	324.1	19	40A	1						
UMEA	145.48	345.0	19	38	-2						
VIBORG	145.52	336.0	19	36	-4						
PULKOVO	145.62	333.9	19	42A	1						
NURMIJARVI	147.04	338.5	19	43	0				42	53	SS
SKALSTUGAN	147.15	350.6	19	47A	4						
HELSINKI	147.21	337.9	19	42	-1						
BANGUI	148.26	215.2	19	38	-7				20	47	
UPPSALA	149.56	343.3	19	53	6						
KSARA	150.55	283.9	19	53	4						
JERUSALEM	150.86	279.6	19	54K	5						
GOTEBORG	152.76	347.0	19	58	6						
KARLSKRONA	153.32	341.6	20	2	9						
UZHGOROD	156.48	322.7	20	42	45						
KRAKOW	156.68	327.9	20	30K	33						
RACIBORZ	157.42	330.1	20	32	34						

HALLE	158.46	341.0	20	3	4					20	37	PKP2
PRUHONICE	158.94	334.9	20	38	38					26	18	
JENA	159.08	340.8	20	2	2					24	17	PP
BRATISLAVA	159.33	328.1	19	42	-18							
VIENNA-H.	159.59	329.3	20	4	3					20	43	PKP2
KASPERSKE H.	160.00	335.1	20	44	43					24	23	
STUTTGART	161.66	342.2	20	5	2							
GARCHY	164.20	354.6	21	3	58							
AQUILA	165.32	320.7								24	7	
ROME	166.12	321.3				26	27	-43		23	32	PKS
TOLEDO	170.76	24.4	20	8	-2					40	17	SKSP
MALAGA	173.22	39.0	20	16	5					26	19	PP

SEPTEMBER 14 7.H 17.M 18.5 EPICENTRE 18.99 145.02 DEPTH= 606.KM

A=-0.77534 B= 0.54241 C= 0.32349 D= 0.5732 E= 0.8194
G=-0.2651 H= 0.1854 K=-0.9462 HT= 4.9

DEPTH OF FOCUS= 0.090R

SE= 1.38

	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
GUAM	5.51	182.9	1	36	-2	2	55	-1			6	48
ABUYAMA	17.90	333.9	3	37K	1							
MATUSIRO	18.48	342.5	3	41K	0	6	46	7				
MIZUSAWA	20.35	351.3				7	42	33				
BAGUIO CITY	23.42	267.6	4	29	3							
KURILSK	26.27	4.5	4	51K	0							
Y.-SAKHLINSK	28.02	356.6	5	6K	0							
PORT MORESBY	28.29	175.6	5	8K	-1							
UGLEGORSK	30.11	356.1	5	25K	1							
DARWIN	34.17	205.3	6	0	2							
PETROPAVLOVK	35.58	14.2	6	10K	0							
CHARTERS TS.	38.86	178.1	6	36	-1						8	22
MAGADAN	40.72	4.5	6	51K	0							
ULAN-BATOR	42.26	321.9	7	4K	0	12	41	-1				
TANGERANG	45.34	240.2	7	28A	0							
IRKUTSK	45.89	326.1	7	32K	0							
BRISBANE	46.72	170.5	7	37	-1						11	55
ESEN BULAK	48.31	315.8	7	52K	2	14	10	3				
SHILLONG	49.36	287.7	7	59K	1							
RIVERVIEW	52.85	173.6	8	23	0							
CANBERRA	54.14	176.0	8	32	0							
TOOLANGI	56.26	179.6	8	46	-1							
MUNDARING	57.71	209.0	8	56	0							
SEMIPALATNSK	59.56	317.8	9	8	-1							
ALMATA-2	61.07	309.5	9	20K	1							
NEW DELHI	62.09	292.8	9	24K	-1							
FRUNSE	63.09	309.0	9	32K	0							
COLLEGE	63.30	26.1	9	31	-2							
LAHORE	64.18	296.5	9	39	0							
WARSAK DAM	66.19	299.5	9	52	1	17	54	0				
TASHKENT	67.15	307.6	9	57	0							
DUZHANBE	67.85	304.7	10	2	1							
QUETTA	70.66	296.1	10	18K	0	18	44	-1				
SVERDLOVSK	71.27	324.7	10	21	0							
MOULD BAY	73.04	14.4	10	31K	0							
ASHKABAD	76.02	305.6	10	48	0							
VANNOVSKAYA	76.22	305.6	10	49	0							
KIZYL-ARVAT	77.31	307.2	10	57	2							
ALERT	77.88	3.6	10	58K	0							
SEATTLE	77.97	43.7	11	2K	4							
YELLOWKNIFE	78.03	27.8	10	58	-1							
LONGMIRE	78.52	44.5	11	2	1							
RESOLUTE	79.29	13.5	11	4K	-1							
SHASTA	79.77	50.5	11	8K	0							
CALISTOGA	80.20	52.6	11	10K	0							
MINERAL	80.44	50.7	11	11K	0							
APATITY	80.51	338.8	11	10K	-2	21	4	35				
BERKELEY	80.66	53.2	11	13K	1							
PARAISO	81.02	54.8	11	19	5							
LICK	81.29	53.6	11	12K	-4							
EDMONTON	81.66	36.4	11	18	0							
TEHERAN	81.99	304.9	11	20	1							
BLUE MTS.	82.09	45.4	11	19K	-1				13	28	11	47

PRIEST	82.40	54.5	11	22A	1						
SODANKYLA	82.87	339.9	11	22K	-2				13	39	
SHIRAZ	82.92	298.8	11	24K	0	20	50	-3	11	50	14 18 PP
HUNGRY HORSE	83.04	41.3	11	25	1				13	32	
TROMSOE	83.81	343.5	11	27	-1						
MOSCOW	83.87	327.1	11	27	-2						
KAJAANI	84.28	336.9	11	30	0						
KIRUNA	84.53	341.7	11	31	-1						
BUTTE	84.82	43.1	11	34	1				13	40	
EUREKA	84.82	50.1	11	33	0				13	42	
PASADENA	84.97	55.8	11	34	0						
VIBORG	85.63	333.8	11	35	-2						
BAKURIANI	85.80	312.7	11	38	0						
BOZEMAN	85.93	43.0	11	37	-2				13	47	
DUGWAY	86.83	48.6	11	43K	0						
BOULDER CITY	86.90	53.1	11	44	1						
UMEA	87.11	338.6	11	42	-2						
SALT LAKE C.	87.29	47.8	11	45	0						
NURMIJARVI	87.45	334.7	11	44	-2						15 16 PP
HELSINKI	87.52	334.3	11	44	-2						
PRICE	88.48	48.5	11	52K	2						
FLAMING GRGE	88.94	46.9	11	53	0						
GLEN CANYON	88.95	51.2	11	53	0						
UINTA BASIN	89.07	47.5	11	53	0	21	48	-2			15 32 PP
SKALSTUGAN	89.88	340.8	11	55	-2						
TONTO FOREST	90.24	53.6	12	0	1				14	20	16 9 PP
UPPSALA	90.62	336.4	11	58	-2						
LARAMIE	91.37	45.3	12	6	2						
RAPID CITY	91.65	42.0	12	5	0						
GOLDEN	92.24	46.7	12	9	1						14 20
ALBUQUERQUE	93.58	51.3	12	15	1						
KARLSKRONA	93.91	334.3	12	12	-3						
UZHGOROD	95.58	325.9	12	22	-1						
PRUHONICE	98.60	330.2									16 33
HALLE	98.71	332.5									16 47
VIENNA-H.	98.88	328.1									16 50 PP
JENA	99.28	332.3									16 50
WICHITA MTS.	99.38	48.4	12	40	0				14	59	
KASPERSKE H.	99.64	330.0									16 28
BENSBERG	101.13	334.4									17 6
STUTTGART	101.88	331.8									17 11 PP
DOURBES	102.84	335.1									17 21
KEW	103.56	338.5									17 22 PP
GARCHY	105.69	334.2									17 38
FOLINIERE	105.87	337.1									17 39
CUMBERLAND	107.59	41.3	17	19	777						17 48 PP
CARACAS	136.97	49.7	18	7	-8						
TRINIDAD	140.68	43.7	18	16	-7						
LA PAZ	148.35	90.8	18	39	4						

SEPTEMBER 15 0.H 46.M 48.S EPICENTRE -10.36 165.61 DEPTH= 0.KM

A=-0.95305 B= 0.24452 C=-0.17861 D= 0.2485 E= 0.9686
G= 0.1730 H=-0.0444 K=-0.9839 HT= 6.5

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
LUGANVILLE	5.34	164.1	1	23	0							
HONIARA	5.65	278.9	1	30	3							
PORT VILA	7.79	160.6	1	57	0							
KOUMAC	10.23	187.0	2	29	-2							
NOUMEA	11.90	176.2	2	54A	0							
RABAUL	14.66	293.7	3	31K	0							
PORT MORESBY	18.21	271.4	5	18K	62	8	54	77				
BRISBANE	20.81	213.8	4	46K	1	8	33	-1				
CHARTERS TS.	21.01	240.3	4	48K	1	8	41	3				
AFIAMALU	22.38	101.3	5	2K	1						8	13
RIVERVIEW	26.87	207.4	5	45	1	10	17	-3			6 2	*SP
KARAPIRO	28.87	163.6	6	2	0							
CANBERRA	29.09	208.7	6	5	1	10	57	1			8	55
CHATEAU	30.06	164.5	6	13K	0	11	19	8				
GUAM	31.45	318.4	6	24	-1						7	26 PP
WELLINGTON	31.84	166.9	6	27A	-2	11	37	-2			7	21 PP
TOOLANGI	32.59	210.5	6	36K	1	11	46	-5			7	24

DARWIN	34.14	263.2	6	49	0					
ADELAIDE	34.66	220.8	6	54K	1				11	52
ROXBURGH	35.14	175.5	6	56	-1	12	32	2	7	54 PP
MOORLANDS	35.80	203.6	7	4	1					
TARRALEAH	35.97	204.5							9	39 PCP
TORISIMA	47.33	329.9	8	36K	-1				9	29
HONOLULU	47.54	48.4	8	40	1	15	34	0		
KIPAPA	47.67	48.4	8	40	0				10	39 PP
HAWAII V.OB.	48.60	52.5	8	47	0	15	54	5		
MUNDARING	50.33	237.0	9	1	0	16	10	-3		
MERA	51.22	332.7	9	7	0	16	37	12		
OSIMA	51.30	332.2	9	8K	0					
TYOSI	51.45	334.2	9	15	6					
AJIRO	51.66	332.2	9	10	-1				11	55
YOKOHAMA	51.73	332.9	9	4	-7	16	45	13		
MISIMA	51.79	332.1	9	9K	-3	16	37	4		
BAGUIO CITY	51.89	300.3	9	12	0					
TOKYO C.M.O.	51.89	333.2	9	13K	1	16	38	3		
HONGO	51.91	333.2	9	14	2					
SHIZUOKA	51.92	331.5	9	13	0	16	42	7		
SIOMISAKI	52.01	328.1	9	13	0	16	39	3		
HAMAMATU	52.04	330.7	9	14	1	16	42	5		
KAKIOKA	52.17	333.9	9	12	-2				10	59
MITO	52.17	334.3	9	20	6					
HUNATU	52.19	332.2	9	16	1	16	43	4		
TUKUBASAN	52.19	333.8	9	14K	1	16	46	7	9	24
OWASE	52.27	329.0	9	16K	1	16	48	8		
KOHU	52.42	332.1	9	16	0	16	48	6		
TITIBU	52.44	332.8	9	18	2					
KUMAGAYA	52.45	333.2	9	17	0	16	54	12		
ONAHAMA	52.47	335.0	9	16K	-1	16	31	-12		
UTUNOMIYA	52.57	333.9	9	17	0					
IIDA	52.64	331.4	9	18	0				12	13
MUROTO	52.69	326.7	9	22	4	16	55	9		
KAMEYAMA	52.76	329.8	9	21K	2	16	56	10		
NAGOYA	52.77	330.4	9	19K	0	16	59	12		
YAKUSIMA	52.77	321.4	9	20	1	16	56	9		
MAEBASI	52.80	333.1	9	18	-1				10	45
WAKAYAMA	52.93	328.3	9	20K	0	16	48	-1		
OIWAKE	52.97	332.6	9	20	0					
GIHU	53.05	330.5	9	22	1					
OSAKA	53.07	328.9	9	22K	1	16	57	6		
SUMOTO	53.15	328.1	9	22K	0	16	57	5	17	49
MATUMOTO	53.17	332.1	9	22	0					
HIKONE	53.20	329.9	9	24	2	17	0	8		
ABUYAMA	53.22	329.1	9	22K	0	17	0	7		
KYOTO	53.26	329.3	9	21	-2	16	53	0		
MIYAZAKI	53.26	323.4	9	24	1	17	1	8		
KOBE	53.27	328.6	9	23	0					
KOTI	53.28	326.4	9	24K	1	16	55	1		
MATUSIRO	53.30	332.5	9	22K	-1	16	59	5		
HUKUSIMA	53.33	335.2	9	23	0	17	5	11		
NAGANO	53.41	332.5	9	23	-1	17	9	14	12	6 PP
TAKAYAMA	53.43	331.4	9	23	-1					
KAGOSIMA	53.53	322.4	9	28	3	17	3	6		
HIMEJI	53.54	327.8	9	27	2					
ISINOMAKI	53.57	336.3	9	24K	-1	17	5	7		
UWAZIMA	53.58	325.4	9	27	2	17	2	4		
TAKAMATU	53.58	327.4	9	23	-2	17	1	3		
TSURUGA	53.59	330.1	9	24	-1					
SENDAI	53.60	335.9	9	25K	0	17	5	7		
TAKADA	53.74	332.9	9	26	0	17	1	1		
MAIZURU	53.79	329.4							17	7
YAMAGATA	53.81	335.4	9	27K	0	17	6	5		
TOYAMA	53.90	331.8	9	28	1	17	2	0		
MATUYAMA	53.90	326.1	9	29	2	17	3	1		
NIIGATA	54.07	334.1							11	30
OOITA	54.10	324.7	9	30	1	17	10	5		
TOYOOKA	54.12	329.0	9	29K	0	17	12	7	12	11
ASOSAN	54.18	324.0	9	30	1	17	13	7		
MIZUSAWA	54.25	336.6	9	29	-1	17	10	3		
KUMAMOTO	54.33	323.6	9	30	0	17	16	8		
MIYAKO	54.38	337.6	9	30	-1	17	16	8		
TOTTORI	54.43	328.5	9	31	0	17	11	2		
HIROSIMA	54.49	326.2	9	32K	0	17	15	5		
HENGCHUN	54.50	306.5	9	33	1					
AIKAWA	54.51	333.5	9	33	1					
TAWU	54.56	306.9							9	59

SAKATA	54.57	335.4	9	31	-1					
WAZIMA	54.59	332.0	9	32	0	17	19	8		
HSINKONG	54.59	308.0	9	32	0					
MORIOKA	54.73	337.0	9	35K	2	17	20	7		
NAGASAKI	54.75	322.9	9	34K	0	17	21	8	23	40
YONAGO	54.80	327.8	9	33	-1	17	25	11		
HWALIEN	54.87	309.0	9	39	5					
SAGA	54.88	323.7	9	32	-2					
SIMONOSEKI	55.02	324.7	9	32	-4					
HUKUOKA	55.07	324.0	9	35K	-1	17	25	7		
HAMADA	55.09	326.4	9	36K	0	17	25	7	11	13 PP
AKITA	55.16	336.1	9	36	-1	17	20	1		
ALISHAN	55.26	308.1	9	28	-9					
HATINOHE	55.31	337.8	9	37K	-1	17	30	9		
HUKUE	55.36	322.1	9	40	2					
SAIGO	55.40	328.3	9	40	2	17	28	6		
TAIPEI	55.53	310.0	9	41	2	17	31	7		
ANPU	55.62	310.2	9	40	0	17	31	6		
TAICHUNG	55.69	308.6							10	7
AOMORI	55.85	337.3	9	42K	1	17	32	4		
URAKAWA	56.29	339.7	9	45K	0	17	48	14		
NEMURO	56.47	342.6	9	45K	-1	17	43	7		
HAKODATE	56.71	337.9	9	48K	0	17	47	7		
OBIHIRO	56.84	340.5	9	49	0					
MORI	57.03	337.9	9	51K	1	17	54	10		
MURORAN	57.08	338.4	9	49K	-1	17	51	7		
TOMAKOMAI	57.13	339.0	9	50	-1					
SAPPORO	57.60	339.1	9	50K	-4	17	55	4		
SUTTSU	57.77	338.1	9	54	-1	18	6	13		
DJAKARTA	58.25	269.1	9	56	-3					
TANGERANG	58.45	269.1	9	58	-2					
WAKKANAI	59.56	340.6	10	7K	-1					
HONG KONG	59.96	303.2	10	11K	1	18	24	2	12	22 PP
Y.-SAKHLINSK	60.66	342.2	10	15K	0				12	37 PP
CAPE HALLETT	61.97	178.4	10	23	-1					
PETROPAVLOVK	63.40	355.3	10	32K	-2				19	12 PS
WILKES	67.00	201.1	10	55	-2	19	38	-12		
SCOTT BASE	67.48	179.7	10	59	-1					
MAGADAN	70.68	352.1	11	19K	-1	20	23	-11		
MIRNY	73.66	203.5	11	37K	0	20	55	-13	11	54 PCP
BYRD STATION	77.25	170.1	11	56	-2	21	48	1		
ULAN-BATOR	77.79	324.0	12	1K	0	21	59	6		
TOCKLAI	77.95	300.3	11	58	-3					
CHITTAGONG	79.24	295.2	12	10	1					
SOUTH POLE	79.71	180.0	12	10	-1					
SHILLONG	80.09	298.3	12	14K	1	22	22	5	15	30 PP
IRKUTSK	81.40	327.0	12	19K	-1				22	35 SCS
PARAISO	81.96	50.9	12	28	5					
UKIAH	82.26	48.0	12	26	1	22	52	12	15	51 PP
CALCUTTA	82.36	294.5	12	24	-1	22	38	-3		
BERKELEY	82.54	49.4	12	27K	1	22	50	7	15	38 PP
CALISTOGA	82.56	48.6	12	26K	0					
COLLEGE	82.68	18.2	12	25	-2	22	50	6		
SITKA	82.72	28.2	12	28	1	22	53	9		
LICK	82.84	50.1	12	28K	0					
PRIEST	83.21	51.5	12	31K	2					
SHASTA	83.39	46.7	12	30K	0					
ESEN BULAK	83.62	319.3	12	33	1	22	58	4		
MINERAL	83.84	47.2	12	33K	0					
CHATRA	84.49	298.4	12	37K	1	23	2	0	15	50 PP
PASADENA	84.57	54.0	12	36	0	22	49	-14	15	52 PP
MAWSON	85.30	202.0	12	40K	0	23	2	-8		
TIKSI	85.38	349.0	12	40K	0	22	59	-12	23	24
VICTORIA	85.42	39.1	12	36	-5					
KERGUELEN I.	85.81	220.7	12	51	8	23	21	6		
SEATTLE	85.81	40.2	12	42K	-1				15	55 PP
LONGMIRE	85.82	41.1	12	42	-1					
VISHAKHAPTNM	85.90	288.7	12	42K	-1	23	21	5	16	10 PP
BOULDER CITY	87.70	53.0	12	52	0				16	34 PP
EUREKA	87.72	49.4	12	52	0	23	42	9	30	50 PKKP
MADRAS	87.91	283.5	12	54A	1	23	42	7	16	21 PP
BLUE MTS.	88.23	43.9	12	54K	0				30	35 PKKP
KODAIKANAL	90.00	280.3	13	6A	3	23	54	-1	16	39 PP.
TONTO FOREST	90.15	55.3	13	4K	1	24	12	16	13 18	16 54 PP
DUGWAY	90.26	49.3	13	4K	0					
HYDERABAD	90.38	287.5	13	1	-3	24	3	5	16	48 PP
GLEN CANYON	90.47	52.6	13	6	1					
SALT LAKE C.	91.10	48.9	13	7	-1					
HUNGRY HORSE	91.33	41.1	13	8	-1					

PRICE	91.63	50.2	13	10K	0					
BUTTE	91.75	43.6	13	9	-2				16	49 PP
UINTA BASIN	92.70	49.7	13	15	0				16	51 PP
BOZEMAN	92.71	44.2	13	13	-2					
EDMONTON	92.92	36.3	13	15K	-1					
FLAMING GRGE	92.96	49.1	13	17	1					
DEHRA DUN	93.07	300.1	13	16K	-1	23	59	-23	16	43 PP
CHIHUAHUA	93.42	61.7							15	32
NEW DELHI	93.50	298.3	13	17K	-2	24	24	-1	18	3 PP
ALBUQUERQUE	94.17	55.4	13	22	0				17	7 PP
YELLOWKNIFE	94.42	27.3	13	19	-4					
GUADALAJARA	94.58	69.9	13	32	8				25	44
POONA	94.88	287.9	13	27A	2	24	42	5	17	49 PP
SEMIPALATNSK	94.95	320.2	13	25K	0	24	33	-5		
GOLDEN	95.78	50.8	13	30	1					
BOMBAY	95.90	288.1	13	29	-1	23	38	-28	17	28 PP
ARGENTINE I.	96.02	161.1	13	34	4					
LAHORE	96.42	300.8	13	32	0					
MOULD BAY	96.47	13.5	13	32K	0	24	11	2		
G. G. VIDELA	96.76	161.2	13	32	-2	25	2	52	17	44 PP
N-LAZARVSKYA	97.12	188.5	13	34	-1				17	25 PP
FRUNSE	97.67	312.1	13	38K	0				17	33 PP
RAPID CITY	97.96	46.7	13	39	0					
TACUBAYA	98.22	71.8	13	42	2				24	52
WARSAK DAM	99.05	303.0	13	44	0					
KHOROG	99.43	306.4	13	45K	-1				17	48 PP
OAXACA	100.18	74.5							25	12
WICHITA MTS.	100.55	56.5	13	50	-1	24	36	6	17	55 PP
VERA CRUZ	101.07	72.4							14	24
TASHKENT	101.49	310.2	13	55K	0	24	37	3	18	5 PP
RESOLUTE	102.43	15.6	13	58K	-1					
QUETTA	102.57	298.7	14	0K	0					
HOUSTON	102.82	61.8	13	58	-3					
TULSA	102.93	55.4	13	58K	-3	24	40	-1	18	10 PP
LAWRENCE	103.52	52.3	14	5	1					
COMITAN	104.50	75.8							18	24
ALERT	105.29	5.8	14	14	777					
SVERDLOVSK	106.80	326.3	14	17	777				33	36 SS
MERIDA	107.33	71.2							18	51
ASHKABAD	109.89	306.6	14	37	777				19	16 PP
SANTA LUCIA	111.05	131.8	14	32	-243					
CUMBERLAND	111.23	55.9	14	38	-238	25	20	3	19	5 PP
TANANARIVE	112.37	244.6	18	51	13				20	1 PP
APATITY	114.75	341.7	18	41	-2	25	30	-1	19	37 PP
COLUMBIA	115.06	57.3	18	31	-12				27	36
SHIRAZ	115.08	297.9	14	55K	-228					
KEVO	115.11	345.3	14	56	-227	25	32	0	19	42 PP
BLACKSBURG	115.26	53.8	18	53	10				19	44
HUANCAYO	115.50	108.7	19	5	21					
TEHERAN	115.61	304.6	14	59	-225				19	50 PP
ANTOFAGASTA	115.63	122.5	14	50A	-234					
GODHAVN	116.03	14.5							19	51
CHAPEL HILL	116.50	55.1							19	55
PENNSYLVANIA	116.73	49.5	14	45	-241					
SODANKYLA	116.87	343.5	18	55	8				20	2 PP
TROMSOE	117.08	347.5	18	52	5					
AREQUIPA	117.55	114.7	15	6	-222					
GEORGETOWN	117.65	51.5	15	6	-222					
WASHINGTON	117.65	51.5							19	45 PP
KIRUNA	118.15	345.8	18	54	5				20	6 PP
BREBEUF	118.75	43.6	18	59	9	25	48	2	29	56 PS
KAJAANI	118.77	340.4	18	53	3				19	57 PP
PHILADELPHIA	118.91	50.0							19	27
SHAWINIGAN	119.03	42.2	18	55	4				20	10
GORIS	119.04	309.5	18	42	-9	25	24	-23	20	12 PP
MOSCOW	119.33	329.2	18	52	1	25	55	7	20	15 PP
SCHEFFERVLLE	119.55	31.8	18	57	5					
PALISADES	119.63	48.6	18	53	1				15	17 P
FORDHAM	119.69	48.8	15	11	-221					
TIFLIS	119.72	312.2	18	55	3				20	18 PP
GALERAZAMBA	120.24	83.5							20	51 PP
LA PAZ	120.52	116.1	15	25	-209	25	38	-14		
BOGOTA	120.62	90.7	15	20	-214				20	20 PP
FUQUENE	121.09	89.8	15	25	-210				18	57 PKP
UMEA	121.28	342.8	18	57	2				20	24 PP
GRAHAMSTOWN	121.63	220.1	19	4	8					
CHANGALANE	121.90	230.2	18	58	2	25	20	-36	20	34 PP
NURMIJARVI	122.23	338.4	19	3	6				20	34 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.

HELSINKI	122.35	338.0	18	59	2					29	2	PKKP
SKALSTUGAN	123.58	346.1	19	8	8							
CHILEKA	124.69	242.8	19	4A	2							
UPPSALA	125.12	340.9	19	10	7					20	52	PP
HERMANUS	125.23	214.1				26	11	4		20	53	PP
HALIFAX	125.74	41.8	19	5	1							
KIMBERLEY	125.76	223.1	19	6K	2							
SIMFEROPOL	126.06	318.9	19	6	2					20	52	PP
BULAWAYO	127.95	234.4	19	9	1							
CARACAS	128.38	84.8	15	54K	-195					22	38	SKP
KSARA	128.50	305.1	15	59	-190	26	15	-1	17 2	21	16	PP
GOTEBORG	128.61	342.2	19	15	6					21	20	PP
KARLSKRONA	128.67	339.0	19	25	16							
WARSAW	129.35	332.6	19	12	1					21	22	PP
SAN JUAN	129.40	74.7	19	15	4					21	27	PP
JERUSALEM	129.54	302.7	19	13K	2					21	17	PP
BACAU	129.74	323.7	19	30	19					21	50	PP
COPENHAGEN	130.13	340.5	19	15	3							
BROKEN HILL	130.88	240.6	19	14	0							
UZHGOROD	131.08	328.3	19	15	1					21	29	PP
ISTANBUL UN.	131.13	316.4	16	9	-185					22	42	PKS
KRAKOW	131.33	331.1	19	16	1					21	35	PP
BUCHAREST	131.36	321.7								21	38	PP
CAMPULUNG	131.55	323.2	19	18	3					21	39	PP
CHORZOW	131.61	331.8	19	12	-3					21	37	PP
SKALNATE PL.	131.76	330.0	19	22	7					21	45	
RACIBORZ	132.12	332.1	19	16	0					21	40	PP
ABERDEEN	132.34	351.0				26	42	16		21	38	PP
COLLMBERG	133.43	336.6	19	19	1	26	25	-3				
TIMISOARA	133.44	325.8	19	32	14					22	50	
HURBANOVO	133.65	329.9	19	29	10					22	2	PP
ST. CLAUDE	133.67	77.7	19	29	10					21	53	PP
HALLE	133.68	337.5	19	18	-1	26	22	-6				
PRAGUE	133.80	334.5	19	18	-1					25	17	
TRINIDAD	133.81	85.2	19	17	-2							
PRUHONICE	133.81	334.3	19	19	0					31	20	
BRATISLAVA	133.97	330.9	19	22	3					21	46	
SOFIA	133.98	321.2	19	35	16	26	4c	13		22	51	PP
FORT FRANCE	134.21	79.5	19	21	1					21	51	PP
VIENNA-H.	134.26	331.5	19	21	1	26	26	-4		21	54	PP
JENA	134.27	337.2	19	20	0	26	28	-2		21	48	PP
WITTEVEEN	134.36	342.2	19	12	-8					21	47	PP
BELGRADE	134.44	325.3	19	10K	-10					21	48	PP
DURHAM	134.55	349.6	19	19A	-2				19 33	21	52	PP
KASPERSKE H.	134.87	334.2	19	19	-2					21	56	PP
LWIRO	135.22	256.2	16	33A	-169							
DE BILT	135.44	342.9	19	24K	2					22	1	PP
SKOPJE	135.55	321.4	19	34A	12					22	5	
BENSBERG	135.81	340.5	19	21	-2					22	3	PP
ATHENS	136.16	315.2	19	21A	-2					22	57	
ZAGREB	136.16	329.3	19	26A	3					22	5	PP
HEIDELBERG	136.59	338.1	19	25	1							
TITOGRAD	136.59	323.3	19	26	2					22	11	PP
LJUBLJANA	136.72	330.6	19	24	0					22	7	PP
UCCLE	136.83	342.7	19	28	3							
STUTTGART	136.90	337.1	19	17	-8					22	12	PP
KARLSRUHE	137.03	338.0	19	27A	2					22	14	PP
TUBINGEN	137.17	337.1	19	26	1							
DOURBES	137.37	342.0	19	30	4					22	16	PP
TRIESTE	137.38	330.8	16	47A	-159					22	12	PP
PATRAS	137.39	316.7	19	25	-1							
KEW	137.42	347.0	19	28A	2					22	7	PP
STRASBOURG	137.62	338.2	19	12K	-14					25	24	
VALENTIA	138.41	356.1	19	20	-8							
PADOVA	138.45	332.0	19	29	1					22	22	PP
TARANTO	138.98	322.4	19	43	14							
PARIS	139.15	342.9	19	30	1							
BESANCON	139.39	338.6	19	32	3					22	12	
PAVIA	139.83	334.0	19	22	-8					22	28	PP
AQUILA	139.92	327.5	19	24	-6					22	32	PP
PRATO	139.96	331.1	19	23	-7					25	12	
GARCHY	140.34	341.3	19	25A	-6							
ROSELEND	140.46	336.7	19	33	2					22	27	
ROME	140.72	327.8	19	24K	-8					22	38	PP
REGGIO CALA.	141.42	320.7	19	28	-5					22	34	PP
MESSINA	141.42	320.9	19	28	-5					22	34	PP
ISOLA	141.53	335.0	19	29	-4					22	39	PP
CLERMONT-FD.	141.66	340.2	19	30	-3					22	46	PP

MONACO	141.74	334.2	19	27	-7							
BANDEIRA	142.81	228.0	19	32K	-3	26	35	-9	19	48	22	46 PP
BAGNERES	145.03	341.3	19	40	1						20	37
BARCELONA	145.81	337.6	19	45	4							
LUANDA	146.54	236.2	19	44A	2				19	53	23	9 PP
BANGUI	146.75	262.2	19	42	0							
HORTA	149.18	22.1	20	6	20							
TOLEDO	149.19	344.4	19	45A	-1	26	49	-4			23	21 PP
ALICANTE	149.46	338.2	19	53K	6						23	34 PP
PONTA DELGDA	150.91	18.6	19	52K	3						20	5 PKP2
LISBON	151.37	351.4	19	50K	1	26	30	-26			23	34 PP
ALMERIA	151.51	339.7	19	51	1						23	42 PP
GRANADA	151.57	341.7	19	54K	4	27	10	14			23	50 PP
MALAGA	152.24	342.6	19	52	1						23	41 PP
AVERROES	156.28	345.4	19	58K	2				20	50	24	3 PP
M.BOUR	175.27	32.0	20	14	2						25	47 PP

SEPTEMBER 16 20.H 5.M 23.S EPICENTRE -13.39 166.53 DEPTH= 40.KM

A=-0.94638 B= 0.22667 C=-0.23017 D= 0.2329 E= 0.9725
G= 0.2238 H=-0.0536 K=-0.9732 HT= 6.0

DEPTH OF FOCUS= 0.001R

SE= 2.57

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
LUGANVILLE	2.19	164.7	0	33A	-2							
PORT VILA	4.64	158.4	1	13A	3	2	8	5				
KOUMAC	7.44	196.5	1	47A	-2	2	47	-26				
HONIARA	7.56	300.7	1	50	-1	3	10	-6				
NOUMEA	8.86	180.5	2	7	-2	3	47	-1				
RABAUL	16.87	301.5	3	55	0							
BRISBANE	18.95	220.6	4	19	-2	7	59	12				
PORT MORESBY	19.41	279.8	4	26	0	7	57	0				
CHARTERS TS.	20.51	248.3	4	38	1	8	21	1				
AFIAMALU	21.08	93.9	4	44	1	8	31	0				
RIVERVIEW	24.69	211.9	5	20	1	9	41	6				
KARAPIRO	25.72	163.4	5	36	8							
CANBERRA	26.96	212.9	5	43	3	10	22	9			15	43
WELLINGTON	28.70	167.0				10	43	3				
TOOLANGI	30.52	214.2	6	11	-1				6	21	6	51
ROXBURGH	32.07	176.3	6	24	-1	11	37	3				
ADELAIDE	33.05	224.6	6	34K	0						13	49 SS
DARWIN	34.80	267.5	6	50	1							
HONOLULU	48.94	45.7				16	9	25				
MUNDARING	49.51	239.3	8	49	0	15	54	2				
BAGUIO CITY	54.22	301.8	9	25	1	17	13	16				
ABUYAMA	56.28	329.4	9	40A	1							
MATUSIRO	56.39	332.7	9	41	1	17	28	2				
CAPE HALLETT	58.93	178.7	9	57	-1							
HONG KONG	62.38	304.1				18	53	10				
SCOTT BASE	64.46	179.9	10	33	-2							
PETROPAVLOVK	66.49	354.8	10	40	-8							
MIRNY	71.26	203.9	11	17	0	20	27	-3				
MAGADAN	73.80	351.7	11	32	0							
BYRD STATION	74.12	170.0	11	33	-1							
ULAN-BATOR	80.76	324.0	12	14A	3	22	21	7				
SHILLONG	82.32	298.5	12	21A	2							
MAWSON	82.84	202.0	12	22	0							
IRKUTSK	84.42	326.9	12	30A	0	22	57	5				
COLLEGE	85.28	17.8	12	34	0							
CHATRA	86.72	298.4	12	45A	4							
TIKSI	88.51	348.8	12	49A	-1							
EUREKA	89.01	49.1									13	22
MADRAS	89.49	283.4									23	49
BLUE MTS.	89.78	43.7	12	58	2						16	37 PP
TONTO FOREST	91.13	55.1	13	6	4						16	37 PP
UINTA BASIN	93.97	49.6	13	9	-6							
N-LAZARVSKYA	94.26	188.2	13	16K	0	24	27	5				
WICHITA MTS.	101.46	56.9									30	21 PKKP
TULSA	103.88	56.0				24	49	14			27	37 PS
SHIRAZ	117.26	296.6	18	38	-3						27	41
KAJAANI	121.91	340.1	18	49	-1							
BAKURIANI	123.33	311.3	18	58	5							
UMEA	124.43	342.6	18	55	0							

NURMIJARVI	125.36	338.0	18	58	1						
BULAWAYO	126.86	231.9	19	2	2						
CARACAS	127.70	87.0							21	2	PP
KSARA	130.94	303.3	19	10	2				21	32	PP
UZHGOROD	134.11	327.3	19	18	4				22	47	SKP
KRAKOW	134.40	330.2							33	35	
CHORZOW	134.69	331.0							33	23	
LWIRO	135.28	252.8	19	34	18						
COLLMBERG	136.56	336.0	19	21	3				22	54	
PRUHONICE	136.92	333.6	19	21	2				22	1	
KASPERSKE H.	137.98	333.5	19	23	2				22	58	
LJUBLJANA	139.79	329.6	19	24	0				23	12	
STUTTGART	140.03	336.5	19	14	-10				19	26	
AQUILA	142.94	326.2	19	29	-1				22	37	PP
FLORENCE X.	143.03	329.8	19	31	1	26	53	20	23	26	PP
FOLINIERE	143.13	345.7	19	36	6						
GARCHY	143.49	341.0	20	31	60				24	44	PP
ROME	143.75	326.5	19	31A	0	26	53	19	23	26	PKS
MESSINA	144.31	319.1	19	32	0				22	22	
ISOLA	144.65	334.2	19	34	1						
CLERMONT-FD.	144.80	339.7	19	36	3				20	50	
MONACO	144.85	333.3	19	34	1						
BANGUI	147.09	257.2	19	39	2						
TOLEDO	152.34	344.3	19	55K	10	26	55	9	22	39	PP
GRANADA	154.72	341.3	20	27K	39	27	15	26			
MALAGA	155.39	342.3	19	51K	2				24	2	PP
AVERROES	159.43	345.5	20	36	42						

SEPTEMBER 17 5.H 54.M 35.S EPICENTRE -10.63 -78.23 DEPTH= 76.KM

A= 0.20050 B=-0.96241 C=-0.18322 D=-0.9790 E=-0.2040
G=-0.0374 H= 0.1794 K=-0.9831 HT= 6.5

DEPTH OF FOCUS= 0.007R

SE= 2.17

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NANA	1.92	134.9	0	30	-2	0	46	-10					
HUANCAYO	3.18	116.7	0	50	1	1	11	-16					
AREQUIPA	8.75	132.2	2	5	-1								
LA PAZ	11.42	121.8	2	41	-1	5	3	14					
ANTOFAGASTA	14.98	151.2	3	27	-2						5	58	SS
BOGOTA	15.70	15.5	3	39A	1	6	31	1	3	46	6	43	*SS
CHINCHINA	15.71	9.7	3	39	1	6	30	0			6	47	*SS
COPIAPO	18.22	157.0	4	8	-1								
BALBOA HTS.	19.50	356.1	4	25	1								
GALERAZAMBA	21.47	8.0	4	47K	3	8	50	17					
SANTA LUCIA	23.75	164.1	5	7A	1	9	18	5	5	23			
CARACAS	23.81	28.5	5	9A	2	9	24	10					
SAN SALVADOR	26.49	335.5	5	20	-12								
CONCEPCION	26.68	168.9	5	36	2								
TRINIDAD	26.96	38.9	5	37	0								
FORT FRANCE	30.35	34.2	6	4	-3								
ST. CLAUDE	31.13	32.0	5	53	-21	11	15	2					
SAN JUAN	31.20	22.6	6	14	-1	11	17	3					
TACUBAYA	36.29	325.2	7	9	11								
COLUMBIA	44.46	356.7	8	4	-2								
CHAPEL HILL	46.30	359.1	8	21	1								
CUMBERLAND	46.49	351.7	8	21K	-1	14	58	-5	8	39	19	8	
BLACKSBURG	47.63	357.6	8	30	-1								
WICHITA MTS.	49.06	337.7	8	41	-1	15	44	4	8	59	13	54	SCP
TULSA	49.16	341.1	8	42K	-1	15	47	6					
GEORGETOWN	49.28	1.2	8	44	1								
MORGANTOWN	50.02	358.3	8	49A	0								
PENNSYLVANIA	51.17	0.4	8	57	-1								
FORDHAM	51.37	4.2	8	56	-3	16	6	-6					
PALISADES	51.53	4.2	9	1	0	16	46	32	9	18	9	54	PCP
SOCORRO	52.15	329.7	9	8	3								
ALBUQUERQUE	52.63	330.7	9	9	0	16	33	4			9	27	
TUCSON	52.81	325.0	9	10	0								
LONDON ONT.	53.47	357.3	9	13K	-2								
SCARBOROUGH	54.09	359.1	9	18	-2								
TONTO FOREST	54.58	326.4	9	24	1				9	43	11	25	PP
ARGENTINE I.	55.40	172.9	9	27	-2								

OTTAWA	55.81	2.1	9 30	-2				
BREBEUF	56.02	3.9	9 33K	-1			9 51	17 18
GOLDEN	56.06	334.9	9 33	-1	17 22	7		
HALIFAX	56.56	12.5	9 38	1				
GLEN CANYON	56.78	328.2	9 40	1			9 58	
SHAWINIGAN	57.12	4.5	9 40	-1				
BOULDER CITY	57.79	325.1	9 47	1			10 5	
UINTA BASIN	58.41	332.2	9 49K	-1	17 47	1	10 6	39 31 PKPPKP
PRICE	58.43	330.8	9 51K	0				
PASADENA	58.48	321.4	9 51	0	18 0	13	10 7	10 39 PCP
FLAMING GRGE	58.81	332.7	9 54	1				
RAPID CITY	58.98	339.2	9 54	0				
SALT LAKE C.	59.83	330.9	10 0	0				
DUGWAY	59.86	329.8	10 1K	1				
EUREKA	60.94	327.2	10 8	0			10 25	40 20 PKPPKP
PRIEST	61.33	321.5	10 11K	1				
PARAISO	62.51	320.7	10 15	-3				
LICK	62.71	322.0	10 21K	1				
BOZEMAN	63.34	334.8	10 24	0	18 53	4		
BERKELEY	63.42	322.0	10 25K	1	18 55	5		23 7 SS
CALISTOGA	64.11	322.5	10 29K	0				
BUTTE	64.26	334.1	10 29	-1			10 48	
MINERAL	64.66	324.5	10 32K	0				
SHASTA	65.34	324.4	10 35K	-2				
BLUE MTS.	65.54	330.5	10 37K	-1	19 22	6		19 53
M.BOUR	65.62	68.9	10 59	20	19 22	5		
HUNGRY HORSE	66.71	334.9	10 45	0			11 3	
LONGMIRE	69.10	329.5	11 0	0				
SEATTLE	69.96	330.0	11 0K	-6	20 1	-8		
EDMONTON	70.43	338.5	11 6K	-2				
VICTORIA	71.11	330.1	11 13K	0				
BYRD STATION	71.98	187.0	11 17	-1				
YELLOWKNIFE	78.15	343.7	11 52	-1				
N-LAZARVSKYA	80.07	160.3	12 21K	18	22 42	42		
AVERROES	80.18	53.4	13 5K	61			13 23	
MALAGA	83.63	50.9	12 24K	2				22 44
GRANADA	84.39	50.7	12 44K	18	22 59	15		28 23 SS
HONOLULU	84.54	292.8	12 31	5	22 59	14		24 27
SCOTT BASE	84.78	191.1	12 27	-1				
TOLEDO	84.88	48.0	12 29K	1	22 47	-2	12 47	15 55 PP
ALMERIA	85.15	51.3			23 15	24		
VALENTIA	85.16	35.2	12 31	2	22 53	1		
RESOLUTE	85.77	355.6	12 32	0				
CAPE HALLETT	86.33	196.6	12 36	1				
BANDEIRA	88.78	104.8	12 49A	2				
BAGNERES	88.83	45.9	12 48	1				
FOLINIERE	89.97	40.3	12 53	0			13 11	
MOULD BAY	90.02	350.9	12 53	0				23 17
KEW	90.81	37.7	12 56	-1	23 21	-23		29 39 SS
AFIAMALU	90.88	255.8	13 0	3	23 33	-12		
DURHAM	91.02	34.3	12 58A	1	23 25	-21		16 29 PP
COLLEGE	91.10	336.4	12 57	-1				
GARCHY	91.89	42.3	13 2A	1				
ALERT	93.27	2.1	13 7K	-1				
DOURBES	93.51	39.8	12 59	-10	24 27	19		
ROSELEND	93.95	44.4	13 11	0				13 34
ISOLA	93.96	46.0	13 12	1				
MONACO	94.15	46.4	13 13	1				
STRASBOURG	95.25	41.7						25 48
BENSBERG	95.28	39.3	13 18	1				
WELLINGTON	95.52	226.4						17 31 PP
PAVIA	95.62	45.2						25 53 PS
KARAPIRO	96.03	229.8	13 41	21				
STUTTGART	96.27	41.7	13 21	0				
FLORENCE X.	96.89	46.8	13 29	5	24 33	40		31 29 SS
MAWSON	97.13	166.0	13 25	0				
ROME	97.53	48.8	13 27	0	23 59	3		26 13 PS
JENA	98.04	39.7	13 28	-1	24 8	9		24 38 S
AQUILA	98.26	48.5	13 25	-6				
TRIESTE	98.88	45.2			24 8	5		24 38 *SSKS
COLLMBERG	98.97	39.5	13 34	0				17 58
KASPERSKE H.	99.12	41.7	13 34	0				17 27
MESSINA	99.43	52.8						25 1
LJUBLJANA	99.46	44.8	13 36	0				18 1
PRUHONICE	99.83	40.9	13 38	0				33 57
RIVERVIEW	115.54	224.5	18 31	-3				29 37 PS
KSARA	115.84	57.6						20 1 PP
BAKURIANI	120.58	47.7	18 46	3				

GORIS	123.20	49.6								20	30	PP
SVERDLOVSK	124.06	25.9	18	51K	1							
YAKUTSK	124.83	344.4	18	50K	-2							
CHARTERS TS.	126.62	235.2							18 58	32	52	
Y.-SAKHLINSK	129.91	324.2	19	3K	2							
SHIRAZ	130.45	60.1	19	4	2					21	20	PP
KIZYL-ARVAT	130.60	46.9	19	6	3					22	33	SKP
PORT MORESBY	130.66	247.8	18	55	-8							
VANNOVSKAYA	132.41	47.7	19	8	2							
ASHKABAD	132.59	47.6	19	8	1							
MUNDARING	135.45	197.6	19	15	3							
SEMIPALATNSK	136.56	20.0	19	17	3							
TASHKENT	138.17	37.3	19	19	2							
MATUSIRO	138.20	314.1	19	8	-9							
IRKUTSK	138.42	357.6	19	18	1							
DUZHANBE	139.47	41.1	19	24	5							
ALMATA	140.98	29.1	19	24	2							
QUETTA	142.23	53.8	19	21	-3							
ULAN-BATOR	142.58	354.3	19	24	-1							
WARSAK DAM	143.87	45.2	19	26	-1							
ESEN BULAK	144.04	6.5	19	26	-1							
DEHRA DUN	150.49	44.9	19	42	4					20	3	
NEW DELHI	150.87	48.7	19	41K	3							
POONA	151.89	70.5	19	43K	3							
MANILA	160.74	284.0	20	3	12							
BAGUIO CITY	160.83	289.5	19	54	3							
HONG KONG	163.40	315.9	19	58	4					20	19	
PORT BLAIR	171.06	82.5	20	3K	4							

SEPTEMBER 17 19.H 20.M 6.5 EPICENTRE -10.19 165.37 DEPTH= 0.KM

A=-0.95251 B= 0.24863 C=-0.17581 D= 0.2526 E= 0.9676
G= 0.1701 H=-0.0444 K=-0.9844 HT= 6.5

SE= 2.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
HONIARA	5.40	277.6	1	25	1								
LUGANVILLE	5.57	162.2	1	26A	0								
KOUMAC	10.36	185.7	2	31A	-2								
NOUMEA	12.08	175.2	2	57	0	5	9	-4					
RABAUL	14.38	293.5	3	26K	-1								
PORT MORESBY	17.97	270.9	4	14K	1	7	44	12					
BRISBANE	20.82	213.0	4	45	-1	8	16	-18					
CHARTERS TS.	20.89	239.7	4	44	-3	8	38	3					
AFIAMALU	22.64	101.7	5	4K	0						10	33	
RIVERVIEW	26.90	206.9	5	45K	0	10	14	-7			6	25	PP
KARAPIRO	29.09	163.3	6	3	-2								
CANBERRA	29.12	208.3	6	5K	0	10	56	-1	6	12	6	15	*SP
GUAM	31.17	318.5	6	22	-1	11	4	-25					
WELLINGTON	32.05	166.6	6	29K	-2	11	40	-3			13	54	SSS
TOOLANGI	32.61	210.1	6	34	-2	11	46	-5			7	40	PP
DARWIN	33.93	263.0	6	47	0								
ADELAIDE	34.63	220.4	6	53K	0	12	14	-9			8	8	PP
ROXBURGH	35.32	175.2	6	59	0						8	33	PP
MOORLANDS	35.85	203.2	7	4	0						10	6	
TARRALEAH	36.02	204.1	7	6	1				7	13			
MACQUARIE I.	44.49	185.3	8	22K	7								
HONOLULU	47.61	48.7	8	42	2								
HAWAII V.OB.	48.69	52.8	8	48	0	15	54	3					
MUNDARING	50.22	236.8	9	1	1	16	14	2					
MANILA	50.38	298.7	9	1	0	16	16	2					
MERA	50.97	332.9	9	6	0	16	32	10					
OSIMA	51.05	332.4	9	5K	-1	16	24	1					
AJIRO	51.41	332.3	9	9	0								
YOKOHAMA	51.48	333.1	9	8	-2	16	39	10					
MISIMA	51.54	332.2	9	9	-1	16	39	9					
BAGUIO CITY	51.60	300.4	9	9	-1	16	35	4					
TOKYO C.M.O.	51.64	333.3	9	10	-1	16	34	2					
HONGO	51.66	333.4	9	15A	4								
SHIZUOKA	51.67	331.7	9	11	0						13	55	
SIOMISAKI	51.74	328.3	9	14	2	16	34	1					
HAMAMATU	51.78	330.9	9	11	-1								
KAKIOKA	51.92	334.1	9	9	-4						10	59	
MITO	51.92	334.4	9	14	1								
HUNATU	51.93	332.3	9	13	0	16	37	1					

TUKUBASAN	51.94	334.0	9	12A	-1	16	37	1	9 21	10	58 PP
OWASE	52.01	329.1	9	24	10	16	49	12			
KOHU	52.17	332.3	9	16	1	16	50	11			
TITIBU	52.19	333.0	9	16	1						
KUMAGAYA	52.20	333.3	9	16	1						
ONAHAMA	52.23	335.2	9	17A	2						
UTUNOMIYA	52.32	334.0	9	15	-1					13	22
IIDA	52.38	331.6	9	17	1					12	23
MUROTO	52.43	326.8	9	11	-6	16	32	-10			
YAKUSIMA	52.50	321.5	9	18	1	16	51	8			
KAMEYAMA	52.50	329.9	9	18K	1	16	53	10			
NAGOYA	52.51	330.6	9	16	-1	16	32	-11			
MAEBASI	52.54	333.2	9	19A	1					10	46
SHIRAKAWA	52.65	334.7	9	19	1						
WAKAYAMA	52.66	328.4	9	13	-5	16	50	4			
ASHIZURI	52.68	325.4	9	17	-2	16	48	2			
NARA	52.68	329.3	9	19	0						
OIWAKE	52.72	332.7	9	18	-1						
GIHU	52.79	330.6	9	21	2						
OSAKA	52.81	329.0	9	21	1	16	45	-2		13	22
TOKUSIMA	52.85	327.8	9	20	0						
SUMOTO	52.88	328.3	9	20K	0	16	48	-1			
MATUMOTO	52.92	332.2	9	28	8					12	18
HIKONE	52.94	330.1	9	20	-1	16	58	9			
ABUYAMA	52.96	329.2	9	20K	-1	17	16	26			
MIYAZAKI	52.99	323.5	9	24	3	17	4	14			
KYOTO	53.00	329.5	9	19	-2	16	36	-14			
KOTI	53.01	326.5	9	22	1	16	52	2			
KOBE	53.01	328.7	9	21	0						
MATUSIRO	53.05	332.6	9	19A	-2	17	1	10			
HUKUSIMA	53.09	335.3	9	22	0	17	6	15			
NAGANO	53.16	332.7	9	27	5	17	2	10		11	39 PP
TAKAYAMA	53.17	331.5	9	19	-3						
KAGOSIMA	53.26	322.5	9	24	1	16	58	4			
UWAZIMA	53.31	325.5	9	24	1	16	50	-4			
TAKAMATU	53.32	327.6	9	23	0	17	1	7			
ISINOMAKI	53.33	336.5	9	22K	-1	17	5	10			
SENDAI	53.36	336.0	9	24	0	17	3	8			
TAKADA	53.49	333.0	9	24	-1						
YAMAGATA	53.56	335.5	9	24	-1	17	3	5			
MATUYAMA	53.64	326.2	9	27	1	17	7	8			
TOYAMA	53.64	331.9	9	27	1	17	13	14			
KANAZAWA	53.76	331.3	9	20	-7						
NIIGATA	53.83	334.3								10	40
OOITA	53.83	324.8	9	27	0					12	8
TOYOOKA	53.86	329.1	9	24	-3	17	3	1		12	4
MIZUSAWA	54.01	336.8	9	29	1	17	2	-2			
KUMAMOTO	54.06	323.7	9	28	-1	17	14	9			
MIYAKO	54.14	337.8	9	30	1	17	11	5			
TOTTORI	54.17	328.6	9	23	-7						
HENGCHUN	54.21	306.5	9	13	-17						
HIROSIMA	54.23	326.3	9	28	-2	17	14	7			
AIKAWA	54.25	333.7	9	30	0						
TAWU	54.28	307.0	9	27	-3						
TAITUNG	54.29	307.5	9	34	4					13	27
HSINKONG	54.31	308.0	9	31	0						
SAKATA	54.33	335.5	9	35	4						
WAZIMA	54.33	332.1	9	33	2	17	19	11			
NAGASAKI	54.48	323.0	9	30K	-2	17	17	7		23	36
MORIOKA	54.49	337.1	9	36	4	17	15	5			
YONAGO	54.54	327.9	9	31	-1	17	19	8			
HWALIEN	54.59	309.1	9	36	3						
SAGA	54.61	323.8	9	24	-9	17	17	5			
MATSUE	54.70	327.7	9	30	-3	17	20	7			
HUKUOKA	54.80	324.1	9	34	0	17	17	3			
HAMADA	54.82	326.5	9	34K	0	17	24	9			
AKITA	54.92	336.3	9	46	11	17	15	-1			
ALISHAN	54.97	308.1								10	24
HATINOHE	55.07	337.9	9	36	0	17	30	12			
SAIGO	55.14	328.5	9	29	-8	17	23	4			
TAIPEI	55.25	310.1	9	44	7	17	31	11			
TAICHUNG	55.40	308.7	9	44	5						
AOMORI	55.61	337.5	9	37	-3	17	16	-9			
URAKAWA	56.06	339.9	9	44K	1	17	48	17			
NEMURO	56.24	342.7	9	42A	-3	17	45	11			
KUSIRO	56.28	341.6	9	45A	0	17	41	7			
HAKODATE	56.47	338.1	9	45	-1	17	41	4			
OBIHIRO	56.61	340.6	9	48	1						

MORI	56.80	338.1	9	55	6	18	14	33						
MURORAN	56.84	338.5	9	48	-1									
TOMAKOMAI	56.90	339.2	9	57	8									
ABASHIRI	57.26	342.0	9	48	-4									
SAPPORO	57.36	339.3	9	51K	-2	17	53	4						
SUTTSU	57.53	338.2	9	49	-5									
ASAHIGAWA	57.65	340.4	9	55	0									
TANGERANG	58.22	269.0	9	58K	-1									
WAKKANAI	59.33	340.8	10	7	1	18	3	-11						
HONG KONG	59.67	303.3	10	8K	-1	18	10	-9						
Y.-SAKHLINSK	60.44	342.4	10	13K	-1							12	33	PP
CAPE HALLETT	62.14	178.3	10	23	-3	18	52	2						
PETROPAVLOVK	63.22	355.5	10	31K	-2	19	5	1				13	2	PP
PHU-LIEN	65.43	298.4	10	46	-1									
WILKES	67.07	201.0	10	56	-2	19	38	-13	11	17				
SCOTT BASE	67.65	179.7	11	0	-1									
MIRNY	73.71	203.4										14	9	PP
PORT BLAIR	75.39	284.9	11	49K	1							14	53	PP
YAKUTSK	77.16	343.6	11	50K	-7							14	1	
BYRD STATION	77.45	170.1	11	57	-2							21	58	
ULAN-BATOR	77.52	324.0	11	59K	0	21	40	-10						
TOCKLAI	77.66	304.3	12	3	3									
CHITTAGONG	78.96	295.2	12	5	-2									
SHILLONG	79.80	298.4	12	12K	0	22	22	7						
IRKUTSK	81.13	327.0	12	17K	-2	22	24	-5				15	28	PP
PARAISO	82.04	51.0	12	28	4							15	29	
CALCUTTA	82.08	294.6	12	22	-2	22	41	3				15	28	PP
UKIAH	82.32	48.1	12	27	2									
COLLEGE	82.60	18.3	12	24	-3	22	52	8						
BERKELEY	82.62	49.5	12	26K	-1	22	54	10				28	19	SS
CALISTOGA	82.63	48.7	12	26K	-1									
SITKA	82.68	28.3	12	28	1	22	50	6						
LICK	82.91	50.2	12	28K	0									
PRIEST	83.29	51.6	12	30A	0									
ESEN BULAK	83.34	319.4	12	29K	-1							20	59	
SHASTA	83.45	46.8	12	30K	-1							17	57	
MINERAL	83.90	47.3	12	32K	-1									
CORVALLIS	84.13	42.9	12	37	3	23	7	8						
CHATRA	84.21	298.5	12	34K	-1	23	2	2				15	55	PP
PASADENA	84.67	54.1	12	37	0	23	11	7				13	2	
BOKARO	84.69	295.2	12	38K	1	23	15	10				16	2	PP
TIKSI	85.17	349.1	12	38	-2	23	8	-1						
MAWSON	85.37	202.1	12	41	0	23	10	-1						
VICTORIA	85.44	39.2	12	41	0									
VISHAKHAPTNM	85.63	288.8	12	42K	0	23	21	7				16	6	PP
KERGUELEN I.	85.78	220.8	12	50	7	23	15	0						
SEATTLE	85.84	40.2	12	47	4									
MADRAS	87.64	283.6	12	54A	2	23	23	-10				16	22	PP
BOULDER CITY	87.79	53.0	12	53	1							39	14	PKPPKP
EUREKA	87.79	49.4	12	53	0									
BLUE MTS.	88.27	44.0	12	54	-1							16	35	PP
KODAIKANAL	89.74	280.4	13	4A	2	23	43	-9				18	43	PPP
HYDERABAD	90.11	287.6	13	4K	1	23	45	-11				16	3	PP
TUCSON	90.19	57.4	13	4	0									
TONTO FOREST	90.25	55.3	13	5	1							16	42	PP
DUGWAY	90.33	49.3	13	4K	-1									
GLEN CANYON	90.56	52.7	13	6	0									
SALT LAKE C.	91.17	48.9	13	8	0									
HUNGRY HORSE	91.36	41.2	13	9	0									
PRICE	91.71	50.2	13	11	0									
BUTTE	91.80	43.7	13	10	-1									
SEHORE	92.39	293.0	13	22	8									
BOZEMAN	92.76	44.2	13	13	-3									
UINTA BASIN	92.78	49.7	13	16	0	23	15	-64				17	10	PP
DEHRA DUN	92.78	300.1	13	15	-1	24	40	21				26	7	PS
EDMONTON	92.93	36.4	13	15A	-1									
FLAMING GRGE	93.03	49.1	13	17	0									
NEW DELHI	93.21	298.3	13	17K	-1							20	6	
CHIHUAHUA	93.55	61.7	12	46	-33	23	54	-32				30	18	
MANZANILLO	93.55	71.4	12	54	-25	24	22	-4						
ALBUQUERQUE	94.27	55.4	13	22	-1							17	8	PP
YELLOWKNIFE	94.39	27.3	13	23	0									
POONA	94.61	287.9	13	24K	0							17	46	PP
SEMIPALATNSK	94.68	320.2	13	25K	0							24	6	SKKS
GUADALAJARA	94.75	69.9	13	30	5	24	30	-6						
BOMBAY	95.63	288.1	13	29	0	23	40	-25				17	45	PP
GOLDEN	95.86	50.8	13	31	1									
LAHORE	96.13	300.8	13	30	-1									

ARGENTINE I.	96.25	161.2	13	30	-2				17	26	
MOULD BAY	96.36	13.5	13	32	0				24	13	
G. G. VIDELA	96.99	161.2	13	44	9				17	35	PP
N-LAZARVSKYA	97.25	188.6							24	28	SKKS
FRUNSE	97.39	312.1	13	37K	0				24	23	SKKS
TACUBAYA	98.39	71.8	13	34	-7				18	30	
WARSAK DAM	98.76	303.0	13	42	-1						
KHOROG	99.15	306.5	13	45K	0				18	1	PP
OAXACA	100.37	74.5							18	2	
WICHITA MTS.	100.66	56.5	13	50	-2	24	42	11	17	58	PP
TASHKENT	101.20	310.2	13	52K	-2				32	30	SS
VERA CRUZ	101.24	72.4							14	24	
KARACHI	101.71	293.3	14	0	4						
QUETTA	102.28	298.8	13	59K	0						
RESOLUTE	102.34	15.6	13	59	0						
KHEYS	102.80	350.8	18	19	258	24	34	-7	25	2	SKKS
HOUSTON	102.95	61.8	14	2	0						
TULSA	103.03	55.4	14	3	1				18	15	PP
LAWRENCE	103.60	52.3	14	5	0						
COMITAN	104.69	75.8							18	42	
ALERT	105.16	5.8	14	14	777						
SVERDLOVSK	106.53	326.3	14	16	777				27	59	PS
MERIDA	107.50	71.2	14	33	777				24	12	
ST.LOUIS 1	107.52	52.7	14	23	777						
CONCEPCION	108.69	134.5	18	39	777						
ASHKABAD	109.60	306.6	14	32	777						
SANTA LUCIA	111.33	131.9	14	48A	-228				19	16	PP
CUMBERLAND	111.34	55.8	14	39	-237	25	29	11	19	12	PP
TANANARIVE	112.23	244.7							18	11	
ANN ARBOR	112.29	48.5	13	44	-294				28	59	SS
NANA	114.38	108.1	14	54	-228						
APATITY	114.52	341.7	14	47	-235	25	27	-3	19	40	PP
SHIRAZ	114.79	297.9	18	44A	1				30	19	
KEVO	114.89	345.2	18	41	-2	25	38	6	19	48	PP
COLUMBIA	115.17	57.3	18	57	13				19	52	PP
SCARBOROUGH	115.29	46.4	14	57	-227						
TEHERAN	115.32	304.7	14	58	-226				19	46	PP
BLACKSBURG	115.35	53.7	14	58	-226	25	46	12			
MORGANTOWN	115.41	51.0	19	46K	62						
HUANCAYO	115.77	108.7							19	56	
GODHAVN	115.93	14.4							19	49	PP
BALBOA HTS.	116.06	85.0	14	59	-226						
CHAPEL HILL	116.60	55.0							19	53	PP
SODANKYLA	116.65	343.4	18	50	3				19	48	PP
PENNSYLVANIA	116.80	49.4	15	6	-221						
TROMSOE	116.87	347.5	18	46	-1						
WASHINGTON	117.73	51.4	15	8	-221				20	7	PP
GEORGETOWN	117.73	51.4	15	9	-220				19	58	PP
AREQUIPA	117.83	114.7	15	13	-216						
KIRUNA	117.94	345.7	15	19	-210				19	58	PP
KAJAANI	118.54	340.3	18	50	0				20	6	PP
GORIS	118.76	309.5	15	13K	-218				20	4	PP
BREBEUF	118.79	43.5	15	13	-218				20	8	PP
PHILADELPHIA	118.99	49.9	15	9	-222				30	1	PKKP
MOSCOW	119.07	329.2	15	12	-219				20	2	PP
SHAWINIGAN	119.07	42.1	18	51	0				20	8	
CHINCHINA	119.39	90.0	15	25	-207				20	15	PP
TIFLIS	119.43	312.3	15	15	-217				20	16	PP
SCHEFFERVLLE	119.53	31.7	18	57	5						
SCORESBY SD.	119.59	2.8	18	57	5						
PALISADES	119.70	48.5	18	55	3				15	15	P
PULKOVO	120.28	335.5	18	53	-1				20	20	PP
GALERAZAMBA	120.46	83.5							20	17	PP
LA PAZ	120.80	116.1	15	26	-209				20	18	PP
BOGOTA	120.86	90.7	15	24	-211				20	24	PP
UMEA	121.05	342.8	15	30	-205				20	31	PP
CHANGALANE	121.82	230.4	18	54	-3				20	30	PP
NURMIJARVI	121.99	338.3	18	56A	-1	26	7	10	20	32	PP
HELSINKI	122.11	337.9	18	55	-2				21	57	SKP
SKALSTUGAN	123.36	346.0	19	3	3						
CHILEKA	124.56	243.0	19	3	1						
UPPSALA	124.89	340.8	19	3	1				20	42	PP
HERMANUS	125.23	214.3							20	56	PP
KIMBERLEY	125.71	223.4	19	6K	2						
HALIFAX	125.77	41.6	19	6A	2						
SIMFEROPOL	125.78	318.8	15	43K	-201	26	1	-8	20	58	PP
KONGSBERG	127.39	344.8	19	8	1				21	20	PP
BULAWAYO	127.85	234.6	19	10	2						
KSARA	128.21	305.1	19	10	1				21	18	PP

GOTEBORG	128.38	342.1	19	8	-1					21	8 PP
KARLSKRONA	128.44	338.9	19	14	5					21	27 PP
CARACAS	128.60	84.7	15	54K	-196					21	16 PP
IASI	128.75	324.0	19	14	4					21	29 PP
WARSAW	129.10	332.5	19	12	1					21	19 PP
LWOW	129.19	328.5	19	11	0					21	21 PP
JERUSALEM	129.25	302.8	19	13	2					21	29 PP
BACAU	129.47	323.7								21	29 PP
SAN JUAN	129.58	74.6	19	13	1					21	34
COPENHAGEN	129.89	340.4	19	14	2						
BROKEN HILL	130.75	240.9	19	16K	2						
ISTANBUL UN.	130.85	316.4	16	7K	-187					22	41 PKS
KRAKOW	131.07	331.0	19	18	4					21	33 PP
BUCHAREST	131.09	321.7								21	42 PP
CAMPULUNG	131.27	323.2	19	19	4						
CHORZOW	131.35	331.8	19	16	1					21	36 PP
SKALNATE PL.	131.50	329.9	19	18	3					21	42 PP
RACIBORZ	131.87	332.0	19	17	1					21	44 PP
ABERDEEN	132.14	350.8	19	8A	-8					21	41 PP
COLLMBERG	133.19	336.5	19	19	1	26	13	-15			
HURBANOVO	133.39	329.8	19	22	3					22	48 PKS
HALLE	133.44	337.3	19	20	1	26	39	11			
PRAGUE	133.55	334.4	19	19	0	26	10	-19		21	44 PPP
PRUHONICE	133.56	334.3	19	19	0					37	53 SS
SOFIA	133.71	321.2	19	23	4					22	51 PP
BRATISLAVA	133.72	330.9	19	20	1					21	59 PP
ST. CLAUDE	133.87	77.6	19	21	1					21	51 PP
VIENNA-H.	134.01	331.4	19	23	3	26	39	10		22	5 PP
JENA	134.03	337.1	19	19	-1	26	14	-15		21	47 PP
TRINIDAD	134.03	85.0	19	22	2						
WITTEVEEN	134.14	342.1	19	23	3					21	54 PP
BELGRADE	134.18	325.2	19	22A	2					22	3 PP
DURHAM	134.35	349.5	19	22A	2					21	59 PP
FORT FRANCE	134.41	79.4	19	22	1					20	55 PP
MUNSTER	134.57	340.8	16	21	-180						
KASPERSKE H.	134.62	334.1	19	8	-13					21	53 PP
LWIRO	135.03	256.4	16	29	-173						
DE BILT	135.21	342.7	19	23K	1					21	56 PP
SKOPJE	135.28	321.4	19	22	0						
BENSBERG	135.58	340.4	19	14	-9					22	2 PP
ATHENS	135.88	315.2	19	8A	-15					22	55
ZAGREB	135.90	329.2	19	16A	-7					23	3 PKS
TITOGRAD	136.32	323.3	19	30	6					22	3 PP
LJUBLJANA	136.46	330.5	19	15	-9					22	10 PP
UCCLE	136.60	342.5	19	24	-1					22	9 PP
STUTTGART	136.66	337.0	19	32	7					21	58 PP
KARLSRUHE	136.79	337.9	19	28A	3					22	11 PP
PATRAS	137.11	316.7	19	30	5						
TRIESTE	137.13	330.7	19	14	-12					23	2 SKP
DOURBES	137.15	341.8	19	19	-7	26	33	-2			
KEW	137.21	346.8	19	20	-6					22	4 PP
STRASBOURG	137.38	338.1	19	9	-17	26	1	-34		22	9 PP
PADOVA	138.19	331.9	19	31	3				19 41	22	44 PP
TARANTO	138.71	322.4								22	27 PP
PARIS	138.93	342.8	19	21A	-8					22	24 PP
BOLOGNA	139.13	331.4	19	44	15					22	47
BESANCON	139.15	338.5	19	28	-1						
PAVIA	139.58	333.9	19	22	-8					22	28 PP
AQUILA	139.66	327.4	19	25	-5	26	29	-10		22	29 PP
PRATO	139.70	331.0	19	19	-11					32	43
FLORENCE X.	139.71	330.7	19	29	-1					22	32 PP
JERSEY	139.75	347.3								22	10
FOLINIERE	139.76	345.5	19	26	-4						
GARCHY	140.11	341.2	19	5	-26					22	31 PP
ROME	140.46	327.7	19	24	-8					22	31 PP
REGGIO CALA.	141.15	320.6	19	29	-4					23	3 PKS
MESSINA	141.15	320.8	19	30	-3	26	38	-3		22	39 PP
ISOLA	141.29	334.9	19	28	-5					23	13 SKP
CLERMONT-FD.	141.43	340.0	19	31	-2					22	32 PP
BANDEIRA	142.74	228.4	19	31K	-5					22	45 PP
BAGNERES	144.80	341.1	19	39	0					22	29 PP
BARCELONA	145.57	337.4	19	40	0					25	10
LUANDA	146.43	236.6	19	42K	0					40	39 SS
BANGUI	146.54	262.5	19	43	1					23	12 SKP
TOLEDO	148.97	344.1	19	48K	2	26	43	-10		23	26 PP
ALICANTE	149.22	337.9	19	49A	3					23	33 PP
PONTA DELGDA	150.83	18.2	19	51	2						
LISBON	151.17	351.1	19	49	0	26	39	-17		23	36 PP

ALMERIA	151.27	339.4	19	53A	3						23	55 PP
GRANADA	151.35	341.4	19	52A	2	26	28	-28			23	34 PP
MALAGA	152.01	342.3	19	52K	1	26	54	-3				
AVERROES	156.07	345.0	19	57K	1						24	1 PP
M.BOUR	175.25	28.6	20	14	2						25	52 PP

SEPTEMBER 18 16.H 58.M 8.S EPICENTRE 40.80 29.13 DEPTH= 0.KM

A= 0.66322 B= 0.36953 C= 0.65084 D= 0.4867 E=-0.8736
G= 0.5685 H= 0.3168 K=-0.7592 HT= -2.0

SE= 2.49

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
ISTANBUL UN.	0.26	337.2	0	10	-1								
BUCHAREST	4.25	329.3	1	11K	4	2	2	3			1	26	P*
SOFIA	4.73	295.6	1	15	1	2	6	-5			1	24	P*
ATHENS	5.05	237.8	1	18A	-1	2	13	-6			2	27	SG
CAMPULUNG	5.38	327.5	1	26	3						2	54	.S*
SIMFEROPOL	5.54	39.8	1	26A	0	2	28	-3			3	54	
SKOPJE	5.90	284.0	1	33	2						3	45	
BACAU	5.99	345.1	1	34	2	2	45	3			2	3	PG
PATRAS	6.26	248.2	1	40	4	2	51	2			3	23	
IASI	6.50	350.6	1	41	2	2	50	-5			2	11	PG
BELGRADE	7.54	305.1	1	51A	-3	3	23	2			2	25	PG
TITOGRAD	7.57	285.7	1	51	-3	3	29	7			2	9	P*
TIMISOARA	7.60	313.3	1	52	-3	3	13	-10			3	38	S*
KSARA	8.80	140.2	2	10	-1	4	3	11			2	18	PP
TARANTO	9.04	271.8	2	32	17						3	17	P*
LWOW	9.71	340.1	2	23	-1						3	40	
JERUSALEM	10.25	149.5	2	30	-1	4	44	16					
SKALNATE PL.	10.47	326.1	2	24	-10	4	7	-27					
HURBANOVO	10.54	315.8	2	40	5	5	17	42					
NIEDZIKA	10.63	327.2	2	38	1						6	3	
REGGIO CALA.	10.76	259.9	2	35	-3	4	35	-6					
MESSINA	10.81	260.5	2	37	-2	4	39	-3			3	10	P*
ZAGREB	10.81	302.0	2	39	0	4	43	1			5	4	
KRAKOW	11.28	328.2	2	45	0	5	3	10			2	49	PP
BRATISLAVA	11.31	314.7	2	48	2	4	23	-31			3	2	PP
VIENNA-H.	11.75	313.6	2	52	0	5	11	6			6	26	SGSG
TIFLIS	11.84	80.4	2	55	2								
LJUBLJANA	11.84	301.2	2	51	-2	4	57	-10			6	16	SGSG
CHORZOW	11.85	326.6	2	58	5						3	22	PPP
AQUILA	11.88	282.7	2	52	-2						6	2	
RACIBORZ	12.03	324.1	3	0	4						3	11	PP
TRIESTE	12.22	298.5	2	57K	-1	5	5	-11			6	26	SGSG
ROME	12.56	280.5	3	2A	-1	5	36	11			5	52	SS
WARSAW	12.72	336.8	3	7	2	5	40	12			3	18	PP
GORIS	13.23	90.0	3	16K	4						5	49	
PADOVA	13.42	295.8	3	17	3	5	39	-6			7	22	
BOLOGNA	13.61	291.7	3	20	3	5	56	6			7	45	
PRATO	13.69	289.0	3	30	12	6	18	26					
PRUHONICE	13.73	316.8	3	17	-1	5	47	-6					
KASPERSKE H.	13.79	312.4	3	18	-1								
PRAGUE	13.85	316.9	3	21	1	6	0	4					
PAVIA	15.24	293.3	3	38	0						8	18	
COLLMBERG	15.32	318.7	3	36	-3	6	7	-23					
CHUR	15.37	299.7	3	40	0	6	53	22					
RAVENSBURG	15.59	303.1	3	41	-2								
CUGLIERI	15.65	274.5	3	42	-1	5	52	-46					
JENA	15.84	315.6	3	46	0	6	52	9			4	58	
MOSCOW	15.96	17.7	3	44A	-3	6	41	-4			3	51	PP
HALLE	15.97	317.8	3	44	-4						4	0	PP
STUTTGART	16.16	306.2	3	49	-1	6	48	-2					
TUBINGEN	16.20	305.2	3	52	2								
MONACO	16.32	287.5	3	59	7						4	11	PP
ISOLA	16.62	289.0	3	58A	2	7	21	20					
HEIDELBERG	16.74	307.7	3	56	-1								
KARLSRUHE	16.78	306.2	3	58	0	7	18	14					
STRASBOURG	17.03	304.3	4	0K	-1	7	15	5			4	15	PP
KARLSKRONA	17.75	334.6	4	12	2								
BESANCON	17.82	298.9	4	10	-1						4	46	
WELSCHBRUCH	17.87	302.8	4	2	-10								
TEHERAN	18.18	98.9	4	16K	1	8	1	25			10	27	
BENSBERG	18.29	311.1	4	17A	0	7	47	8			4	40	PP

MUNSTER	18.50	314.4	4	19	0							
COPENHAGEN	18.50	329.2	4	18A	-1	7	40	-4				
PULKOVO	19.01	1.9	4	22A	-4				4	31	PP	
WITTEVEEN	19.42	315.8	4	31	1							
DOURBES	19.49	306.7	4	30	-1	7	57	-9				
CLERMONT-FD.	19.54	293.4	4	32	0	8	19	12				
HELSINKI	19.57	353.8	4	29	-3				8	0		
GARCHY	19.77	297.8	4	33	-1							
UCCLE	19.87	308.5	4	36	0	8	19	5				
DE BILT	19.90	312.7	4	37	1	8	20	5				
NURMIJARVI	19.93	353.5	4	33A	-3	8	4	-12	6	18		
GOTEBORG	20.18	332.7	4	38	-1							
BARCELONA	20.33	280.7	4	42	2	8	51	27				
UPPSALA	20.38	343.2	4	39A	-2	8	20	-5				
PARIS	20.45	302.0	4	38	-4	8	31	5				
BAGNERES	21.63	285.6	4	57	3							
TORTOSA	21.63	279.5	4	55	1	8	59	10				
SHIRAZ	22.04	112.9	4	57K	-1	9	0	3	5	30	PP	
FOLINIERE	22.37	300.8	4	32	-29							
KONGSBERG	22.46	333.7	5	1A	-1	9	31	26	5	34	PP	
ASHKABAD	22.72	87.6	5	4	-1	9	15	6	5	30	PP	
KEW	22.88	307.7	5	5	-1	9	13	1				
ALICANTE	22.90	273.6	5	7K	1	9	14	1	5	36	PP	
KAJAANI	23.34	358.4	5	12	1	9	38	18				
JERSEY	23.49	301.4	5	10	-2	9	24	1				
UMEA	23.65	350.2	5	14A	0	9	25	-1				
BERGEN	24.53	331.1	5	25	3							
DURHAM	24.67	314.9	5	25K	1	9	47	4	11	2	SS	
ALMERIA	24.86	271.2	5	25A	0	9	53	7	6	0	PP	
SKALSTUGAN	24.89	342.1	5	25	-1							
TOLEDO	25.22	278.9	5	28K	-1	9	52	-1	6	12	PP	
GRANADA	25.61	272.6	5	39A	7	10	26	27	11	39	SS	
SVERDLOVSK	25.91	41.1	5	34A	-1							
ABERDEEN	25.91	319.7	5	39K	4	10	20	16	11	23	SS	
MALAGA	26.36	272.1	5	42K	2	10	0	-12				
SODANKYLA	26.66	357.8	5	42A	0				10	36		
APATITY	26.91	3.7	5	44A	-1	10	16	-5	6	58		
KIRUNA	27.50	352.9	5	49	-1	10	28	-2	10	59		
VALENTIA	29.02	305.9	6	4	0	11	24	29				
KEVO	29.05	358.5	6	3	-1	10	58	3	7	7	PP	
TROMSOE	29.39	352.7	6	6	-1				7	2	PP	
AVERROES	29.95	267.4	6	12A	0	11	8	-1	13	35	SSS	
TASHKENT	30.10	75.6	6	12K	-1	11	48	36				
QUETTA	32.35	97.0	6	31K	-2	12	4	17				
FRUNSE	33.66	71.2	6	45K	1							
WARSAK DAM	34.12	87.6	6	47	-2							
SEMIPALATNSK	36.38	57.1	7	11K	3	12	48	-2	8	28	PP	
LAHORE	37.29	89.6	7	14	-1							
BANGUI	37.47	197.4	7	14	-3	12	54	-12				
SCORESBY SD.	39.35	335.6	7	39	6	13	50	15				
NEW DELHI	40.90	91.9	7	48	3	14	2	4	9	25	PP	
LWIRO	42.84	180.5	8	1K	0				21	11		
BOMBAY	43.18	107.1	8	3	-1	14	28	-3	9	51	PP	
POONA	44.16	106.6	8	12A	0	14	47	1				
ESEN BULAK	47.62	59.7	8	40	0	15	40	5				
M.BOUR	47.87	250.3	8	41	-1	15	46	7				
HYDERABAD	48.23	103.9	8	49	5	16	1	17				
CHATRA	49.37	87.5	8	53K	0	16	13	13				
BOKARO	49.95	91.7	8	57K	-1	16	15	7	11	6	PP	
ALERT	50.02	350.1	8	58A	0							
IRKUTSK	50.75	50.1	9	2K	-2	16	22	3	12	4	PPP	
LUANDA	51.53	200.2	9	11A	1				20	22	SS	
MADRAS	52.37	106.8	9	17A	1	16	30	-11	11	16	PP	
SHILLONG	53.60	86.0	9	23K	-2	16	55	-3				
TIKSI	54.79	22.5	9	33A	-1	17	17	3	11	39	PP	
BROKEN HILL	54.97	180.8	9	34K	-1							
CHILEKA	56.45	173.2	9	45A	-1							
BANDEIRA	57.32	198.2	9	50A	-2				22	39	SSS	
RESOLUTE	59.04	345.1	10	3	-1							
YAKUTSK	59.46	32.6	10	4K	-3							
BULAWAYO	60.62	180.6	10	14K	-1							
SCHEFFERVLLE	60.95	318.8	10	16K	-1							
MOULD BAY	61.52	351.8	10	20	-1							
TANANARIVE	61.83	160.2	10	23	0							
PORT BLAIR	62.51	98.5	10	26A	-2				11	18		
HALIFAX	64.54	307.8	10	40A	-1							
CHANGALANE	66.80	177.0	10	55A	0	19	48	1	11	4		
PHU-LIEN	67.45	81.5	10	59	-1							
SHAWINIGAN	68.72	313.6	11	6	-2							

KIMBERLEY	69.31	184.1	11	10	-1						
BREBEUF	69.83	313.0	11	14A	0	20	32	8			
PIETERMZBURG	70.07	178.8	11	22	6						
HONG KONG	72.16	75.7	11	32	4						
PALISADES	72.79	309.5	11	31	-1	21	5	7			
FORDHAM	72.88	309.3	11	32	-1	21	4	5			
GRAHAMSTOWN	73.79	182.2	11	38K	0						
Y.-SAKHLINSK	74.53	40.6	11	42	0						
COLLEGE	74.65	358.6	11	42	-1						
PENNSYLVANIA	75.22	311.3	11	46	0						
HERMANUS	75.40	188.4				21	37	10		26	18 SS
LONDON ONT.	75.56	314.8	11	47A	-1						
GEORGETOWN	76.01	309.4	11	56	5	21	12	-22			
WASHINGTON	76.01	309.4	11	47	-4					22	4
CLEVELAND	76.81	313.8	11	54K	-1	21	51	9			
ABUYAMA	78.83	53.5	12	6A	0						
BLACKSBURG	79.10	310.0	12	7	-1	22	12	5			
CHAPEL HILL	79.17	308.3	12	9	1						
MATUSIRO	79.29	50.8	12	8A	-1	22	10	1			
BAGUIO CITY	80.54	76.6	12	15	-1						
TUKUBASAN	80.61	49.9	12	20A	4	22	20	-3		23	8 PS
COLUMBIA	81.67	308.0	12	21	0	22	45	11			
MANILA	82.03	77.6	12	31	8					17	56
SAN JUAN	82.06	287.3	12	23	0						
CUMBERLAND	83.19	311.8	12	28	-1	22	50	1		28	14 SS
TRINIDAD	83.53	278.4	12	31	0						
TANGERANG	84.62	102.8	12	38	1						
RAPID CITY	85.25	327.7	12	39	-1						
HUNGRY HORSE	85.44	336.3	12	41	0						
BUTTE	87.04	334.4	12	48	-1						
CARACAS	87.76	281.8	12	52	0	23	16	-18			
VICTORIA	87.81	342.1	12	50	-2						
SEATTLE	88.35	341.1	13	4	9					16	36
TULSA	88.44	318.2	12	54K	-1	23	27	-13			
BLUE MTS.	89.57	336.8	12	59	-2	23	41	-10		16	44 PP
GOLDEN	89.80	326.6	13	0	-2					16	38 PP
FLAMING GRGE	90.36	329.9	13	4	0						
WICHITA MTS.	90.78	319.3	13	5	-1	24	2	1		16	47 PP
UINTA BASIN	90.95	329.7	13	6	-1	24	9	6		16	18 PP
PRICE	92.04	330.2	13	10	-2						
DUGWAY	92.26	331.8	13	12	-1						
EUREKA	94.00	333.6	13	21	0					16	48 PP
ALBUQUERQUE	94.26	324.8	13	22	0						
SHASTA	94.85	338.7	13	27K	2						
MINERAL	94.96	338.0	13	28A	3						
BOULDER CITY	96.73	331.3	13	34	0						
CALISTOGA	96.82	338.0	13	37A	3						
TONTO FOREST	96.85	327.9	13	34	0					17	38 PP
BOGOTA	96.93	282.1				24	11	0			
BERKELEY	97.45	337.5	13	33A	-4	25	10	56		17	43 PP
LICK	97.76	336.9	13	37A	-1						
CHINCHINA	97.85	283.4				24	15	-1			
PRIEST	98.56	335.7	13	31K	-11						
PASADENA	99.56	333.0	13	53	7	25	34	69		17	55 PP
LA PAZ	106.00	261.9	19	26	777				19 59		
ANTOFAGASTA	112.06	257.3								30	58
PORT MORESBY	117.23	78.4								19	57
CHARTERS TS.	123.21	88.6	18	59	0					31	2
ADELAIDE	125.48	108.2	19	3A	0						
HONIARA	126.56	68.4								21	6
SOUTH POLE	130.60	180.0	19	21	8						
TOOLANGI	131.53	108.0	19	16	1						
BRISBANE	132.22	92.1	19	17	1					22	47
CANBERRA	133.14	103.6	19	19K	1						
RIVERVIEW	134.09	100.7	19	34A	14					33	58
BYRD STATION	138.93	187.9	19	24	-5						
CAPE HALLETT	143.16	161.3	19	31	-5						
AFIAMALU	147.58	40.3	19	49A	6					23	22 PKS
KARAPIRO	153.97	94.7	20	1	8					20	22 PKP2
WELLINGTON	154.18	102.5	20	1	8					33	58 SS

SEPTEMBER 20 3.H 3.M 28.S EPICENTRE 76.59 7.46 DEPTH= 0.KM

A= 0.23148 B= 0.03032 C= 0.97237 D= 0.1299 E=-0.9915
G= 0.9641 H= 0.1263 K=-0.2335 HT=-13.1

SE= 2.67

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.

	DELTA DEG.	AZ DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
TROMSOE	7.73	148.8	1	53	-3	3	16	-10					
KEVO	8.83	130.7	2	9	-3	3	41	-12					
SCORESBY SD.	10.22	248.6	2	32	1	4	16	-11					
KHEYS	10.42	44.5									3	15	
SODANKYLA	10.91	137.8	2	35	-5	4	30	-14					
APATITY	11.93	125.6	2	52A	-2	4	52	-17					
ALERT	12.97	326.6	3	1	-7								
SKALSTUGAN	13.17	170.5	3	10	-1								
UMEA	13.48	155.1	3	14	-1								
KAJAANI	14.14	141.5	3	21K	-3	5	45	-18					
BERGEN	16.28	183.8	3	53	2								
KONGSBERG	17.03	176.2	4	3	2								
UPPSALA	17.18	162.4	4	2	-1								
NURMIJARVI	17.19	150.3	4	1K	-2	7	0	-14					
HELSINKI	17.55	150.1	4	6	-2						7	1	
PULKOVO	18.64	142.0	4	19	-2								
GOTEBORG	19.04	172.6	4	26	0								
KARLSKRONA	20.73	167.1	4	41	-4								
COPENHAGEN	21.08	172.1	4	49	1	8	47	8					
RESOLUTE	22.47	317.2	5	5	3								
MOSCOW	23.65	134.9	5	14	0								
MOULD BAY	24.42	332.4	5	22	1								
HALLE	25.25	173.4	5	35	6						6	18	PP
COLLMBERG	25.48	171.9	5	35	4						6	21	
JENA	25.81	174.0	5	35	1						6	12	PP
PRUHONICE	26.86	169.8	5	47	3								
KRAKOW	27.09	162.2	5	48	2						6	11	
KASPERSKE H.	27.67	171.3	5	52	1								
STUTTGART	27.93	177.4	5	54	0								
FOLINIERE	28.10	191.2	5	54	-1								
GARCHY	29.47	186.1	6	7	-1								
ISOLA	32.51	180.6	6	36	2								
AQUILA	34.44	172.2									16	32	
COLLEGE	37.94	343.1	7	22	1								
TASHKENT	43.73	106.2	8	15	6	14	44	5					
BREBEUF	44.22	274.9	8	14	2								
VANNOVSKAYA	44.56	119.4	8	17	2								
EDMONTON	45.02	313.3	8	19A	0								
TEHERAN	45.39	127.6	8	26	4						10	13	PP
ULAN-BATOR	46.07	67.1	8	32	5								
PALISADES	48.54	273.2				15	51	3					
VICTORIA	51.34	319.9	9	9	1								
SHIRAZ	51.53	128.1	9	10A	0	15	32	-58			11	11	PP
SEATTLE	52.02	318.7	9	19	6								
BOZEMAN	52.04	308.6	8	51	-22						9	15	
RAPID CITY	52.07	301.2	9	14	0								
QUETTA	53.91	112.6	9	28	1								
BLUE MTS.	53.93	313.7	9	26	-1						10	31	PCP
LARAMIE	55.21	302.4	9	38	1								
FLAMING GRGE	56.31	305.7	9	45	0								
CUMBERLAND	56.41	282.3	9	43	-2								
UINTA BASIN	56.94	305.6	9	47	-2						11	56	
TULSA	58.38	291.9	9	59	0								
SHASTA	58.81	317.0	9	57K	-5								
EUREKA	58.92	311.1	10	4	1								
MINERAL	59.03	316.2	10	4A	0								
WICHITA MTS.	60.12	294.1	10	9	-2	18	28	4			10	56	PCP
CALISTOGA	60.85	316.6	10	19K	3								
LICK	61.97	315.5	10	19A	-5								
PRIEST	62.98	314.4	10	33A	2								
MATUSIRO	63.02	43.2	10	30	-1								
PARAISO	63.08	315.9	10	29	-2								
TONTO FOREST	63.10	305.5	10	31	0						10	52	
BANGUI	72.41	168.3	11	29	-1								
TRINIDAD	74.85	251.8	11	43	-1								
BAGUIO CITY	79.33	63.9	12	9	0								
BYRD STATION	169.10	227.5	21	21	72								

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SEPTEMBER 20 22.H 11.M 34.S EPICENTRE -17.61 -69.01 DEPTH= 179.KM

A= 0.34160 B=-0.89044 C=-0.30072 D=-0.9337 E=-0.3582
G=-0.1077 H= 0.2808 K=-0.9537 HT= 5.2

DEPTH OF FOCUS= 0.023R

SE= 2.78

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
LA PAZ	1.39	37.5	0	33	1	0	58	2					
ANTOFAGASTA	6.20	192.0	1	22K	-8	2	22	-19					
HUANCAYO	8.24	311.3	1	54	-3								
COPIAPO	9.77	187.0									3	22	
SANTA LUCIA	15.83	185.0	3	29	-5	6	24	0	3	33			
BOGOTA	22.65	346.8	4	53	7	8	42	5			9	43	SS
CHINCHINA	23.37	343.2	4	53	0	9	55	65			5	35	PP
CARACAS	28.01	4.4	5	36A	0	10	8	2					
GALERAZAMBA	28.88	347.2				10	23	3			12	0	SS
TRINIDAD	29.07	15.5	5	40	-6								
FORT FRANCE	33.06	14.0	6	22	2	11	26	1					
SAN JUAN	35.88	4.7	6	42	-2				7	18			
CUMBERLAND	55.19	343.6	9	15	-1	16	43	0	9	56	18	48	SCS
PALISADES	58.50	355.7	10	31	52	17	27	0			20	27	SCS
TULSA	58.96	334.7	9	42K	-1	17	36	3	10	21	10	39	*SP
WICHITA MTS.	59.15	331.7	9	43	-1	17	38	3	10	21	18	46	PS
LAWRENCE	61.41	336.9	9	59	0								
HALIFAX	62.12	4.4	10	5	1								
BREBEUF	62.95	356.4	10	9A	0				10	52			
OTTAWA	63.00	354.7	10	9	-1								
ALBUQUERQUE	63.23	326.0	10	12	1				10	49	19	17	
SHAWINIGAN	63.95	357.1	10	16	0								
TONTO FOREST	65.43	322.3	10	26	0				11	4	12	31	PP
BYRD STATION	66.30	188.5	10	30	-1								
GLEN CANYON	67.52	324.1	10	41	2				11	19			
LARAMIE	67.71	331.0	10	41	1						11	20	
BOULDER CITY	68.70	321.4	10	47	1				11	26	11	4	PCP
UINTA BASIN	68.89	327.8	10	48	1	19	39	4	11	26	20	34	PS
RAPID CITY	68.89	334.3	10	47	0								
FLAMING GRGE	69.25	328.3	10	51	2								
PASADENA	69.56	318.0	10	53	2				11	31	11	49	*SP
SALT LAKE C.	70.40	326.8	10	49K	-7								
DUGWAY	70.49	325.8	10	16K	-41								
EUREKA	71.74	323.4	11	6	2						11	25	PCP
SCHEFFERVLLE	72.16	1.4	11	6A	-1								
PRIEST	72.40	318.2	11	10K	2								
SOUTH POLE	72.50	180.0	11	8	-1								
BOZEMAN	73.60	330.7	11	17	2				11	56	12	14	*SP
PARAISO	73.61	317.5	11	13	-2								
LICK	73.75	318.7	11	18A	2								
BERKELEY	74.47	318.8	11	22A	2	20	48	9	12	0	21	56	SCS
BUTTE	74.58	330.1	11	22	1				12	1	12	19	*SP
CALISTOGA	75.13	319.3	11	25K	1								
MINERAL	75.59	321.2	11	18A	-9								
BLUE MTS.	76.12	326.8	11	31K	2				12	9			
SHASTA	76.28	321.1	11	30K	0						12	9	
HUNGRY HORSE	76.96	331.0	11	28	-6				12	15			
AVERROES	77.54	49.0	11	38A	1				12	13			
LONGMIRE	79.74	326.2	11	51	2								
EDMONTON	80.34	334.9	11	51	-1								
SEATTLE	80.57	326.7	11	51A	-3								
VICTORIA	81.70	326.9	12	0	0								
CAPE HALLETT	82.12	195.4	12	3	1								
GRANADA	82.18	47.1	11	37A	-25						12	55	
ALMERIA	82.82	47.9	12	8K	3								
TOLEDO	83.19	44.6	12	10	3	22	20	9	12	51	13	8	*SP
ALICANTE	84.91	47.3	12	15	-1						12	58	
KIMBERLEY	84.92	118.4	12	17A	1								
VALENTIA	85.98	32.1	12	13	-8								
BAGNERES	87.48	43.3	12	30	2						13	10	
MAWSON	88.07	163.4	12	31K	0				13	12			
BANGUI	89.06	85.1	12	37	1						16	5	
FOLINIERE	89.69	38.0	12	40	1								
BULAWAYO	90.91	111.3	12	46K	2								
GARCHY	91.17	40.4	12	46K	0				13	28			
CHANGALANE	91.94	118.2	12	45A	-4				12	56			
ROSELEND	92.79	42.8	12	50	-3						13	36	
DOURBES	93.25	38.2	12	56	1						26	23	
STRASBOURG	94.59	40.4	13	2A	1								

STUTTGART	95.59	40.6	13	8	2							
AQUILA	96.23	47.7									23	35
LWIRO	96.77	94.5									15	33
TRIESTE	97.47	44.6									23	41
JENA	97.71	39.1							13	56	14	29
COLLMBERG	98.68	39.0	13	52	32							
PRUHONICE	99.24	40.5	14	6	44							
COLLEGE	101.12	334.7	13	32	1				14	12	17	39 PP
ATHENS	102.72	54.0									24	5
SHIRAZ	125.60	65.9	18	43A	3	25	32	6	19	27	20	35 PP
CHARTERS TS.	128.99	224.3	18	49	3						19	29
QUETTA	138.08	64.3	19	3	0						19	51
WARSAK DAM	141.20	57.4	19	14	5							
POONA	144.72	82.7	19	16K	1							
NEW DELHI	147.16	64.4	19	22A	2						20	8
GUAM	147.25	267.6	19	22	2				20	3		
DEHRA DUN	147.48	61.0	18	26	-54							
MATUSIRO	149.46	313.5	19	31K	8						20	12 PKP2
CHATRA	156.15	63.2									20	0

SEPTEMBER 22 2.H 49.M 8.S EPICENTRE 52.56-174.76 DEPTH= 150.KM

A=-0.60801 B=-0.05578 C= 0.79196 D=-0.0914 E= 0.9958
G=-0.7887 H=-0.0724 K=-0.6106 HT= -6.3

DEPTH OF FOCUS= 0.019R

SE= 1.35

	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	
PETROPAVLOVK	16.06	282.3	3	40	1								
COLLEGE	18.46	37.7	4	5	-2						11	51	SCP
MAGADAN	20.28	303.8	4	26K	0								
YAKUTSK	30.53	310.1	5	59	-2								
TIKSI	30.87	329.0	6	4K	0								
MOULD BAY	31.58	22.1	6	11K	0								
VICTORIA	32.31	76.2	6	17	0								
EDMONTON	35.98	63.5	6	47	-1								
HAWAII V.OB.	36.38	147.9	6	50	-1								
MATUSIRO	36.43	263.0	6	51K	-1						9	13	PCP
SHASTA	37.07	87.2	6	58K	1								
MINERAL	37.76	87.1	7	2A	-1								
BLUE MTS.	37.78	78.1	7	3	0				7	30	8	6	PP
HUNGRY HORSE	37.89	71.3	7	4	0				7	30	9	18	PCP
CALISTOGA	38.22	90.1	7	7A	0								
BERKELEY	38.90	90.8	7	12A	-1	13	4	5	7	38	9	32	PCP
LICK	39.61	90.9	7	18K	0								
PARAISO	39.82	92.7	7	23	3				7	50			
PRIEST	40.99	91.5	7	30K	0								
ALERT	41.02	10.7	7	31	1								
BOZEMAN	41.04	73.2	7	27	-3				7	55	9	27	PCP
EUREKA	41.72	84.0	7	36	0				8	2	9	30	PCP
DUGWAY	43.19	81.0	7	48K	0								
PASADENA	43.83	91.7	7	54	1				8	18			
BOULDER CITY	44.65	87.1	8	0	1				8	24	9	40	PCP
PRICE	44.76	80.3	8	1K	1								
FLAMING GRGE	44.79	77.8	8	1	1				8	28	9	41	PCP
UINTA BASIN	45.06	78.6	8	3	0	14	32	3	8	29	9	41	PCP
LARAMIE	46.82	74.9	8	20	4								
TONTO FOREST	47.95	86.2	8	26K	1	15	17	7	8	50	10	16	PP
GOLDEN	47.96	76.5	8	26	1								
ALBUQUERQUE	50.42	82.0	8	44	0						10	1	PCP
WICHITA MTS.	55.30	76.6	9	19	-1	16	55	5	9	45	10	17	PCP
TULSA	56.13	73.7	9	24K	-2	17	2	1	9	52			
KEVO	56.97	351.1	9	37	5								
APATITY	58.36	347.7	10	9K	27								
SODANKYLA	59.32	350.6	9	49	1								
CUMBERLAND	62.23	67.1	10	6	-2	19	9	49			10	35	
MORGANTOWN	62.38	60.3	10	8A	-1								
KAJAANI	62.39	349.1	10	12	3				10	41			
UMEA	63.37	352.6	10	14	-2								
BLACKSBURG	63.90	62.4	10	49	30								
PALISADES	64.49	55.4	10	22	-1	18	53	5			10	48	PCP
HONIARA	65.43	207.6	11	30A	61						16	1	
VIBORG	65.51	347.5	10	28	-1								

NURMIJARVI	66.21	349.6	10	33A	-1			11	0			
HELSINKI	66.51	349.4	10	34	-2			11	2			
UPPSALA	67.50	353.3	10	41K	-1			11	8			
FRUNSE	67.77	311.9	9	43	-61							
GOTEBORG	69.97	356.2	10	56	-1							
KARLSKRONA	71.31	353.9	11	5	0							
SHILLONG	72.09	288.6	11	9K	-1							
HALLE	76.16	355.7	11	33	0					14	26	PP
COLLMBERG	76.31	355.0	11	33K	-1					14	27	
JENA	76.75	355.9	11	36	0			12	4	14	11	
BENSBERG	76.85	358.7	11	38	1							
PRUHONICE	77.54	353.9	11	41	0					14	23	
DOURBES	77.72	0.4	11	42	0							
KASPERSKE H.	78.44	354.4	11	46K	0					12	9	
FOLINIERE	78.93	3.9	11	49	1							
PARIS	78.98	1.9	12	50K	61							
STUTTGART	78.99	357.3	11	49	0							
STRASBOURG	79.22	358.3	11	51	1							
CHARTERS TS.	79.88	216.9	11	53	-1					12	20	
GARCHY	80.53	1.5	11	57K	0							
ROSELEND	82.13	359.0	12	5	0							
ISOLA	83.63	358.7	12	14	1							
MONACO	84.07	358.4	12	16	1							
BRISBANE	84.51	208.6	12	18	1							13 52 PP
SAN JUAN	86.39	64.4	12	27	0			12	57			
LA PAZ	113.03	87.2										35 28 SS
BULAWAYO	142.91	321.8	19	15	-1							
MAWSON	148.95	218.9	19	28K	2							

SEPTEMBER 22 2.H 56.M 26.S EPICENTRE -19.18 175.87 DEPTH= 39.KM

A=-0.94270 B= 0.06803 C=-0.32662 D= 0.0720 E= 0.9974
G= 0.3258 H=-0.0235 K=-0.9452 HT= 4.9

DEPTH OF FOCUS= 0.001R

SE= 1.54

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S
LUGANVILLE	9.11	292.2	2	12	0							
NOUMEA	9.35	249.0	2	15A	0							
KOUMAC	10.99	260.9	2	39	1							
AFIAMALU	12.95	68.0	3	0	-4	5	26	-2				
KARAPIRO	18.68	180.8	4	19	2							
CHATEAU	19.95	180.8	4	34A	3							
WELLINGTON	22.04	182.2	4	54A	1	9	6	17				
RIVERVIEW	26.41	231.5	5	33	-2	10	14	11			6	23 PP
ROXBURGH	26.78	190.3	5	38	0	10	14	4				
RABAUL	27.51	299.8	5	44	-1.							
CHARTERS TS.	27.89	263.1	5	48	0	10	36	9				
CANBERRA	28.66	230.4	5	58	3	10	37	-3			6	47 PP
PORT MORESBY	29.44	285.3	6	3	1	11	2	10				
TOOLANGI	32.20	229.0	6	26	-1				6	34	7	33 PP
ADELAIDE	36.39	236.7	7	3K	1	12	46	6			15	22 SSS
HONOLULU	47.62	33.6	8	36	2	15	43	17			10	42 PP
KIPAPA	47.76	33.6	8	36	1	15	44	16			10	44 PP
CAPE HALLETT	53.23	182.2	9	16	-1							
MUNDARING	54.70	244.0	9	26	-2							
SCOTT BASE	58.88	182.2	9	56	-1							
WILKES	62.75	204.4	10	20	-4	18	41	-7				
MANILA	63.56	298.0	10	28	-1	19	16	18				
TUKUBASAN	64.66	328.5	10	33K	-3	19	17	5			19	37 *SS
BAGUIO CITY	64.87	299.4	10	36	-1	19	23	9				
MATUSIRO	65.86	327.4	10	43K	-1	19	40	14				
ABUYAMA	66.00	324.4	10	44K	-1							
BYRD STATION	66.90	170.1	10	49	-1							
MIRNY	69.74	205.0	11	6	-2	21	3	50	11	23		
HONG KONG	73.04	301.5	11	30	2	20	51	0			11	50 PCP
PHU-LIEN	78.57	296.8	12	1	2						12	13 PCP
BERKELEY	81.20	44.9	12	14K	1	22	30	11	12	37	15	54 PP
UKIAH	81.25	43.4	12	16	3							
LICK	81.33	45.6	12	15K	1							
PRIEST	81.37	47.1	12	15K	1							
CALISTOGA	81.40	44.1	12	14K	0							
PASADENA	82.14	49.9	12	19	1	22	29	0				
SHASTA	82.64	42.5	12	21K	0							

MINERAL	82.96	43.1	12	20K	-2						
ARGENTINE I.	84.37	158.5	12	27	-2						
BOULDER CITY	85.41	49.6	12	36	1					38	48 PKPPKP
EUREKA	86.25	46.0	12	38	-1					16	3 PP
VICTORIA	86.36	35.5	12	40K	1						
TONTO FOREST	87.28	52.4	12	45K	1				12 52	16	10 PP
PORT BLAIR	87.44	283.2	12	46K	2	23	20	-1		32	28 SSS
BLUE MTS.	87.99	40.9	12	47K	0	23	46	20		15	59 PP
GLEN CANYON	88.19	49.9	12	50	2						
COLLEGE	88.29	14.7	12	47	-2						
DUGWAY	88.75	46.5	12	52K	1						
SALT LAKE C.	89.65	46.3	12	56	1						
PRICE	89.87	47.7	12	57	1						
ULAN-BATOR	90.78	321.1	12	59	-1						
UINTA BASIN	91.04	47.5	13	2	0	24	5	11		16	38 PP
FLAMING GRGE	91.41	47.0	13	4	1						
BUTTE	91.49	41.4	13	3	-1					16	39 PP
BOZEMAN	92.29	42.2	13	6	-1					16	44 PP
SHILLONG	92.92	295.9	13	10K	0						
EDMONTON	94.30	34.6	13	15	-1						
ESEN BULAK	96.77	316.7	13	27	-1						
WICHITA MTS.	97.16	55.9	13	29	0	24	16	14		17	22 PP
MADRAS	99.46	280.5	17	49	249					31	58
TULSA	99.70	55.4	13	42	1	24	27	12			
CUMBERLAND	107.69	57.8								18	40 PP
BOMBAY	107.89	284.3	17	44	777					23	42
BOGOTA	110.44	92.2	19	8	40	25	13	9		28	37 PS
QUETTA	115.39	294.9	18	39K	1						
PALISADES	117.43	53.1								36	13 SS
BREBEUF	117.71	48.1								19	58 PP
TRINIDAD	124.21	90.0	18	51	-4						
KEVO	126.00	347.1								20	46 PP
APATITY	126.11	343.2	18	47	-11						
SHIRAZ	127.81	293.0	19	0	-2	25	40	-24		22	22 PKS
CHILEKA	128.22	230.7	19	3	1						
TEHERAN	128.70	300.8	19	2	-1					22	42 PKS
BULAWAYO	129.44	221.1	19	6A	1						
KAJAANI	130.26	342.3	19	9	3					22	33 PKS
UMEA	132.43	345.6	19	10	0					22	45 PKS
BROKEN HILL	133.66	226.2	19	16	3						
NURMIJARVI	133.92	340.7	19	14	1					22	42 PKS
HELSINKI	134.09	340.2	19	14	1						
SKALSTUGAN	134.24	349.8	19	15	1						
LWIRO	141.26	240.2	19	24	-3						
KSARA	141.60	300.5	19	25	-2	26	42	11		22	47 PP
JERUSALEM	142.53	297.4	19	32	3						
KRAKOW	143.71	333.6	19	29	-2					22	40
CHORZOW	143.92	334.7	19	30	-1						
NIEDZIKA	144.02	332.6	19	32K	1					22	46
SKALNATE PL.	144.23	332.4	19	32	0					23	7 PKS
ISTANBUL UN.	144.34	314.9	19	32	0						
RACIBORZ	144.40	335.1	19	32	0					20	43
DURHAM	144.42	357.5	19	34K	2						
COLLMBERG	145.21	341.1	19	34K	1					22	54 PP
HALLE	145.35	342.3	19	34	0					23	52 PKS
WITTEVEEN	145.39	348.5	19	35	1						
PRAGUE	145.81	338.6	19	36	1					33	19 SKSP
PRUHONICE	145.84	338.4	19	35	0						
JENA	145.96	342.2	19	36	1					22	49 PP
MUNSTER	146.01	347.0	19	40	5						
BRATISLAVA	146.35	334.1	19	37	2					19	58
DE BILT	146.35	349.6	19	39	4						
VIENNA-H.	146.58	334.9	19	39	3					20	22
KASPERSKE H.	146.90	338.5	19	36K	0					21	11
SOFIA	147.03	321.3	19	39	2					20	30 PP
BENSBERG	147.05	346.8	19	40	3					20	35
BELGRADE	147.26	326.8	19	38	1					23	34 PP
KEW	147.64	355.5	19	39	1						
UCCLE	147.74	349.9	19	42	4						
HEIDELBERG	148.14	344.0	19	41	3						
DOURBES	148.38	349.3	19	41	2					19	44 PKP2
STUTTGART	148.56	342.9	19	40	1						
ZAGREB	148.67	332.5	19	40	1						
LJUBLJANA	149.10	334.3	19	40	0					19	46 PKP2
STRASBOURG	149.13	344.5	19	44A	4					42	22 SS
ATHENS	149.38	313.5	19	43A	3						
FELDBERG	149.72	343.7	19	42	1						
TRIESTE	149.74	334.7	19	42	1					19	46 PKP2

PARIS	149.97	351.2	19	48A	7							20	39	
CHUR	150.22	341.0	19	48	6									
FOLINIERE	150.34	355.1	19	44	2									
PADOVA	150.67	336.6	20	4	22									
BESANCON	150.81	345.8	19	46	4									
GARCHY	151.36	349.7	19	51A	8									
PAVIA	151.82	339.9	19	48	4	26	48	2				21	42	
ROSELEND	152.11	343.8	19	52	8							21	59	
FLORENCE X.	152.29	335.6	19	42	-3							19	46	PKP2
AQUILA	152.54	331.0	19	49	4							23	38	PP
ROME	153.31	331.6	19	47	1	26	22	-25				23	40	PP
ISOLA	153.38	341.9	19	48	2							20	9	
MONACO	153.67	340.9	19	47	0									
MESSINA	154.47	322.0	19	47	-1							20	10	PKP2
BAGNERES	155.91	352.3	19	51	1									
TOLEDO	159.37	359.8	19	56A	2							24	14	PP
GRANADA	162.06	358.6	19	46K	-11									
MALAGA	162.53	0.7	19	59	2							24	26	PP
M.BOUR	166.81	109.3	20	15	14							25	28	PP

SEPTEMBER 22 19.H 21.M 59.5 EPICENTRE -19.10 175.80 DEPTH= 36.KM

A=-0.94310 B= 0.06927 C=-0.32522 D= 0.0733 E= 0.9973
G= 0.3243 H=-0.0238 K=-0.9456 HT= 4.9

DEPTH OF FOCUS= 0.000R

SE= 1.46

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
PORT VILA	7.23	279.7	1	48A	2								
NOUMEA	9.31	248.4	2	16A	1	4	23	23					
KOUMAC	10.94	260.4	2	35A	-2								
AFIAMALU	12.98	68.4	3	3	-2	5	25	-4					
HONIARA	18.10	299.9	4	11	0						9	1	
KARAPIRO	18.77	180.6	4	19	0								
CHATEAU	20.03	180.6	4	35	2								
WELLINGTON	22.13	182.1	4	55	1	9	1	10					
BRISBANE	22.68	244.4	5	0	0	9	13	12					
RIVERVIEW	26.41	231.3	5	37	2	10	15	11			6	26	
ROXBURGH	26.85	190.1	5	38	-1	10	17	5					
RABAUL	27.41	299.7	5	43	-2						10	26	
CANBERRA	28.67	230.2	5	58	2						12	24	SS
PORT MORESBY	29.35	285.2	6	2	0	11	1	9					
TOOLANGI	32.20	228.8	6	27K	0				6	34	6	40	*SP
ADELAIDE	36.38	236.6	7	4K	1						15	43	SSS
DARWIN	43.70	271.9	8	4	0								
HONOLULU	47.59	33.8	8	35	1	15	41	15			19	26	
HAWAII V.OB.	47.66	38.1	8	35	0								
KIPAPA	47.73	33.7	8	35	-1	15	43	15					
CAPE HALLETT	53.32	182.1	9	16	-2								
MUNDARING	54.68	243.9	9	28	0								
WILKES	62.80	204.3	10	23	-2								
MANILA	63.46	298.0	10	29	0	19	5	7					
BAGUIO CITY	64.76	299.4	10	36	-1	19	23	9					
MATUSIRO	65.75	327.4	10	43K	-1	19	37	11					
BYRD STATION	67.00	170.1	10	49	-3								
MIRNY	69.79	205.0	11	7	-2								
PARAISO	80.29	46.2	12	13	4								
MAWSON	80.84	201.0	12	12K	0								
BERKELEY	81.19	45.0	12	15K	1	23	17	57			13	45	
UKIAH	81.23	43.5	12	11	-3								
LICK	81.32	45.7	12	15K	0								
PRIEST	81.37	47.1	12	16K	1								
CALISTOGA	81.39	44.2	12	15K	0								
PASADENA	82.13	49.9	12	19	0	21	44	-46					
SHASTA	82.62	42.5	12	21K	0								
MINERAL	82.94	43.1	12	21K	-2								
BOULDER CITY	85.41	49.6	12	36	1						15	51	PP
EUREKA	86.25	46.1	12	40	1								
SEATTLE	86.47	36.7	12	59K	18								
TONTO FOREST	87.28	52.4	12	45K	1				12	54	16	7	PP
PORT BLAIR	87.35	283.2	12	45	0								
BLUE MTS.	87.97	40.9	12	48K	0	23	36	9			16	11	PP
GLEN CANYON	88.19	49.9	12	51	2								
COLLEGE	88.22	14.7	12	46	-3								

YAKUTSK	88.71	340.1	12	50K	-1					
DUGWAY	88.74	46.6	12	52K	1					
SALT LAKE C.	89.64	46.4	12	56	0					
PRICE	89.87	47.8	12	57K	0					
ULAN-BATOR	90.67	321.1	13	1	0					
UINTA BASIN	91.03	47.5	13	3K	1				16 37	PP
FLAMING GRGE	91.40	47.0	13	8	4					
BUTTE	91.47	41.4	13	4	0				13 39	
HUNGRY HORSE	91.62	38.9	13	5	0					
BOZEMAN	92.27	42.2	13	6	-2				16 43	PP
SHILLONG	92.82	295.9	13	10K	0					
GOLDEN	93.76	49.3	13	16	1					
EDMONTON	94.27	34.6	13	16	-1					
RAPID CITY	96.83	45.8	13	29	0					
WICHITA MTS.	97.17	55.9	13	30	0	24 21	18		17 33	PP
TULSA	99.71	55.4	13	42	0				25 23	
CUMBERLAND	107.70	57.8							29 52	PKKP
BOGOTA	110.51	92.2							28 45	PS
WARSAK DAM	111.99	299.7	18	35	3					
QUETTA	115.29	295.0	18	39	1					
VANNOVSKAYA	123.14	303.3	18	54	1					
KEVO	125.90	347.1	18	58	-1					
APATITY	126.01	343.1	18	58	-1					
SHIRAZ	127.72	293.1	19	1A	-1				21 14	PP
SODANKYLA	127.89	345.4	19	2	-1					
KAJAANI	130.16	342.3	19	8	1					
MOSCOW	131.82	329.6	19	11	1					
UMEA	132.33	345.6	19	9	-2					
TIFLIS	132.85	309.6	19	13	1					
BROKEN HILL	133.67	226.3	19	15	2					
BAKURIANI	133.78	309.9	19	14	0					
NURMIJARVI	133.82	340.7	19	14	0				22 42	PKS
HELSINKI	133.99	340.2	19	14	0					
LWIRO	141.24	240.4	19	26	-1					
KSARA	141.49	300.6	19	26	-2				22 28	PP
UZHGOROD	143.59	330.1	19	32	1					
KRAKOW	143.61	333.6	19	29A	-2				20 31	
ISTANBUL UN.	144.23	314.9	19	32	-1					
RACIBORZ	144.29	335.1	19	32	-1				20 13	
DURHAM	144.33	357.4	19	34K	1					
COLLMBERG	145.11	341.1	19	34	0				21 46	
HALLE	145.25	342.2	19	35	1		19 49			
WITTEVEEN	145.29	348.4	19	36K	2					
PRUHONICE	145.74	338.4	19	36	1				23 10	PP
JENA	145.86	342.1	19	34	-1				23 3	PP
MUNSTER	145.91	346.9	19	33	-2					
BRATISLAVA	146.24	334.0	19	38	2					
VIENNA-H.	146.48	334.8	19	39	3					
KASPERSKE H.	146.79	338.5	19	37K	0				20 31	
SOFIA	146.92	321.4	19	38	1				23 6	PP
BENSBERG	146.95	346.8	19	40K	3					
KEW	147.55	355.5	19	41	3					
UCCLE	147.65	349.8	19	42	4				19 45	PKP2
HEIDELBERG	148.03	344.0	19	43	4					
DOURBES	148.28	349.2	19	41	2				19 46	PKP2
STUTTGART	148.46	342.9	19	40	0					
KARLSRUHE	148.47	344.0	19	41	1					
TUBINGEN	148.74	342.9	19	45	5					
LJUBLJANA	149.00	334.3	19	41K	1					
STRASBOURG	149.03	344.5	19	41	0				48 1	SSS
RAVENSBURG	149.25	341.6	19	46	5					
ATHENS	149.28	313.6	19	45	4					
FELDBERG	149.62	343.6	19	42	1					
TRIESTE	149.63	334.7	19	47	6				48 21	SSS
PARIS	149.87	351.2	19	42	0					
CHUR	150.11	340.9	19	47	5					
BESANCON	150.71	345.8	19	45	2					
GARCHY	151.27	349.7	19	44K	0					
ROSELEND	152.00	343.7	19	53	8					
FLORENCE X.	152.18	335.6	19	47	2					
AQUILA	152.43	331.0	19	47	1				23 39	PP
ROME	153.21	331.6	19	48	1	26 50	2		23 42	PP
ISOLA	153.27	341.8	19	47	0		19 55			
BANGUI	153.35	239.6	19	48	1					
MONACO	153.57	340.8	19	47	0				20 9	
TOLEDO	159.29	359.7	19	56	1				24 13	PP
MALAGA	162.44	0.5	19	57	-1				24 28	PP

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SEPTEMBER 23 6.H 40.M 32.S EPICENTRE -16.61 28.68 DEPTH= 0.KM

A= 0.84116 B= 0.46015 C=-0.28408 D= 0.4799 E=-0.8773
G=-0.2492 H=-0.1363 K=-0.9588 HT= 5.4

SE= 1.58

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BROKEN HILL	2.16	354.6	0	38	0								
BULAWAYO	3.51	181.1	0	57	0								
CHILEKA	6.12	82.2	1	35	1								
CHANGALANE	10.17	161.9	2	28	-2	4	28	2					
LWIRO	14.27	0.5	3	23A	-2	5	49	-17					
LUANDA	16.92	295.2	4	5K	5	7	10	2			4	23	PPP
JERUSALEM	48.52	7.4	8	48	1								
KSARA	50.61	7.8	8	31	-32								
SHIRAZ	51.42	26.7	9	8K	-1	16	28	0	10	24	11	9	PP
MAWSON	55.51	164.8	9	38K	-1	17	31	7					
MESSINA	55.89	347.5	9	42	0	17	26	-3					
TEHERAN	56.33	22.2	9	46	1	17	42	7			11	54	PP
POONA	56.52	53.8	9	43K	-3								
GORIS	58.20	16.0	9	59	1	18	6	7					
MADRAS	58.78	63.1	10	5	3	18	14	7			18	26	PS
QUETTA	59.35	38.6	10	7K	1	18	22	8					
BAKURIANI	59.64	12.8	10	8	0								
TIFLIS	59.92	13.9	10	11	1								
ROME	60.11	346.1	10	11A	0	18	25	1			12	29	PP
AQUILA	60.33	347.0									25	3	
AVERROES	60.42	325.4									31	29	
VANNOVSKAYA	60.90	26.4	10	17	0								
ASHKABAD	61.01	26.6	10	17	-1								
KIZYL-ARVAT	61.22	24.2	10	18A	-1								
SIMFEROPOL	61.46	4.4	10	19K	-2	18	41	0					
GRANADA	61.54	331.0	10	25K	4								
MONACO	63.12	342.9	10	31	-1								
ISOLA	63.64	342.8	10	35	0								
TOLEDO	63.95	332.4	10	36K	-1	19	13	1			12	7	
MIRNY	64.75	156.5	10	42	0	19	30	8					
WARSAK DAM	64.81	38.7	10	43	0								
BAGNERES	64.91	337.3	10	42	-1						11	18	
NEW DELHI	64.95	46.7	10	42K	-2								
UZHGOROD	65.19	355.3	10	45	0								
DUZHANBE	66.51	33.4	10	54	0								
KASPERSKE H.	66.81	349.3	10	54K	-1						13	24	
PRUHONICE	67.46	350.2	10	58	-2								
STRASBOURG	67.52	345.1	10	59	-1						19	59	
GARCHY	67.63	341.4	10	58K	-3								
TASHKENT	68.81	31.7	11	8K	0	20	10	-1					
PARIS	69.17	341.8	10	40	-30								
PORT BLAIR	69.26	70.3	11	13K	2								
BENSBERG	69.87	345.7	11	13	-2								
CHATRA	71.32	53.5	11	24	1								
WILKES	71.65	155.1	11	26	1								
MOSCOW	72.45	5.3	11	30	0								
CHITTAGONG	72.93	59.8	11	33	0								
KARLSKRONA	73.32	352.4	11	33	-2								
SOUTH POLE	73.50	180.0	11	35	-1								
ALMATA	74.21	34.5	11	41K	1								
SHILLONG	74.42	56.8	11	43A	1								
HELSINKI	76.57	358.1	11	54	0								
UPPSALA	76.71	354.3	11	54K	-1								
NURMIJARVI	76.92	358.0	11	55K	-1						27	14	SS
VIBORG	77.06	0.1	11	56	-1								
SVERDLOVSK	77.88	17.3	12	1K	0								
MUNDARING	79.35	120.2	12	11	2								
KAJAANI	80.44	359.6	12	18	3								
UMEA	80.44	356.2	12	14	-1								
BYRD STATION	82.09	185.3	12	24	0								
SCOTT BASE	82.73	171.8	12	28	1								
SODANKYLA	83.75	359.2	12	32	0								
APATITY	83.99	1.8	12	36K	3						24	13	PS
KEVO	86.15	359.4	12	42	-2								
ESEN BULAK	87.24	39.8	12	52K	2								
CAPE HALLETT	87.65	169.0	12	50	-1								
LA PAZ	91.66	252.4	13	11	1								
ULAN-BATOR	94.50	41.3	13	24K	1								
CUMBERLAND	119.05	301.8									31	25	PPS
TULSA	127.33	302.7	19	18	11						32	38	

WICHITA MTS.	129.74	301.5	19 13	2			21 21	PP
COLLEGE	131.72	358.0	19 15	0				
EDMONTON	132.88	329.8	19 19	2				
HUNGRY HORSE	136.10	324.4	19 20	-3				
UINTA BASIN	136.89	311.8	19 16	-9			22 3	PP
GLEN CANYON	139.52	307.9	19 26	-4				
BLUE MTS.	139.91	321.8	19 31	1			22 31	PP
TONTO FOREST	140.08	303.9	19 26	-5	19 37		22 58	SKP
EUREKA	141.73	313.7	19 29	-4				
BOULDER CITY	142.32	307.9	19 36	2				
AFIAMALU	143.56	145.2	19 40	3				
MINERAL	145.04	318.6	19 39K	0				
SHASTA	145.34	319.7	19 40K	0				
PASADENA	145.54	306.7	19 42	2				
PRIEST	146.56	311.5	19 46K	4				
CALISTOGA	146.62	316.8	19 47K	5				
LICK	146.67	314.1	19 46K	4				
BERKELEY	146.82	315.4	19 48K	6				
PARAISO	147.68	313.0	19 47	3				

SEPTEMBER 23 9.H 1.M 52.S EPICENTRE -16.56 28.57 DEPTH= 0.KM

A= 0.84225 B= 0.45865 C=-0.28330 D= 0.4782 E=-0.8782
G=-0.2488 H=-0.1355 K=-0.9590 HT= 5.4

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	
BROKEN HILL	2.10	357.3	0	38	1								
BULAWAYO	3.56	179.4	0	57	0								
CHILEKA	6.22	82.8	1	35	0								
CHANGALANE	10.25	161.4	2	28	-3	4	22	-6					
LWIRO	14.22	0.9	3	21	-4	5	47	-17					
LUANDA	16.80	295.3	3	32K	-26	7	14	9			5	50	
HERMANUS	19.66	203.5	4	29	-4						8	21	
JERUSALEM	48.49	7.6	8	47K	1								
KSARA	50.58	7.9	9	3	1	16	21	5			11	3	PP
SHIRAZ	51.43	26.9	9	8K	-1	16	23	-5			11	12	PP
ATHENS	54.43	355.3	9	16	-15								
M.BOUR	54.48	301.8	9	30	-1	17	10	0					
MAWSON	55.58	164.8	9	38K	-1	17	25	1					
MESSINA	55.83	347.6	9	40	-1	17	28	0			11	46	PP
BOMBAY	56.00	52.8	9	41	-1	17	34	4			11	48	PP
TEHERAN	56.33	22.3	9	45K	0	17	44	10			11	50	PP
POONA	56.58	53.9	9	53K	6								
ISTANBUL UN.	57.31	0.4	9	53A	1								
GORIS	58.18	16.1	9	58K	0	18	6	7					
MADRAS	58.86	63.2	10	4K	1	18	10	2			12	18	PP
QUETTA	59.38	38.7	10	7	1	18	21	7					
BAKURIANI	59.62	12.9	10	7	-1								
TIFLIS	59.90	14.0	10	10	0	18	27	6					
ROME	60.04	346.2	10	7K	-4	18	16	-7			12	23	PP
AQUILA	60.26	347.1	10	12	0	18	28	2			12	28	PP
AVERROES	60.33	325.5	10	12K	-1						12	32	PP
ALMERIA	60.66	331.7	10	16K	1								
VANNOVSKAYA	60.91	26.5	10	16	-1								
ASHKABAD	61.02	26.7	10	18	1								
ALICANTE	61.04	334.1	10	18K	0						11	4	PCP
KIZYL-ARVAT	61.22	24.3	10	18K	-1	18	42	4					
SIMFEROPOL	61.42	4.5	10	19	-1	18	42	1					
GRANADA	61.45	331.0	10	23K	3	18	41	0			25	47	SSS
MALAGA	61.46	330.1	10	24	4								
BELGRADE	61.53	353.4	10	17	-4						18	49	PPS
MONACO	63.04	342.9	10	30	-1								
ZAGREB	63.13	350.2	10	31K	0								
KISHINEV	63.29	0.2	10	31	-2	19	5	1					
TRIESTE	63.36	348.4	10	33A	0	19	8	3			26	0	SSS
PADOVA	63.51	346.9	10	38	4						21	23	
ISOLA	63.57	342.9	10	34	0				10	44			
LJUBLJANA	63.60	349.1	10	35	0						11	24	
VISHAKHAPTNM	63.76	60.2	10	25K	-11								
TOLEDO	63.85	332.5	10	36K	0	19	12	1			12	28	PP
PAVIA	63.93	344.8	10	37	0	19	0	-12					
BAGNERES	64.83	337.3	10	42	-1								
MIRNY	64.83	156.5	10	42	-1	19	26	3					
WARSAK DAM	64.84	38.7	10	43	0								

LAHORE	64.93	42.5	10	43	0						
NEW DELHI	65.00	46.7	10	42K	-2	19	25	0			
ROSELEND	65.07	343.2	10	44	0				11	33	
UZHGOROD	65.14	355.4	10	45	0						
BRATISLAVA	65.25	351.6	10	45	0						
LISBON	65.36	328.2	10	47K	1						
VIENNA-H.	65.43	351.1	10	47	0						
LWOW	66.21	356.8	10	50	-2						
DUZHANBE	66.53	33.5	10	53K	-1	19	41	-3			
BESANCON	66.68	343.4	10	54	-1				11	25	
FELDBERG	66.74	345.1	10	54	-1						
KASPERSKE H.	66.74	349.3	10	54K	-1				12	59	
KRAKOW	66.76	353.9	10	55K	0	19	51	4	11	27	PCP
RACIBORZ	66.98	352.8	10	55	-1				11	14	PCP
TUBINGEN	67.09	346.1	10	57	0						
KHOROG	67.25	36.0	10	59K	1	19	59	6			
STUTTGART	67.27	346.3	10	58	0	19	50	-3	11	31	
PRUHONICE	67.40	350.2	10	57	-2	20	6	12			
STRASBOURG	67.45	345.2	10	59K	0	19	59	4	13	25	PP
PRAGUE	67.50	350.2	10	58	-2	19	56	0	24	18	SS
GARCHY	67.55	341.5	10	59K	-1						
KARLSRUHE	67.69	345.8	11	1	0						
HEIDELBERG	67.99	346.2	11	2	-1						
TASHKENT	68.82	31.8	11	8K	0	20	15	4			
JENA	68.83	348.6	11	7	-1	20	8	-4	13	36	PP
COLLMBERG	68.93	349.6	11	8K	-1				47	20	
PARIS	69.09	341.9	11	9	-1						
HALLE	69.31	349.0	11	10	-1						
PORT BLAIR	69.35	70.4	11	12K	1						
DOURBES	69.66	343.8	11	12	-1	20	26	5			
BENSBERG	69.80	345.8	11	14	0						
FOLINIERE	69.99	340.0	11	15	0						
DE BILT	71.34	345.0	11	24	1						
CHATRA	71.38	53.6	11	23K	-1						
WITTEVEEN	71.65	346.2	11	27	2						
WILKES	71.74	155.1	11	25	-1	20	54	8			
MOSCOW	72.41	5.4	11	30K	0						
FRUNSE	72.68	33.7	11	31	0						
CHITTAGONG	73.00	59.8	11	34	1						
COPENHAGEN	73.24	350.5	11	35K	0	21	8	5			
KARLSKRONA	73.26	352.5	11	32K	-3						
SOUTH POLE	73.54	180.0	11	36	0						
ALMATA-2	74.46	34.8	11	41K	-1						
SHILLONG	74.48	56.9	11	42K	0	21	17	0	14	38	PP
GOTEBORG	75.26	350.9	11	46	0						
DURHAM	75.54	342.5	11	51K	3	21	18	-10			
PULKOVO	76.07	0.9	11	50	-1	21	34	0			
ARGENTINE I.	76.29	205.6	12	52	60						
HELSINKI	76.52	358.1	11	54	1						
UPPSALA	76.66	354.3	11	54K	0	21	41	0			
NURMIJARVI	76.87	358.0	11	55A	0	21	42	-1	26	22	SS
VIBORG	77.01	0.1	11	57	1						
KONGSBERG	77.49	350.3	11	0A	-59						
ABERDEEN	77.77	343.5							21	6	
SVERDLOVSK	77.87	17.4	12	0	-1	21	48	-6			
MUNDARING	79.46	120.3	12	12	2						
UMEA	80.39	356.3	12	14	-1	22	22	2			
KAJAANI	80.39	359.6	12	18	3				13	6	
SEMIPALATNSK	80.63	30.6	12	16	0						
SKALSTUGAN	80.88	352.7	12	18	1						
SCOTT BASE	82.79	171.8	12	27	0						
SODANKYLA	83.70	359.2	12	32	0				13	33	
APATITY	83.95	1.9	12	33K	0	22	58	1	23	51	PS
KIRUNA	84.36	356.9				23	19	18	23	50	
PHU-LIEN	85.09	66.7	12	40	1						
KEVO	86.10	359.5	12	44	0	23	16	-2	24	16	PS
ESEN BULAK	87.27	39.9	12	51K	2	23	39	10			
CAPE HALLETT	87.72	169.1	12	52	0						
SANTA LUCIA	88.45	235.7	12	56	1	23	46	6			
ANTOFAGASTA	91.38	244.9	13	10	1	23	47	-20	16	48	PP
LA PAZ	91.57	252.4	13	11	1	23	48	-20			
TRINIDAD	92.95	280.2	13	19	3						
SCORESBY SD.	93.55	344.9	13	24K	5						
ULAN-BATOR	94.54	41.4	13	24K	1	24	40	6			
CARACAS	98.15	278.5	13	40K	0	24	18	0			
BOGOTA	103.41	270.9	17	21	198				27	31	PS
RIVERVIEW	105.84	133.2							28	2	PS
GALERAZAMBA	106.14	276.7	17	49	777				27	9	PS

CHARTERS TS.	108.79	118.5								19	15	PP
TIKSI	108.85	19.2	18	31	777					18	55	PP
YAKUTSK	109.71	29.4	18	31	777							
PALISADES	110.00	308.2	19	6	33	25	16	4				
WELLINGTON	114.48	152.6								29	32	SP
MOULD BAY	118.01	351.7	18	49	0							
CUMBERLAND	118.94	301.8				25	48	2		20	11	PP
HONIARA	125.41	114.7								20	56	PP
PETROPAVLOVK	126.78	35.3	19	7A	1							
TULSA	127.22	302.7	19	8	2					22	26	
WICHITA MTS.	129.63	301.5	19	12	1	26	23	4		21	9	PP
RAPID CITY	131.06	314.5	19	16	2							
COLLEGE	131.67	357.9	19	15	0					31	18	
EDMONTON	132.78	329.8	19	19	2							
LARAMIE	133.59	311.7	19	20	1							
GOLDEN	133.92	309.5	19	21	2							
BOZEMAN	135.58	319.5	19	26	4							
HUNGRY HORSE	136.00	324.3	19	17	-6							
BUTTE	136.35	320.7	19	18	-6							
FLAMING GRGE	136.43	312.6	19	19	-5							
UINTA BASIN	136.78	311.8	19	14	-10					22	5	PP
SALT LAKE C.	138.22	313.4	19	21	-6							
DUGWAY	139.12	313.1	19	20	-9							
GLEN CANYON	139.41	307.9	19	23	-6							
BLUE MTS.	139.81	321.8	19	25	-5					21	54	PP
TONTO FOREST	139.97	303.9	19	26	-4	26	40	1	19 34	22	29	PP
EUREKA	141.63	313.7	19	30	-3							
BOULDER CITY	142.20	307.9	19	32	-2					21	20	
AFIAMALU	143.66	145.3	19	37	0							
MINERAL	144.94	318.6	19	39K	0							
SHASTA	145.24	319.7	19	40	1							
PASADENA	145.42	306.7	19	42	2					22	56	PP
PRIEST	146.45	311.5	19	46K	5							
CALISTOGA	146.51	316.8	19	46A	4							
LICK	146.56	314.1	19	46K	4							
UKIAH	146.66	318.0	19	49	7							
BERKELEY	146.71	315.4	19	46A	4					37	24	
KIPAPA	172.11	51.2	20	14	4							
HONOLULU	172.12	52.2	20	16	6					25	30	PP

SEPTEMBER 23 17.H 2.M 38.S EPICENTRE 51.55-179.41 DEPTH= 39.KM

A=-0.62442 B=-0.00639 C= 0.78106 D=-0.0102 E= 0.9999
G=-0.7810 H=-0.0080 K=-0.6245 HT= -6.0

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	
PETROPAVLOVK	13.50	284.9	3	10	-1								
MAGADAN	18.52	307.2	4	17	2								
COLLEGE	21.03	38.6	4	42	-1								
YAKUTSK	29.00	311.0	5	57	-1								
MATUSIRO	33.43	260.1	6	37A	0	11	59	4					
MOULD BAY	33.60	22.0	6	39	0						9	17	
KIPAPA	34.38	143.0	6	42	-3								
HONOLULU	34.46	143.2				12	16	5					
VICTORIA	35.35	72.3	6	53A	-1								
ABUYAMA	36.15	260.4	7	1A	0								
SEATTLE	36.42	73.0	7	9K	6	12	54	13					
HAWAII V.OB.	37.25	140.4	7	13	3								
SHASTA	40.02	82.6	7	36K	3								
MINERAL	40.72	82.5	7	42A	3								
BLUE MTS.	40.82	74.1	7	39A	0	13	49	1			13	29	SCP
HUNGRY HORSE	40.94	67.7	7	40	0								
CALISTOGA	41.13	85.3	7	42K	0								
BERKELEY	41.80	86.0	7	54K	7						14	12	
LICK	42.51	86.2	8	0A	7								
ALERT	42.53	10.0	7	55A	1								
PARAISO	42.69	87.9	7	49	-6								
BUTTE	43.00	69.9	7	57	0								
PRIEST	43.88	86.8	8	6A	2								
BOZEMAN	44.08	69.5	8	2	-4								
EUREKA	44.71	79.8	8	10	-1						9	25	PCP
IRKUTSK	44.99	302.4	8	14A	1								

ULAN-BATOR	45.90	296.0	8	22K	1	15	7	5												
PASADENA	46.72	87.1	8	34	7	15	13	0												
BOULDER CITY	47.61	82.7	8	33	-1															
FLAMING GRGE	47.83	73.9	8	35	-1															
UINTA BASIN	48.09	74.7	8	37A	-1	15	34	1								19	29	55		
GLEN CANYON	48.97	79.5	8	44	-1															
RAPID CITY	49.56	66.9	8	48	-1															
LARAMIE	49.86	71.2	8	50	-1															
TONTO FOREST	50.91	81.9	8	58	-1							9	12			11	1	PP		
GOLDEN	51.00	72.7	9	0	0															
ESEN BULAK	52.67	300.0	9	14	1	16	43	7												
WICHITA MTS.	58.34	72.8	9	52	-2	17	50	-2								10	27			
TROMSOE	58.39	352.6	9	54	0															
APATITY	58.69	345.9	9	58	2															
TULSA	59.18	70.0	9	57A	-2							10	6							
MANILA	59.79	254.8	10	3	-1															
SODANKYLA	59.80	348.7	10	5	1															
SCHEFFERVLLE	60.14	38.0	10	4A	-2															
ST. LOUIS 1	60.48	64.1	10	7	-1															
SVERDLOVSK	61.25	327.1	10	12	-2															
KAJAANI	62.79	347.0	10	28	4											11	4	PCP		
SHAWINIGAN	63.78	47.5	10	28	-2															
UMEA	63.95	350.4	10	31	0															
BREBEUF	64.17	48.8	10	30	-3															
ALMATA-2	64.59	308.1	10	36	0															
SKALSTUGAN	64.85	354.3	10	37K	0															
CUMBERLAND	65.27	63.6	10	38A	-2	19	25	6												
AFIAMALU	65.52	171.9				19	28	6												
PENNSYLVANIA	65.57	54.8	10	41	-1															
VIBORG	65.82	345.2	10	42A	-2															
FRUNSE	66.25	309.4	10	47	1															
NURMIJARVI	66.63	347.3	10	48K	-1											20	8	PS		
HELSINKI	66.92	347.0	10	50	0											11	27			
PALISADES	67.40	52.2				19	50	5												
UPPSALA	68.11	350.8	10	57	-1															
MOSCOW	68.77	338.6	11	3	1															
KONGSBERG	68.92	355.1	11	3K	0															
SHILLONG	69.64	285.6	11	7A	0															
TASHKENT	69.95	311.7	11	10	1															
CHATRA	71.50	289.8	11	20A	1															
KARLSKRONA	71.95	351.2	11	19K	-2															
CHITTAGONG	72.07	283.4	11	23	1															
DUZHANBE	72.36	310.2	11	25	1															
COPENHAGEN	72.69	353.0	11	26	0															
WARSAK DAM	74.60	305.5	11	36	-1															
NEW DELHI	75.84	298.1	11	43A	-1															
HALLE	76.88	352.7	11	49	-1							12	7							
COLLMBERG	76.99	352.0	11	50	-1															
CHARTERS TS.	77.41	212.9	11	50	-3											12	11			
KRAKOW	77.45	347.4	11	53K	0											12	8	PCP		
JENA	77.48	352.9	11	53	0															
VANNOVSKAYA	77.69	317.0	11	55	1															
BENSBERG	77.72	355.7	11	55A	0											12	24			
NIEDZIKA	78.01	347.0	11	55	-1															
PRUHONICE	78.16	350.8	11	57	0															
UZHGOROD	78.49	345.5	11	59	0															
DOURBES	78.68	357.4	12	0	0															
KISHINEV	78.86	340.7	11	40	-21															
KASPERSKE H.	79.09	351.3	12	2A	0											12	42			
TIFLIS	79.47	327.9	12	4	0															
STUTTGART	79.79	354.2	12	6	0															
BAKURIANI	79.88	328.8	12	7	1															
QUETTA	79.99	306.3	12	8A	1	22	11	4												
PARIS	80.01	358.7	12	5	-2															
FOLINIERE	80.06	0.7	12	8	1															
STRASBOURG	80.06	355.2	12	8	1															
GORIS	80.93	325.9	12	13	1															
GARCHY	81.53	358.3	11	15A	-60															
CLERMONT-FD.	83.04	358.2	12	24	1															
ISOLA	84.49	355.3	12	31	1											13	6			
MONACO	84.92	355.0	12	33	1															
SHIRAZ	87.18	316.7	12	43A	0															
TOLEDO	88.86	3.6	12	52A	1															
KARAPIRO	89.21	184.0	12	52	-1															
SOUTH POLE	141.36	180.0	19	21	-6															
MAWSON	146.38	217.8	19	34	-2															

SEPTEMBER 23 22.H 23.M 33.S EPICENTRE -16.65 28.41 DEPTH= 0.KM

A= 0.84314 B= 0.45614 C=-0.28470 D= 0.4758 E=-0.8795
G=-0.2504 H=-0.1355 K=-0.9586 HT= 5.4

SE= 1.80

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
BROKEN HILL	2.18	1.4	0	39	1								
BULAWAYO	3.48	177.0	0	57	1								
CHILEKA	6.38	82.3	1	35	-2								
CHANGALANE	10.22	160.5	2	28A	-3	4	17	-10					
LWIRO	14.31	1.6	3	24	-2	5	53	-13					
BANDEIRA	14.64	274.7	3	28A	-2	5	51	-23			3	43	PP
LUANDA	16.70	295.8									7	45	SSS
TANANARIVE	18.36	99.9	4	20	3						8	21	
HERMANUS	19.52	203.3									6	38	
BANGUI	23.03	334.3	5	7	0	9	11	-3					
MAWSON	55.54	164.7	9	38	-1								
MESSINA	55.88	347.8									33	17	
GORIS	58.31	16.2	10	0	2								
QUETTA	59.54	38.7	10	7K	0								
BAKURIANI	59.74	13.1	10	8	0								
ROME	60.08	346.3									35	17	
AVERROES	60.31	325.6	10	11	-1						32	46	PKKP
AQUILA	60.31	347.2									29	47	
VANNOVSKAYA	61.05	26.6	10	18	1								
ASHKABAD	61.16	26.8	10	17	-1								
GRANADA	61.45	331.2	10	21A	1								
MALAGA	61.45	330.3	10	20	0								
ISOLA	63.60	343.0	10	35	1								
TOLEDO	63.86	332.6	10	37A	1								
MIRNY	64.81	156.5	10	41	-1								
BAGNERES	64.85	337.5	10	42	-1								
WARSAK DAM	65.00	38.8	10	44	0								
ROSELEND	65.11	343.3	10	45	1								
NEW DELHI	65.17	46.8	10	43A	-2								
UZHGOROD	65.21	355.5	10	45	0								
CLERMONT-FD.	66.21	340.9	10	53	2								
KASPERSKE H.	66.79	349.5	10	55K	0						13	15	
KRAKOW	66.82	354.1	10	54	-1								
STUTTGART	67.31	346.4	10	49	-9								
PRUHONICE	67.45	350.4	10	59	0								
GARCHY	67.58	341.6	10	59K	-1								
JENA	68.89	348.7	11	9	1						11	33	
COLLMBERG	68.99	349.7	11	9	0						11	47	
PARIS	69.12	342.0	11	10A	0								
PORT BLAIR	69.52	70.4	11	13K	1								
FOLINIERE	70.01	340.1	11	16	1								
CHATRA	71.55	53.6	11	24	0								
MOSCOW	72.51	5.5	11	30	0								
KARLSKRONA	73.32	352.6	11	32	-3								
SOUTH POLE	73.46	180.0	11	34	-2								
ALMATA-2	74.61	34.8	11	42K	0								
SHILLONG	74.65	56.9	11	42K	-1								
PULKOVO	76.16	1.0	11	50	-1								
HELSINKI	76.59	358.2	11	54	0								
UPPSALA	76.73	354.4	11	54K	0								
NURMIJARVI	76.94	358.1	11	55	-1								
SVERDLOVSK	77.99	17.4	12	1	0								
UMEA	80.46	356.3	12	15K	0								
KAJAANI	80.47	359.7	12	19A	4								
BYRD STATION	82.03	185.4	12	26	3								
SCOTT BASE	82.73	171.8	12	27	0								
SODANKYLA	83.78	359.3	12	32	0								
APATITY	84.04	1.9	12	34A	1								
KEVO	86.18	359.5	12	45	1								
CAPE HALLETT	87.67	169.1	12	52	1								
LA PAZ	91.40	252.4	13	11	2								
ULAN-BATOR	94.70	41.4	13	24	0								
WICHITA MTS.	129.54	301.5	19	13	2						21	13	
UINTA BASIN	136.72	311.7	19	20	-4						19	47	
BLUE MTS.	139.78	321.7	19	24	-6						22	37	PP
TONTO FOREST	139.89	303.7	19	27	-3				19	38	22	25	PP
EUREKA	141.57	313.5	19	30	-3								
MINERAL	144.90	318.4	19	43A	4								
SHASTA	145.20	319.5	19	40K	1								
PRIEST	146.39	311.3	19	47K	6								

CALISTOGA	146.47	316.6	19	49K	8
LICK	146.51	313.9	19	45A	4
BERKELEY	146.66	315.1	19	47	5
PARAISO	147.52	312.8	19	47	4

SEPTEMBER 24 2.H 10.M 41.5 EPICENTRE 40.85 28.88 DEPTH= 0.KM

A= 0.66420 B= 0.36642 C= 0.65159 D= 0.4830 E=-0.8756
G= 0.5705 H= 0.3147 K=-0.7586 HT= -2.0

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	
ISTANBUL UN.	0.20	23.2	0	8A	-2								
ISTANBUL KA.	0.26	32.9	0	8	-2								
BUCHAREST	4.11	331.0				2	7	12			1	30	PG
SOFIA	4.54	295.8	1	12	0	2	8	2			2	37	SG
ATHENS	4.93	235.9	1	15K	-2						2	39	SG
CAMPULUNG	5.24	328.7				3	2	39			1	46	
SIMFEROPOL	5.62	41.5	1	26K	-1	2	28	-'					
SKOPJE	5.71	283.7	1	28	0						2	3	
BACAU	5.89	346.5									2	20	
PATRAS	6.11	246.9									2	5	
KISHINEV	6.17	359.7	1	34	0	2	42	-5					
BELGRADE	7.36	305.4	1	49	-2						4	5	SG
TITOGRAD	7.38	285.5	1	54	3						2	12	P*
TIMISOARA	7.43	313.8									2	19	
KSARA	8.96	139.4	2	14	1	3	54	-2					
LWOW	9.59	340.8	2	23	1	4	10	-2					
HURBANOVO	10.37	316.1									6	25	
JERUSALEM	10.39	148.6	2	29	-4	4	36	4					
NIEDZIKA	10.48	327.7	2	35K	1						6	9	
ZAGREB	10.63	302.1	2	40A	4						5	57	
MESSINA	10.64	259.9	2	34	-3	4	38	0			4	58	SS
KRAKOW	11.13	328.7	2	42	-1						3	3	PPP
BRATISLAVA	11.14	315.0	2	40	-3								
VIENNA-H.	11.58	313.8	3	6	16								
LJUBLJANA	11.66	301.2	2	49K	-2						6	44	SGSG
AQUILA	11.69	282.4	3	5v	59						6	29	
RACIBORZ	11.88	324.5									3	13	PP
TIFLIS	12.01	80.6	3	1	6								
TRIESTE	12.03	298.5	2	55	-1						6	46	SGSG
ROME	12.37	280.2									3	47	
PADOVA	13.23	295.8									5	4	
GORIS	13.41	90.1	3	16	2								
PRUHONICE	13.57	317.1	3	14	-2						5	59	
KASPERSKE H.	13.61	312.5	3	15K	-2						7	3	
PAVIA	15.05	293.2									8	7	
COLLMBERG	15.15	318.9	3	36	-1	6	30	4					
JENA	15.67	315.8	3	40	-4	6	47	9			4	2	
MOSCOW	15.96	18.2	3	45	-2	6	39	-6					
STUTTGART	15.98	306.2	3	46	-2								
MONACO	16.13	287.4	3	49	-1								
ISOLA	16.43	288.9	3	55	2								
HEIDELBERG	16.56	307.8	3	56	1								
STRASBOURG	16.84	304.4	4	3	4						4	27	
ROSELEND	16.90	294.0	4	1	2						4	33	
KARLSKRONA	17.62	334.8	4	7	-1								
WELSCHBRUCH	17.69	302.8	4	4	-5								
BENSBERG	18.12	311.2	4	15	1						4	43	
COPENHAGEN	18.36	329.4	4	17	0								
TEHERAN	18.37	98.9	4	18	0	7	50	9					
PULKOVO	18.96	2.2	4	22	-3								
DOURBES	19.30	306.8	4	28	-1						4	48	PP
CLERMONT-FD.	19.35	293.3	4	43	14								
HELSINKI	19.49	354.1	4	28	-3								
GARCHY	19.58	297.8	4	31A	-1								
UCCLE	19.69	308.6	4	34	1	8	23	13					
MURMIJARVI	19.85	353.8	4	31	-4	8	17	3			5	21	
VIBORG	19.89	359.9	4	35	-1	8	5	-10					
GOTEBORG	20.05	332.9	4	36A	-1								
PARIS	20.27	302.0	4	37	-3								
UPPSALA	20.27	343.5	4	38A	-2	8	19	-4			5	0	PP
KIZYL-ARVAT	21.01	85.5	4	48A	1	8	41	4					
BAGNERES	21.44	285.5	4	52	0						5	17	
FOLINIERE	22.18	300.8	4	59	0								

SHIRAZ	22.24	112.7	4	59	-1	9	1	1	5	9	5	15	*SP
KONGSBERG	22.33	333.9	4	59A	-2									
KEW	22.70	307.7	5	6A	2									
VANNOVSKAYA	22.72	87.8	5	5	1									
KAJAANI	23.28	358.7	5	16	6						9	31		
UMEA	23.56	350.4	5	12	-1	9	33	9						
SKALSTUGAN	24.78	342.2	5	25	1									
TOLEDO	25.04	278.6	5	26A	-1	9	59	10			6	5	PP	
SVERDLOVSK	25.98	41.3	5	36	0									
MALAGA	26.18	271.8	5	56	18	10	16	8						
SODANKYLA	26.60	358.1	5	43	1						6	36	PP	
APATITY	26.87	3.9	5	47A	3	10	21	1						
KEVO	28.99	358.7	6	6	3									
ALMATA-2	35.68	69.7	7	2	0									
BANGUI	37.47	197.0	6	52	-25									
KAP TOBIN	39.20	335.6	7	32	1									
SCORESBY SD.	39.22	335.7	7	32	0									
EDMONTON	80.66	338.2	12	15A	-1									
CUMBERLAND	83.02	311.6	12	27	-1									
HUNGRY HORSE	85.31	336.2	12	29	-11									
BLUE MTS.	89.45	336.7	12	58	-2						14	0		
WICHITA MTS.	90.62	319.2	13	4	-1									
UINTA BASIN	90.81	329.5	13	5	-1						37	5		

SEPTEMBER 24 16.H 30.M 15.S EPICENTRE -10.69 -78.31 DEPTH= 60.KM

A= 0.19911 B=-0.96249 C=-0.18431 D=-0.9793 E=-0.2026
G=-0.0373 H= 0.1805 K=-0.9829 HT= 6.4

DEPTH OF FOCUS= 0.004R

SE= 2.37

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
NANA	1.94	131.9	0	31	0								
HUANCAYO	3.22	115.1	0	52	3								
LA PAZ	11.46	121.4	2	41	-2	4	49	-1					
ANTOFAGASTA	14.97	150.8	3	27K	-2	6	8	-6					
BOGOTA	15.79	15.7	3	39A	0	6	33	1	3	46			
CHINCHINA	15.79	9.9	3	38A	-1	6	28	-5	3	44			
COPIAPO	18.19	156.8	4	8	-1								
BALBOA HTS.	19.56	356.3	4	25	0						4	55	PP
GALERAZAMBA	21.54	8.2	4	51	5	8	47	11	5	0			
SANTA LUCIA	23.71	163.9	5	8A	1	9	29	15	5	27	6	37	
CARACAS	23.90	28.6	5	9A	0	9	25	7					
SANTIAGO MA.	26.05	337.0	5	33	4								
SAN SALVADOR	26.51	335.7	5	37	4								
TRINIDAD	27.06	38.9	5	21	-17								
COMITAN	30.06	332.7	6	13	8	11	9	11			14	53	
FORT FRANCE	30.45	34.3	6	6	-3	10	53	-11					
ST. CLAUDE	31.23	32.0	6	14	-2	11	10	-6					
SAN JUAN	31.29	22.7	6	14	-2								
MERIDA	33.35	340.5	6	42	8	11	42	-7					
VERA CRUZ	34.51	329.3	6	46	2	12	13	6			16	57	SCS
PUEBLA	35.45	326.3									7	21	
TACUBAYA	36.30	325.4	7	1	2	12	41	6			17	12	
GUADALAJARA	39.71	321.7	7	29	1								
HOUSTON	43.42	338.2	8	1	3								
COLUMBIA	44.52	356.8	8	5	-2	14	35	-2					
CHAPEL HILL	46.36	359.2	8	20	-2								
CUMBERLAND	46.54	351.8	8	21A	-2						10	25	
DALLAS	46.75	338.5	8	25	0								
CHIHUAHUA	47.42	326.2	8	51	21	15	35	16					
BLACKSBURG	47.69	357.7	8	31	-1								
WICHITA MTS.	49.08	337.8	8	42A	-1	15	40	-2			10	27	PP
TULSA	49.20	341.2	8	43A	-1	15	25	-19					
GEORGETOWN	49.35	1.3	8	44	-1								
WASHINGTON	49.35	1.3	8	45	0	15	46	0					
ST. LOUIS 1	50.32	347.9	8	51	-1	15	55	-4					
PENNSYLVANIA	51.23	0.4	8	58	-1								
FORDHAM	51.44	4.3	8	58	-3	16	15	0					
PALISADES	51.60	4.3	9	0A	-2	16	15	-2	9	25	10	3	PCP
CLEVELAND	51.99	356.9	9	4A	-1	16	23	1					
ALBUQUERQUE	52.64	330.8	9	10	0	16	39	8			20	45	
CHICAGO JSA.	53.03	351.3	9	9	-4								

LONDON ONT.	53.53	357.4	9	23A	7							
TONTO FOREST	54.59	326.4	9	24	0	17	4	7	9	47	10	24 PCP
G. G. VIDELA	55.12	172.0	9	27	-1	17	20	16				
ARGENTINE I.	55.35	172.9	9	29	-1							
GOLDEN	56.08	335.0	9	34	-1	17	21	4				
BREBEUF	56.09	4.0	9	33A	-2	17	17	0			21	15 SS
HALIFAX	56.64	12.5	9	38A	-1							
GLEN CANYON	56.79	328.3	9	40	0							
SHAWINIGAN	57.19	4.5	9	40A	-3							
LARAMIE	57.52	335.8	9	42	-3						10	51
BOULDER CITY	57.80	325.2	9	47	0						39	16 PKPPKP
UINTA BASIN	58.43	332.2	9	51A	0	17	48	0			12	8 PP
PRICE	58.44	330.9	9	48	-4							
PASADENA	58.48	321.4	9	52	0	17	55	6	10	10	10	20 *SP
FLAMING GRGE	58.83	332.8	9	54	0							
RAPID CITY	59.02	339.3	9	54	-2	18	0	4			12	10 PP
SALT LAKE C.	59.85	331.0	10	1	0						12	17 PP
DUGWAY	59.87	329.9	10	1A	0							
EUREKA	60.95	327.3	10	9	0						31	48
PRIEST	61.33	321.6	10	12K	1						39	22 PKPPKP
PARAISO	62.51	320.7	10	15	-4							
LICK	62.71	322.0	10	21K	0						39	21 PKPPKP
BERKELEY	63.43	322.1	10	26K	1	18	56	4			12	45 PP
CALISTOGA	64.12	322.6	10	30A	0						39	17 PKPPKP
BUTTE	64.29	334.2	10	30	-1							
MINERAL	64.66	324.6	10	35	2							
UKIAH	64.81	322.6	10	36	2						39	20 PKPPKP
SHASTA	65.35	324.4	10	35A	-3							
BLUE MTS.	65.56	330.5	10	38A	-1	19	21	3			13	7 PP
M.BOUR	65.71	68.9	10	39	-1	19	23	3				
SCHEFFERVLLE	65.98	7.3	10	39A	-3							
PONTA DELGDA	68.86	42.5	10	59A	-1	19	54	-4	11	26	24	20 SS
SEATTLE	69.98	330.0	11	1A	-6							
EDMONTON	70.46	338.6	11	7A	-3							
VICTORIA	71.12	330.1	11	12A	-2							
BYRD STATION	71.91	186.9	11	18	0						20	39
SOUTH POLE	79.38	180.0	12	1	0							
N-LAZARVSKYA	80.03	160.3	12	3K	-1	22	7	5				
AVERROES	80.29	53.4	12	7A	1	22	14	9	12	33	15	12 PP
LISBON	80.87	47.8	12	9	0	22	19	8	12	34	15	15 PP
HAWAII V.OB.	81.47	291.6	12	13	1	22	23	6				
GODHAVN	81.62	8.7	12	14K	1	22	16	-3				
MALAGA	83.74	51.0	12	25	2	22	44	4				
KIPAPA	84.45	292.9	12	29	2	22	49	2			15	49 PP
GRANADA	84.49	50.7	12	34A	7	22	51	4			15	1 PP
HONOLULU	84.49	292.8	12	28	1	22	49	2	12	52	16	0 PP
SCOTT BASE	84.70	191.1	12	28	0							
TOLEDO	84.98	48.0	12	31A	1	22	45	-7	12	55	15	48 PP
ALMERIA	85.25	51.3	12	35K	4	23	3	8			13	13
RESOLUTE	85.83	355.6	12	32	-2						15	57
CAPE HALLETT	86.24	196.6	12	10	-26							
ALICANTE	87.19	50.3	12	44K	4	23	22	9			16	12 PP
TORTOSA	88.58	48.1	12	50	3	23	15	-12				
BANDEIRA	88.84	104.8	12	50K	2	23	48	19	13	9	16	16 PP
BAGNERES	88.93	45.9	12	48	-1						15	49
KAP TOBIN	89.42	16.3	12	50A	-1	23	17	-17				
SCORESBY SD.	89.46	16.3	12	50K	-1	23	18	-17				
BARCELONA	89.93	47.9									23	5
FOLINIERE	90.07	40.3	12	54	0							
MOULD BAY	90.07	351.0	12	53A	-1	23	18	-22				
HERMANUS	90.17	125.0				23	28	-13			36	25
AFIAMALU	90.79	255.8	13	1	4	23	15	-32				
KEW	90.91	37.7	12	59	1	23	40	-8	13	22	16	40 PP
DURHAM	91.12	34.3	12	55K	-4	23	55	6	13	23	16	14 PP
COLLEGE	91.13	336.4	12	58	-1	23	47	-3				
ABERDEEN	91.55	32.0				23	59	6			25	10 PS
CLERMONT-FD.	91.66	43.8	13	4	2	23	36	-18				
PARIS	91.97	40.8	13	5	2							
GARCHY	91.99	42.3	13	1A	-2							
ALERT	93.34	2.1	13	8A	-1							
UCCLE	93.60	39.1	13	13	3	24	12	1				
DOURBES	93.61	39.8	13	10	0	24	13	2				
BESANCON	93.92	42.8	13	14	2							
ROSELEND	94.05	44.4	13	15	3							
ISOLA	94.06	46.0	13	13	1						13	17 PCP
MONACO	94.25	46.5	13	13	0						17	0
DE BILT	94.38	37.9	13	15	1	23	49	-29	13	38	17	3 PP
STRASBOURG	95.35	41.7	13	17	-1	23	50	2			17	8 PP
BENSBERG	95.38	39.3	13	19A	0				13	36	16	58 PP

FELDBERG	95.39	42.4	13	20	1						
WITTEVEEN	95.41	37.4	13	23	4						
WELLINGTON	95.42	226.4	13	21	2					17	17 PP
PAVIA	95.73	45.2	13	34	14	24	26	36		31	5 SS
MUNSTER	95.84	38.3	13	20	-1						
KARLSRUHE	95.84	41.4	13	24K	3						
KARAPIRO	95.93	229.8	13	22	1					30	12 PKKP
HEIDELBERG	96.10	41.0	13	23	1						
TUBINGEN	96.19	41.9	13	24	2						
STUTTGART	96.37	41.7	13	25	2	23	53	0		17	17 PP
RAVENSBURG	96.44	42.7	13	26	3						
MAWSON	97.08	166.0	13	25K	-1	23	56	-1	13 47	17	22 PP
ROXBURGH	97.60	221.0				24	9	10		17	33 PP
BANGUI	97.60	87.0	13	31	2	24	2	3			
ROME	97.63	48.9	13	31K	2	23	59	-1	13 55	17	25 PP
PADOVA	97.64	45.3	13	34	5	24	7	7		24	54 S
JENA	98.14	39.7	13	30	-1	24	1	-1	13 57	17	30 PP
AQUILA	98.36	48.5	13	33	1	24	5	2	14 0	17	32 PP
HALLE	98.43	39.2	13	32	0	24	26	22			
TRIESTE	98.98	45.2	13	34	-1				14 3	17	33 PP
COLLMBERG	99.07	39.5	13	38A	3	25	3	56			
GOTEBORG	99.10	32.9	13	35	0						
COPENHAGEN	99.17	35.0	13	39	3	25	6	59			
KASPERSKE H.	99.22	41.7	13	35A	-1					17	39 PP
MESSINA	99.54	52.9				24	7	-2	13 53	17	47 PP
LJUBLJANA	99.56	44.9	13	38A	1				14 7	17	40 PP
SKALSTUGAN	99.75	27.0	13	40A	2					17	42 PP
PRAGUE	99.86	40.8	13	39	0	24	21	10		17	46 PP
PRUHONICE	99.93	40.9	13	39	0	24	14	3			
ZAGREB	100.56	45.2	13	45	3	24	17	3		17	53 PP
KARLSKRONA	100.96	34.6	13	38	-6					17	0
VIENNA-H.	100.99	42.7	13	44	0						
BRATISLAVA	101.48	42.8	13	45	-1						
BULAWAYO	101.87	113.3	13	48	0						
UPPSALA	102.15	30.9	13	51A	2	24	19	-3		25	27 S
RACIBORZ	102.29	40.9	13	54	4	24	27	4	14 16	18	3 PP
TROMSOE	102.48	20.8	13	52	1						
MIRNY	102.71	176.4	13	50	-2	24	30	5		18	29 PP
KIRUNA	103.13	22.7	18	3	250	24	29	2		27	13 SP
CHANGALANE	103.17	120.3	13	51	-3					27	15 SP
UMEA	103.30	26.8	13	55	1	24	25	-2		18	3 PKP
KRAKOW	103.40	41.0	13	55	0	24	29	1		18	9 PP
SKALNATE PL.	103.60	41.9	13	59	4					18	13 PP
BELGRADE	103.65	46.4	13	55K	-1	24	36	7		18	10 PP
WARSAW	104.08	38.7				24	29	-2		18	15 PP
TIMISOARA	104.21	45.4	18	19	261	24	39	8		19	5
SKOPJE	104.30	49.3	18	5	246					27	40
KEVO	105.26	20.4	14	5	777	24	32	-4		18	1 PP
SODANKYLA	105.55	22.8	14	6	777					29	44 PKKP
NURMIJARVI	105.62	30.0	14	9	777	24	37	-1		18	24 PP
SOFIA	105.71	48.6	17	17	777					17	55 PP
HELSINKI	105.81	30.4	14	9	777					18	26 PP
ATHENS	105.95	53.5	17	54	777	24	40	1		27	48
LWOW	106.05	41.2	14	9	777					25	33 SKKS
LWIRO	106.37	95.5	14	17	777	26	15	94			
KAJAANI	106.55	26.1	14	15	777					18	34 PP
BUCHAREST	107.69	46.8				24	52	5			
APATITY	108.06	22.0				24	47	-1		18	37
PULKOVO	108.53	30.4	18	40	777	24	49	-1		25	26 SKKS
IASI	108.56	43.8	19	48	777					25	51 PS
CHILEKA	108.96	110.7								17	46
ISTANBUL UN.	109.98	50.2	18	59	777						
KOUMAC	111.08	243.1								19	8
MOSCOW	113.28	33.6				25	12	2		19	21 PP
SIMFEROPOL	113.33	45.6	18	39	8					19	21 PP
RIVERVIEW	115.44	224.5				25	24	6		19	36 PP
JERUSALEM	115.52	59.9	18	37	2					29	15
KSARA	115.94	57.6	18	42	6	25	19	-1		19	33 PP
CANBERRA	116.03	222.0								19	7
TOOLANGI	116.86	218.1	18	37	0					19	48 PP
TIKSI	116.87	350.7	18	33	-4	25	26	3		19	37 PP
BRISBANE	117.68	231.4	18	44	5	25	37	11			
PETROPAVLOVK	118.07	325.0	18	43	3					20	2 PP
HONIARA	118.69	253.1	15	10	-211					20	5 PP
TANANARIVE	119.06	118.6	18	47	5					20	6
TIFLIS	121.61	47.4	18	49	2	25	48	8		20	15 PP
ADELAIDE	122.63	216.0	18	50	1					20	29 PP
GORIS	123.30	49.6				25	54	9		20	29 PP
SVERDLOVSK	124.15	25.9	18	52	0	25	52	4		20	33 PP

YAKUTSK	124.87	344.3	18	52	-1								
CHARTERS TS.	126.52	235.2	18	58	2	25	54	-1					
RABAUL	127.62	256.2									19	0	PP
TEHERAN	128.17	52.8	19	2	3				19	26	21	4	PP
SHIRAZ	130.55	60.1	19	5K	1						21	17	PP
PORT MORESBY	130.57	247.8	19	6	2						21	19	PP
ASHKABAD	132.69	47.6	19	10	2						22	44	SKP
MIZUSAWA	134.93	315.7	19	18	6						21	53	
MUNDARING	135.36	197.7	19	0	-13						23	15	
TUKUBASAN	136.99	312.6	19	27	11	26	31	13			22	7	PP
GUAM	137.85	278.2	19	20	3								
MATUSIRO	138.19	314.0	19	9	-9						22	6	PP
TASHKENT	138.27	37.3	19	17	-1						22	7	PP
IRKUTSK	138.48	357.6	19	14	-5						22	7	PP
FRUNSE	140.24	31.6	19	18	-4						22	20	PP
ABUYAMA	140.88	313.4	19	18K	-5								
KHOROG	141.98	40.5	19	25	0						29	20	SKKS
QUETTA	142.33	53.9	19	23K	-3						29	25	
ULAN-BATOR	142.63	354.2	19	24	-2						29	23	
WARSAK DAM	143.97	45.2	19	27	-1								
ESEN BULAK	144.11	6.4	19	32	3						29	32	
BOMBAY	150.96	70.3	19	47	7						23	1	PP
NEW DELHI	150.97	48.7	19	42K	2						23	11	PP
POONA	151.99	70.6	19	35	-6						20	34	
KODAIKANAL	156.18	88.9									20	26	
MADRAS	158.83	81.6	20	6	16						24	48	
CHATRA	158.90	38.5									20	51	
BOKARO	160.01	47.2									20	13	
MANILA	160.67	283.8	19	59	7								
BAGUIO CITY	160.78	289.3	19	57	5								
VISHAKHAPTNM	160.86	66.5	20	7	15						31	4	
SHILLONG	162.52	30.8	19	56K	2						31	9	
TANGERANG	162.54	196.6	19	51	-3								
CALCUTTA	162.65	45.6	20	5	11						31	13	
HONG KONG	163.39	315.6				26	47	-5	20	23	24	37	PP
PHU-LIEN	168.88	335.3	20	7	8								
PORT BLAIR	171.15	82.8	20	4A	3						32	0	

SEPTEMBER 25 7.H 3.M 49.5 EPICENTRE -16.73 28.40 DEPTH= 0.KM

A= 0.84286 B= 0.45581 C=-0.28605 D= 0.4757 E=-0.8796
G=-0.2516 H=-0.1361 K=-0.9582 HT= 5.4

SE= 1.98

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
CHILEKA	6.40	81.6	1	36	-2								
CHANGALANE	10.15	160.3	2	28A	-2	4	18	-8			2	35	PP
KIMBERLEY	12.42	195.0	2	58K	-3						5	23	
LWIRO	14.39	1.6	3	24K	-3	6	6	-2					
BANDEIRA	14.64	275.0	3	23A	-7	5	56	-18			3	43	PP
GRAHAMSTOWN	16.60	185.4	3	53K	-2								
HERMANUS	19.45	203.3	4	30	0						8	6	
JERUSALEM	48.67	7.7	8	49K	1								
KSARA	50.77	8.0	9	4	0	16	28	9			10	59	PP
SHIRAZ	51.65	27.0	9	10K	0	16	32	1	10	23	9	54	PCP
ATHENS	54.58	355.5	9	32	0								
MESSINA	55.95	347.8	9	42	0	17	28	-1					
BOMBAY	56.23	52.9	9	39	-5	17	33	0			14	57	
TEHERAN	56.54	22.4	9	47	1						11	50	PP
ISTANBUL UN.	57.47	0.5	9	54	1								
GORIS	58.39	16.2	9	59K	0								
MADRAS	59.07	63.2	10	4	0	18	12	2			18	26	PS
QUETTA	59.61	38.7	10	8K	0	18	17	0					
BAKURIANI	59.82	13.1	10	9	0								
TIFLIS	60.10	14.1	10	11	0								
ROME	60.16	346.3	10	12K	0	18	26	2			12	26	PP
AVERROES	60.37	325.7	10	11	-2				10	31	31	35	
AQUILA	60.39	347.2	10	13	0	18	27	0	10	29			
ALMERIA	60.73	331.8	10	17A	2								
ALICANTE	61.12	334.3	10	20A	2								
VANNOVSKAYA	61.13	26.6	10	18	0								
ASHKABAD	61.24	26.8	10	19	0								
KIZYL-ARVAT	61.43	24.4	10	18K	-2	18	38	-3					
GRANADA	61.52	331.2	10	24K	3								

MALAGA	61.52	330.3	10	21	0	18	44	2		
SIMFEROPOL	61.60	4.6	10	21K	0	18	45	2		
BELGRADE	61.68	353.6	10	23	1	18	40	-4	11	41
KISHINEV	63.45	0.3	10	34	0					
ISOLA	63.68	343.0	10	36	1					
LJUBLJANA	63.73	349.3	10	36	1				11	28
TOLEDO	63.93	332.6	10	37K	0	19	11	-1	14	28 PPP
PAVIA	64.04	345.0							24	53
MIRNY	64.74	156.4	10	42	0				11	23
BAGNERES	64.92	337.5	10	43	0					
WARSAK DAM	65.06	38.8	10	44	0					
LAHORE	65.16	42.5	10	43	-2					
ROSELEND	65.18	343.4	10	45	0				11	23
NEW DELHI	65.23	46.8	10	44K	-1					
UZHGOROD	65.29	355.5	10	45	-1					
VIENNA-H.	65.57	351.2	10	48	1					
CLERMONT-FD.	66.29	340.9	10	53	1					
LWOW	66.36	356.9	10	52	0					
DUZHANBE	66.75	33.5	10	54K	-1					
KASPERSKE H.	66.87	349.5	10	55K	-1				11	43
KRAKOW	66.90	354.1	10	55K	-1				11	25 PCP
KHOROG	67.48	36.1	11	0K	0	19	56	1		
PRUHONICE	67.53	350.4	10	59	-1	19	59	3		
GARCHY	67.65	341.6	11	0K	-1					
JENA	68.96	348.7	11	9	0	20	38	25	11	38
TASHKENT	69.05	31.9	11	8	-1				20	16
COLLMBERG	69.06	349.7	11	22	13				18	40
HALLE	69.44	349.1	11	11	-1				13	45 PP
PORT BLAIR	69.55	70.4	11	15K	3					
FOLINIERE	70.09	340.1	11	15	-1					
CHATRA	71.60	53.6	11	22K	-3					
MOSCOW	72.59	5.5	11	30K	-1					
CHITTAGONG	73.22	59.8	11	35	1					
SOUTH POLE	73.38	180.0	11	36	1					
KARLSKRONA	73.40	352.6	11	31	-4					
ALMATA-2	74.68	34.8	11	42K	-1					
SHILLONG	74.70	56.9	11	43K	0					
HELSINKI	76.68	358.2	11	54	0					
UPPSALA	76.81	354.4	11	55K	0					
TANGERANG	77.00	92.6	11	54K	-2					
NURMIJARVI	77.03	358.1	11	56K	0	21	41	-4	27	17 SS
VIBORG	77.18	0.2	11	56K	-1					
SVERDLOVSK	78.07	17.4	12	3A	1					
MUNDARING	79.52	120.3	12	18	8					
UMEA	80.54	356.3	12	16K	1	22	24	2		
KAJAANI	80.55	359.7	12	22K	7				21	42
SEMIPALATNSK	80.85	30.6	12	17	0					
SKALSTUGAN	81.03	352.8	12	18	0					
BYRD STATION	81.95	185.4	12	25	2					
SCOTT BASE	82.65	171.8	12	28	2					
SODANKYLA	83.86	359.3	12	33K	0				13	7
APATITY	84.12	1.9	12	35K	1	23	0	2		
KEVO	86.26	359.5	12	45	0					
TROMSOE	86.39	356.7	12	46	1					
ESEN BULAK	87.50	39.9	12	53K	2					
CAPE HALLETT	87.59	169.1	12	52	1					
SANTA LUCIA	88.23	235.7	12	57	3					
LA PAZ	91.37	252.4	13	11	2					
PALISADES	109.98	308.1	18	59	777					
MOULD BAY	118.15	351.7	18	50K	1					
CUMBERLAND	118.89	301.7							29	8 PKKP
TULSA	127.17	302.6	19	9K	3				38	51 SS
WICHITA MTS.	129.58	301.4	19	13	2				21	26 PP
RAPID CITY	131.06	314.4	19	17	3					
COLLEGE	131.83	357.8	19	16	1				31	19
EDMONTON	132.84	329.6	19	15	-2					
ALBUQUERQUE	135.92	303.2	19	27	4					
HUNGRY HORSE	136.04	324.1	19	15	-8					
FLAMING GRGE	136.43	312.4	19	16	-8					
UINTA BASIN	136.77	311.6	19	14	-10				22	4 PP
DUGWAY	139.11	312.9	19	25A	-4					
GLEN CANYON	139.39	307.7	19	24	-5					
BLUE MTS.	139.84	321.6	19	22	-8				22	21 PP
TONTO FOREST	139.93	303.7	19	26	-4				22	32 PP
SEATTLE	140.88	328.4	19	27	-5					
EUREKA	141.62	313.4	19	30	-3				22	10
BOULDER CITY	142.18	307.7	19	33	-1				22	42 PP
AFIAMALU	143.61	145.6	19	37	1					

MINERAL	144.96	318.3	19	39K	0							
SHASTA	145.26	319.4	19	41K	2							
PASADENA	145.39	306.5	19	43	3							
PRIEST	146.44	311.2	19	47A	6							
CALISTOGA	146.52	316.5	19	46A	4							
LICK	146.56	313.8	19	47K	5							
UKIAH	146.67	317.7	19	48	6							
BERKELEY	146.71	315.0	19	47K	5						43	27
PARAISO	147.56	312.7	19	47	4							

SEPTEMBER 26 5.H 28.M 2.S EPICENTRE 50.11-176.92 DEPTH= 0.KM

A=-0.64290 B=-0.03461 C= 0.76517 D=-0.0538 E= 0.9986
G=-0.7641 H=-0.0411 K=-0.6438 HT= -5.5

SE= 1.85

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
PETROPAVLOVK	15.45	290.3	3	43	2								
MAGADAN	20.66	309.5	4	43	-1								
COLLEGE	21.23	35.0	4	46	-4						8	46	PCP
Y.-SAKHLINSK	26.66	279.1	5	42	0								
YAKUTSK	31.14	313.0	6	21A	-2	11	22	-6					
KIPAPA	32.29	145.6	6	18	-15	11	53	7					
TIKSI	32.32	331.2	6	33	0	11	44	-3					
HONOLULU	32.37	145.8	6	32	-1	11	53	6					
VICTORIA	34.29	71.6	6	50	0								
MOULD BAY	34.35	21.0	6	50K	-1								
MATUSIRO	34.81	264.5	6	55K	0	12	25	0					
SEATTLE	35.33	72.4	7	5	6						9	33	PCP
ABUYAMA	37.53	264.5	7	19K	2								
EDMONTON	38.33	59.9	7	25K	1								
SHASTA	38.64	82.6	7	28K	1								
MINERAL	39.33	82.5	7	34K	1								
CALISTOGA	39.67	85.4	7	36K	1								
BLUE MTS.	39.69	73.9	7	36	0	13	36	-4			9	4	PP
HUNGRY HORSE	40.02	67.4	7	38	0						9	44	PCP
BERKELEY	40.32	86.2	7	42K	1	13	52	3			9	22	PP
RESOLUTE	40.41	24.0	7	42	0								
LICK	41.03	86.4	7	48K	1						9	49	PP
PARAISO	41.16	88.1	7	54	6								
PRIEST	42.37	87.1	7	59K	1						9	54	PP
EUREKA	43.41	79.9	8	7	1	14	38	3			9	52	PP
ALERT	43.67	10.0	8	7	-1								
DUGWAY	44.99	77.1	8	19K	0								
PASADENA	45.21	87.5	8	22	1	15	6	5					
SALT LAKE C.	45.26	75.8	8	21	0								
BOULDER CITY	46.21	83.2	8	29	0						10	7	PCP
FLAMING GRGE	46.70	74.2	8	34	2								
UINTA BASIN	46.94	75.0	8	35	1	15	26	0			10	6	PP
IRKUTSK	47.10	304.6	8	35	-1								
GLEN CANYON	47.67	79.9	8	40	0								
ULAN-BATOR	47.96	298.4	8	44	2	15	44	4					
TONTO FOREST	49.54	82.5	8	55K	0						10	48	PP
GOLDEN	49.91	73.1	8	57	0								
ALBUQUERQUE	52.17	78.5	9	14	-1						10	27	PCP
ESEN BULAK	54.76	302.2	9	37	3	17	18	4					
LAWRENCE	56.50	67.7	9	45	-1								
WICHITA MTS.	57.24	73.6	9	50	-2	17	50	3			11	11	PP
TULSA	58.17	70.7	9	56K	-2	17	56	-3					
KEVO	59.17	350.5	10	5	0	18	9	-3			12	20	PP
ST. LOUIS 1	59.67	64.9	10	6	-2								
HONG KONG	59.79	269.2	10	10	1						22	3	SS
BAGUIO CITY	59.98	259.5	10	9	-2								
TROMSOE	60.01	353.7	10	9	-2				10	21			
SEMIPALATNSK	60.23	314.0	10	9	-3								
SCHEFFERVLLE	60.28	38.7	10	11K	-2								
APATITY	60.46	347.1	10	12K	-2	18	22	-6			22	19	SS
SODANKYLA	61.50	349.9	10	20	-1						11	6	PCP
LONDON ONT.	61.76	55.9	10	22K	-1								
HONIARA	62.64	205.9	10	31	2								
OTTAWA	62.94	50.9	10	30	-1								
SVERDLOVSK	63.30	328.7	10	27A	-6								
SHAWINIGAN	63.57	48.4	10	35A	0								
AFIAMALU	63.90	174.4				19	8	-4					

BREBEUF	63.91	49.7	10	35	-2	19	10	-2				
CUMBERLAND	64.47	64.6	10	38	-3	19	18	-1			20	38 SCS
KAJAANI	64.53	348.3	10	46	5							
MORGANTOWN	64.80	57.9	10	44	1							
PENNSYLVANIA	65.09	55.8	10	43	-2							
UMEA	65.61	351.7	10	44	-4	19	30	-3	10	59		
BLACKSBURG	66.26	60.1	10	51	-1							
SKALSTUGAN	66.42	355.5	10	52	-1							
PALISADES	67.01	53.2	10	55	-2	19	47	-3			11	27 PCP
PORT MORESBY	67.03	219.0	10	56	-1							
FORDHAM	67.15	53.3	10	55	-3							
VIBORG	67.59	346.7	10	59	-2							
NURMIJARVI	68.36	348.7	11	4A	-1	20	4	-2			11	31 PCP
FRUNSE	68.39	311.4	11	6K	0							
HELSINKI	68.65	348.5	11	5	-2							
HALIFAX	69.29	44.5	11	11	0							
UPPSALA	69.76	352.2	11	13K	-1				11	26		
BERGEN	69.83	358.8	11	14	0							
MOSCOW	70.67	340.1	11	19K	-1							
SHILLONG	71.57	287.9	11	24	-1							
TASHKENT	72.09	313.6	11	27	-1	20	51	1				
GOTEBORG	72.30	355.0	11	29	0				11	42		
COPENHAGEN	74.29	354.5	11	43	2	21	18	3				
DUZHANBE	74.50	312.2	11	44	2	21	22	5				
WARSAK DAM	76.73	307.4	11	55	0							
CHARTERS TS.	77.11	215.3	11	59	2						26	31
LAHORE	77.19	304.0	11	57	0							
NEW DELHI	77.93	300.1	12	0A	-1							
HALLE	78.49	354.4	12	4	-1						19	5
COLLMBERG	78.61	353.7	12	4K	-1						12	25
KEW	78.75	2.2	12	8	2	21	52	-11				
LWOW	78.84	346.3	12	8	2							
JENA	79.08	354.5	12	6	-2	22	3	-4			22	43 PS
KRAKOW	79.18	349.0	12	8	0							
BENSBERG	79.25	357.4	12	9A	0							
ASHKABAD	79.71	318.7	12	12	1							
PRUHONICE	79.81	352.5	12	11	-1	22	16	1				
VANNOVSKAYA	79.82	318.8	12	12A	0							
DOURBES	80.16	359.0	12	16	2	22	23	5				
KISHINEV	80.72	342.5	12	18A	1	22	28	4				
KASPERSKE H.	80.73	353.0	12	16	-1							
VIENNA-H.	81.35	351.1	12	23	3							
STUTTGART	81.36	355.9	12	21	1							
FOLINIERE	81.45	2.4	12	22	2							
PARIS	81.46	0.4	12	22	2							
TIFLIS	81.52	329.8	12	21	0	22	35	3				
SIMFEROPOL	81.55	338.3	12	20A	-1	22	36	3				
STRASBOURG	81.61	356.9	12	23	2							
BRISBANE	81.71	207.0	12	21	-1							
QUETTA	82.12	308.3	12	24K	0	22	41	3				
GARCHY	82.99	0.0	12	28	0							
GORIS	83.00	327.7	12	28K	0							
LJUBLJANA	83.71	352.0	12	34	2							
TRIESTE	84.17	352.5				22	58	-1			28	53 SS
TEHERAN	84.46	322.4	12	37	1	23	7	5				
CLERMONT-FD.	84.50	360.0	12	40	4							
ISOLA	86.03	357.1	12	43	-1						12	47 PCP
POONA	87.68	296.3	12	50K	-2							
KARAPIRO	87.92	186.0	12	52	-1							
BOMBAY	87.98	297.3	12	55	2						15	50
RIVERVIEW	88.23	206.1	13	11	17						29	28 SS
SHIRAZ	89.30	318.6	12	58K	-1	23	50	2			16	24 PP
TOLEDO	90.17	5.5	13	4A	0	23	46	-10			16	39 PP
ATHENS	90.42	343.8	13	4	-1							
MESSINA	91.38	350.2									23	49
KSARA	91.53	333.2	13	12	2						16	52 PP
GRANADA	92.88	5.3	12	53A	-23							
MALAGA	93.29	6.0	13	19A	1	24	28	4				
TOOLANGI	93.39	209.1	13	21	3				13	31		
CHINCHINA	93.43	78.2	13	20A	1	24	24	-1				
CARACAS	94.47	68.0	13	25A	2						17	18 PP
BOGOTA	94.67	77.2	13	28	4	23	38	-57			26	2 PS
AVERROES	96.43	8.8	13	32	0							
LA PAZ	114.51	86.6	18	53	11				19	0		
CAPE HALLETT	122.45	184.6	19	0	2							
LWIRO	127.55	326.8	19	11	4							
SCOTT BASE	128.09	184.3	19	7	-1							
BYRD STATION	133.86	168.2	19	18	-1							

MIRNY	134.55	214.2	19 15	-6				
SOUTH POLE	139.92	180.0	19 24	-6				
BANDEIRA	143.91	343.1	19 38A	1			19 48	22 54 PP
MAWSON	146.19	216.5	19 41	0				
CHANGALANE	147.36	305.9	19 46	3				
PIETERMZBURG	150.97	304.6	19 51	2				

SEPTEMBER 27 11.H 4.M 19.S EPICENTRE 11.31 126.06 DEPTH= 22.KM

A=-0.57735 B= 0.79291 C= 0.19483 D= 0.8084 E= 0.5886
G=-0.1147 H= 0.1575 K=-0.9808 HT= 6.4

SE= 3.56

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	SUPP. M S
MANILA	5.89	305.1	1 27	-1	3 29	53		
BAGUIO CITY	7.36	314.3	1 48	0	3 35	23		
HONG KONG	15.77	315.4	3 43	1	6 52	16		
GUAM	18.37	81.4	4 15	0	7 57	21		
PHU-LIEN	20.90	299.3	4 41	-2				
DARWIN	24.01	168.5	5 14	0				
ABUYAMA	25.00	18.7	5 22A	-1				
MATUSIRO	27.41	21.6	5 46	0			10 45	
PORT MORESBY	29.38	133.6	5 57	-6				
RABAUL	30.20	119.3	6 9	-2			11 10	
PORT BLAIR	32.66	274.0					7 57	
SHILLONG	35.27	298.5	6 52A	-3				
CHARTERS TS.	37.00	147.4	7 8A	-1	12 45	-8		
ULAN-BATOR	39.88	339.9	7 34	1	13 39	2		
BOKARO	40.21	293.5	7 46	10				
ESEN BULAK	43.15	329.8	8 1A	1	13 57	-28		
MUNDARING	44.05	192.1	8 7	-1				
IRKUTSK	44.47	341.0	8 11A	0	14 46	2		
MADRAS	44.84	277.1	8 20	6			10 16	PP
ADELAIDE	47.56	165.9	8 35	0	15 29	0		
DEHRA DUN	48.30	300.6	8 39	-2			15 40	PS
NEW DELHI	48.68	298.1	8 40A	-4				
YAKUTSK	50.69	2.2	8 58A	-2	16 9	-3		
RIVERVIEW	50.84	152.9	9 11	10	16 18	4		
CANBERRA	51.21	155.9	9 4	1	16 19	0		
MAGADAN	51.58	15.8	9 7	1	16 28	3		
LAHORE	51.68	301.3	9 5	-2				
TOOLANGI	51.93	160.4	9 8	-1	16 32	3	11 8	PP
ALMATA	52.98	316.2	9 14A	-3				
SEMIPALATNSK	54.04	325.5	9 23	-2				
FRUNSE	54.43	315.0	9 26A	-1				
WARSAK DAM	54.44	303.7	9 16	-12				
DUZHANBE	57.56	308.6	9 48A	-2				
QUETTA	57.76	298.5	9 49	-2	17 49	2		
TASHKENT	57.80	311.9	9 49A	-3				
TIKSI	60.30	1.0	10 8K	-1	18 19	-2		
ASHKABAD	65.58	306.5	10 43	-1				
VANNOVSKAYA	65.78	306.5	10 44	-1				
SVERDLOVSK	67.24	327.2	10 53K	-1	19 46	-1		
KIZYL-ARVAT	67.30	307.8	10 56K	1	19 53	6		
KARAPIRO	67.38	139.4	10 55	0				
CHATEAU	68.13	140.5	11 1	1				
SHIRAZ	70.26	297.5	11 10A	-3	20 16	-6	13 32	
TEHERAN	71.08	304.0	11 8	-10	20 36	4	21 22	SCS
HONOLULU	72.90	71.1			21 5	12		
GORIS	75.01	308.0	11 41A	0	21 20	3		
TIFLIS	76.07	310.3	11 46	-1				
BAKURIANI	77.03	310.4	11 41	-12				
COLLEGE	78.20	25.8	11 59	0				
WILKES	78.28	186.3	12 0	0				
MOSCOW	79.87	324.9	12 8K	0				
APATITY	80.64	337.1	12 11	-1	22 14	-3		
MIRNY	81.35	192.8	12 15	-1				
SODANKYLA	83.25	337.4	12 25	-1				
KAJAANI	83.55	334.0	12 32	5				
VIBORG	83.76	330.6	12 27	-1				
KSARA	83.95	303.2	12 30	1				
JERUSALEM	84.84	301.2	12 34A	0				
NURMIJARVI	85.79	330.9	12 38	-1	23 13	4		
CAPE HALLETT	88.30	167.7	12 50	-1				

UZHGOROD	90.52	319.9	13	1	0							
MAWSON	90.59	200.0	12	59	-3							
NIEDZIKA	91.50	321.0	13	6	0							
SCOTT BASE	91.88	172.1	13	7	0							
COLLMBERG	95.14	324.6								17	23	
BLUE MTS.	100.12	40.2	13	47	2							
UINTA BASIN	107.33	41.4	14	33	777					18	45	PP
TONTO FOREST	109.21	47.6	18	32	777				18 39			
TOLEDO	111.21	320.9								19	13	PP
MALAGA	113.29	318.3								19	27	PP
WICHITA MTS.	117.67	40.8	18	44	0					29	12	PKKP
CUMBERLAND	124.60	31.3	18	58	0							
CARACAS	154.78	31.3	20	19	29					43	32	SS
TRINIDAD	156.96	19.0	19	46	-7							
LA PAZ	165.29	112.1	20	6	4	27	2	0				

SEPTEMBER 27 11.H 25.M 48.S EPICENTRE -16.88 174.46 DEPTH= 0.KM
A=-0.95298 B= 0.09237 C=-0.28861 D= 0.0965 E= 0.9953
G= 0.2873 H=-0.0278 K=-0.9574 HT= 5.4

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	
PORT VILA	5.93	260.9	1	33A	1								
LUGANVILLE	7.17	279.8	1	38A	-11						4	31	
KOUMAC	10.32	247.7	2	33K	0								
AFIAMALU	13.59	79.3	3	15	-2	5	52	2					
KARAPIRO	20.99	177.6	4	46	-2	8	56	18					
CHATEAU	22.26	177.8	5	1	1								
BRISBANE	22.61	238.7	5	4	0	9	22	14					
WELLINGTON	24.32	179.4	5	20	-1	9	38	0			10	24	SS
RABAUL	25.24	297.5	5	31	2						6	30	
RIVERVIEW	26.89	226.7	5	44	-1						10	34	
CHARTERS TS.	26.92	258.8	5	46	1	10	24	3					
PORT MORESBY	27.59	282.2	5	56	5								
ROXBURGH	28.84	187.5				10	56	4			12	12	
CANBERRA	29.19	226.1				11	7	9	6	16	14	22	
TOOLANGI	32.78	225.3	6	36	-1						7	59	PPP
ADELAIDE	36.60	233.6	7	14A	4	12	56	3					
HONOLULU	46.51	36.3				15	30	10					
KIPAPA	46.65	36.3				15	32	10					
MUNDARING	54.53	242.6	9	34	2	17	8	-3					
SCOTT BASE	61.12	181.9	10	17	-2								
TUKUBASAN	62.01	328.9				18	49	0					
MATUSIRO	63.21	327.8	10	27	-6						19	24	SCS
WILKES	64.29	203.7	10	38	-2	19	17	0					
MIRNY	71.25	204.7	11	30	7								
SOUTH POLE	73.23	180.0	11	32	-3								
SHASTA	81.87	43.3	12	23A	0								
MINERAL	82.22	43.9	12	28A	3								
MAWSON	82.44	201.1	12	24	-2								
BOULDER CITY	84.96	50.2	12	41	2								
EUREKA	85.64	46.7	12	41	-1						16	4	PP
COLLEGE	86.42	15.2	12	46	0								
TONTO FOREST	86.96	52.9	12	48	-1				13	0	14	16	
BLUE MTS.	87.15	41.4	12	52	3	23	30	2			24	38	PS
SALT LAKE C.	89.05	46.8	13	0	1								
UINTA BASIN	90.49	47.9	13	4	-1	23	43	-16			25	17	PS
FLAMING GRGE	90.84	47.4	13	7	0								
WICHITA MTS.	96.99	56.0	13	38	3	24	16	4			31	46	SS
CUMBERLAND	107.59	57.4									28	17	SP
SHIRAZ	125.66	294.6	18	34	-30						19	8	
KSARA	139.26	302.5	19	33	3						22	33	PP
COLLMBERG	142.61	340.8	19	38	3								
PRUHONICE	143.22	338.2									20	5	
JENA	143.37	341.8	19	42	5								
KASPERSKE H.	144.28	338.4	19	36	-2								
BELGRADE	144.61	327.4	19	42K	3						22	9	
DOURBES	145.87	348.3	19	48	7								
STUTTGART	145.98	342.4	19	44	3								
LJUBLJANA	146.46	334.4	19	44	2						20	4	
STRASBOURG	146.57	343.9	19	48	6								
ATHENS	146.83	315.1	19	50	7								
TRIESTE	147.10	334.8	19	52	9						48	12	SSS
GARCHY	148.86	348.6	19	54K	8								

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ROSELEND	149.53	343.1	19	51	4							20	21	
AQUILA	149.89	331.3	20	2	14							24	2	PP
ROME	150.66	331.9	20	8	19							23	38	PP
ISOLA	150.78	341.3	20	1	12									
MALAGA	160.21	357.3										22	18	

SEPTEMBER 28 6.H 58.M 13.S EPICENTRE -31.68 179.66 DEPTH= 460.KM

A=-0.85255 B= 0.00505 C=-0.52262 D= 0.0059 E= 1.0000
G= 0.5226 H=-0.0031 K=-0.8526 HT= 1.3

DEPTH OF FOCUS= 0.067R

SE= 1.83

	DELTA DEG.	AZ. DEG.	P M	S	O-C S	S M	S	O-C S	*PP M	S	SUPP. M	S	
RAOUL ISLAND	3.20	41.4	1	8	-1	1	54	-11					
ONERAHI	6.00	225.8	1	40A	5	2	57	6					
GISBORNE	7.08	190.5	1	46	0						2	57	
KARAPIRO	7.09	207.4	1	49K	2						3	20	
TUAI	7.39	195.4	1	49	-1	3	14	-3			2	21	
CHATEAU	8.22	203.0	1	58	-1						3	39	
TARATA	8.64	208.4	2	4	1						3	49	
WELLINGTON	10.35	200.9	2	20	-2	4	10	-6					
COBB RIVER	10.91	208.8	2	26	-2	4	24	-3					
KAIMATA	12.65	208.9	2	46	-1	4	58	-3					
GEBBIES PASS	13.21	202.8	2	50	-3	5	3	-9					
ROXBURGH	15.95	207.4	3	19	-2								
MONOWAI	16.90	210.2	3	29	-1						6	27	
PORT VILA	17.27	320.9	3	35A	1								
KOUMAC	17.68	305.1	3	41K	3								
AFIAMALU	19.35	25.9	3	55K	0	7	7	3					
LUGANVILLE	19.74	321.7	3	58K	0								
BRISBANE	23.75	273.5	4	37	2	8	18	1					
RIVERVIEW	24.04	257.2	4	40A	2	8	26	4			8	5	PCP
CANBERRA	25.77	253.6	4	55A	1						8	8	PCP
MOORLANDS	27.89	238.2	5	13	1								
TOOLANGI	28.62	248.7	5	20A	1	9	36	2	6	33	8	15	PCP
HONIARA	28.72	316.2	5	17	-3						12	7	
CHARTERS TS.	32.07	282.9	5	49	1	10	27	-1					
PORT MORESBY	37.42	299.2	6	33K	0								
RABAUL	37.60	311.0	6	33	-2								
CAPE HALLETT	41.00	184.4	7	4	2								
SCOTT BASE	46.62	183.7	7	48	2								
DARWIN	48.72	281.9	8	2	0								
WILKES	53.08	208.1	8	34	-1								
MUNDARING	53.18	251.8	8	34	-1								
BYRD STATION	54.05	169.2	8	43	2								
HONOLULU	56.83	24.9	9	1	0	16	27	9			19	22	
KIPAPA	56.97	25.0	9	1	-1				10	37			
SOUTH POLE	58.49	180.0	9	12	0								
MAWSON	70.40	201.3	10	27A	-1								
ARGENTINE I.	71.56	156.5	10	35	1								
BAGUIO CITY	74.12	301.1	10	47	-2								
ABUYAMA	78.11	324.2	11	11K	0								
MATUSIRO	78.18	327.0	11	10	-1						12	6	PCP
Y.-SAKHLINSK	85.12	335.6	11	47	0								
PETROPAVLOVK	86.31	347.5	11	50	-2								
PARAISO	86.74	43.3	11	59	4								
PRIEST	87.62	44.4	12	0A	1								
PASADENA	87.82	47.2	11	58	-2				13	50			
LICK	87.86	43.0	12	1K	1								
BERKELEY	87.86	42.2	12	1K	1						22	11	
CALISTOGA	88.21	41.5	12	1A	0								
MINERAL	89.94	40.8	12	4K	-6								
BOULDER CITY	91.09	47.6	12	16	1				14	0			
TONTO FOREST	92.34	50.7	12	22	1	22	53	11	14	7	29	34	PKKP
EUREKA	92.61	44.3	12	22	0				14	3	30	12	PKKP
GLEN CANYON	93.75	48.4	12	29	2								
BLUE MTS.	95.29	39.5	12	33	-1				14	20			
ALBUQUERQUE	95.95	52.5	12	37	0				14	22			
UINTA BASIN	97.02	46.7	12	42	0	23	32	58	14	25	16	43	PP
FLAMING GRGE	97.48	46.2	12	44	0								
COLLEGE	99.53	13.5	12	51	-2								
WICHITA MTS.	101.28	56.2	13	0	-1	23	2	7			27	37	
TULSA	103.85	56.3				23	7	0			31	57	SS

MOULD BAY	114.11	13.2	17 44	-1	20 36 P
RESOLUTE	119.06	17.7	17 54	-1	
ALMATA-2	119.31	305.1	17 56K	0	
TRINIDAD	120.10	96.1	17 58	1	
OTTAWA	121.50	53.1	17 59	-1	20 50 P
BREBEUF	122.96	53.4	18 2A	-1	
QUETTA	123.12	287.5	18 4	1	
ALERT	124.80	8.1	18 5	-1	
BANDEIRA	131.87	197.8	18 22	2	21 3 SKP
SHIRAZ	134.85	281.8	18 24	-1	28 18
TEHERAN	137.18	290.0			21 16
KEVO	138.89	345.9	18 24	-9	
APATITY	139.00	341.0	18 27A	-6	
TROMSOE	140.47	349.5	18 31	-5	
SODANKYLA	140.89	343.8	18 30	-7	
KAJAANI	143.14	339.8	18 45K	4	21 43 SKP
BAKURIANI	143.77	298.6	18 41	-1	
VIBORG	145.20	335.2	18 44	0	
PULKOVO	145.27	333.1	18 45K	1	
UMEA	145.33	344.1	18 44	0	
NURMIJARVI	146.77	337.6	18 49K	2	21 41 SKP
HELSINKI	146.92	336.9	18 48	1	21 41 SKP
SKALSTUGAN	147.10	349.6	18 49	2	
UPPSALA	149.38	342.2	18 54K	4	
KSARA	149.56	283.9	19 0	10	
JERUSALEM	149.84	279.7	19 0K	9	
GOTEBORG	152.64	345.6	19 2	7	
UZHGOROD	155.93	321.2	19 12	13	
NIEDZIKA	156.46	324.8	19 33	33	20 5
COLLMBERG	158.06	337.2	19 39K	37	23 18
ATHENS	159.30	294.3	19 44	40	
KASPERSKE H.	159.66	333.0	19 46	42	22 30
BENSBERG	159.95	346.0	19 47	43	
STUTTGART	161.44	339.7	19 55	49	
PARIS	162.76	353.7	19 59	52	
FOLINIERE	162.93	0.3	19 59	52	
GARCHY	164.20	351.4	20 5	56	

SEPTEMBER 29 19.H 35.M 1.S EPICENTRE 6.06 125.43 DEPTH= 103.KM

A=-0.57645 B= 0.81037 C= 0.10495 D= 0.8149 E= 0.5796
G=-0.0608 H= 0.0855 K=-0.9945 HT= 6.9

DEPTH OF FOCUS= 0.011R

SE= 2.75

	DELTA DEG.	AZ. DEG.	P M S	O-C S	S M S	O-C S	*PP M S	* SUPP. M S
MANILA	9.56	333.8	2 17	1	4 13	11		
BAGUIO CITY	11.33	335.6	2 40	0	4 51	6		
HONG KONG	19.46	327.1	4 21A	0	7 54	4		8 44 PCP
PHU-LIEN	23.38	310.6	5 1	1	9 8	6		
PORT MORESBY	26.55	125.2	5 28	-2	10 19	24	5 48	12 25 SCP
RABAUL	28.59	110.3	5 50	2				
ABUYAMA	30.16	16.8	6 2A	0				
MATUSIRO	32.51	19.4	6 22A	-1	11 29	0		
CHARTERS TS.	33.10	142.3	6 28	0	11 41	3		
SHILLONG	37.48	304.9	7 6A	1	12 47	1		8 30 PP
HONIARA	37.69	113.8	7 7	0	13 9	20		
MUNDARING	38.83	192.5	7 14	-2				13 5
CHATRA	41.85	304.0	7 42A	1				
BRISBANE	42.49	142.8	7 45K	-1	13 58	-2		
ADELAIDE	42.70	163.8	7 48K	0	14 10	7		
VISHAKHAPTNM	42.71	289.5	7 38	-10				9 40 PPP
Y.-SAKHLINSK	43.43	17.2	7 54	0	14 19	5		
ULAN-BATOR	44.61	342.3	8 2A	-1	14 34	3		
MADRAS	45.10	282.2	8 8	1	14 44	6		9 50 PP
RIVERVIEW	46.56	150.2	8 20K	1	15 2	3	8 39	10 16 PP
CANBERRA	46.77	153.3	8 21K	0				10 26
TOOLANGI	47.27	158.2	8 25	0	15 14	5	8 45	9 51 PCP
ESEN BULAK	47.42	332.7	8 16A	-10				
IRKUTSK	49.24	343.0	8 39A	-1				
DEHRA DUN	50.58	304.5						9 34
NEW DELHI	50.76	302.1	8 50	-1				
POONA	51.72	288.7	8 59A	0				
BOMBAY	52.73	289.1						16 56

LAHORE	53.99	304.8	9	15	0	16	43	2			
PETROPAVLOVK	54.11	24.1	9	17K	1						
YAKUTSK	55.93	2.4	9	28A	-1	17	10	3			
ALMATA-2	56.14	319.1	9	31A	0						
MAGADAN	56.77	15.1	9	36A	1						
WARSAK DAM	56.94	306.8	9	37	0	17	25	4			
FRUNSE	57.76	317.6	9	42A	0						
KHOROG	58.01	310.7	9	45A	1	17	40	5			
SEMIPALATNSK	58.04	327.7	9	43	-1						
QUETTA	59.82	301.4	9	56A	-1	17	55	-3			
DUZHANBE	60.42	311.1	10	0A	-1	18	9	3			
TASHKENT	60.90	314.3	10	3	-1	18	16	4			
MONOWAI	63.85	148.4	10	23	-1						
KARAPIRO	63.89	137.5	10	25	1						
CHATEAU	64.57	138.7	10	32	4						
WELLINGTON	65.21	141.0								21	41
TIKSI	65.53	1.2	10	29	-5	19	8	-2			
ASHKABAD	68.25	308.4	10	51	-1	19	48	6			
VANNOVSKAYA	68.45	308.3	10	53	0						
KIZYL-ARVAT	70.06	309.4	11	2	-1	20	7	3			
SVERDLOVSK	71.31	328.3	11	22	12						
SHIRAZ	72.17	299.1	11	13A	-2	20	28	0	11 35	12	21 *SP
WILKES	73.03	186.2	11	17	-3						
TEHERAN	73.53	305.3	11	23	0	20	43	0	11 47		
HONOLULU	75.24	69.7				21	16	14		21	51
MIRNY	76.13	192.8	11	37	-1					12	1
GORIS	77.76	309.0	11	47A	0						
TIFLIS	79.00	311.2	11	53	-1	21	45	2			
BAKURIANI	79.96	311.2	11	59	0						
KHEYS	80.43	351.2	12	1K	-1						
TANANARIVE	80.57	249.8	12	4	2						
COLLEGE	83.17	25.4	12	16	0						
CAPE HALLETT	83.35	167.5	12	17	0						
MOSCOW	83.79	325.3	12	17K	-2						
APATITY	85.20	337.3	12	28K	2						
MAWSON	85.48	199.9	12	26	-1						
ADDIS ABABA	85.78	278.6	12	32	3						
KSARA	86.29	303.5	12	33	2						
SCOTT BASE	86.81	171.9	12	34	0						
JERUSALEM	87.02	301.5	12	36	1						
KEVO	87.26	339.8				23	3	-2		30	9
SODANKYLA	87.83	337.5	12	37	-2						
KAJAANI	87.96	334.2	12	46	7						
VIBORG	88.00	330.8	12	38	-1						
MOULD BAY	89.98	12.5	12	49A	0					23	10
KIRUNA	90.03	338.5	12	53	4						
NURMIJARVI	90.04	330.9	13	11	22					30	27 SS
UZHGOROD	94.09	319.6	13	7	-1						
RESOLUTE	95.76	10.0	13	15	0						
SOUTH POLE	96.02	180.0	13	16	-1						
COLLMBERG	99.00	324.0	13	28	-2						
BYRD STATION	100.18	170.8	13	38	3						
BERKELEY	103.57	48.9								18	43
BLUE MTS.	104.49	40.8	13	57	3	25	50	87	14 35	18	43 PP
WOODY	106.87	50.0	18	23	777						
EUREKA	107.58	45.5	18	24	777					21	45
UINTA BASIN	111.63	42.4	18	25	3	25	1	7		19	28 PP
TONTO FOREST	113.16	48.8	18	29	4					19	25 PP
TUCSON	114.35	50.7	18	36	9						
TOLEDO	114.80	319.1	19	29	61					28	55
ALBUQUERQUE	116.38	46.2	18	35	4						
WICHITA MTS.	121.98	42.4	18	45	3					21	59 SKP
TULSA	123.09	39.7								30	29
CUMBERLAND	129.35	32.9	18	58	2					21	9 PP
HOPE	147.58	42.1	19	23	-6						
SAN JUAN	153.17	24.9	19	48	10					20	21
TRINIDAD	162.06	22.3	19	42	-7						

SEPTEMBER 29 22.H 16.M 37.S EPICENTRE 36.00 18.08 DEPTH= 37.KM

A= 0.77086 B= 0.25171 C= 0.58516 D= 0.3104 E=-0.9506
G= 0.5563 H= 0.1816 K=-0.8109 HT= -0.2

DEPTH OF FOCUS= 0.001R

SE= 2.62

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S	
REGGIO CALA.	2.86	317.9	0	47	3	1	20	2			2	8	
MESSINA	2.99	318.1	0	47K	1	1	19	-2			0	52	PG
PATRAS	3.67	51.6	0	59	3						1	25	
ATHENS	4.92	64.8	1	15A	1	1	55	-15					
TITOGRAD	6.49	7.7	1	34	-2						1	46	P*
SKOPJE	6.51	22.6	1	34	-2	2	45	-5					
AQUILA	7.31	331.6	1	48	1						3	23	SS
ROME	7.33	325.2	1	47K	0						3	24	SS
SOFIA	7.83	29.7	1	54	0	3	17	-6			3	47	
BELGRADE	8.99	10.8	2	7K	-3						3	36	
FLORENCE X.	9.38	328.1	2	25	9	4	14	13					
PRATO	9.52	327.9	2	19	1								
ISTANBUL UN.	9.92	56.2	2	29	6								
ZAGREB	9.94	351.4	2	21K	-2	4	6	-9					
TIMISOARA	10.03	12.7	2	22	-3	4	9	-8					
TRIESTE	10.18	342.6	2	25	-2	4	14	-7			5	1	
LJUBLJANA	10.40	346.1	2	28K	-2	4	19	-7			4	43	
BUCHAREST	10.40	33.6									4	57	
PADOVA	10.51	335.3	2	29	-2	4	23	-6			3	6	P*
MONACO	11.25	316.6	2	41	0								
PAVIA	11.40	326.3	2	48K	5	5	0	10			4	14	
ISOLA	11.75	317.4	2	48	0						5	22	SSS
VIENNA-H.	12.31	354.6	2	52	-4	5	0	-12					
ROSELEND	12.98	321.7	3	7	2								
UZHGOROD	13.00	12.5	3	4	-1								
NIEDZICA	13.51	6.3	3	12A	0						3	21	PP
KASPERSKE H.	13.53	347.3	3	9	-3						5	50	
KISHINEV	13.63	32.8	3	11	-2	5	40	-4					
EBINGEN	13.91	333.8	3	16	-1								
FELDBERG	14.03	330.9	3	17	-1								
RACIBORZ	14.08	0.3	3	20	1	5	54	-1			3	28	PP
KRAKOW	14.11	4.9	3	19	0						3	35	PP
TUBINGEN	14.18	334.8	3	20	0								
PRUHONICE	14.21	350.7	3	21	0	6	18	20					
CHORZOW	14.30	2.4	3	23	1						3	45	PPP
STUTTGART	14.31	335.8	3	20	-2						3	23	
BESANCON	14.41	325.0	3	22	-1						4	15	
LWOW	14.48	15.6	3	25	1								
STRASBOURG	14.69	332.0	3	26A	-1	6	10	1			7	5	
KSARA	14.77	93.3	3	24	-4	5	54	-17					
KARLSRUHE	14.81	334.4	3	28A	-1								
JERUSALEM	14.84	101.5	3	25K	-4	5	53	-20					
CLERMONT-FD.	14.92	315.4	3	32	2						4	12	
ALICANTE	14.99	284.5	3	31A	0						3	43	PP
HEIDELBERG	15.04	335.8	3	29	-3								
WELSCHBRUCH	15.12	328.7	3	25	-8								
BAGNERES	15.52	302.5	3	37	-1								
JENA	15.64	344.6	3	37	-2	6	32	0			4	20	
COLLMBERG	15.73	348.2	3	40	0	6	52	19					
GARCHY	15.88	319.9	3	39K	-3								
HALLE	16.11	346.1	3	45	0						3	55	PP
WARSAW	16.36	6.4	3	59	11	6	53	5			4	6	PP
ALMERIA	16.57	279.0	3	55	4	6	54	1			4	6	PP
BENSBERG	16.89	335.7	3	55A	0								
DOURBES	17.16	329.4	3	55	-3	6	56	-10					
PARIS	17.18	323.0	3	58A	-1								
GRANADA	17.45	280.3	4	10A	8	7	37	24					
UCCLE	17.80	330.5	4	6	0								
TOLEDO	17.87	289.2	4	7K	0	7	24	1			4	15	PP
MALAGA	18.12	278.9	4	11K	1	7	28	0					
SOTCHI	18.24	58.9	4	11	-1								
FOLINIERE	18.67	318.9	4	16	-1								
JERSEY	19.78	318.0	4	30	0						8	25	
COPENHAGEN	20.06	350.7	4	35A	2	8	18	7					
KEW	20.31	325.3	4	49	14	8	18	2					
BAKURIANI	20.58	66.1	4	38	0								
TIFLIS	21.53	66.5	4	48	0								
LISBON	21.79	285.3	4	51A	1	8	51	7			9	6	PCP
GOTEBORG	22.09	351.3	4	56	3								
GORIS	22.57	72.6	4	58A	0								
DURHAM	23.16	330.3	5	4K	0	9	12	3					
MOSCOW	23.82	27.9	5	11	1	9	25	5					
UPPSALA	23.87	359.4	5	11A	0						9	30	
KONGSBERG	24.30	349.5	5	14	-1	9	31	2	5	25	5	37	PP
HELSINKI	24.59	8.3	5	18	0								
NURMIJARVI	24.89	7.7	5	21	0	9	41	2			6	8	PPP

PULKOVO	25.08	14.7	5	23	0	9	42	U				
ABERDEEN	25.13	333.7	7	33	10						11	53
BERGEN	25.77	345.4	5	33	4							
TEHERAN	26.92	80.6	5	41	1	10	30	18				
SKALSTUGAN	27.84	354.4	5	47A	-1							
UMEA	27.88	2.0	5	47	-1	10	29	1				
KAJAANI	28.72	8.8	6	4	8							
SHIRAZ	29.52	92.4	6	4A	1	10	59	5			9	6 PCP
KIZYL-ARVAT	30.28	72.3	6	11A	1	11	9	3				
BANGUI	31.47	179.0	6	17	-3	11	31	6				
SODANKYLA	31.80	6.3	6	22	-1						6	52
VANNOVSKAYA	31.86	74.4	6	25	1							
KIRUNA	31.91	1.7	6	23A	-1							
ASHKABAD	32.06	74.3	6	25	0	11	35	1				
APATITY	32.79	10.8	6	31A	-1							
ADDIS ABABA	32.80	139.9	6	35	3							
TROMSOE	33.69	0.5	6	39	-1				6	57		
KEVO	34.17	5.5	6	42	-2						8	4 PP
SVERDLOVSK	35.19	40.2	6	53K	0							
LWIRO	39.34	163.0	7	26K	-1							
TASHKENT	39.86	66.3	7	31A	-1							
DUZHANBE	40.00	70.7	7	34	1							
KAP TOBIN	40.52	340.5	7	38K	1							
SCORESBY SD.	40.55	340.6	7	39A	2							
QUETTA	41.01	83.7	7	42A	1	13	53	2				
KHOROG	42.37	71.5	7	55	3							
WARSAK DAM	43.39	76.4	8	1	0							
FRUNSE	43.51	63.1	8	3A	1							
ALMATA-2	45.40	61.9	8	17A	0							
LAHORE	46.42	78.5	8	25	0							
KHEYS	47.22	8.3	8	34	3							
DEHRA DUN	49.84	78.4									9	36
NEW DELHI	49.87	80.8	8	51A	-1							
BANDEIRA	50.82	186.0	8	57A	-2				9	8	10	15 PCP
POONA	51.85	94.1	8	49A	-18							
ALERT	53.29	356.7	9	17A	0							
CHILEKA	53.83	159.7	9	20	-1							
BULAWAYO	56.71	168.1	9	52	10							
ESEN BULAK	57.49	53.4	9	48A	0							
CHATRA	58.58	78.0	9	55A	0							
SCHEFFERVLLE	58.72	317.6	9	54A	-2							
IRKUTSK	60.37	44.9	10	6	-2							
HALIFAX	60.44	305.7	10	7A	-1							
RESOLUTE	61.32	343.8	10	13	-1							
TIKSI	62.37	19.5	10	20A	-1							
SHILLONG	62.89	77.0	10	24	-1							
CHANGALANE	63.37	165.8	10	37	9						20	48
ULAN-BATOR	63.62	48.6	10	29	-1							
SEVEN FALLS	64.03	310.6	10	31K	-1							
KIMBERLEY	64.71	173.5	10	33	-4							
MOULD BAY	64.84	349.7	10	37A	0							
SHAWINIGAN	65.47	310.7	10	40A	-1							
BREBEUF	66.48	309.9	10	47K	-1							
OTTAWA	67.83	310.6	10	55A	-1							
YAKUTSK	67.98	28.2	10	56A	-1							
PALISADES	68.83	305.8	11	1	-2	20	8	6				
PENNSYLVANIA	71.52	307.2	11	19	0							
FORT FRANCE	72.88	276.0	11	28	1							
MORGANTOWN	73.49	307.1	11	31A	0							
SAN JUAN	74.86	281.8	11	37	-2				11	47	11	54 *SP
CHAPEL HILL	74.93	303.5	11	38	-1							
BLACKSBURG	75.13	305.2	11	40	0							
COLUMBIA	77.35	302.8	11	53	0							
COLLEGE	78.86	353.9	12	1	0							
CUMBERLAND	79.45	306.3	12	4A	0							
CARACAS	79.91	275.6	12	7K	0	22	7	1				
EDMONTON	81.55	333.0	12	16A	1							
RAPID CITY	84.14	321.7	12	29	1							
TULSA	85.68	311.9	12	36A	0							
BOZEMAN	86.66	327.0	12	43	2							
BUTTE	87.04	328.0	12	43	0							
WICHITA MTS.	88.17	312.6	12	49A	1	23	29	1			16	13 PP
GOLDEN	88.43	319.9	12	50	1							
MATUSIRO	88.91	44.2	12	49	-3							
VICTORIA	89.13	335.5	12	54A	1							
SEATTLE	89.50	334.5	12	57A	2							
FLAMING GRGE	89.54	323.0	12	55	0							
BLUE MTS.	89.96	330.0	12	56	-1						24	52 SP
UINTA BASIN	90.09	322.7	12	57A	0						16	45 PP

LONGMIRE	90.09	333.7	12	57	0					
SALT LAKE C.	90.84	324.4	13	1	0					
DUGWAY	91.74	324.6	13	5A	0					
ALBUQUERQUE	92.52	317.4	13	9	0					
GLEN CANYON	93.68	321.9	13	14	0					
EUREKA	93.78	326.1	13	14	0			17	13	PP
MINERAL	95.46	330.2	13	22A	0					
SHASTA	95.48	330.9	13	21K	-1					
TONTO FOREST	95.60	320.0	13	24	1	13	44	17	19	PP
BOULDER CITY	96.06	323.3	13	26	1					
TUCSON	96.94	318.4	13	29	0	13	41			
CALISTOGA	97.31	330.0	13	31A	1					
BERKELEY	97.84	329.3	13	33K	0					
LICK	98.03	328.6	13	33K	-1					
PRIEST	98.62	327.3	13	38K	2					
BYRD STATION	132.89	189.2	19	10	-2					
SCOTT BASE	135.94	170.9	19	16	-1					
CANBERRA	140.45	103.9	19	18	-7					
BRISBANE	140.80	90.5	19	20	-6					
CAPE HALLETT	140.92	166.9	19	29	3					
KARAPIRO	161.89	102.8	20	47	50					

SEPTEMBER 29 22.H 44.M 13.S EPICENTRE 14.66 -91.72 DEPTH= 134.KM

A=-0.02902 B=-0.96741 C= 0.25156 D=-0.9996 E= 0.0300
G=-0.0075 H=-0.2514 K=-0.9678 HT= 5.8

DEPTH OF FOCUS= 0.016R

SE= 3.17

	DELTA DEG.	AZ. DEG.	P M	P S	O-C S	S M	S S	O-C S	*PP M	*PP S	SUPP. M	SUPP. S
COMITAN	1.63	345.9	0	31	0	0	55	1				
SAN SALVADOR	2.63	111.5	0	33	-10	1	6	-10				
SANTIAGO MA.	3.36	109.9	0	44	-8	1	32	-1				
OAXACA	5.40	296.4	1	11	-9	2	15	-6				
VERA CRUZ	6.18	317.5	1	23	-7	2	35	-5				
MERIDA	6.56	17.4	1	32	-3	2	57	8				
PUEBLA	7.57	305.9	1	51	2	3	19	5				
TACUBAYA	8.57	304.4	1	56	-6	3	36	-2				
GUADALAJARA	12.57	300.1									6	3
BALBOA HTS.	13.18	114.1	2	54	-9							
CHINCHINA	18.54	119.7	4	5A	-4	7	43	16				
CHIHUAHUA	19.24	318.6	4	13	-3	7	43	1				
BOGOTA	20.04	118.1	4	22A	-2	8	11	14				
WICHITA MTS.	20.91	344.0	4	31	-2							
FAYETTEVILLE	21.45	354.5	4	44	5	8	45	22				
TULSA	21.47	350.9	4	37	-2	8	41	18				
COLUMBIA	21.54	24.8	4	42	3	8	23	-2				
CUMBERLAND	21.56	13.7	4	40	0	8	47	22			5	1
SOCORRO	23.72	327.2	5	2	1							
ST. LOUIS 1	23.92	2.9	5	3	1							
CHAPEL HILL	24.02	25.9	5	5	2							
FLORISSANT	24.07	2.6	5	3	-1							
ALBUQUERQUE	24.17	329.3	5	5	0							
LAWRENCE	24.41	353.3	5	5	-2							
CARACAS	24.54	96.8	5	10	2							
BLACKSBURG	24.60	22.1	5	10	1							
TUCSON	24.70	318.4	5	8	-2							
TONTO FOREST	26.34	321.4	5	24A	-1	10	5	19	5	51	8	51 PCP
MORGANTOWN	26.93	20.4	5	53K	22							
GOLDEN	27.67	336.9	5	36	-1						10	23
GLEN CANYON	28.40	325.1	5	43	-1							
ANN ARBOR	28.41	12.6	5	43	-1							
PENNSYLVANIA	28.70	22.2	5	47	0							
BOULDER CITY	29.64	319.9	5	53	-2						8	40 PCP
UINTA BASIN	29.94	332.0	5	56A	-2	11	3	19			12	48 SCP
PRICE	29.97	329.6	5	57	-1							
FLAMING GRGE	30.36	332.9	6	0	-1							
PALISADES	30.48	27.1	6	2	0	11	8	16			8	22 PCP
PASADENA	30.77	313.8	6	2	-3	11	15	18				
SCARBOROUGH	30.87	17.8	6	5	-1							
RAPID CITY	30.91	343.8	6	5	-1							
SALT LAKE C.	31.37	329.9	6	9	-1							
EUREKA	32.62	323.9	6	20	-1	11	41	15			7	37 PP
OTTAWA	33.49	20.6	6	28A	0							

PRIEST	33.56	314.9	6	27K	-2								
BREBEUF	34.33	22.8	6	35	-1	12	7	15	6	57			
PARAISO	34.84	313.9	6	35	-5								
LICK	34.87	315.9	6	38K	-2								
BOZEMAN	34.94	336.1	6	41	0								
SHAWINIGAN	35.53	22.7	6	45	-1								
BERKELEY	35.56	316.3	6	44A	-2	12	27	16					
BUTTE	35.84	334.9	6	47	-1						8	31	PP
CALISTOGA	36.19	317.1	6	39K	-12								
MINERAL	36.53	320.2	6	53K	-1								
AREQUIPA	36.82	146.4	6	55	-2								
BLUE MTS.	37.09	329.4	6	57A	-2	12	59	25			8	35	PP
SHASTA	37.22	320.1	6	55A	-5	12	48	12					
LA PAZ	38.75	142.2	7	7	-6	13	10	11					
LONGMIRE	40.67	328.1	7	2	-26								
SEATTLE	41.52	328.7	7	28A	-7						13	40	
EDMONTON	42.24	340.8	7	40	-1								
VICTORIA	42.66	329.0	7	43A	-2								
ANTOFAGASTA	43.44	151.0									14	12	
SCHEFFERVLLE	44.52	20.4	7	59	-1								
SANTA LUCIA	51.89	157.5				16	35	28					
RESOLUTE	60.04	359.0	9	52	-3								
COLLEGE	62.74	336.5	10	11	-2								
HONOLULU	63.10	286.7									18	53	
MOULD BAY	63.28	352.9	10	14A	-3						10	52	
ALERT	68.87	4.0	10	50A	-2								
TOLEDO	78.99	51.6	11	51	1	21	53	17			22	43	PS
MALAGA	79.27	54.8	11	52	0	21	52	13					
FOLINIERE	79.93	42.2	11	55	0								
GARCHY	82.58	43.2	12	7	-2								
SKALSTUGAN	83.09	25.9	12	12	0								
WELSCHBRUCH	84.43	41.5	12	23	4								
STRASBOURG	85.29	41.1	12	22A	-1								
ROSELEND	85.36	44.1	12	23	0								
UMEA	86.28	24.3	12	28	0								
SODANKYLA	86.90	19.9	12	30	-1								
COLLMBERG	87.63	37.4	12	34	0						13	12	
KASPERSKE H.	88.74	39.3	12	40	1								
HELSINKI	89.97	26.5	12	28	-17								
RIVERVIEW	120.45	239.2									30	1	
SHIRAZ	124.04	37.9	18	43	0								
QUETTA	130.91	24.6	18	58	2								
NEW DELHI	135.69	14.0	19	5A	0								
SHILLONG	139.86	355.0	19	14	2								
POONA	144.08	23.8	19	20K	0								
MUNDARING	149.24	231.1	19	27	-1								

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

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

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

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